

LESSONS LEARNED

March 1, 2013; Issue No. 74

First Quarter FY 2013

Sharing DOE's NEPA Success Stories

A primary purpose of DOE's *Lessons Learned Quarterly Report (LLQR)*, which chronicles the Department's NEPA activities, is to disseminate successful approaches for NEPA compliance. *LLQR* provides a platform for NEPA Document Managers and other preparers of an environmental impact statement (EIS) or environmental assessment (EA) to evaluate their experience and share lessons learned within the DOE NEPA Community.

The NEPA process was instrumental in determining viable transmission line routes and design. It was also vital for informing the public and getting support from numerous agencies and tribes.

— Questionnaire Respondent

Information is solicited through a [Lessons Learned Questionnaire](#). Members of the document preparation team for each completed EIS and EA are asked to rate the effectiveness of the NEPA process in terms of protection of the environment and influence on decisionmaking, and describe whether and how the NEPA review enhanced agency planning and resulted in better environmental outcomes. *LLQR* also includes articles that examine more closely lessons learned from DOE's implementation of NEPA.

Qualitative Evaluation of the NEPA Process

During the past 2 years, 94 percent of questionnaire respondents rated the NEPA process as "effective." Excerpts from questionnaire responses from 2011–2012, *(continued on page 3)*

Integrating NEPA and Project Planning Works

The Department of Energy (DOE) requirement to prepare a NEPA Annual Planning Summary ([DOE Order 451.1B](#), *NEPA Compliance Program*, 4.d) encourages NEPA and project management staff to come together to identify future NEPA reviews, and to track the cost and schedule of planned and ongoing NEPA reviews. The Annual Planning Summary helps DOE managers ensure the availability of resources needed to complete NEPA reviews in support of mission objectives.

Secretary of Energy Steven Chu, in his June 12, 2012, [memorandum](#) on integrating NEPA compliance with project planning, emphasized that "timely attention to NEPA compliance is critical to accomplishing our missions." Preparation of an Annual Planning Summary by each program and field office, with senior management involvement, is intended to ensure that NEPA activities are aligned with program priorities.

DOE's NEPA Compliance Officers (NCOs) typically lead the preparation of their office's Annual Planning Summary. The Bonneville Power Administration (BPA) approach, described below, exemplifies successful NEPA planning based on extensive collaboration between NEPA compliance and project management staff. Other NCOs offered their recommendations (also below) on approaches to preparing the Annual Planning Summary.

Planning Is an Ongoing Process

BPA's NCOs, Kathy Pierce and Stacy Mason, report that BPA actively tracks ongoing and upcoming projects in a number of ways throughout the year. BPA's Annual Planning Summary is a snapshot of those year-round tracking processes.

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Inside Lessons Learned

Welcome to the 74th quarterly report on lessons learned in the NEPA process. In this issue, we highlight the many benefits of NEPA to DOE, including improved planning, and better public involvement and environmental protection. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Soupton

Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by May 1, 2013, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due May 1, 2013

For NEPA documents completed January 1– March 31, 2013, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion but not later than May 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Earth Day, Every Day! Changing Behavior To Reduce DOE's Carbon Footprint

Forrestal April 22 – 25; Germantown April 29 – May 2

Emphasizing the theme of *Changing Behavior to Reduce DOE's Carbon Footprint*, DOE will celebrate the 43rd Earth Day with two weeks of special exhibits, sponsored by DOE Program Offices and green exhibitors, at the Forrestal and Germantown facilities. Exhibits will showcase environmental and green energy activities. Information about the event will be featured on Powerpedia and the Office of Health, Safety and Security [website](#), under Events. 



Conflict Resolution Institute To Hold Collaboration in NEPA Workshop

NEPA-related training is offered by the U.S. Institute for Environmental Conflict Resolution, an agency established by Congress in 1998 to help resolve environmental disputes that involve the federal government by providing mediation, training, and related services.

U.S. Institute for
Environmental Conflict Resolution

Udall Foundation

In the Institute's [Collaboration in NEPA](#) workshop (April 9-10, 2013; Phoenix, Arizona), federal agency NEPA practitioners and representatives of tribal, state, and local governments and nongovernmental stakeholders will practice skills for building collaboration practices into the NEPA process. Information on this and the Institute's other open-enrollment courses on environmental collaboration and facilitation is available on the Institute's [website](#). The Institute also offers customized courses and a certificate program in environmental collaboration. 

NEPA Success Stories

(continued from page 1)

as reported in *LLQR*, illustrate the range of benefits from DOE's NEPA processes. These include:

Informed Decisionmaking

- The EA process allowed decisionmakers to make an informed decision regarding the proposed action. They understood the need for the proposed action, the positive impacts of the proposed action as well as the negative impacts, and recognized the steps taken to minimize potential impacts to human health and the environment.
- Feedback from cooperating and other agencies definitely facilitated informed decisionmaking.
- The EA process aided considerably, not just in the analysis of potential impacts, but also as an educational tool for decisionmakers to learn about and understand the project itself and the technologies involved.
- At first, the NEPA process was thought of as just another hoop, but it was realized later that NEPA was a valuable tool for refining the site selections and for the permitting process.
- Clarifying that environmental concerns were protected had a positive effect on the project moving forward.

Environmental Benefits

- The environment was largely protected as a result of this EA process, which facilitated effective siting of the proposed project as well as helped select measures to reduce potential impacts.
- The NEPA process helped identify impacts on existing populations of federally-listed threatened and endangered species. With the construction of the proposed project, a federally-listed species will benefit.
- The NEPA process, through public participation, helped identify a potential environmental problem regarding limited habitat for listed fish and helped to identify high impact sites to avoid or mitigate.

Effective Procedures, e.g., Public Involvement, Efficiency, Collaboration

- The majority of the public comments on the NEPA process were expressions of appreciation that DOE took the time to listen to public concerns and to consider their input.
- The project office found the NEPA process of value in ensuring that program applicants fully consider the environmental consequences of their proposals.

It was through the NEPA process that the project design was developed and problems were resolved prior to the start of construction.

— Questionnaire Respondent

- The NEPA process facilitated coordination with cooperating and other agencies. Useful suggestions and alternatives were identified that were both practical and good for resource protection.

Success Stories from *LLQR*

Feature articles in *LLQR* describe more fully how the NEPA process provides an organized structure for making some of the Department's most complex decisions. NEPA reviews have resulted in significant project cost savings through informed decisionmaking. Some articles highlight ways in which the NEPA process improved environmental outcomes, such as by identifying better alternatives or more effective mitigation. Some articles put the spotlight on procedural success, such as effective public involvement, enhanced tribal consultation, and efficient analysis. The NEPA Office has posted a compilation of 24 "success stories" from past issues of *LLQR*. The compilation includes:

Articles on Informed Decisionmaking

Wind Research Center – A site-wide EA provided an efficient framework for planning future activities.

Complex Transformation – A combined programmatic and project EIS process successfully managed the consideration of thousands of public comments.

Idaho High-Level Waste – An EIS proved useful, years later, to support decisionmaking.

Articles on Environmental Benefits

LANL Fire – A wildfire scenario was added to the accident analysis, based on comments on the draft EIS. DOE undertook immediate action to reduce risk, greatly reducing the severity of impacts from a major wildfire.

Watershed Protection – Stakeholder participation in the NEPA process resulted in additional alternatives with better environmental outcomes.

Strategic Petroleum Reserve Flexibility – As a result of Hurricane Katrina, which occurred during EIS scoping, the EIS alternatives included an additional noncoastal site and mitigation to address hurricane threats.

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NEPA Annual Planning Summaries

(continued from page 1)

BPA's NEPA compliance group includes three "core teams," one for each of BPA's primary business lines: Transmission, Fish and Wildlife, and Power. The supervisor/liaison of each NEPA core team coordinates with the business lines, serves as the point of contact for notice of any new projects requiring NEPA review, and assigns work to the team's NEPA Document Managers. BPA NEPA Document Managers participate in early estimating of project and NEPA costs, and in ongoing project planning meetings.

The NEPA compliance group sends representatives to monthly business line management committee meetings, which include BPA's Administrator, to provide NEPA updates on important projects. The NEPA compliance group also meets monthly with BPA's public affairs group to coordinate public outreach. The NCOs and BPA's Office of General Counsel also meet regularly to address key and emerging issues. The two NCOs monitor strategy and schedule throughout.

In addition, the NEPA compliance group conducts regular training for various parts of the agency to make sure business line project managers understand NEPA (as well as other environmental laws), when NEPA review is required, how long it might take, and how to contact BPA's NEPA group.

BPA's NEPA group participates in process mapping and planning meetings to ensure that NEPA compliance is considered as projects are being hatched.

Stacy Mason, NCO

BPA's Annual Planning Summary is prepared by the NCOs; reviewed by the manager of the environmental compliance group, the supervisor/liaison of each NEPA

What Is an Annual Planning Summary?

Under DOE Order 451.1B, *NEPA Compliance Program*, a Secretarial Officer or Head of Field Organization is responsible for providing a NEPA Planning Summary to the General Counsel annually by January 31 and making it available to the public. An Annual Planning Summary includes the status of ongoing NEPA compliance activities and lists any EAs expected to be prepared in the next 12 months and any EISs expected to be prepared in the next 24 months, along with estimated cost and schedule information for each. Additionally, every 3 years, including 2013, each Annual Planning Summary must include an evaluation of whether a site-wide EIS would facilitate future NEPA compliance efforts.

core team, and BPA's Office of General Counsel; and approved by BPA's Vice President for Environment, Fish, and Wildlife. The summary contains few surprises, as it reflects project tracking efforts ongoing throughout the year. NCOs often receive notice of a new project, for example, a year in advance of the need to start NEPA review. Because the Annual Planning Summary is the outcome of ongoing project planning and not a separate exercise at the end of the calendar year, the NCOs find that it is not difficult to prepare. They also report that their planning summary forecasts have proved reasonably accurate.

Always Room for Improving the NEPA Annual Planning Summary Process

During a February 5, 2013, teleconference with NCOs, Jim Daniel, Unit Leader, Office of NEPA Policy and Compliance, gave a presentation on Annual Planning

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NEPA Success Stories

(continued from page 3)

Articles on Effective Procedures, e.g., Public Involvement, Efficiency, Collaboration

LANL Habitat Plan – The NEPA process resulted in a site-wide habitat management plan (reducing future need for biological assessments), geographic information system (reference for future project analyses), and endangered species protection.

Recovery Act NEPA Reviews – Thousands of NEPA reviews for Recovery Act projects were accomplished

efficiently and quickly; NEPA did not delay proposed actions.

Standard Air Analyses – To promote efficiency and consistency, EPA, DOI, and USDA adopted a common approach to air quality analyses and mitigation for oil and gas actions on federal lands.

The NEPA Office continues to look for and highlight NEPA success stories. Please submit suggestions for future *LLQR* articles to Yardena Mansoor at yardena.mansoor@hq.doe.gov. 

NEPA Annual Planning Summaries

(continued from page 4)

Summaries and solicited feedback from NCOs on whether planning summaries are useful and how to improve the process.

NCOs, who generally lead their office's internal development of the Annual Planning Summary, shared approaches for developing a realistic EIS schedule that includes all key milestones and deliverables. Several touched on the need to involve both DOE NEPA Document Managers and Project Managers in developing schedules.

- **Robin Sweeney** (Energy Efficiency and Renewable Energy) noted that it is difficult to establish EA schedules and cost estimates for financial assistance projects, due to the nature of DOE's role in project execution. Changing program priorities, cost-share issues, and project scope changes are a few factors that make the Annual Planning Summary difficult to prepare and work toward. She suggested that financial assistance projects be exempt from inclusion in Annual Planning Summaries.
- **Jeanie Loving** (Environmental Management) observed that identifying the funding organization would help headquarters program offices coordinate their planning summaries with those field offices with multi-program sites. Identifying the funding organization also would help site managers differentiate program responsibility.
- **Mary Martin** (National Nuclear Security Administration) recommended replacing the Annual Planning Summary with an integrated schedule for NEPA and project management; i.e., field offices would submit their summaries to headquarters elements on January 31, and headquarters offices would later submit their consolidated summaries to ensure proper prioritization of analytical efforts and resources and coordination of NEPA schedule milestones with project and program requirements.
- **Raj Sharma** (Nuclear Energy) recommended the procedures he uses to integrate field office input in a program-level report. The program office requests Annual Planning Summary input from field and program managers, with a copy to senior managers, in mid-December with a due date of mid-January. The request explains the purpose of the summaries, what input is to be included, and why involvement of senior managers is important. A reminder is sent out in early January "to ensure that procrastinators don't forget."

- **Drew Grainger** (Savannah River Operations Office) indicated that the Annual Planning Summary process is reasonably effective in making Savannah River senior managers aware of ongoing and projected NEPA reviews. Each Assistant Manager, as well as the Chief Counsel and Director of External Affairs, concurs on the summary, after careful review by their staff. Because this site serves two major program offices, the summary is provided to Environmental Management and the National Nuclear Security Administration, as well as to the General Counsel. As for ensuring adequate staff and funding, Mr. Grainger believes that senior management relies on the project funding process to make sure that happens, not the Annual Planning Summaries.
- **Sat Goel** (Science) said that NEPA document cost is difficult to estimate in the initial planning phase and recommended that costs be provided as a range in the Annual Planning Summary. He also suggested that the milestone schedule should be estimated as month/year in the planning phase, but changed to actual day/month/year after the milestone has been achieved.

The NEPA Office is continuing its consideration of the Annual Planning Summary comments received from NCOs. Any additional comments should be sent to Lee Jessee at lee.jessee@hq.doe.gov. LL

2013 NEPA Annual Planning Summaries

As of March 1, 44 DOE organizations report 72 EISs and 97 EAs (ongoing and projected) in the 2013 Annual Planning Summaries, compared to 75 EISs and 102 EAs reported in the 2012 Annual Planning Summaries. Thus, workload projections for 2013-14 appear stable compared to last year's summaries.

Most Annual Planning Summaries provide schedule information for ongoing EISs, but limited cost and schedule information for the 11 projected EISs expected in the next 24 months. An EIS schedule goes through several stages that can pose challenges in planning: an initial schedule must be revised as data and analytical needs are identified, cooperating agencies provide input, and public comments are reviewed (*LLQR*, June 2012, page 1). In some cases, cost and schedule uncertainty is attributed to changes in applicant proposals, litigation, or other reasons.

Minimizing EIS Printing and Distribution Costs and Managing Stakeholder Preferences

Concerns have been expressed by DOE managers regarding the costs to print and distribute NEPA documents. In response, the Office of NEPA Policy and Compliance staff informally surveyed several NEPA Document Managers, who had completed a Final EIS within the last few years, to get their lessons learned and feedback regarding methods of controlling EIS printing and distribution costs. The NEPA Office found that printing costs varied dramatically. For example, a single hard copy of a recent project-specific EIS cost \$16, a site-wide EIS \$55, and a large, complex EIS several hundred dollars.

Based on their input, please keep the following suggestions in mind to minimize printing and distribution costs for your next EIS.

Tips To Reduce Costs

- Establish an EIS distribution strategy that minimizes the number of printed hard copies of the complete EIS. Keep in mind, however, that DOE must fully meet its obligations to make an EIS available to interested parties.
 - DOE typically offers the following EIS distribution options to stakeholders: a) a printed summary, b) a printed summary and the complete EIS on CD/DVD, c) a complete printed EIS, or d) notification of the EIS's availability online.

- Consider promoting CDs or online distribution of EISs (download EIS via a website) over distributing hard copies of the EIS.
- Determine initial stakeholder distribution preferences early by mailing a postcard, sending an email, or providing a form at a public scoping meeting.
- Confirm stakeholder distribution preferences before distributing a draft and final EIS. In these inquiries, include a statement identifying the default distribution if no response is provided. For example, if stakeholders do not respond to the initial postcard, then they will receive a subsequent postcard listing the locations of reading rooms that contain a printed copy of the EIS and the website address where the EIS can be downloaded online.
- Build adequate printing time into the EIS schedule to avoid having to pay high printing fees for last minute rush jobs.
- Minimize the use of color maps and figures to the extent practicable – color printing can enhance effective communication but also adds significant expense to printing.

The NEPA Office will continue to explore options and examine the practices of other agencies to identify cost-saving measures without compromising public access to NEPA documents. (See also DOE's [EIS Distribution guidance](#) available on the DOE NEPA Website.) 

Most DOE EISs Involve Cooperating Agencies

Cooperating agencies were involved in the preparation of 33 out of 45 DOE EISs (73 percent) in fiscal year 2012 (FY12). This is among the findings contained in DOE's January 2013 Cooperating Agency Report to the Council on Environmental Quality (CEQ). The report covers EISs for which DOE is the lead or co-lead agency and that were completed during FY12 or were still ongoing as of September 30, 2012. DOE also reported that 6 of the 29 EAs (21 percent) that DOE completed during FY12 were prepared with cooperating agencies.

This annual report is part of CEQ's ongoing efforts to encourage federal agencies to involve state and local governments as cooperating agencies. American Indian tribal governments and tribal agencies also participate substantively in many DOE EIS processes, whether through government-to-government consultation or as cooperating agencies. (CEQ guidance on cooperating agencies is available on the DOE NEPA Website at <http://energy.gov/nepa/cooperating-agencies>.) The benefits, CEQ points out in its guidance, include disclosure of relevant information early in the analytical process, access to technical expertise and staff support, avoidance

of duplicative reviews, and establishing a mechanism for addressing inter- and intra-governmental issues.

Since annual reporting began in FY05, between half and three-quarters of DOE EISs have had cooperating agencies, "one of the highest agency-wide levels reported," according to CEQ's compilation of 7 years of annual reporting information (*LLQR*, September 2012, page 10). In issuing its report, CEQ invited agencies to identify instances where cooperation worked particularly well or poorly, and asked for suggestions to improve cooperating agency reporting by better identifying challenges and beneficial outcomes. For further information on DOE's Cooperating Agency Report, contact Yardena Mansoor at yardena.mansoor@hq.doe.gov. 

Cooperating Agencies

A cooperating agency participates in the preparation of an EIS based on its jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action (or reasonable alternative) (40 CFR 1508.5). The responsibilities of a cooperating agency include participating in the NEPA process at the earliest possible time, participating in scoping, and – on request of the lead agency – assuming responsibility for developing information and preparing analyses for matters in which the cooperating agency has expertise (40 CFR 1501.6).

And the 2012 Cooperating Agency Winners Are . . .

Department of the Interior, Bureau of Land Management – our most popular cooperating agency – is involved in 11 DOE EISs. In second place is the U.S. Army Corps of Engineers, a cooperating agency in 9 DOE EISs.

TransWest Express Transmission Project EIS (DOE/EIS-0450), being prepared jointly by Western Area Power Administration and the Bureau of Land Management, is the champion for signing up the most cooperating agencies: 7 federal agencies, 4 states, 20 counties, 3 tribes, 5 conservation districts, and a grazing board.

Western Area Power Administration has the largest number of EISs being prepared with co-lead or cooperating agencies, 10 out of 13. Western is also the DOE organization that most frequently serves as a cooperating agency in other agencies' NEPA reviews.

NEPA Requirements and Guidance Electronic Compendium under Development

Recent feedback from DOE's NCOs and NEPA Document Managers indicated a shared view that while a large amount of NEPA guidance already exists, a comprehensive guide or "compendium" making these NEPA resources readily accessible could be useful. (See *LLQR*, December 2012, page 1.) In response, the Office of NEPA Policy and Compliance is now undertaking a comprehensive effort to organize and make electronically available the contents of more than 100 NEPA requirements and guidance documents (including DOE and Council on Environmental Quality (CEQ) NEPA implementing regulations; DOE, CEQ, and Environmental Protection Agency guidance; and Executive Orders).

To accomplish this, the NEPA Office will ensure that all text is machine readable, fully text-searchable, properly formatted, and appropriately organized. Various excerpts from these documents will be "tagged" using a consistently applied and standardized list of several hundred NEPA topics (e.g., alternatives, connected actions) and several dozen resource areas (e.g., air quality, land use). During a February 5, 2013, teleconference, John Jediny, Office of NEPA Policy and Compliance, solicited comments from the NCOs on the list of "tags" for NEPA topics and resource areas that will be used to organize these documents. Since then, Mr. Jediny has updated the "tag" list, incorporating NCO comments.

"By organizing NEPA informational resources in this way, we are breaking down the 'silos' of information among

these documents, eventually providing us with the ability to cross-reference and comparatively review all NEPA requirements and guidance by specific NEPA topics or resource areas," Mr. Jediny said. The resulting electronic compendium will allow NEPA practitioners to quickly search for relevant information on NEPA topics without having to know where to look.

The compendium also will enable the NEPA Office to more efficiently analyze which NEPA topics are adequately addressed by existing DOE guidance, and which topics need guidance to be updated, supplemented, clarified, and/or created to "fill-in-the-gaps."

The NEPA Office expects that the NEPA Requirements and Guidance Compendium will provide the DOE NEPA Community with a tool to search all of DOE's requirements, policies, and guidance pertaining to a variety of NEPA topics and quickly review all of the relevant text from these NEPA requirements and guidance documents in one location.

The NEPA Office will soon begin testing a preliminary version of the compendium and welcomes volunteers to help with that effort. Offers to volunteer, comments, and suggestions on the compendium should be sent to john.jediny@hq.doe.gov. [L](#)[L](#)

Tribal Energy Resource Useful for NEPA Reviews

Useful information about the environmental effects of energy development on tribal lands is available at the [Tribal Energy and Environmental Information Clearinghouse](#) (TEEIC). TEEIC was developed by DOE's Argonne National Laboratory for the Office of Indian Energy and Economic Development in the Department of the Interior to assist tribes in conducting environmental analyses for energy development activities on tribal lands. The Clearinghouse covers a variety of energy resources and associated environmental impacts and is a valuable resource for NEPA practitioners in general.

TEEIC provides information on the environmental impacts associated with each phase of development by resource,

mitigation and monitoring options, and applicable permitting and environmental review requirements. TEEIC provides this information for multiple energy resources: biomass, carbon sequestration, coal, geothermal, hydrokinetic, low-head hydropower, oil and gas, solar, transmission, wind, and efficiency and conservation. In addition, the site provides contact information for tribes, tribal environmental and energy organizations, and federal agencies. TEEIC also provides a link to the [Energy Transport Corridor Siting for Tribal Planners Guidance Manual](#), which describes a process for siting transmission corridors or rights-of-way across tribal lands to facilitate energy development and transmission while reducing associated environmental impacts. [L](#)[L](#)

Using IT To Improve the NEPA Process



Concluding that information technology (IT) is integral to its efforts to improve the implementation of NEPA, the Council on Environmental Quality (CEQ) has reestablished its NEPA Information Technology Working Group (ITWG) – a team of NEPA contacts representing more than a dozen federal agencies. In addition to encouraging the increased use of IT in the NEPA process generally, the ITWG supports the continuing work of CEQ to further Administration goals to expedite federal permitting and review processes required for infrastructure projects, as outlined in Executive Order 13604, *Improving Performance of Federal Permitting and Review of Infrastructure Projects*, issued on March 22, 2012.

The ITWG was initially created in 2012 to assess and increase agency awareness of existing IT tools applicable throughout the NEPA process, and develop a “NEPA IT Toolbox” (*LLQR*, March 2012, page 6). The goal was to increase the accountability, transparency, and overall efficiency of the NEPA process. The ITWG plans to further refine and promote the work accomplished under the original ITWG, which included CEQ’s Geographical Information System (GIS) Inventory for Environmental Professionals (*LLQR*, September 2012, page 8) and NEPA IT Framework.

Guiding Principles for ITWG

Under the leadership of Horst Greczmiel, Associate Director for NEPA Oversight at CEQ, the ITWG has established the following principles to guide its efforts:

- Provide a forum for collaborative and innovative thinking on ways that IT tools can be used to improve the NEPA process, including increased transparency and public involvement as well as more efficient management and tracking
- Evaluate matters from both intra-governmental and inter-governmental perspectives
- Identify issues, guidance, and frameworks that can provide value and apply to all agencies

The ITWG will focus its efforts and resources on:

- Continuing to survey and inventory existing IT tools, best practices, and guidance applicable to the NEPA process
- Identifying “off-the-shelf” technologies that can be

implemented to enhance an agency’s NEPA process, and acquired quickly and at a lower cost

- Developing “frameworks,” i.e., blueprints for using IT systems to facilitate various aspects of the NEPA process, with emphasis on data management and sharing, use of GIS, and public engagement and communications
- Identifying and promoting ways to increase the overall awareness and application of IT in all aspects of the NEPA process

Emphasis on Tracking NEPA Metrics

Given the increase in requests for information about NEPA process metrics, such as cost and completion time – a trend that is likely to continue in a cost-constrained environment – the ITWG is reviewing how agencies are currently tracking and managing their NEPA process. Specifically, the ITWG plans to identify the similarities and differences among agencies in NEPA process metrics, including differences in how major milestones within the NEPA process are defined. For example, different agencies may use different milestones to denote the “start” and “end” of the NEPA process, so completion times among agencies may not be directly comparable. Also, not all federal agencies routinely or centrally track NEPA metrics. The ITWG plans to assess and promote tools to improve efficiency and consistency among federal agencies in tracking and managing their NEPA processes. The ITWG is evaluating tools applicable to tracking and managing EISs, EAs, and categorical exclusions.

DOE’s representatives on the ITWG are John Jediny and Eric Cohen, Office of NEPA Policy and Compliance. They will share information with and solicit feedback from the DOE NEPA Community on future ITWG developments. Please send any questions or comments about the ITWG to john.jediny@hq.doe.gov. 

Conferences

National Environmental Justice Conference and Training Program April 3-5; Washington



DOE is co-sponsoring, with other federal agencies, universities, and private companies, the 2013 National Environmental Justice Conference and Training Program in Washington, DC, at the Howard University School of Law on April 3 and the Marriott at Metro Center on April 4–5. Registration is free for government employees, students, and community members and organizations. Program and registration information is available at <http://thenejc.org>.

NAEP 2013: Walk the Talk April 1-4; Los Angeles



The National Association of Environmental Professionals (NAEP) and the California Association of Environmental Professionals (CAEP) will jointly host their 2013 conference in Los Angeles on the theme of Walk the Talk. The conference will highlight the work of environmental professionals that achieves the goals of NEPA and the California Environmental Quality Act while balancing economic development, quality of life, and conservation and protection of the environment. A NEPA track will include panel discussions on improving NEPA practice, presentations on successful approaches to NEPA implementation, and an annual NEPA update – a review of recent case law, regulatory changes, guidance developments, and emerging issues. Program and registration information is available at www.n-aep2013.org.

Impact Assessment: The Next Generation May 13-16; Calgary



The International Association for Impact Assessment (IAIA) will host its 33rd annual conference in Calgary, Alberta, Canada. The IAIA13 theme of *Impact Assessment: The Next Generation* refers to a new generation of practitioners and new impact assessment approaches to address issues of global concern, such as climate change, biodiversity loss, soil degradation and loss, ocean productivity changes, and loss of aboriginal cultures. The conference will include more than 125 sessions and plenaries and will be preceded by 1- and 2-day training courses on May 11–12. Program and registration information is available at www.iaia.org/iaia13. 

DOE-Wide NEPA Contracts Update

The seven task order contracts for NEPA support services that DOE established in late 2008 and early 2009 will all expire in December 2013.

Task Order Awarded

The following Task Order was awarded recently. Tasks awarded previously under these contracts are listed in *LLQR*, June 2009, page 13; September 2009, page 19; December 2009, page 16; June 2010, page 14; March 2012, page 8; June 2012, page 12; and September 2012, page 7.

Description	DOE Contact	Date Awarded	Contract Team
Support for DOE/EIS-0388, Operation of a Biosafety Level 3 Facility at the Los Alamos National Laboratory, New Mexico	Steve Fong 505-665-5534 steve.fong@nnsa.doe.gov	1/24/2013	Tetra Tech, Inc.

Transitions

NEPA Compliance Officer: Southwestern Power Administration

Ron Szatmary is now serving as Southwestern Power Administration's NCO. As Southwestern's Assistant Administrator for Corporate Services, Mr. Szatmary is responsible for the Administration's financial management, human resources, procurement, and environmental safety and health. Before joining Southwestern, he performed similar duties for the Yucca Mountain Project at DOE headquarters. Mr. Szatmary can be reached at ron.szatmary@swpa.gov or 918-595-6600.

Julie Smith Transfers from NEPA Office

Julie Ann Smith, Ph.D., who served as an Environmental Protection Specialist in the Office of NEPA Policy and Compliance since April 2009, joined the Electricity Policy and State Assistance team in the National Electricity Delivery Division of DOE's Office of Electricity Delivery and Energy Reliability in January 2013. While part of the NEPA Office, she worked closely with program office staff on EISs for loan guarantees, Presidential permits, and Santa Susana Field Laboratory Area IV, and assisted the Golden Field Office in expedited reviews of EAs for Recovery Act-related renewable energy projects. She also provided technical assistance and guidance as a member of the DOE NEPA rulemaking team and on issues related to National Historic Preservation Act Section 106 compliance, tribal coordination, wind and solar technologies, and climate change.

In her new role as an Electricity Policy Analyst, Dr. Smith will help develop and implement DOE policies regarding cross-border electric transmission line permitting, and electric transmission and reliability. She also will help support states and regions in their development of electricity policies. She will also continue her role in supporting DOE's environmental compliance efforts as a NEPA Document Manager. Dr. Smith can be reached at juliea.smith@hq.doe.gov or at 202-586-7668.

The Office of NEPA Policy and Compliance thanks Julie for her many contributions and offers best wishes for her transition.

Jerry Pell Retires from DOE

Jerry Pell, Ph.D., retired in January, after almost four decades of federal service devoted to environmental stewardship, including serving as NEPA Document Manager for the Office of Electricity Delivery and Energy Reliability. There he managed the preparation of EAs and EISs for proposed new electric transmission lines that would cross U.S. borders with Canada or Mexico. He also assisted in implementing provisions of the Energy Policy Act of 2005 pertaining to transmission and National Interest Electric Transmission Corridors.

Dr. Pell contributed to DOE's *Programmatic EIS for the Clean Coal Technology Demonstration Program* (DOE/EIS-0146; 1989), the first DOE NEPA document to explicitly address global climate change. The most rewarding part of his career, he states, came when he was assigned to an interagency team that traveled world-wide to promote mitigation and adaptation to global climate change.

He earned his Ph.D. in Physical Meteorology (atmospheric physics) from McGill University in Montreal and then joined the faculty of Rutgers University, where he focused on air pollution and the atmospheric effects of power plant cooling towers. In 1972, Dr. Pell joined the State of Maryland's Power Plant Siting Program as liaison between the State's Bureau of Air Quality Control and Department of Natural Resources. In balancing the interests of environmental stewards and proponents of energy development, he observed, "I knew I was doing the right thing when both offices yelled at me equally loudly."

After acquiring U.S. citizenship in 1975, Dr. Pell joined the Federal Energy Administration (subsumed into DOE in 1978) as the Director of Environmental Regulations. There he worked on what became the Clean Air Act Amendments of 1977, with emphasis on the prevention of significant deterioration (PSD) of air quality, among many other energy resource development issues. As an adjunct professor to the Meteorology Department of the University of Maryland in the late 1980s, Dr. Pell taught a course on air pollution meteorology. He now teaches global climate change at a community college in Maryland.

On behalf of the DOE NEPA Community, we express our appreciation for Jerry's many contributions and offer best wishes for his future endeavors.

EAs and EISs Completed October 1 to December 31, 2012

EAs¹

Bonneville Power Administration

DOE/EA-1912 (12/6/12)

Midway-Benton No. 1 Rebuild Project, Benton County, Washington

Cost: \$160,000

Time: 14 months

Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1933 (11/16/12)

Yakama Nation Drop 4 Hydropower Project, Yakama Nation Reservation, Washington

EA was adopted; therefore cost and time data are not applicable. [The Department of the Interior's (DOI) Bureau of Indian Affairs was the lead agency; DOE was a cooperating agency.]

National Energy Technology Laboratory/Office of Energy Efficiency and Renewable Energy

DOE/EA-1921* (12/20/12)

Silver Peak Area Geothermal Exploration Project, Esmeralda County, Nevada

EA was adopted; therefore cost and time data are not applicable. [DOI's Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

Western Area Power Administration

DOE/EA-1863 (10/12/12)

Glen Canyon to Pinnacle Peak 345 kV Transmission Lines Vegetation Management Project, Coconino County, Arizona

Cost: \$775,000

Time: 20 months

DOE/EA-1884 (12/27/12)

Wray Wind Energy Project, Yuma County, Colorado

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 33 months

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

* Recovery Act project

**The cost for this document includes the costs for three major EISs (waste management, high-level waste tank closure, and disposition of a nuclear reactor) that were started separately and ultimately integrated into one document; also included are costs to develop a single comprehensive groundwater model for the Hanford Site.

EISs

Office of Environmental Management/Office of River Protection

DOE/EIS-0391 (77 FR 744479, 12/14/12)

(Draft EIS EPA Rating: EO-2)

Tank Closure and Waste Management for the Hanford Site, Richland, Washington

Cost: \$85,000,000**

Time: 82 months

Office of Loan Programs

DOE/EIS-0470 (77 FR 75632, 12/31/12)

Cape Wind Energy Project, Nantucket Sound, Massachusetts

EIS, in combination with 2 EAs, was adopted; therefore cost and time data are not applicable.

[DOI's Minerals Management Service, now known as the Bureau of Ocean Energy Management, was the lead agency; DOE was not a cooperating agency.]

Western Area Power Administration

DOE/EIS-0440 (77 FR 75632, 12/21/12)

(Draft EIS EPA Rating: EC-2)

Quartzsite Solar Energy Project, La Paz County, Arizona

Cost: The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 35 months

DOE/EIS-0490 (77 FR 62235, 10/12/12)

(Draft EIS EPA Rating: EC-2)

Boulder City/US 93 Corridor Study, Clark County, Nevada

EIS was adopted; therefore cost and time data are not applicable, [The Department of Transportation's Federal Highway Administration was the lead agency;

DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Working closely with another DOE field office.* The proposed project was located on DOE property. We worked closely with the DOE field office because they were familiar with the site's potential environmental issues as a result of earlier environmental impact analysis documents.

What Didn't Worked

- *Changing document scope.* Combining the scope of the original EIS with the scope of a site-wide EIS increased the time needed to complete the document.

Data Collection/Analysis

What Worked

- *Staff familiar with site.* Data collection was not problematic because we hired folks who were familiar with the site of the proposed action.

What Didn't Work

- *Acquiring data.* Obtaining a list of activities in the area to facilitate the analysis of cumulative impacts was difficult.
- *Need for data.* Obtaining data on cultural resources was difficult due to the lack of availability of key persons and the need for additional research.
- *Delayed access to data.* Delayed access to data on the project's design inhibited the start of the impact analyses.
- *Need to update data.* Due to the initial EIS schedule, much of the data compiled for the contractor was developed prematurely. These data had to be updated.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Good document manager.* The NEPA Document Manager was effective in addressing issues in a timely manner.
- *Periodic calls.* Periodic calls helped to keep the EIS process on track.
- *Detailed schedule and management attention.* Having a detailed schedule and senior management attention (as needed) facilitated completion of the EIS.
- *Good communication.* Maintaining good communication with cooperating agencies and the applicant facilitated timely completion of the EIS.
- *Frequent communication.* Weekly conference calls and open communication facilitated timely completion of the EIS.

Factors that Inhibited Timely Completion of Documents

- *Differing interpretations.* The interpretation of NEPA and other environmental regulations was not consistent among the participating agencies. Addressing these differences inhibited timely completion of the EIS.
- *Unique issues.* Several issues that were unique to this EIS resulted from an earlier agreement between DOE and the State. Resolving these issues took longer than originally anticipated.
- *Inconsistent management decisions.* Having access to senior management who could make timely decisions was effective. However, over the course of the EIS, there were many senior managers involved, which made consistency and timeliness harder at times.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Rescoping EIS.* Even though the EIS process was thought to be planned early enough, as a result of a later agreement with the State and the resultant rescoping of the EIS, the NEPA process ended up on the critical path, which led to schedule pressure and more aggressive assumptions that had to be dealt with.
- *Ineffective meetings/participation.* Participation was not consistent in earlier meetings held to identify issues. People who had not participated in earlier meetings identified new issues at later meetings that had to be addressed. Some meetings seemed to introduce more comments to be resolved than to resolve the issues already identified.

Teamwork

Factors that Facilitated Effective Teamwork

- *Constant communication.* Keeping everyone in the loop regarding project changes in monthly team meetings was effective.
- *Early identification of roles and responsibilities.* Identifying team members and their clear roles and responsibilities early in the project work plan facilitated effective teamwork.
- *Good working relationship.* The NEPA Compliance Officer, the NEPA Document Manager, and the contractor had a good working relationship.

Process

Successful Aspects of the Public Participation Process

- *Early public interaction.* The public reacted positively to the early notifications of meetings and the availability of EIS documents and information.
- *Easy public interaction.* The public process on this project consisted of notification letters to the public (no public meeting) because the entire project was located on DOE property (with no offsite impacts).

Unsuccessful Aspects of the Public Participation Process

- *Use of a webinar.* Use of a webinar was an effective way to reach a number of people. However, it did

not lend itself to a dialog. It would have been more effective to not only be able to present data, but to also receive information.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Support for DOE waste management.* The EIS provided a path forward for the treatment, storage, and disposal of some of the Department's waste materials.
- *Selection of best alternative.* The EA allowed DOE to choose the best alternative for the proposed action which also mitigated impacts to culturally sensitive areas.

Enhancement/Protection of the Environment

- *Reduced impacts.* The environment was largely protected as a result of this EA process, which facilitated effective siting of the proposed project as well as helped select measures to reduce potential impacts.

Other Issues

Guidance Needs Identified

- *Update EIS Distribution guidance.* EIS Distribution guidance is a useful document, but not many people know how much information is there regarding the content of distribution letters. It would be useful to update the guidance to reflect process and organizational changes that have occurred since publication of the guidance in 2006.

[Editor's note: The Office of NEPA Policy and Compliance is currently working on updating DOE's EIS Distribution guidance.]

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

For the past quarter, in which 2 EA and 3 EIS questionnaire responses were received, 4 respondents rated the NEPA process as “effective;” 1 rated the process as “2.”

- A respondent who rated the process as “5” stated that the NEPA process provided DOE with the information needed to make good decisions regarding avoidance and minimization of impacts to many different resources.
- A respondent who rated the process as “4” stated that the NEPA process caused the applicant to consider more information before deciding on the location of the proposed project; this led to the selection of a location that had less impact to endemic species.
- A respondent who rated the process as “4” stated that the NEPA Document Manager, the NEPA Compliance Officer, and the supporting contractor were the best that DOE could have hoped for.
- A respondent who rated the process as “3” stated that since the EA was adopted, there was not much ability to influence the NEPA process.
- A respondent who rated the process as “2” stated that the NEPA process was inconsistent due to varying management interpretations of what the process was supposed to accomplish.

NEPA Document Cost and Time Facts

EA Cost and Completion Times

- For this quarter, the costs for the preparation of 2 EAs for which cost data were applicable were \$160,000 and \$775,000.
- Cumulatively, for the 12 months that ended December 31, 2012, the median cost for the preparation of 15 EAs for which cost data were applicable was \$95,000; the average was \$158,000.
- For this quarter, the median completion time for 3 EAs for which time data were applicable was 20 months; the average was 39 months.
- Cumulatively, for the 12 months that ended December 31, 2012, the median completion time for 18 EAs for which time data were applicable was 13 months; the average was 15 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$85,000,000.
- Cumulatively, for the 12 months that ended December 31, 2012, the costs for the preparation of 2 EISs for which cost data were applicable were \$711,000 and \$85,000,000.
- For this quarter, the completion times for 2 EISs for which time data were applicable were 35 and 82 months.
- Cumulatively, for the 12 months that ended December 31, 2012, the median completion time for 7 EISs for which time data were applicable was 35 months; the average was 42 months.

LESSONS LEARNED

Coordination and Substitution: Effective Options for Integrating NEPA and NHPA Section 106

The Council on Environmental Quality (CEQ) and the Advisory Council on Historic Preservation (ACHP) jointly issued a handbook in early March aimed at improving the integration of the Section 106 consultation process under the National Historic Preservation Act (NHPA) and NEPA review. *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106* anticipates that benefits will include maximizing staff resources, avoiding duplication of effort, facilitating coordinated public participation, and making better informed decisions.

The handbook describes the options of “coordination” and “substitution” that federal agencies can use to help align their independent statutory obligations under NEPA and NHPA. “We encourage . . . agencies to use the handbook’s roadmaps for coordination and substitution wherever appropriate to ensure timely and well informed decisions,” said Nancy H. Sutley, CEQ Chair, and Milford Wayne Donaldson, ACHP Chair, in a letter to heads of federal departments and agencies announcing the release of the handbook.



B Reactor at Hanford, the world’s first, full-scale nuclear reactor, is among the DOE properties listed (or eligible for listing) in the National Register of Historic Places.

The concepts of coordination and integration are found in the CEQ NEPA regulations (40 CFR Parts 1500–1508) and ACHP Section 106 regulations (36 CFR Part 800). The NEPA regulations encourage agencies to “integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts” (40 CFR 1502.1). The Section 106 regulations encourage agencies to coordinate compliance with any steps taken to meet NEPA requirements (36 CFR 800.8(a)). Substitution authorizes agencies to use the procedures and documentation required for an environmental assessment (EA) and finding of no significant impact (FONSI) or an environmental impact statement (EIS) and record of decision (ROD) to comply with Section 106 “in lieu of” the procedures in the ACHP regulations (36 CFR 800.8(c)).

Many Similarities, Some Differences

Regulatory procedures for both NEPA and Section 106 require agencies to gather information on the potential effects of the proposed action on cultural resources and historic properties and consider alternatives that may avoid or minimize the potential adverse effects, and both emphasize the importance of initiating the process early and involving the public. “Distinctions exist . . . in terms of the types, scope, and geographical area of environmental review procedures, the nature of public engagement and tribal consultation, information requirements, procedures for developing alternatives, documentation, and timing,” notes the handbook. The relationship between these laws is partly illustrated in the handbook’s side-by-side comparison of related terms from the two sets of regulations (e.g., cultural resources (NEPA) and historic properties (Section 106)).

(continued on page 4)

Inside Lessons Learned

Welcome to the 75th quarterly report on lessons learned in the NEPA process. This issue includes articles on recent guidance by the Council on Environmental Quality and Advisory Council on Historic Preservation to promote better integration of NEPA and Section 106 reviews and on the Federal Highway Administration's *Every Day Counts* initiative to better integrate planning and NEPA. Efforts such as these to improve NEPA implementation are indicative of what we strive for at DOE every day – better NEPA review, better decisions. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Bongstrom
Director

Office of NEPA Policy and Compliance

Printed on recycled paper



Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by August 1, 2013, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due August 1, 2013

For NEPA documents completed April 1 through June 30, 2013, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than August 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

ACHP Extension of Programmatic Agreements Streamlines NEPA for Certain EERE Projects



The Advisory Council on Historic Preservation (ACHP) has [extended](#) until December 31, 2020, the duration of 44 programmatic agreements (PAs) that are based on a DOE prototype PA for three Office of Energy Efficiency and Renewable Energy grant programs – Energy Efficiency and Conservation Block Grant, State Energy Program, and Weatherization Assistance Program. (See *LLQR*, [March 2010](#), page 21.) In explaining the extension, the ACHP noted that the prototype PA “established review efficiencies” that helped to “expedite the weatherization efforts of the homes of many low income individuals across the country, as well as assisted communities in funding energy efficiency, renewable energy, and

weatherization projects for public buildings such as schools and courthouses.”

“The prototype PA identifies categories of routine undertakings with limited potential to affect historic properties and exempts them from further Section 106 review,” said Robin Sweeney, Director of the Environmental Oversight Office at DOE’s Golden Field Office. “DOE has utilized the PAs to help streamline NEPA reviews for these three programs and focus agency resources on undertakings that may result in an adverse effect on historic properties.”

CEQ Chair Testifies on the Importance of NEPA



“Today, we take for granted that the public has a right to participate in Federal decisions regarding the environment, energy and natural resources,” said Nancy H. Sutley, Chair of the Council on Environmental Quality (CEQ) in recent Congressional testimony, “but in fact it was in NEPA that Congress and the President clearly established this right.”

Speaking before the House of Representatives Committee on Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs on April 18, 2013, regarding the President’s Fiscal Year 2014 budget request for CEQ, Chair Sutley stressed the importance of NEPA in producing better decisions. She also emphasized CEQ’s efforts to improve the performance of the federal government by increasing the efficiency and effectiveness of the NEPA process.



CEQ Chair Nancy H. Sutley testified about CEQ’s work to improve NEPA implementation.

NEPA Enhances Decisionmaking

Chair Sutley explained that “NEPA democratized the Federal decisionmaking process by formally including environmental considerations and public input into Federal decisions. Today, it is NEPA that ensures the ability of the public, communities, State and local governments and industry to have a seat at the table when Federal agencies make decisions that potentially impact our communities and the environment.”

At its heart, NEPA recognizes that citizens and communities, local and State governments, Indian tribes, and businesses all have a vital interest in government actions—and more often than not, their unique knowledge of risks, consequences, and possible alternatives can produce better decisions.

– CEQ Chair Nancy H. Sutley

“We believe that better agency collaboration and coordination, combined with good guidance to implement existing authorities and missions in an efficient manner, leads to better outcomes for those doing business with the

Federal government and communities affected by Federal decisions, as well as a healthier environment and savings for the taxpayer,” Chair Sutley said.

To illustrate CEQ’s efforts, she referred to CEQ’s NEPA Pilot Program and the 2012 CEQ guidance on preparing efficient and timely environmental reviews under NEPA. (See *LLQR* June 2011, page 11; December 2011, page 11; March 2012, page 7; and June 2012, page 7.)

What CEQ Has Learned

Chair Sutley pointed to the fact that only a small fraction of projects or decisions require an EIS. “In the case of the 275,000 projects funded under the Recovery Act, only four-tenths of a percent required a full EIS. Ninety-six percent of projects used categorical exclusions,” she said. She explained that commonly “delays in project implementation are inaccurately attributed to NEPA process delays when other factors are relevant.” She cited challenges securing project funding, local opposition to a project, project complexity, changes in project scope, and requests by state or local officials as contributors to delays.

“Following this year’s State of the Union, the President announced a goal of time savings of 50% in the Federal permitting and review process for major infrastructure projects by institutionalizing best practices and increasing collaboration with local stakeholders,” noted Chair Sutley. She said that CEQ’s “work on modernizing infrastructure permitting can serve as a model for maintaining the integrity of NEPA while finding efficiencies across the Federal government.” She summarized what CEQ has learned from its recent work to improve infrastructure permitting processes. Time and money can be saved, she said, by:

- Bringing agencies, project applicants and stakeholders to the table at the beginning of the process
- Establishing mutually agreed-to project milestones and target schedules – not arbitrary deadlines – for complex or significant projects
- Concurrent, coordinated, and collaborative reviews across federal agencies and with states, Indian tribes and local government – rather than isolated and sequential reviews, and
- Using information technology, like dashboards that make timelines and milestones public on the Internet, along with key project information and status. **LL**

NEPA and NHPA Handbook

(continued from page 1)

The handbook provides helpful tips for coordinating Section 106 reviews with each level of NEPA review – categorical exclusion (CX), EA, and EIS. “Coordinating the Section 106 and NEPA reviews is most effective when the responsible parties begin them simultaneously so that each process will fully inform the other.” Also, the handbook suggests that agencies plan public involvement to satisfy both NEPA and Section 106 requirements.

Categorical Exclusions: “Synchronizing NEPA and Section 106 reviews can allow potential adverse effects to be avoided, minimized, or mitigated and documented so that a [CX] can be applied.” The handbook notes that the majority of federal actions reviewed under NEPA qualify for a CX, and adds that, “Because Section 106 is an independent statutory requirement, compliance with NEPA through a [CX] does not satisfy” an agency’s Section 106 obligations. When considering a CX determination, the handbook explains that the Section 106 process “can identify those circumstances in which the adverse effects to historic properties, individually or in combination with other potential effects, constitute ‘extraordinary circumstances’ such that application of a [CX] is not appropriate and additional NEPA analysis is required.”

Environmental Assessments: When preparing an EA, the handbook advises that the agency use the Section 106 adverse effect criteria in evaluating and describing effects on historic properties and that the agency explain the relationship of those Section 106 criteria to the NEPA criteria for determining the significance of impacts. “The resolution of adverse effects to historic properties through the Section 106 process is a factor to consider in determining whether, for NEPA purposes, there are potentially significant effects that require preparation of an EIS,” advises the handbook. However, an adverse effect identified in the Section 106 process does not necessarily mean an agency cannot support a FONSI.



In assessing the impacts to historic properties, one approach identified in the handbook “is to consider the importance of the resource as its ‘context’ and the severity of the proposed impacts as the action’s ‘intensity.’” “Federal agencies should clearly define the specific characteristics that make a property eligible for the National Register [of Historic Places] to determine whether an action might alter, directly or indirectly, those qualifying characteristics.”

NEPA and NHPA require Federal officials to “stop, look, and listen” before making decisions that impact historic properties and the human environment.

– NEPA and NHPA handbook

Environmental Impact Statements: An agency should begin coordinating NEPA and Section 106 reviews when developing the purpose and need statement for an EIS. If an agency will use the EIS process to comply with Section 106, it should state that in the notice of intent and “utilize scoping to partially fulfill the Section 106 public notification and consultation requirements.” The agency should “include any information obtained from the Section 106 consultation in the draft EIS sections on affected environment and impacts,” subject to NHPA confidentiality provisions. Further, the handbook recommends that the agency consider timing and scope of specialized studies (such as historic resource surveys) required by Section 106 at each step in the process.

The handbook explains that it is “important for agencies to consider ways to avoid affecting historic properties before assessing potential mitigation measures to resolve adverse effects. If the proposed undertaking would have an adverse effect on a historic property and that effect cannot

(continued on page 5)

Tips for Integrating NEPA and Section 106 Reviews

- Begin integration of NEPA and Section 106 processes early—the earlier it begins, the better it works.
- Educate stakeholders on the benefits of integrating through coordination or substitution.
- Develop comprehensive planning schedules and tracking mechanisms to keep the processes synchronized.
- Develop comprehensive communication plans that meet agency outreach and consultation requirements to maximize opportunities for public and consulting party involvement and minimize duplication of effort by agency staff. Plans should specify whether the agency will use coordination or substitution.
- Use NEPA documents to facilitate Section 106 consultation, and use Section 106 to inform the development and selection of alternatives in NEPA documents.
- Develop an integrated strategy to accomplish specialized studies to provide information and analysis needed under NEPA and Section 106.

NEPA and NHPA Handbook

(continued from page 4)

be avoided, then the agency can focus its consultation on the development of specific mitigation measures for that historic property.” The handbook recommends that the final EIS or ROD include any signed memorandum of agreement (MOA) or programmatic agreement (PA) that records how to resolve identified adverse effects. (See related article, page 2.)

Early consideration and coordination of the EIS and Section 106 process will help . . . avoid duplication of effort, and lessen the risk that issues raised late in the process will require development of additional alternatives specifically to address historic property concerns.

– NEPA and NHPA handbook

Using NEPA To Comply with Section 106

Substitution allows agencies to use the procedures and documentation required for an EA and FONSI or an EIS and ROD to comply with Section 106, but, as explained in the handbook, substitution is not appropriate for a categorically excluded action. The handbook identifies attributes of a project that may be a good candidate for the substitution approach, including active involvement by the federal agency and whether substitution would enhance opportunities to resolve adverse effects on historic properties. The handbook also describes situations where substitution might not work as well as coordination. For example, “it may be more efficient to fulfill the requirements of Section 106 in a concurrent but parallel manner” where a project involves “complicated impacts on many different types of resources, but Section 106 issues appear to be minor and straightforward.”

The handbook provides a checklist, based on the Section 106 regulations (36 CFR 800.8(c)), to help ensure proper completion of the substitution process. The handbook reminds agencies of the importance of early involvement, for example, by notifying the ACHP and State and Tribal Historic Preservation Officers of an agency’s intent to use the NEPA process for Section 106 purposes. Agencies must share information with consulting parties and the public at appropriate stages during the process and provide opportunities to comment. “Providing the public the opportunity to review NEPA documents without an opportunity to provide comments will typically not be sufficient to satisfy Section 106 public involvement requirements,” the handbook states.

When the Section 106 process can be concluded with a finding of “no historic properties affected” or that there are no adverse effects, the agency must clearly state that

finding in the final EA or EIS. For situations where there are adverse effects to historic properties and an agency is preparing an EA, the FONSI should make it clear that the adverse effects have been resolved and an MOA, PA, or formal ACHP comment process was concluded. The handbook cautions that use of a mitigated FONSI does not replace the Section 106 requirement to conclude the process with an MOA, PA, or ACHP comment.

When preparing an EIS, if an agency determines that there would be adverse effects to historic properties, the agency must document the resolution of these effects by:

- Incorporating a description of the agency’s binding commitment to mitigation measures in the ROD (if the measures were proposed in the EIS and available for consulting parties’ review and opportunity to object),
- Executing an MOA or PA, or
- Receiving ACHP formal comments and responding to them.

The handbook cautions that agencies “must include sufficient time for the opportunity for review and the possibility of an objection” under Section 106 when developing the comprehensive schedule that considers NEPA and Section 106 milestones. (If there is an objection under Section 106, the agency shall refer it to ACHP for its opinion, which the ACHP has 30 days to provide.) “Agencies planning to publish a [ROD] 30 days after publication of the final EIS should note that the opportunity for review and objection must occur prior to publication of the final EIS,” explains the handbook.

The handbook concludes with a description of emergency procedures under NEPA and Section 106 and a discussion of the timing of decisions. The handbook advises agencies to “avoid issuing NEPA documents that present a final agency decision before they have completed their Section 106 process because the Section 106 process may result in a finding that requires the NEPA document to be revised or supplemented.”

“Going forward, the NEPA and Section 106 review processes should never be considered in isolation or as sequential environmental reviews that never intersect and operate under different schedules and requirements. The current paradigm . . . advanced by CEQ and the ACHP envision[s] these reviews occurring simultaneously, continually exchanging information, and allowing determinations and recommendations in one to inform the other.” 

“Every Day Counts” for Federal Highway Projects

The Federal Highway Administration (FHWA) is “accelerating innovation” to shorten project delivery, enhance roadway safety, and protect the environment through a multidimensional campaign called *Every Day Counts*. An important focus of this initiative is better integration of project planning with NEPA review.

Linking planning and environmental considerations can lead to a seamless decisionmaking process that reduces duplication of work and costs and produces more informed and faster project-level decisions. It also promotes transparent planning practices and better coordination among stakeholders.

– *Every Day Counts 2 Summit Report (2013)*

“One of Federal Highway’s goals is to institutionalize efficiencies,” said Horst Greczmiel, Associate Director for NEPA Oversight at the Council on Environmental Quality (CEQ). Mr. Greczmiel recently hosted a presentation on *Every Day Counts* for federal agency NEPA contacts. “The lessons that FHWA is learning through this initiative could benefit other federal agencies,” he said.



Every Day Counts, started in 2009, aims to shorten project delivery time, in part by ensuring that NEPA review does not cause delay, and accelerate the deployment of innovative technologies. “We’re establishing a culture

of innovation,” explained Bill Ostrum, Environmental Protection Specialist at FHWA, “by encouraging project planners and environmental reviewers to remain open to new ideas and technologies, and incorporate them into standard practice.”

FHWA, in partnership with the American Association of State Highway and Transportation Officials (AASHTO), conducts online “Innovation Summits” to implement *Every Day Counts*. Innovation Summits are designed to build leadership support for innovation among federal and state transportation agency managers, and provide workshops for project planners and NEPA practitioners to improve their NEPA document preparation skills.

NEPA Performance Is Central to Changes

Several components of *Every Day Counts* seek to improve the quality and timeliness of NEPA reviews.

An example is a questionnaire now in wide use by transportation agencies across the country. The [questionnaire](#) records information on the status of the proposal, planning assumptions, analytical

approaches, related planning studies, environmentally sensitive resources, potential alternatives, controversial issues, and other topics to “ease the transition” from planning to NEPA analysis. This planning information

may be gathered with the involvement of the public and interested state, local, tribal, and federal agencies, and it evolves during the NEPA process. “This can lead to less duplication of effort and more informed project-level decisions,” FHWA explains on its website.

Another component, [implementing quality environmental documentation](#), builds on longstanding agency efforts to improve EIS readability and effectiveness. It is founded on the principal recommendations of an earlier work group of FHWA, AASHTO, and the American Council of Engineering Companies:

- “Tell the story of the project so that the reader can easily understand the purpose and need for the project, how each alternative would meet the project goals, and the strengths and weaknesses associated with each alternative.”
- “Keep the document as brief as possible, using clear, concise writing; an easy-to-use format; effective graphics and visual elements; and discussion of issues and impacts in proportion to their significance.”
- “Ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers.”

(See the work group [report](#) and *LLQR*, December 2006, page 10.)

Producing higher quality, less cumbersome documents increases efficiency and effectiveness by reducing the amount of work and resources required to produce the documents. It also makes them more accessible to the stakeholders who read them.

– *Every Day Counts 2 Summit Report (2013)*

Early Legal Review Yields Benefits

The component on [enhancing legal sufficiency](#) points out typical causes of EIS deficiencies (e.g., overly broad or narrow purpose and need, inappropriate alternatives, insufficient consideration of public or agency comments) and identifies measures for avoiding them. FHWA’s environmental attorneys offer opportunities for early and ongoing consultation, and then commit to reducing the timeframe for their legal sufficiency review of the final document – from the current 30 days to 15 days.

(continued on page 7)



Every Day Counts

(continued from page 6)

The benefits of early legal involvement, according to FHWA, include minimizing iterative review and rewriting, reducing overall review time, allowing conflict resolution and corrective actions when the project schedule can best accommodate them, and reducing litigation risk.

“Relationships matter” is the theme of the *Every Day Counts* component on [expanding the use of programmatic agreements](#) with regulating or permitting authorities to establish processes for consultation, document review, and compliance with other federal laws during the NEPA process. FHWA has collaborated with AASHTO’s Center for Environmental Excellence to update a national [programmatic agreement library](#) and tool kit.

Another component provides technical assistance teams to address problems in ongoing EIS projects, especially those for which a record of decision has not been issued by 60 months after a notice of intent. Teams of subject matter experts, assembled by the [FHWA Resource Center](#) based in five offices across the country, provide specialized NEPA planning assistance, facilitate interagency coordination, and provide training. FHWA reports that technical assistance teams have helped with 21 projects in 11 states, including by rescoping and combining projects.

Other components of *Every Day Counts* raise awareness of existing regulatory flexibility, provide guidance on design activities allowable during the NEPA process, promote mitigation banking, and encourage improved coordination with utilities.

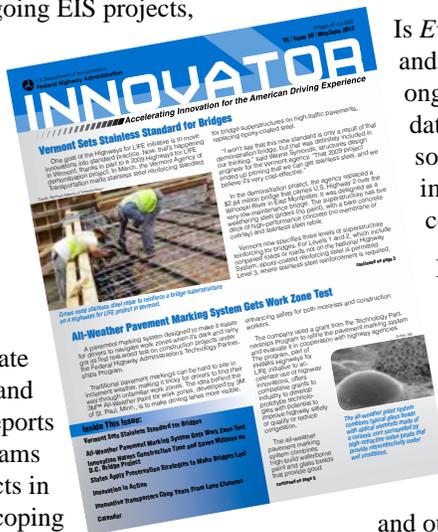
Accelerating Technology Deployment

Through *Every Day Counts*, FHWA encourages deployment of [innovative technologies](#) to improve project quality, reduce project cost and time, and enhance environmental values.

One of the innovative technologies focuses on bridges, but the principle can be generalized: many construction tasks need not be performed sequentially at onsite work zones. An old structure can be demolished, for example, while elements for the new structure are built offsite and brought to the project location ready to install. This can reduce the need for heavy equipment at the project site and allow onsite activities to be scheduled to avoid disrupting sensitive seasons for plant and animal life.

Is *Every Day Counts* working to shorten NEPA review and project delivery times? FHWA notes that many ongoing EISs started before this initiative and that data collection is still underway. A positive indicator so far, Mr. Ostrum notes, is that the initiative is improving project review and increasing the agency’s commitment to “urgency” in project implementation.

FHWA’s *Every Day Counts* [website](#) facilitates agency dissemination of information and participant sharing of lessons learned. It contains podcasts of Innovation Summit webinars, pages on each of the NEPA-planning integration approaches and each of the innovative technologies, a transportation community forum, periodicals (including *Innovator*) to share lessons learned and other information, and a YouTube channel. FHWA also maintains a [NEPA website](#), which provides requirements, policies, and guidance; case studies and document examples; and status tracking of active NEPA reviews. For more information, contact Mr. Ostrum at william.f.ostrum@dot.gov. LL



New Guide Promotes Mutual Understanding In Public-Private Renewable Energy Projects

When federal agencies and the private sector work together to develop energy projects, a successful outcome is more likely if each party understands the goals, responsibilities, and constraints of the other. This is illustrated in the *Large-Scale Renewable Energy Guide* issued in March by DOE's Federal Energy Management Program (FEMP) to help agency personnel "navigate the complexities" of such public-private sector efforts at federal facilities.

The guide "is intended to provide a general resource that will begin to develop the Federal employee's awareness and understanding of the project developer's operating environment and the private sector's awareness and understanding of the Federal environment." The guide, developed by FEMP in collaboration with DOE's National Renewable Energy Laboratory (NREL), is "organized to match Federal processes with typical phases of commercial project development."

Best practices and recommendations in the guide regarding the alignment and sequencing of private sector and federal processes, including NEPA, and the importance of mutual understanding among parties, are consistent with key principles in the Secretary's June 12, 2012, memorandum on *Improved Decision Making through the Integration of Program and Project Management with National Environmental Policy Act Compliance*.

Overcoming the Language Barrier

Effective communication among involved parties is essential. As noted in the guide, "Establishing a working relationship between Federal agencies and private developers is complicated by the fact that the language of each is very different, even unrecognizable, from the other." Not only is it helpful to develop a "common language," but also a "common process" in which the actions of the two parties are "synchronized."

The guide presents parallel timelines for a federal agency, developer, and financier that show the stages of project development, approval, and implementation. NEPA compliance is one component of this process. As the guide states, "Compliance with NEPA is a Federal responsibility."

"The Federal agency always manages the NEPA process and issues decisions. The developer may pay costs for preparing the NEPA review, will provide at least some

of the data needed for the analysis (e.g., information about the proposed project), and may have other roles depending on the circumstances. The project developer does not, however, control the process . . . The heart of the NEPA process is the exploration and evaluation of a range of reasonable alternatives for agency decision making," states the guide.

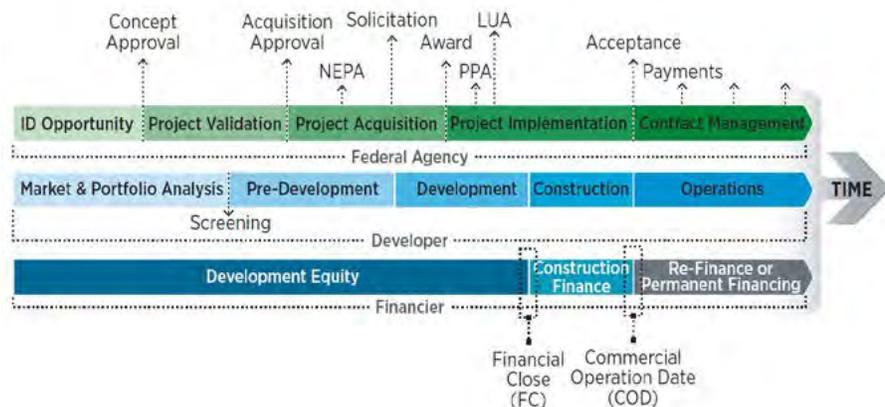
Coordination May Reduce Time, Cost, Risk

The guide acknowledges that NEPA "can be an expensive and time-consuming process. Compliance with NEPA is a Federal obligation that cannot be delegated to private parties and should be integrated into the project planning process to ensure that planning and decisions reflect environmental considerations so that delays can be avoided later in the process. Agencies should develop meaningful and expeditious timelines for environmental reviews and should work in close consultation with developers to gather data efficiently and cost effectively."

The NEPA process adds an element of "risk" to project development by adding time, uncertainty, and expense, acknowledges the guide. Moreover, key project parameters may change during the NEPA review.

The guide concludes that success "depends on the ability of agencies and the private sector to recognize each other as essential to reaching a common goal. Neither party will be successful if the requirements of each are not met and constraints are not overcome."

For further information on the *Large-Scale Renewable Energy Guide: Developing Renewable Energy Projects Larger Than 10 MWs at Federal Facilities*, contact Anne Crawley or Boyan Kovacic, FEMP, at anne.crawley@ee.doe.gov or boyan.kovacic@ee.doe.gov. LL



FEMP's guide illustrates the similarities of process and differences in language among federal agencies and private parties. [LUA = Land Use Agreement, PPA = Power Purchase Agreement]

Our Earth Day Is *Every* Day

The Office of NEPA Policy and Compliance joined other DOE Headquarters offices and green exhibitors in a week-long celebration of the 43rd Earth Day, promoting the theme of *Changing Behavior to Reduce DOE's Carbon Footprint*.

The first three days of activities included tours of DOE workplace electric vehicle charging stations and nearby Smithsonian gardens, environmental films, and alternative fuel vehicle displays. The final day at the Forrestal Building was an outdoor event that coincided with *Take Our Daughters and Sons to Work Day*. Family-friendly festivities included interactive exhibits of energy efficient consumer products, an environmental photo contest display, a bike advocates presentation, electronics recycling, children's planting and face painting activities, live music, and a farmers market.

At the NEPA Office display table, Denise Freeman and John Jediny answered questions about NEPA requirements and guidance. They also provided an interactive Geographic Information System (GIS) demonstration that allowed Earth Day visitors to put on the hat of a NEPA practitioner by analyzing a particular area (such as their residence) with over 230 layers of GIS data. GIS data is commonly used in the NEPA process to help identify the relationship between a proposed action and environmental resources that could be affected. GIS can assist in determining whether there are any extraordinary circumstances, preparing maps and graphics to illustrate the results of analysis, and communicating complex information to the public and decisionmakers (*LLQR*, September 2012, page 9). 



National Environmental Policy Act
Our Earth Day is Every Day

Climate Change & GHG Emissions
Sensitive or Wilderness Areas
Infrastructure Demands
Accidents & Terrorism
Ecological Resources
Biological Resources
Endangered Species
Pollution Prevention
Water Resources
Protected Areas
Air Quality

Tribal & Cultural Resources
Socioeconomic Resources
Hazardous & Toxic Waste
Human Health & Safety
Environmental Justice
Historic Resources
Energy Security
Soil & Geology
Aesthetics
Land Use
Noise

EARTH DAY
U.S. DEPARTMENT OF ENERGY
Changing Behavior to Reduce DOE's Carbon Footprint
Office of NEPA Policy and Compliance
Energy.gov/NEPA

The poster features a central image of Earth from space, surrounded by a grid of smaller images depicting various environmental and energy-related scenes: a desert landscape with buttes, the Golden Gate Bridge, a bald eagle, industrial smokestacks, a wind turbine, a person on a horse, and a sea turtle. The text is arranged in columns around the central globe, and the Earth Day logo is at the bottom.

GAO Reports Highlight Need for Agencies To Consider Climate Change Risks in Planning



Two recent Government Accountability Office (GAO) reports highlight the risks that climate change presents to government infrastructure projects and identify the need to consider climate change risks in project planning and in managing federal assets. Although the reports do not provide guidance on how to conduct NEPA reviews, they identify issues that could have implications for DOE projects and NEPA reviews.

“Climate change is a complex, crosscutting issue that poses risks to many environmental and economic systems—including agriculture, infrastructure, ecosystems, and human health—and presents a significant financial risk to the federal government,” according to the first of the two GAO reports, *High-Risk Series: An Update* (GAO-13-283, February 2013; High-Risk Report).

In the second report, GAO states, “Extreme weather events and climate change pose risks to physical infrastructure . . . essential to the economic well-being of the United States” (*Climate Change: Future Federal Adaptation Efforts Could Support Local Infrastructure Decision Makers*, GAO-13-242, April 2013; Climate and Infrastructure Report).

High-Risk Report Includes Climate Change

GAO updates the High-Risk Report every two years to guide efforts to improve government performance and reduce waste and risks. The High-Risk Report lists federal programs and operations at “high risk” for waste, fraud, abuse, and mismanagement or needing broad-based transformation. Included among the 30 high-risk areas, for the first time, are two that focus on climate change: “Limiting the Federal Government’s Fiscal Exposure by Better Managing Climate Change Risk” and “Mitigating Gaps in Weather Satellite Data.”

In explaining its reasons for addressing climate change in the High-Risk Report, GAO cites conclusions of authoritative scientific sources, including the United States Global Change Research Program (USGCRP) and National Research Council (NRC), the principal operating agency of the National Academy of Sciences and the National Academy of Engineering. For example, GAO cites NRC’s conclusion that, “although the exact details cannot be predicted with certainty, there is a clear scientific understanding that climate change poses serious risks to human society . . .” GAO also cites USGCRP’s conclusion that “the impacts and costliness of weather disasters – resulting from floods, drought, and other events such as tropical cyclones – will increase in significance as what are considered ‘rare’ events become more common and intense due to climate change.”

Climate change impacts will result in increased fiscal exposure for the federal government in many areas, GAO concludes. The federal government owns and operates hundreds of thousands of buildings and facilities that could be affected by a changing climate, GAO states.

. . . And Emphasizes Adaptation

GAO recognizes that there are limits on the effectiveness of merely reducing greenhouse gas (GHG) emissions because, according to NRC and USCRP, GHGs “already in the atmosphere will continue altering the climate system for many decades . . .” Therefore, GAO’s recommendations focus on coordinating government efforts to address climate change risks through adaptation.

GAO defines climate change adaptation as “adjustments to natural or human systems in response to actual or expected climate change,” and provides examples of how to protect infrastructure, such as raising river or coastal dikes to protect infrastructure from sea level rise, building higher bridges, and increasing the capacity of stormwater systems. The High-Risk Report emphasizes that the “federal government invests billions of dollars annually in infrastructure . . . facing increasing risks from climate change,” and points to climate change adaptation as “a risk management strategy.”

While implementing adaptive measures may be costly, there is a growing recognition that the cost of inaction may be greater.

– GAO High-Risk Report

Climate and Infrastructure Report

In the Climate and Infrastructure Report, GAO examines impacts of climate change on infrastructure (roads, bridges, wastewater systems, and National Aeronautics and Space Administration facilities); the extent to which climate change is incorporated into infrastructure planning; factors that enabled some decisionmakers to implement adaptive measures; and federal efforts to address local adaptation needs.

GAO found that decisionmakers have not systematically considered climate change in infrastructure planning for several reasons, including the challenges they face in obtaining climate-related information relevant to their decisionmaking process. “Decision makers often struggle to identify which information among the vast number of climate change studies available is relevant, according to

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GAO Reports on Climate Change Risks

(continued from page 10)

NRC studies and [GAO] interviews with federal agencies and other stakeholders,” the report states.

“Future federal efforts could better meet the needs of local infrastructure decision makers,” the report concludes. To that end, GAO recommends the designation of a federal entity within the Executive Office of the President to work with agencies to identify the best available climate change information for local infrastructure decisionmakers. Such an entity could be helpful to NEPA practitioners because providing decisionmakers with high-quality environmental information is consistent with fundamental NEPA principles.

The report also explains that “guidance specifying how certain types of federal infrastructure investments should account for climate change when meeting the requirements of . . . NEPA” could help local decisionmakers consider climate change concerns relevant to infrastructure projects. The GAO reports do not specify how federal agencies should incorporate the impacts of climate change on infrastructure projects into their NEPA documents.

CEQ Guidance Pending

The Climate and Infrastructure Report notes that on February 18, 2010, CEQ issued [draft guidance](#) on how federal agencies can consider the effects of climate change in the NEPA process. The report explains the relevant scope of the CEQ draft guidance: “CEQ’s draft NEPA guidance states that climate change effects should be considered in the analysis of projects that are designed for long-term utility and located in areas that are considered vulnerable to specific effects of climate change (e.g., increasing sea level or ecological change) within the project’s time frame. . . . Given the length of time involved in present sea level projections, such considerations typically would not be relevant to an action with only short-term considerations. The guidance further states that this is not intended as a new component of NEPA analysis but rather as a potentially important factor to be considered within the existing NEPA framework.”

GAO recommends that CEQ “finalize guidance on how federal agencies can consider the effects of climate change in their evaluations of proposed actions under the National Environmental Policy Act” “Without finalized guidance from CEQ, it is unclear how, if at all, agencies are to consistently consider climate change in the NEPA process, creating the potential for inconsistent consideration of the effects of climate change in the NEPA process across the federal government,” the report states.

DOE NEPA Practice

In addition to discussing GHG emissions and potential climate change impacts resulting (in part) from DOE proposals, some DOE NEPA documents discuss the impact of climate change on the proposed projects. They do so, explicitly or implicitly, in several ways. For example, some DOE NEPA documents include accident risk analyses that consider potentially severe natural phenomena, such as high winds, floods, or fires. Conservative assumptions in such accident risk analyses account for potentially more frequent and intense natural events, as forecast by USGCRP.

In addition, in NEPA reviews for waste disposal facilities, DOE has explicitly included analyses of waste disposal impacts based on assumed climate changes in the future; some documents use conservative hydrologic parameters to account for potential wetter future climate conditions. Some DOE NEPA documents also consider design and location alternatives to avoid or otherwise mitigate the potential that climate change may magnify potential adverse impacts of proposals on a range of resource areas (e.g., water availability issues associated with power generation and other water-consuming proposals). All of these approaches have allowed DOE to consider the adaptation planning and climate risk management issues that the GAO reports raise. 

NAEP Issues Annual NEPA Report 2012



The National Association of Environmental Professionals (NAEP), in its Annual NEPA Report 2012, reviews NEPA developments of the past year: requirements and guidance, NEPA document statistics, outcomes of NEPA litigation, and changes in agency NEPA procedures. Additional sections provide commentary by NAEP members.

Efforts initiated in the previous year to streamline the NEPA process continued, NAEP notes. “As NEPA practitioners we welcome efforts to improve the process while ensuring the integrity of decision-making and sound environmental analysis,” said Ron Lamb, co-chair of NAEP’s NEPA Practice, the working group that prepared the report. “We also urge caution not to lose sight of what we expect from the NEPA process – good decision-making and agency disclosure.”

Requirements and Guidance

NAEP’s 2012 report summarizes five recent NEPA initiatives by the Council on Environmental Quality (CEQ) and the U.S. Environmental Protection Agency (EPA), Office of Federal Activities.

- *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act* (CEQ; March 7, 2012). (See *LLQR*, June 2012, page 7.)
- *Memorandum on Environmental Collaboration and Conflict Resolution* (CEQ and Office of Management and Budget; September 7, 2012). (See *LLQR*, December 2012, page 5.)
- NEPA Pilot Projects (ongoing). NAEP is leading [Best Practice Principles for Environmental Assessments](#) (EAs), one of the five pilot projects selected by CEQ to demonstrate innovative approaches to completing environmental reviews more efficiently and effectively. NAEP’s NEPA Practice working group gathered federal agency recommendations for preparing timely and cost-effective EAs, and CEQ plans to seek public comment on the draft report of survey results. (See *LLQR*, December 2011, page 11.)
- *Addressing Children’s Health through Reviews Conducted Pursuant to the National Environmental Policy Act and Section 309 of the Clean Air Act* (EPA Office of Federal Activities and Office of Children’s Health Protection; August 14, 2012). This memorandum, which implements Executive Order 13045, recommends that an analysis of a proposal’s potential impacts on children be included in

an EIS if disproportionate impacts on children are reasonably foreseeable.

- EIS Filing. EPA created an online system for filing EISs and issued [guidance](#) on the process (August 24, 2012). (See *LLQR*, September 2012, page 6.)

Legislative Developments Involving NEPA

Two commentaries in the 2012 report describe NEPA provisions in recent legislation. One commentary surveys 61 pieces of legislation introduced in the 112th Congress that included provisions to alter some aspect of NEPA implementation or amend NEPA itself.

The other commentary focuses on NEPA provisions in the 2012 transportation act, *Moving Ahead for Progress in the 21st Century* (MAP-21). This act declares that it is in the national interest to expedite project delivery, and calls for earlier coordination between planning and regulatory agencies, integration of the planning and environmental review processes, and broader use of programmatic approaches to environmental review. It establishes a framework for setting decisionmaking deadlines and a process for issue resolution and referral, and it directs Department of Transportation agencies to undertake rulemakings that would expand the applicability of categorical exclusions in specified ways.

Metrics

The 2012 report characterizes basic statistics – lead agency, EPA ratings, and completion times – for EISs with a notice of availability of a draft or final EIS published in calendar year (CY) 2012.

- Lead Agency: In CY 2012, 31 federal agencies completed 197 EISs for which time data are applicable. Some 86 percent of the EISs were prepared by the Departments of Agriculture, Defense, Transportation, and the Interior.
- EPA Ratings: Of 193 proposed projects rated, 63 (33 percent) received a Lack of Objections rating, 120 (62 percent) were rated Environmental Concerns, and 9 (5 percent) received an Environmental Objections rating. One project was rated Environmentally Unsatisfactory. EPA considered 74 draft EISs reviewed (38 percent) to be adequate, 117 (60 percent) to have insufficient information, and 3 (2 percent) to be inadequate.

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NAEP Annual Report

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- EIS Completion Times: Completion times for all agencies as a group increased in 2012 from historic norms. NAEP (like DOE) measures EIS completion times from Federal Register publication of the notice of intent to the EPA notice of availability of the final EIS, with completion times for adopted EISs not counted. The average completion time for the 197 EISs was 55 months (range 7.5 months to 20 years). NAEP data show that DOE EISs were completed about 15 months faster on average than those for the group. The average completion time for the six DOE EISs was 40 months (range 18 months to 82 months).
- The average completion time of 55 months for all agency EISs exceeded the previously recorded highest annual average of 50 months in 2008.
- Fewer EISs (7 EISs, or 3 percent) were completed in less than one year than in past years. The previous lowest less-than-one-year completion rate was 4.1 percent in 2009, and the average less-than-one-year completion rate over the past 15 years was 8.3 percent. Similarly, fewer EISs were completed in less than 2 years.
- Most of the observed increase in the EIS completion times for all agencies as a group is attributable to an increase in the time to prepare draft EISs. NAEP data indicate that this duration has been increasing over several years.

Litigation Outcomes

The NAEP report notes that in 2012 the U.S. Courts of Appeals issued 28 decisions involving federal agency NEPA implementation, and that the government prevailed in 24 of these cases (86 percent), including all 3 DOE cases (*Tri-Valley CARES v. Department of Energy*, 671 F.3d 1113 (9th Cir. 2012); *Alcoa, Inc. v. Bonneville Power Administration*, 698 F.3d 774 (9th Cir. 2012); and *Los Alamos Study Group v. U.S. Department of Energy*, 692 F.3d 1057 (10th Cir. 2012)).

NAEP identified some “themes” among these cases, including scope of the analysis and level of detail, scientific integrity and treatment of dissenting views, and requirements for environmental assessments. An appendix to the NAEP report provides details on each case and summarizes the major NEPA-related holdings.

Issued in April 2013, the full report is available to NAEP members. A synopsis of the report and the complete reports for 2009–2011 are posted on CEQ’s NEPA.gov website, under [NEPA Non-Governmental Organizations](#). Inquiries regarding the 2012 NAEP report may be addressed to naep@naep.org. 

Call for NAEP 2014 Conference Abstracts and Environmental Award Nominations

The National Association of Environmental Professionals (NAEP) seeks abstracts for individual speakers, panels, and posters at its 39th annual conference, to be held April 7–10, 2014, in St. Petersburg, Florida. The conference, under the banner of *Changing Tides & Shifting Sands*, will cover NEPA and related subjects and is open to environmental professionals in all levels of government, academia, and the private sector. The call for papers is available on the NAEP website, www.naep.org. Presentation abstracts are due by September 30, 2013.

NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. The nomination form is available on the NAEP website. Award nominations are due by August 16, 2013.



NAEP Presents 2013 Environmental Awards



The National Association of Environmental Professionals (NAEP) and the California Association of Environmental Professionals jointly held their annual conference in Los Angeles this year on the theme *Walk the Talk*. The NEPA presentations at the April conference focused on achieving the goals of NEPA and the California Environmental Quality Act (CEQA). Some of these achievements were recognized by NAEP in its 2013 Environmental Excellence Awards.

President's Award: Rapid Completion of America's Cup EA/EIR

When it was announced on December 31, 2010, that San Francisco would host the 34th America's Cup yacht races, the city and involved federal agencies had just 18 months to complete NEPA and CEQA reviews and issue necessary permits. The races involve federal lands and waters and accommodations for race crews and hundreds of thousands of spectators.

The National Park Service and U.S. Coast Guard, in cooperation with the U.S. Army Corps of Engineers and the Presidio Trust, prepared an [EA](#) while the San Francisco Planning Department prepared an [environmental impact report](#) (EIR) under CEQA. The EA evaluated alternative race areas, viewing areas, and race-related development. It considered potential impacts related to greenhouse gas emissions, visitor experience, and maritime navigation and safety.

NAEP presented the President's Award to the San Francisco Planning Department, Port of San Francisco, America's Cup Event Authority, Environmental Science Associates, Orion Environmental Associates, National Park Service, U.S. Coast Guard, U.S. Army Corps of Engineers, and Presidio Trust.

NEPA Excellence: State Route 11 and the Otay Mesa East Port of Entry

A team of local, state, and federal agencies developed a [proposal](#) for a new border crossing between San Diego and Tijuana, Mexico. Its objectives are to increase inspection capacities for vehicles and pedestrians, reduce wait times, minimize impacts to the aquatic environment, accommodate bicycles, and support international border-related agreements.

The project team used a two-tiered integrated CEQA/NEPA process. Tier I addressed the proposal within a programmatic EIS/EIR that identified a preferred location for the state road and border crossing that would minimize impacts to biological resources. The Tier I EIS/EIR allowed project proponents to secure a Presidential

permit for the border crossing from the Department of State and "eliminated the need to undertake detailed project design for more than one highway corridor and port of entry site," said NAEP.

The team then prepared a Tier II project-level EIS/EIR on three alternative designs within the selected corridor, with multiple interchange options. Interagency meetings, bi-national coordination, and bilingual community outreach continued throughout the project.

NAEP presented the NEPA Excellence Award to HELIX Environmental Planning, Caltrans District 11, Federal Highway Administration, U.S. Customs and Border Patrol, General Services Administration, San Diego Association of Governments, and AECOM.

Environmental Stewardship: San Joaquin River Restoration Program

The [EIS/EIR](#) for the San Joaquin River Restoration Program is the culmination of years of collaboration among federal, state, and local agencies, and private interests. The restoration program will restore spring-run Chinook salmon, a federally- and state-listed threatened species, to a 153-mile-long reach of the San Joaquin River in California's Central Valley, and benefit other fish, vegetation, and wildlife species. The restoration program is designed to minimize water supply impacts.

NAEP presented the Environmental Stewardship Award to the U.S. Bureau of Reclamation, California Department of Water Resources, and MWH Americas.

Best Available Environmental Technology: Sunrise Powerlink Monitoring and Compliance

The [EIS/EIR for San Diego Gas & Electric Company's Sunrise Powerlink Project](#) outlined a mitigation and monitoring program that the Bureau of Land Management incorporated in its [record of decision](#) as a condition for approval. During project construction, state-of-the-art electronic environmental monitoring and compliance tools – including GPS and GIS applications, and web-based communication – were used to integrate office and field activities. The tools were available across the entire project team, including contractor and regulatory agency staff, to provide timely project information and support informed decisionmaking.

NAEP presented the Best Available Environmental Technology Award to San Diego Gas & Electric Company. [LL](#)

CEQ Working Group Exploring Open Source Software

Recognizing a potential to cut NEPA costs, the Council on Environmental Quality's (CEQ's) Information Technology Working Group (ITWG) has formed an Open Source and Free Software Subgroup to explore the use of open source and free software in the NEPA process. The new subgroup complements the work of other ITWG subgroups addressing NEPA metrics, categorical exclusions, and use of geographic information systems (GIS).

Open source software is often developed in an open and collaborative manner and is publically available under a license that grants users the rights to study, use, modify, and distribute the software for free. This contrasts with proprietary or closed source software, which generally requires usage fees and restricts modification or redistribution.

The goal of the Open Source and Free Software Subgroup is to encourage NEPA staff working with IT experts to make better use of available resources by increasing awareness of specific software solutions applicable to the NEPA process. The Subgroup is developing a list of available open source and free software in the several categories, including communication and collaboration, document management, data analysis, comment response, GIS, and website content management.

The Subgroup plans to address the legal and practical considerations, including potential impediments associated with federal acquisition and cyber security requirements.

The Subgroup already has identified software applications in many of these categories and plans to seek agency participants in pilot demonstrations.



Other ITWG Activities

The ITWG subgroup on NEPA metrics is evaluating results of a survey of agencies to learn of their current or planned use of IT tools to track NEPA reviews, including what milestones are tracked and how completion time metrics are measured. The categorical exclusion subgroup is examining a potential online tool for making and tracking categorical exclusion determinations. The GIS subgroup plans to convene after the other subgroups have completed their work.

The ITWG is comprised of members from more than a dozen federal agencies and encourages increased use of information technology to improve NEPA implementation and expedite federal permitting and review processes for infrastructure projects (*LLQR*, March 2013, page 9). DOE's representatives on the ITWG are John Jediny and Eric Cohen, Office of NEPA Policy and Compliance. John Jediny is leading the Open Source and Free Software Subgroup. For further information or to express interest in participating in a pilot demonstration project, contact john.jediny@hq.doe.gov. 

NEPA-CEQA Handbook in Preparation

Recognizing that a joint review process under NEPA and the California Environmental Quality Act (CEQA) could avoid redundancy and improve efficiency, CEQ, in collaboration with the California Governor's Office of Planning and Research (OPR), issued a [draft handbook on integrating NEPA and CEQA](#) for a 45-day public review and comment period in early March.

"The handbook provides practitioners with an overview of NEPA and CEQA as well as suggestions for developing a single environmental review process that can meet the requirements of both statutes," said CEQ in announcing the draft handbook. CEQ has posted public comments received on the draft NEPA-CEQA handbook on the [Submitted Comments](#) page of its website. 

Transitions

NEPA Compliance Officers: NNSA Production Office

The former Pantex and Y-12 Site Offices were combined in 2012 into the NNSA (National Nuclear Security Administration) Production Office (NPO), which is responsible for contract management and oversight of the Pantex Plant in Amarillo, Texas, and the Y-12 National Security Complex in Oak Ridge, Tennessee. Jim Barrows, the Pantex Site Office NEPA Compliance Officer (NCO) since 2007, will continue as the primary NCO for the new organization. He can be reached at james.barrows@npo.doe.gov or 806-477-7467.

NPO has also designated three experienced “alternate NCOs” to act in his absence:

- Ken Hoar, Assistant Manager for Environment, Safety, Health & Quality, can be reached at kenneth.hoar@npo.doe.gov or 806-477-7158.
- Susan Dyer Morris, Deputy Assistant Manager for Environment, Safety, Health & Quality can be reached at susan.morris@npo.doe.gov or 865-576-3545.
- Craig Snider, Deputy Assistant Manager for Environment, Safety, Health & Quality, can be reached at craig.snider@npo.doe.gov or 806-477-5906.

Pamela Gorman, the Y-12 Site Office NCO since 2007, is now working as an environmental engineer in the Uranium Processing Facility Project Office. LL

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the costs for the preparation of 2 EAs for which cost data were applicable were \$20,000 and \$72,000.
- Cumulatively, for the 12 months that ended March 31, 2013, the median cost for the preparation of 12 EAs for which cost data were applicable was \$94,000; the average was \$170,000.
- For this quarter, the average and median completion times for 3 EAs for which time data were applicable were 10 months.
- Cumulatively, for the 12 months that ended March 31, 2013, the median completion time for 16 EAs for which time data were applicable was 11 months; the average was 13 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$8,000,000.
- Cumulatively, for the 12 months that ended March 31, 2013, the median cost for the preparation of 3 EISs for which cost data were applicable was \$8,000,000; the average was \$31,000,000.
- For this quarter, the completion times for 2 EISs for which time data were applicable were 20 and 43 months.
- Cumulatively, for the 12 months that ended March 31, 2013, the median completion time for 8 EISs for which time data were applicable was 37 months; the average was 40 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

EAs and EISs Completed January 1 to March 31, 2013

EAs¹

Brookhaven Site Office/Office of Science

DOE/EA-1928 (3/6/13)

White-Tailed Deer Management at Brookhaven National Laboratory, Upton, New York

Cost: \$20,000

Time: 10 months

Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1792-S1 (3/21/13)

Deepwater Offshore Floating Wind Turbine Testing and Demonstration Project, Castine, Maine

Cost: \$72,000

Time: 11 months

DOE/EA-1923 (1/15/13)

Green Energy School Wind Project, Saipan, Commonwealth of the Northern Mariana Islands
EA was prepared in-house; therefore, cost is not reported.

Time: 10 months

DOE/EA-1944 (1/17/13)

Brady Hot Springs Well 15-12 Hydro-Stimulation, Nevada

EA was adopted; therefore cost and time data are not applicable. [The Department of the Interior, Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

EISs

Office of Fossil Energy/

National Energy Technology Laboratory

DOE/EIS-0473 (78 FR 15011, 3/8/13)

(Draft EIS EPA Rating: LO)

W.A. Parish Post-Combustion CO₂ Capture and Sequestration Project (PCCS), Fort Bend County, Texas

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 20 months

National Nuclear Security Administration/ Nevada Field Office

DOE/EIS-0426 (78 FR 12309, 2/22/13)

(Draft EIS EPA Rating: EC-2)

Site-Wide Environmental Impact Statement for the Continued Operation of the Department of Energy/ National Nuclear Security Administration Nevada National Security Site and Off-Site Locations, Nevada

Cost: \$8,000,000

Time: 43 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Considering worker and public sentiment.* A comprehensive process to assess worker and public sentiment was utilized at the beginning of the NEPA process to identify potential issues.
- *Technical presentations.* DOE and applicant staff gave presentations to the lead agency to facilitate better understanding of the technical aspects of the proposed action.
- *Standard procedures.* No problems were encountered while following standard EA scoping procedures.

What Didn't Work

- *Defining scope.* Defining the scope of the EIS took a long time.

Data Collection/Analysis

What Worked

- *Good worker input.* Worker input included a survey of approximately 2,800 employees and associates, brown bag seminar participation, and presentations/interaction with advisory groups.
- *Use of data from similar EAs.* This EA utilized analyses included in similar EAs prepared by local, state, and federal agencies.
- *Use of previous resource data.* Resource areas to be analyzed in detail were reduced to only sub-surface resources because a previous EA provided useful data on surface conditions in the project area.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Good document manager.* The document manager was effective in addressing issues in a timely manner.

- *Good communication.* Maintaining good communication and having expeditious reviews of the EA facilitated timely completion of the document.

Factors that Inhibited Timely Completion of Documents

- *Changed approach for NEPA documentation.* Instead of adopting another agency's EA, which was our normal practice, it was decided that we would write our own EA. This process took a little longer than anticipated.
- *Personnel schedules.* The project schedule spanned two holidays and the end of the calendar year. Because many persons were taking time off, special attention to personnel schedules became more important than it would have been under normal conditions.
- *Level of NEPA review uncertain.* Initially, the level of NEPA review needed for the project was uncertain. Project plans were in place well before a final decision regarding the level of NEPA review; therefore, completion of the NEPA process was on the critical path.

Teamwork

Factors that Facilitated Effective Teamwork

- *Close teamwork.* Because the EA was written entirely in-house, and fewer parties were involved, teamwork and the scheduling of tasks/reviews were more efficient.
- *Pre-NEPA meetings.* Meetings between the lead agency and DOE before starting the NEPA process helped to create a cooperative relationship and define clear roles and responsibilities based on expertise.
- *Previous working relationships.* The lead agency NEPA Document Manager personally knew and had previously worked with some of the DOE EA team members.
- *DOE expertise.* DOE defined its expertise to the lead agency early on. Often DOE is viewed as only the

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

funding agency; however, the lead agency's NEPA team was able to benefit from DOE's expertise during the preparation of the EA.

Factors that Didn't Facilitate Effective Teamwork

- *Unexplained delays.* The EIS process was sometimes delayed during field office review with no explanation of any problems/issues being addressed to account for delay.

Process

Successful Aspects of the Public Participation Process

- *Good tribal and state interaction.* Good tribal and state relationships facilitated the preparation of a quality EIS.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Flexible approach.* The selection of a multi-faceted preferred alternative provided management with a flexible approach for addressing its needs.
- *Comprehensive review.* The NEPA process provided comprehensive analyses of the entire site instead of just specific projects.

Agency Planning and Decisionmaking: What Didn't Work

- *Evaluation done before NEPA.* The location and technical aspects of the project were well defined prior to the beginning of the NEPA analysis.

Enhancement/Protection of the Environment

- *Reduced impacts.* The environment was largely protected as a result of this EA process, which facilitated effective siting of the proposed project as well as helped select measures to reduce potential impacts.

Other Issues

Guidance Needs Identified

- *Adoption vs. preparation of NEPA document.* We sought guidance on how to determine whether adoption of a NEPA document or preparation of our own NEPA document was most effective.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decision making.

For the past quarter, in which 2 EA and 1 EIS questionnaire responses were received, 2 respondents rated the NEPA process as "effective;" 1 rated the process as "1."

- A respondent who rated the process as "4" stated that the NEPA process facilitated meaningful interaction among DOE, tribal organizations, and the state.
- A respondent who rated the process as "4" stated that the NEPA process allowed for the selection of a flexible approach for managing a long-term problem.
- A respondent who rated the process as "1" stated that the NEPA process was far from an important planning tool for this project.

LESSONS LEARNED

September 6, 2013; Issue No. 76

Third Quarter FY 2013

10 Years of NEPA Metrics: 2003–2012

The Office of NEPA Policy and Compliance has been tracking completion times and other metrics since 1994. (See related article, page 3, and *Notes on NEPA Metrics*, page 4.) The NEPA Office’s most recent analysis – for calendar years 2003 through 2012 – shows that completion time and cost vary considerably from document to document and often within a single year. However, overall performance, as measured through median values throughout the period, generally appears to have remained stable, notwithstanding a substantial workload.

DOE’s NEPA Workload

The number of EISs, EAs, and categorical exclusion (CX) determinations completed each year is one measure of the Department’s overall NEPA workload. DOE began tracking CX determinations during the study period and has complete data on all 3 levels of NEPA review since 2010. CX determinations dominate in sheer numbers with, for example, about 8,500 completed from 2010 through 2012, compared to 174 EAs and 31 EISs (Figure 1).

The number of NEPA documents completed during 2010 and 2011 was higher than normal because of the American Recovery and Reinvestment Act of 2009 (Recovery Act), which authorized an increase in DOE activities of more than \$30 billion and required most funding decisions to be made within 2 years. (See *LLQR*, December 2011, page 10.) However, the relative distribution of NEPA review types reflects DOE’s typical workload. By 2012, when DOE had finished its NEPA reviews for nearly all Recovery Act projects, CX determinations still accounted for 98 percent of completed reviews. Although CX determinations represent the dominant form of NEPA review, the preparation of EISs and EAs clearly requires the greatest effort.

Another way to measure NEPA workload is cost. EISs account for the largest share by far of DOE’s NEPA

expenditures. From 2003 through 2012, DOE completed 38 EISs for which cost data were applicable at a total contractor cost of about \$220 million (average \$22 million per year). During this same period, DOE completed 250 EAs at a total contractor cost of about \$28 million (average \$2.8 million per year). DOE does not track the cost of CX determinations, which are small. Limited data show that EIS preparation costs are typically a small fraction – well under 1 percent – of total project costs.

Median EIS Completion Time: 29 Months

DOE issued 79 EISs from 2003 through 2012, including 13 EISs that DOE adopted after completion by another

(continued on page 4)

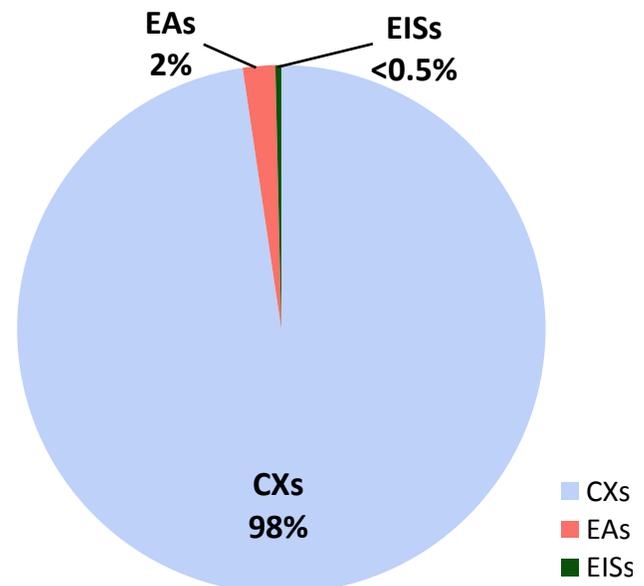
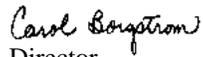


Figure 1: Distribution of Completed DOE NEPA Documents, 2010-2012

Inside Lessons Learned

Welcome to the 76th quarterly report on lessons learned in the NEPA process. This issue features a look at DOE's NEPA performance metrics, including a historical perspective. As DOE NEPA practitioners strive to control time and cost while maintaining quality, this most recent NEPA metrics analysis shows that overall performance generally appears to have remained stable, notwithstanding a substantial workload. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by November 1, 2013, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due November 1, 2013

For NEPA documents completed July 1 through September 30, 2013, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than November 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

DOE-wide NEPA Contracts Update

Current Contracts Extended

The period of performance for the seven DOE-wide NEPA contracts has been extended for 6 months, through June 15, 2014. Task orders under the current DOE-wide contracts need to be issued, but need not be completed, before the expiration date. Additional extensions are not available. (See *LLQR*, [March 2009](#), page 8.)

New Solicitation Being Developed

Contracting staff from the NNSA Contracts and Procurement Division are supporting a team of NEPA Compliance Officers, NEPA Document Managers, and staff from the Office of NEPA Policy and Compliance in planning for the acquisition of future NEPA support services for all DOE elements, including NNSA and the

Federal Energy Regulatory Commission. NNSA issued a sources sought notice on August 19, 2013, as part of the initial market research phase to identify contractors that are capable of providing NEPA support services under General Services Administration (GSA) Schedule 899, Environmental Services. Responses are due by September 9. The notice is available on [FedConnect](#) under reference number DE-SOL-0006109.

The first DOE-wide NEPA contracts were awarded in 1997 as an outcome of DOE's 1996 NEPA Contracting Reform Initiative, which recommended establishing contracts in advance of specific task needs to expedite NEPA document preparation. Since then, DOE has issued approximately 160 tasks valued at \$167 million under three sets of 5-year contracts. 

Historical Perspective on DOE EIS Completion Times

DOE has sought for many years to better understand and reduce the time it takes to complete the NEPA process. Much of this effort is rooted in the 1994 *Secretarial Policy Statement on the National Environmental Policy Act* (NEPA Policy Statement), which included a number of measures later incorporated in DOE Order 451.1B, *NEPA Compliance Program*.

A key responsibility for all participants is to control the cost and time for the NEPA process while maintaining its quality.

– DOE Order 451.1B, NEPA Compliance Program

A major focus of the NEPA Policy Statement was streamlining the NEPA process to reduce time and cost while ensuring quality. It set an EIS completion time goal of 15 months and directed measures (text box, page 7) intended to help meet that goal. The NEPA Policy Statement also established a lessons learned program. *Lessons Learned Quarterly Report (LLQR)* plays a key

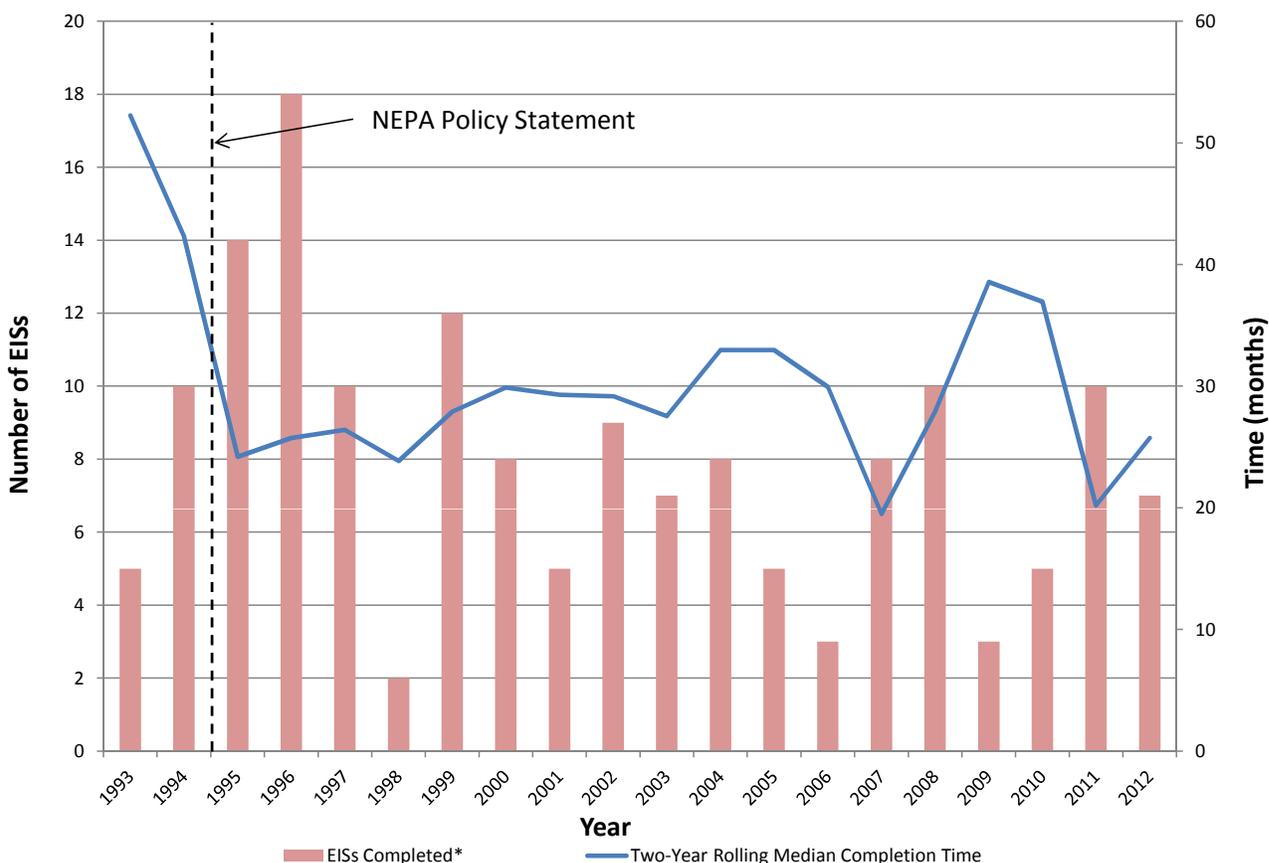
role in this program by publicly reporting completion time data, analyses of trends and factors that affect the length of the NEPA process, and best practices for NEPA practitioners.

The NEPA Office issued the first *LLQR* in December 1994, and began tracking NEPA completion time trends and other NEPA process metrics. To gain perspective on EIS completion times, the NEPA Office examined the 15 EISs completed just before issuance of the NEPA Policy Statement. The median completion time for these mostly project-specific EISs was 33 months (*LLQR*, June 1997, page 16).

The NEPA Office then studied a cohort of EISs (1994 cohort) initiated after issuance of the NEPA Policy Statement. Documents started before but completed after issuance of the NEPA Policy Statement were not included. The median completion time for 20 EISs started between July 1994 and March 1997 was 21 months (19 months for 11 project-specific EISs and 22 months

(continued on page 7)

Median EIS Completion Times, 1993-2012*



* Does not include adopted EISs; completion time values represent EISs completed during the 2-year period ending on December 31 of the indicated year.

DOE NEPA Metrics, 2003–2012

(continued from page 1)

federal agency (Figure 2). The low for the period was 3 EISs completed in 2006, and the high was 11 EISs in both 2010 and 2011. Figure 3 presents the distribution of completion times for 66 EISs completed during this period for which time data are applicable. Thirteen adopted EISs are not included in these calculations because DOE does not control the schedule when it is not the lead agency.

Completion time is calculated from publication of DOE’s notice of intent to publication of the Environmental Protection Agency’s (EPA’s) notice of availability of the final EIS. The median completion time for these documents was 29 months; the average was 33 months. Median completion times were less for project-specific EISs (26 months) than for programmatic and site-wide EISs (41 months). Median EIS completion times have

been stable during the past 10 years with no discernible trend over time.

After completing an EIS, agencies must issue a record of decision (ROD) before taking action. A ROD generally may be issued no sooner than 30 days after EPA publishes a notice of availability of the final EIS (40 CFR 1506.10). Figure 4 (page 5) summarizes ROD issuance times for 79 EISs (including adopted EISs) completed from 2003 through 2012. ROD issuance times are measured from the publication of EPA’s notice of availability, or notice of adoption, of the final EIS to publication of DOE’s ROD. (If more than one ROD was issued, the issuance time is measured to the first ROD.)

During this period, DOE issued 28 percent of the RODs in less than 2 months, and issued 50 percent of the RODs

(continued on page 5)

Figure 2: EISs Completed, 2003–2012

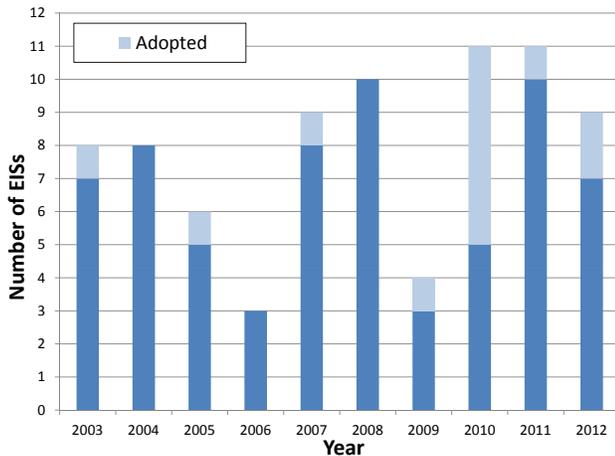
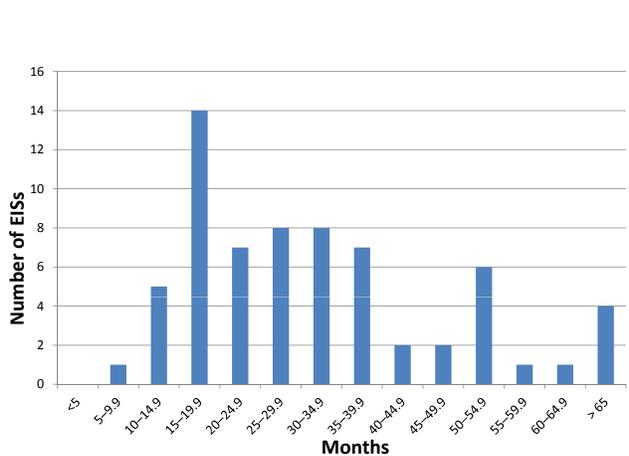


Figure 3: EIS Completion Times, 2003–2012



Notes on NEPA Metrics

Since 1994, the NEPA Office has solicited comments from NEPA Compliance Officers, NEPA Document Managers, and other involved persons on lessons learned for each completed EIS and EA. The NEPA Office tracks and reports periodically on NEPA process performance metrics, including completion time, cost, and measures of effectiveness. The NEPA Office analyzes trends to assess the Department’s progress and recommends ways to foster improvement. Past analyses of trends in metrics data are reported in *LLQR*, including for the periods: 1994–1997 (March 1998, page 17 and June 1999, page 19), 1994–2003 (September 2003, page 4), 1996–2005 (March 2006, page 32), 1997–2007 (June 2007, page 28), 1998–2007 (December 2008, page 16) and 2001–2010 (September 2011, page 1).

Completion time for EISs is measured from DOE’s publication of the notice of intent to prepare an EIS to EPA’s publication of the notice of availability of the final EIS. EA completion time is measured from the EA determination date to EA approval. Completion time data are not reported for adopted documents.

Costs reflect contractor costs to prepare a document that would not be incurred but for the NEPA process; federal staff time associated with contractor-prepared and adopted documents is not tracked. Cost data are not reported for adopted or applicant-paid documents.

DOE began systematically tracking CX determinations in November 2009, when DOE’s policy to post CX determinations online became effective (*LLQR*, December 2009, page 1). Cost and completion time data for CX determinations are not tracked.

DOE NEPA Metrics, 2003–2012

(continued from page 4)

within 3 months. Program office staff have noted that factors unrelated to the NEPA process, such as financing and other project uncertainties, influence the timing of the issuance of RODs. After completion of some EISs, DOE does not issue a ROD, for example because the proposed project is cancelled.

Median EIS Costs Stable

EIS costs have been stable during the past 10 years with no discernible trend over time. The median and average contractor cost per EIS was \$1.4 million and \$5.8 million, respectively. Most of the difference between the median and average cost is attributable to a very few documents with unusually high costs. As is the case with average completion time, data on average EIS costs should be interpreted cautiously in view of the relatively small number of EISs and the influence that a single extraordinary document can have on the average. Cost as well as completion time metrics are summarized in Table 1. Figure 5 provides further information on the distribution of EIS costs.

EA Completion Time and Cost

Completion time and cost metrics for EAs issued from 2003 through 2012 also are summarized in Table 1.

From 2003 through 2009, DOE completed about 25 EAs per year on average (Figure 6, page 6). The number of EA completions doubled in 2010, when about two-thirds of the EAs (52 of 78 documents) issued were for projects funded by the Recovery Act, and EA completions remained high in 2011, when about half (37 of 70 documents) were for Recovery Act projects. The completion rate then dropped to historical levels. In 2012, DOE completed 26 EAs, including 2 for Recovery Act projects.

Figure 7 presents the distribution of completion times for 316 EAs, for which DOE was the lead agency, completed from 2003 through 2012. The median and average completion times were 9 months and 13 months, respectively; the range was 5 weeks to 97 months.

Figure 8 presents the distribution of contractor costs for 250 EAs completed from 2003 through 2012 for which cost data are applicable. The median and average costs
(continued on page 6)

Figure 4: Time from Final EIS to ROD, 2003–2012

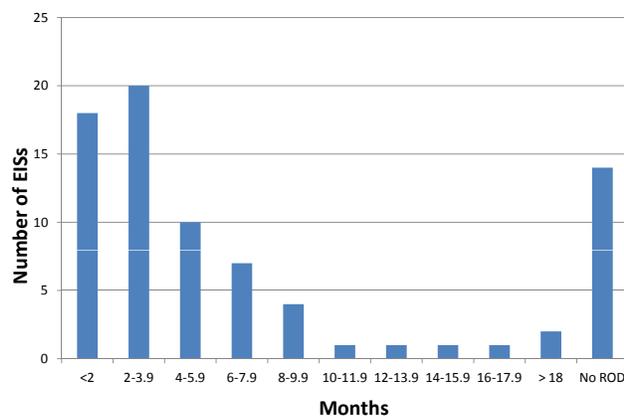


Figure 5: EIS Costs, 2003–2012

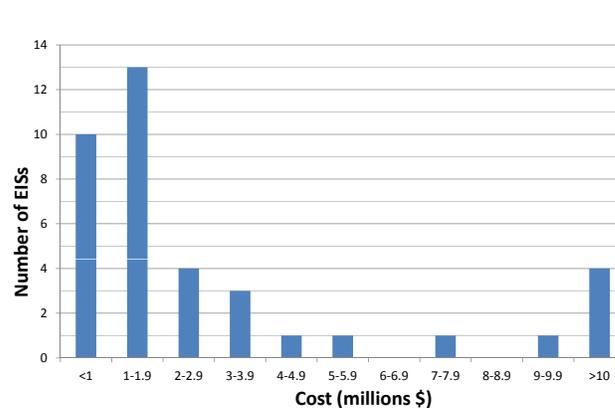


Table 1 – EIS and EA Completion Time and Cost, 2003–2012

Document Type (#)	Completion Time (months)				Cost (thousands \$)			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Programmatic/ Site-wide EISs (11)	45	41	21	101	4,840	2,200	56	17,300
Project-specific EISs (68)	30	26	10	84	6,020	1,350	320	85,000
All EISs (79) ¹	33	29	10	101	5,800	1,390	56	85,000
All EAs (344) ²	13	9	1.2	97	110	60	3	1,230

¹ The 79 EISs include adopted and applicant-paid documents. Completion time data reflect 66 EISs for which DOE was the lead agency. Cost data reflect contractor costs for 38 EISs for which DOE was the lead agency and that were not paid for by applicants.

² The 344 EAs include adopted and applicant-paid documents. Completion time data reflect 316 EAs for which DOE was the lead agency. Cost data reflect contractor costs for 250 EAs for which DOE was the lead agency and that were not paid for by applicants.

DOE NEPA Metrics, 2003–2012

(continued from page 5)

were \$60,000 and \$110,000, respectively; the range was \$3,000 to \$1.23 million.

While EA metrics have been generally stable over the past 10 years, the median cost and time to complete EAs decreased substantially in 2009 through 2011, even though the EA workload doubled. The improved performance is attributable to EAs for Recovery Act projects. The respective median time and cost to prepare Recovery Act EAs (6 months and \$44,000) are about 40 percent lower than corresponding metrics for non-Recovery Act EAs. (See *LLQR*, September 2011, page 1.) Metrics for post-Recovery Act EAs, however, appear to be in line with historical norms for non-Recovery Act EAs. For example, in 2012, when only 2 of 26 EAs were for Recovery Act projects, the respective median time and cost for those documents for which these metrics are applicable were 11.5 months and \$95,000.

NEPA Process Rated Effective

Measures of effectiveness remained positive for EAs and EISs completed from 2003 through 2012. During this period, about 75 percent of Lessons Learned Questionnaire respondents rated the NEPA process as “effective;” in the past 2 calendar years, 94 percent of respondents rated the NEPA process as “effective.” Respondents continue to note many examples of how the NEPA process helped to enhance or protect the environment and enable informed decisions. (See *What Worked and Didn’t Work*, page 20, and *LLQR*, March 2013, page 1.)

For further information on DOE’s NEPA metrics, contact Eric Cohen, Unit Leader, NEPA Office, at eric.cohen@hq.doe.gov. 

Figure 6: EAs Completed, 2003–2012

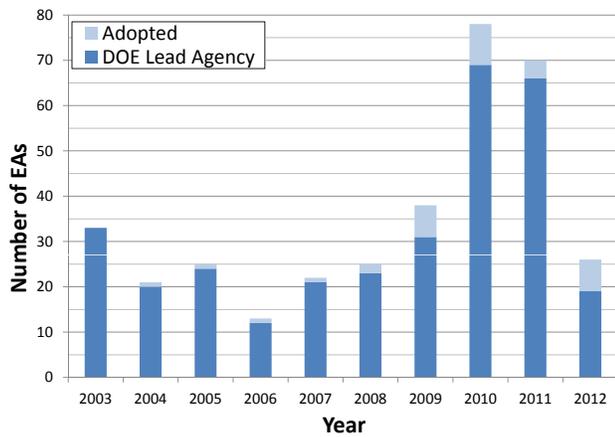


Figure 7: EA Completion Times, 2003–2012

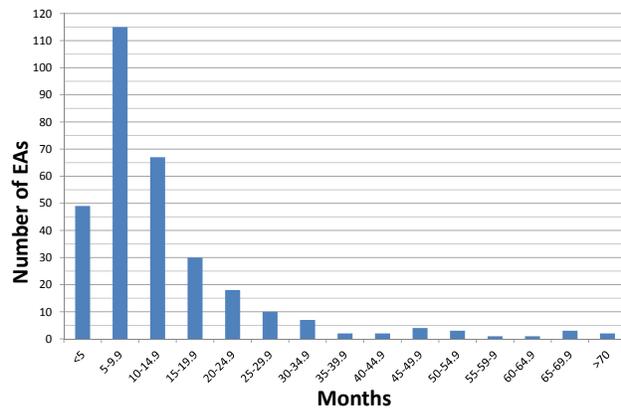
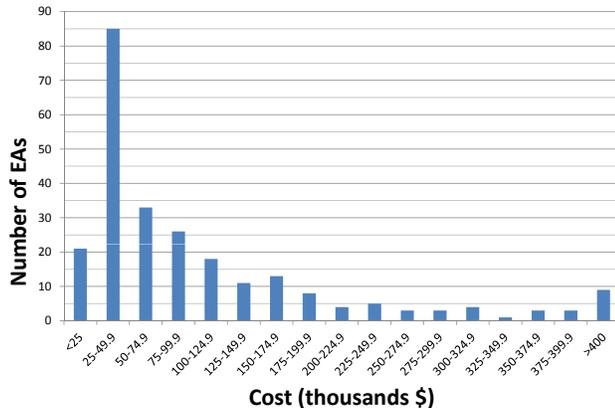


Figure 8: EA Costs, 2003–2012



Historical Perspective

(continued from page 3)

for 9 programmatic/site-wide EISs), a statistically significant improvement¹ (*LLQR*, June 1999, page 19). That improvement likely can be attributed to the policy measures.

The NEPA Office later examined a second cohort (1997 cohort) of 20 EISs started between April 1997 and March 1999. The median completion time for the 1997 cohort was 29 months, which represents a notable slippage from the 1994 cohort, though completion times remained less than those for documents prepared prior to the NEPA Policy Statement.

Since 1999, median completion times remained essentially unchanged, as indicated in the graph (page 3). Time series trends for DOE EIS completion times, such as in the graph, must be interpreted cautiously in view of the relatively few documents completed each year and the wide variation in completion times. Examining groups of EISs over long periods of time confirms the trend. *LLQR* has reported on EISs completed during long time periods, typically 10 years. For example, the median completion time for EISs completed in the most recent 10-year period, from 2003 through 2012, is 29 months.

Reasons for the slippage in median completion time from 21 to 29 months between the 1994 and 1997 cohorts, and the subsequent maintenance of about a 29-month median, are not clear. Information in *LLQR* and feedback from NEPA Compliance Officers and NEPA Document Managers in the 1990s suggest greater senior management attention was paid to EIS schedules immediately after

1994 Secretarial Policy Statement on NEPA

Emphasized the importance of:

- Senior management attention
- Teamwork
- EIS schedules
- Integrating NEPA and project planning

Streamlining measures included, among other things:

- Designation of NEPA Document Managers
- Establishing inter-office document preparation teams
- Conducting early internal scoping
- Reducing document review cycles
- Developing guidance and training

issuance of the NEPA Policy Statement than was paid to documents started later on. Similarly, management attention was identified as a key factor contributing to a notable decrease in time to complete Recovery Act EAs relative to non-Recovery Act EAs (related article, page 1; *LLQR*, September 2011, page 1).

These data show that it may be possible to reduce EIS completion times by focusing on the measures that were implemented successfully for a period of time after issuance of the 1994 NEPA Policy Statement. For further information on NEPA process metrics, contact Eric Cohen, Unit Leader, NEPA Office, at eric.cohen@hq.doe.gov. 

The most important step to reduce NEPA document preparation and review time is to actively involve senior management in the NEPA process; i.e., to obtain the decision maker's commitment and attention. Other useful measures include early planning, internal scoping, aggressive contract management, and use of a team approach.

– Questions and Answers
on the Secretarial Policy Statement on NEPA, 1994

¹ Statistical tests (modified t-test confirmed by nonparametric analysis) provide greater than 95 percent confidence that the 1994 cohort was a faster-completed population than the 15 EISs completed just before the NEPA Policy Statement was issued.

Identifying and Responding to Comments: A Critical Part of Preparing the Final EIS

One of the biggest challenges in preparing a final EIS is responding to public comments in an efficient and effective manner. DOE often receives hundreds, and sometimes thousands, of comments on draft EISs from a wide variety of individuals and organizations. Some comments simply express support for or opposition to the proposed action. Other comments raise questions about the range of alternatives or EIS analyses. Successfully managing both the volume and varied nature of public comments is an important part of preparing a final EIS and supporting better informed decisions.

The Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1503.4) require an agency to assess and consider comments both individually and collectively and to attach all substantive comments (or summaries, if exceptionally voluminous) to the final EIS. Below are some challenges that a NEPA Document Manager may encounter when managing public comments and some best practices for addressing them.

Identify Comments

Early and accurate identification of comments is important. Determining what constitutes a comment requires judgment. To understand the overall intent and perspective, it is necessary to read an entire comment document before identifying individual comments, according to DOE's guidance on *The EIS Comment-Response Process*. Comment documents must be reviewed in their entirety to help avoid two types of potential errors: (1) splitting a comment document too finely so that the commentator's broader meaning is lost, and (2) "lumping" so much into a single comment that it overlooks the commentator's distinct points.

An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively

– CEQ NEPA Regulations, 40 CFR 1503.4(a)

It may be necessary to revisit and reevaluate comments and categories during the development of responses and the final EIS, particularly if aspects of the EIS change. DOE's EIS comment-response guidance cautions that "it can be very time-consuming and difficult to redo an incompletely thought-out first attempt at identifying comments" and recommends that a small group of experienced NEPA practitioners and subject matter experts from the EIS preparation team, led by the NEPA Document Manager, develop the overall approach to identifying, tracking, and categorizing comments.

Failure to identify specific comments within a comment document can result in delays when such comments are later identified, or give rise to concerns that DOE did not adequately consider the comments. If comment documents are reproduced in the final EIS with comments identified by "side-bars," absence of a side-bar may indicate that a comment was not adequately considered.

Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.

– CEQ NEPA Regulations, 40 CFR 1500.1(b)

Determine How To Respond

The CEQ NEPA regulations state that possible responses to comments are to:

- (1) modify alternatives including the proposed action;
- (2) develop and evaluate alternatives not previously given serious consideration by the agency;
- (3) supplement, improve, or modify the analyses;
- (4) make factual corrections; or
- (5) explain why the comments do not warrant further agency response (40 CFR 1503.4).

CEQ's "40 Questions" says "in addition, the agency must state what its response was, and if . . . no substantive response . . . is necessary, it must explain briefly why" (Question 29a). DOE's EIS comment-response guidance explains that, among other things, a well-written response "[s]ummarizes revisions to the EIS that resulted from the comment and specifically identifies modified sections of the EIS."

When To Respond Individually

Responding to comments individually (i.e., responding to each specific comment, rather than binning similar comments into topic summaries and responding collectively) is a good way to ensure that each comment is responded to. In addition, it makes it easy for commentators to find the response to their particular comments.

To avoid repeating responses many times or extensive cross-referencing to the same responses, consider responding to comments individually when DOE receives a small number of comments or the comments generally are on different topics. If DOE decides to respond individually to comments outside of those circumstances, keep in mind that it may make changing responses

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Responding to Comments

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difficult, as one change to a response would have “ripple effects” to many (sometimes hundreds) other similar responses.

When To Use Summary Comments

Summarizing and responding to comments collectively can be an efficient method of responding. Well-developed “summary” responses that have been coordinated with technical and policy experts can streamline the overall comment response process. This method facilitates consistency and helps readers find comments and responses by topics. When preparing a summary comment and then responding to it, reference all comment documents and comments on which the summary is based, recommends DOE’s EIS comment-response guidance. Under this approach, the guidance cautions that great care must be taken so that the summary comment matches the substance and tone of all comments covered.

CEQ recommends summaries of comments and responses if comments are especially voluminous (*Forty Most Asked Questions*, Question 25A). Similarly, DOE’s guidance suggests that repeated similar comments may “reflect broad interest in the topic and may indicate controversy or misunderstanding on the part of commentors.” Such a scenario may point to the need to provide a summary comment and consolidated response, advises the guidance.

A Hybrid Approach

Consider a hybrid approach that involves developing a subsection containing the key/primary comments and responses (e.g., “topics of interest”), particularly for those presenting major themes, at the beginning of an EIS’s comment-response section (before responses to individual comments). (See Attachment 3 of the DOE guidance for a notable example.) Text from the up-front summary response can be used in responding to individual comments. It is important to do so carefully (i.e., it’s more than a “cut-and-paste” exercise) to ensure responsiveness

to individual comments. Alternatively, instead of simply repeating the summary response text, individual comment responses could refer back (cross-reference) to the summary comment, providing new text only as needed to respond to any nuances or unique specific points in the individual comment.

Recently, the State Department received 1.2 million public comments on its Draft Keystone XL Supplemental EIS. In 2008, DOE’s Complex Transformation Draft Supplemental Programmatic EIS garnered more than 100,000 commentors that included 81,000 campaign comments. (See *LLQR*, June 2008, page 17.) To effectively organize the volume of comments and aid location of individual comments, DOE’s guidance recommends use of a “Location Guide” that aids readers in finding their individual comments and DOE’s responses. (See Attachment 3 of the guidance.) DOE’s guidance also recommends use of an index – an alphabetized list of commentors’ names or comment topics with information on where to find the comment document and DOE responses to the comment(s) therein.

Regarding public hearing comments, which are typically presented orally before a court reporter, DOE’s comment-response guidance advises that oral and written comments should be treated equally and cautions against double counting comments (as oral comments are often submitted in writing subsequent to or at the public hearing). DOE’s guidance recommends preparation of a transcript from each public hearing to provide an accurate and complete record of what was said.

Ultimately, NEPA Document Managers should tailor their approach to fit the individual circumstances presented by their EISs, “taking into account the complexity of the issues presented and the number of comments received,” advises DOE’s EIS comment-response guidance. For additional information, see DOE’s [comment-response guidance](#) on the DOE NEPA Website. 

An agency’s focus in preparing the final EIS [runs from the] receipt and consideration of comments through the preparation of responses and any eeded revisions to the EIS. . . . The comment-response process helps DOE make better-informed decisions

– DOE EIS Comment-Response Process Guidance

NEPA Document Manager As Contracting Officer's Representative: It Makes Good Sense

When relying on contractor support to help prepare NEPA documents, effective technical direction of the contractor is essential to success. Without proper technical direction, a contractor is unlikely to provide the desired high-quality deliverable, on time and within budget. Thus, it makes good sense to consider having the DOE NEPA Document Manager serve as the contracting officer's representative (COR).

If [an EIS] is prepared by contract, the responsible federal official shall furnish guidance and participate in the preparation and shall independently evaluate the statement prior to its approval and take responsibility for its scope and contents.

– 40 CFR 1506.5(c)

Under the Federal Acquisition Regulations (FAR 1.602-2(d)), the contracting officer (CO), at his/her discretion, may appoint someone to represent him/her to serve as the CO's "eyes and ears" during contract performance. The Contracting Officer's Representative (COR) appointment memorandum typically authorizes the COR to provide technical direction to the contractor, evaluate deliverables, and serve as a liaison between the requiring office (e.g., office preparing the NEPA document), the CO, and the contractor. The COR may not take any actions as the CO's representative beyond what is delegated to him/her in the COR appointment memorandum.

The DOE NEPA Document Manager's responsibilities with respect to contractors closely match those of the

COR. The most logical candidate for COR, therefore, is usually the NEPA Document Manager. If that is not possible, then the NEPA Document Manager must maintain a close working relationship with the COR. This is necessary, among other reasons, to ensure that the technical direction provided by the COR to the contractor is accurate and timely. Per FAR 1.602-2(d)(2), the COR's duties are not redelegable.

The NEPA Document Manager is responsible for coordination of all the organizations that contribute to preparation of an EIS. For most EISs, the support contractor is a critical element of the process. Therefore, it only makes sense that the document manager is in a position to directly oversee the support contractor – as COR.

– Drew Grainger, NEPA Compliance Officer
Savannah River Operations Office

COR Requirements

Amendments to the Office of Federal Procurement Policy Act established the Federal Acquisition Certification for Contracting Officer's Representatives (FAC-COR), requiring CORs across the government to meet specific training and experience standards corresponding to three levels of increasing contract risk and complexity. Requirements are the same for all parts of DOE, including the National Nuclear Security Administration (NNSA). A candidate COR must be a federal employee and

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Responsibilities Related to Contractor Support

Contracting Officer's Representative

- Be familiar with contract requirements
- Provide technical direction
- Inspect and accept deliverables
- Recommend contract changes to the contracting officer
- Monitor and evaluate contractor performance
- Review and approve invoices
- Keep records of matters dealing with contract performance
- Fulfill any other duties set forth in the COR appointment memorandum

NEPA Document Manager

- Maintain tracking systems to monitor costs of and adherence to the NEPA schedule
- Manage the document preparation process, including reviewing internal drafts for technical adequacy, controlling cost, and maintaining schedule
- Evaluate any support contractor's performance for timeliness, quality, cost-effectiveness, responsiveness, and application of requirements and guidance. (If the NEPA Document Manager is not the COR, then the document manager should provide information to the COR, who is responsible for monitoring and evaluating the contractor's performance.)

Eating the NEPA Elephant

By: Cliff Whyte, Director, Environmental Compliance Division
National Energy Technology Laboratory

Managing the NEPA process can be a daunting task. Large EISs can seem particularly ominous, especially when they involve controversial or high profile activities. How can I facilitate a process that requires balancing schedule, data needs, cost, public input, project revisions, meaningful analyses, tribal interests, management reviews, needs of other federal agencies, local politics, applicant constraints, and a host of other factors? NEPA Document Managers can feel like they are trying to eat the proverbial elephant.

Challenging times are great teachers, and when the dust begins to settle, we have a chance to examine the “chutes and ladders” of the NEPA process. Besides, in the words of Henry Drummond, “Unless a man undertakes more than he possibly can do, he will never do all that he can.” The National Energy Technology Laboratory (NETL) has been concurrently managing four EISs that came to critical stages during the first half of 2013. The NEPA reviews for these clean coal projects, in addition to the continuing EA and categorical exclusion work, affectionately became known at NETL as “NEPA-geddon.”

NETL’s Environmental Compliance Division managed to eat this elephant by taking one bite at a time. We found that some bites required more chewing than others and some bites required copious amounts of seasoning to be palatable at all. Survival during this time was largely tied to the appropriate mindset.

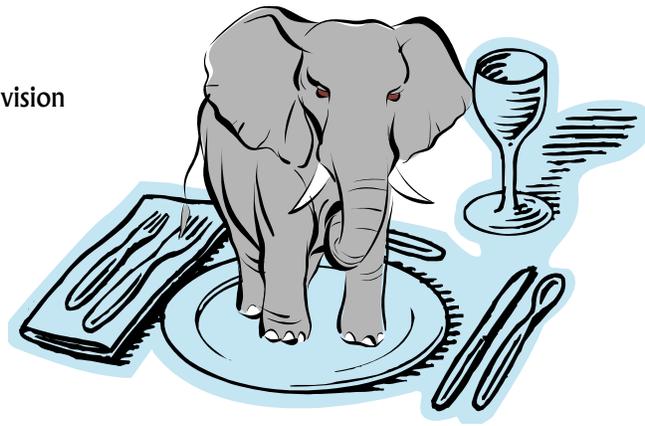
We don’t get paid to produce documents. We get paid to think, communicate, and act. You might want to read the previous two sentences again.

– Cliff Whyte

As NEPA practitioners know, NEPA is not a checklist, stack of documents, or recipe in a cookbook. Each project and the people associated with it are unique. Finding the most efficient path that leads to fair and reasonable implementation of both the letter and spirit of the law requires thought and creativity. That mindset, above all else, has been a great asset for NETL during NEPA-geddon.

Following are some thoughts that relate to managing the NEPA process.

Federal Project Managers – Meet your new best friends. Federal Project Managers are experts on the technologies and programs at the core of the project. Have them explain the technologies to you early and often, or provide someone who can. The better you understand their work, the more effective you can be. Also, when you explain the NEPA process and they begin to hyperventilate, please let



them know that you are the NEPA expert and you don’t expect them to become one.

NEPA Contractors – We are going fast, but where are we going? Even the best NEPA contractor can’t be effective without clear direction. Be realistic and honest about the challenges. Resist the urge to micromanage and let their expertise work for you. While it is critical to stay informed and in touch, you don’t want them spending 50 percent of their time preparing for status phone calls with you. Contractors with DOE NEPA experience generally know the game well. We all have pet peeves and preferences. Don’t be afraid to express what yours are early on. Adjust the frequency of meetings and conference calls as the project evolves. If meetings are not productive, it is your job to figure out why and correct it.

Today’s Project – The same as tomorrow’s project . . . we hope. Be certain to explain early in the process how design changes will impact the NEPA schedule. You should repeat this often and use examples to make your point. Participants may not consider potential issues like the need for seasonal field work for cultural resources, endangered species, or critical habitat when they change the footprint of the project. They need to make informed decisions the same way we do. They must understand what kinds of project changes would likely cause the NEPA Document Manager to reach for a glycerin pill.

Public Meetings – Faces and names. Make an effort to speak with everyone who attends. Remember that you are the host and try to personally greet and introduce yourself as people arrive. Spend the most time with those who are opposed to the project and listen. Introduce them to the project experts who would best be able to answer their particular questions. You certainly won’t make everyone happy, but many people will appreciate your investment of time in their thoughts and concerns.

Critical Resources – My time is important, too. In most cases, there will be a handful of resource areas that are most likely to be controversial, high profile, or sensitive. Identify those and write them on the front of your notebook or file. While you must be sure all relevant

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Eating the NEPA Elephant

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resources are addressed, you should maintain focus on what is most important. Resist the temptation to spend the most time on the topics that interest you. We tend to manage what we know. Invest time in what is most important to the success of the NEPA process. If you need subject matter expertise, it is generally close at hand. Ask for help when you need it!

Reviewing the Reviewers – Focus each reviewer on what your expectation is for them. Too often we tend to throw a document on someone’s desk and say, “I need your comments by the end of the week.” Instead, spend a few minutes talking about what you are looking for in their review. For instance, you might tell the Federal Project Manager that you want them to critically review the proposed action and affected environment. While you will take any comments they can give you, they should focus on certain critical chapters or sections. Likewise, you may ask other reviewers to focus on format and readability. Your administrative assistant may not be able to point out errors in the integrated gasification combined cycle power plant description, but they can likely tell you very quickly that you have used six different verb tenses in the first paragraph, or that the text is too heavy in technical jargon to make any sense.

Comments About Comments – Not all comments should be treated as the Dead Sea Scrolls. Read all comments and spend some time considering them. Ask questions of the source, if necessary. Comments such as “this needs more” are not generally helpful. Ask reviewers to make edits in “track changes” in the document, but to keep a separate page of general thoughts. For instance, a grammatical change can quickly be made in the document via track changes. A separate comment might be that the Summary



Cliff Whyte speaks at the FutureGen 2.0 draft EIS hearing in Jacksonville, Illinois. FutureGen 2.0 was one of the major NEPA projects that Mr. Whyte and the team at NETL managed in bite-size chunks. Photo courtesy of FutureGen Industrial Alliance.

doesn’t provide enough detail about why certain impacts are significant. This facilitates quick basic editing and the ability to provide separate comments to the appropriate sources without them getting lost in a sea of other comments. Some comments and suggestions are not worth pursuing. Mindlessly accepting everyone else’s revisions might create more problems than it solves. Consider the source’s area of expertise and remember that your name is on this document when it gets published.

Schedules – Here is a schedule for the schedule. In some cases, it may be appropriate to consider incremental NEPA schedules. It is impossible to predict the nature and volume of the comments you are going to receive during scoping and during the draft process. As you must consider those in the next phase of the NEPA process, you may hesitate to give firm dates for milestones too far in advance. When you do project schedules, be realistic. Consider the variables and be reasonable. Projecting two weeks for someone to review an EIS may be aggressive. If those two weeks coincide with Christmas and New Year’s Day, you will not be getting many “Happy Holidays” from reviewers. Caveat your schedules to reflect variables such as anticipated public comments and the controversial nature of some projects. Schedules can and will change, but set the bar of expectations appropriately from the beginning and be flexible.

Manage the People and the Project Will Follow – While we must plan our work and then work our plan, we must also realize that our NEPA process is the culmination of the work of many people. Much of it is out of our control. That means success is tied to interaction with others. Focus on the people. Provide advanced notice whenever you can and do so via the telephone. A phone call holds more value than a global email. Keep communications professional, brief, and direct. Be certain you value the time of others. Promptly return phone calls and let people know when you are going to be out of the office.

In summary, it is our ability to think, communicate, and act that has the most significant impact on the NEPA process (pun intended). Every project is different and we need to accept that to be successful. The most effective tool we have is the grey matter between our ears. Speaking thereof, I should wrap this up as I’m sure you need to attend to your own elephant. **Bon appétit!** ☐☐

Editor’s note: The NEPA Office thanks Cliff for his practical and humorous advice, as well as for the hard work he and others at NETL do to implement a successful NEPA program. NETL’s NEPA workload, which increased significantly as it provided support for several major Recovery Act projects, has remained high during the concurrent preparation of four EISs for clean coal technology projects, including a draft EIS for the proposed FutureGen 2.0 project. The Environmental Protection Agency (EPA) gave that draft EIS an LO (Lack of Objections) rating, something fewer than 20 percent of EISs receive. (See the table of EPA ratings on page 18.)

ARPA-E Conducts Web-based Public Scoping Meeting

To enhance the public scoping process for the Engineered High Energy Crop (EHEC) Programs Programmatic Environmental Impact Statement (PEIS), the Advanced Research Projects Agency-Energy (ARPA-E) recently conducted a web-based public scoping meeting. Although DOE has transmitted video and audio feeds of public meetings in the past, ARPA-E's web-based meeting was the first that DOE conducted for an EIS in which people unable to attend in-person meetings could actively participate. This experience demonstrated an emerging way to foster public participation in the NEPA process.

"Web-based meetings offer a cost-effective way to supplement in-person meetings or hearings for NEPA reviews, especially for those projects with regional or national scope such as this one," said Jeff Dorman, Office of NEPA Policy and Compliance (currently on detail to ARPA-E). The web-based meeting held on July 17 supplemented three in-person scoping meetings that ARPA-E had conducted in Kentucky, Mississippi, and North Carolina over a 3-day period in July. This web-based meeting enabled ARPA-E to reach out to interested parties throughout the southeastern U.S., the region where the actions analyzed in the PEIS would occur, as well as to others nationwide.

Notice and Registration

ARPA-E announced the web-based meeting in the Notice of Intent and on the [PEIS website](#). Information about the meeting was also posted on the DOE NEPA Website [Public Comment Opportunities](#) page. These announcements provided instructions and encouraged people to register in advance. Twenty-three people registered for the meeting. Sixteen logged in, and three of them provided comments during the meeting.

From the PEIS website, participants could register for the web-based meeting at any time by providing a name and an email address. The registration screen provided options for participants to indicate their affiliation and if they wished to provide comments or just listen to the presentation and other participants. Those wishing to comment were advised that the webinar software would be used to record the meeting; participants that did not consent to being recorded were advised to discuss any concerns with the host (no such concerns were raised).

After registering, people received a prompt email confirmation with a meeting link and password; no registration identification was required. On the day of the meeting, another email was sent at approximately noon to remind participants of the meeting start time (3:00 p.m.)

that included log-in instructions. For those using Microsoft Outlook, a calendar invitation was sent and participants received a reminder 15 minutes before the meeting.

Meeting Logistics

Participants were advised to log-in to the meeting about 10 minutes early to avoid missing any of the discussion. This enabled adequate time for people first accessing the meeting webpage to enter their password and enable a plug-in to allow the webinar software to run on their computers. "For future meetings, telling people about the potential need to enable a plug-in may be advisable," said Mr. Dorman. Once connected, the desktop view of one of the meeting's hosts was displayed in a window along with an audio broadcast.

The meeting started promptly at 3:00 p.m. with Mr. Dorman, the meeting facilitator, greeting participants via the audio broadcast. The facilitator explained meeting logistics with the initial slide, including that participants would be muted throughout a presentation about the PEIS by Dr. Jonathan Burbaum, the ARPA-E Program Director for the Plants Engineered to Replace Oil (PETRO) Program and NEPA Document Manager for the EHEC Programs PEIS.

ARPA-E staff could view the names of meeting participants, but to ensure privacy, the participants could only see the names of the panel members and their own name. Participants could ask questions or chat with the host privately through a dialog box. The audio and visual aspects of the meeting ran separately, and participants could run one without the other. ARPA-E displayed slides visually, but chose not to display live video of DOE staff or the participant speakers.

Following the initial DOE presentation, the public comment portion of the meeting began with a reminder of comment options: participants could comment verbally during the meeting, or in writing via email, postal mail (addresses were shown on the screen), or an online comment form on the PEIS website. After reminding participants that personally identifiable information will become part of the administrative record and could be made public, the facilitator called on speakers in the order that they had registered. After being called, speakers were instructed to click the "raise your hand" icon when they were ready to speak; the facilitator would then un-mute the speaker so that all participants could hear the phoned-in comments. Participants who had not pre-registered, but decided to speak during the meeting, could do so by clicking a "request phone" icon, and some participants

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ARPA-E Web-based Scoping Meeting

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chose to do so. The technology worked well with only a minor issue for the first speaker, who needed assistance to be un-muted, observed Mr. Dorman. After the meeting concluded at 5:00 p.m., participants received an email thanking them for their input and participation.

ARPA-E expects to use this method again for the draft PEIS hearings. Requests for further information about the web-based meeting technology may be directed to jeffrey.dorman@hq.doe.gov. For further information about the EHEC PEIS, visit the [PEIS website](#). 

ARPA-E's Engineered High Energy Crop Programs Programmatic EIS

DOE's proposed action is to implement one or more programs to catalyze the development and demonstration of engineered high-energy crops (EHECs). EHECs are agriculturally-viable photosynthetic species containing genetic material that has been intentionally introduced through processes that do not occur in nature without human intervention. The proposed programs aim to deploy EHECs that produce more energy per acre and produce fuel molecules that require little or no processing prior to being introduced into existing energy infrastructure (e.g., refineries, pipelines, and vehicles), thus enabling agriculturally-derived fuels that are cost-competitive with petroleum-based fuels. These programs would meet ARPA-E's mission to explore market-transforming technologies as part of DOE's mission to promote U.S. energy security.

A main component of the programs would be to provide financial assistance to funding recipients (such as research institutions, independent contract growers, or commercial entities) for confined field trials. Field trials would be conducted at a range of scales only after obtaining regulatory permits that identify procedures to prevent the unintentional spread and establishment of the crop. Examples of EHECs that may be used in confined field trials include, but are not limited to, crops being investigated under ARPA-E's Plants Engineered to Replace Oil (PETRO) program, such as engineered varieties of camelina, loblolly pine, tobacco, giant cane, sugarcane, miscanthus, sorghum, and switchgrass. The proposed geographic scope of the PEIS is the southeastern United States—Alabama, Florida (excluding the Everglades/Southern Florida coastal plain ecoregion), Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

Geographic Scope

- Southeastern United States to include: Alabama, Florida (excluding the Everglades/Southern Florida coastal plain ecoregion), Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia
 - Ideal climate and agricultural conditions to cultivate EHECs
- DOE is proposing to use the EPA's Level II ecoregions to assess common and different potential impacts of the Proposed Action



A Summer with NEPA

The Office of NEPA Policy and Compliance was fortunate to have three outstanding interns assisting the staff this summer. We asked them to share their thoughts on their pathways to joining us this summer, their experiences in the NEPA Office, and their future plans.

Kathryn Gallagher, a rising junior at the University of Michigan, is majoring in Earth and Environmental Sciences.

From elementary school to college, the frequently-asked question is, “What do you want to do when you grow up?” My response always was, and remains, “Work for the environment.” I was one of those kids who loved animals and tried to conserve natural resources. My passion has only grown since then. I know my area of interest, but the hard part is finding out how to get there and what path to take.

By studying environmental science and assisting a professor in a geomicrobiology laboratory at the University of Michigan, I developed skills needed to pursue an environmental career and got a taste of the variety of jobs in academic research. A logical next step was to learn about protecting the environment from a different point of view through policy and regulation.

My first day on the job at the NEPA Office was an introduction to a whole new world.

– Kathryn Gallagher

I took an early commute from Virginia to work, was herded out of the Metro with other professionals all dressed in business clothes, was welcomed into the office and given a run-through of NEPA, and began reading a large stack of NEPA regulations and guidance.

I continued to learn throughout my time here, becoming familiar with important environmental policies as I gained experience. My projects included summarizing land transfer EAs and EISs to assist with future proposals, extracting comment summary descriptions from DOE EISs to help analyze trends in public comments, researching how environmental justice is addressed in NEPA documents, and reviewing guidance for writing DOE-specific notices in the *Federal Register*.

While working on an assignment to help prepare the 2013 NEPA Stakeholders Directory (related article, page 17), I got to interact with people working on environmental policy in so many different capacities: federal agencies, the military, state governments, and nongovernmental organizations. I had not realized that there were so many different options for careers in the environment. It was refreshing to see the sheer numbers of organizations that devoted time and personnel to comply with environmental regulations or campaign for further improvements.



Wesley Lien (left), Taylor Jones, and Kathryn Gallagher assisted the NEPA Office while learning firsthand about the Department’s NEPA compliance program and the role of NEPA in decisionmaking.

I am grateful for this opportunity and would like to thank all of my supervisors for their guidance and for continuing my education. This internship provided a good glimpse into a career with the federal government in environmental policy and into the day-to-day work that environmental professionals perform. And while I cannot say that I have a definite answer to which career path I will choose, interning at DOE has given me a much clearer picture.

Taylor Jones, a rising junior at the University of Florida, is majoring in Environmental Science.

As an environmental science major with an interest in policy and law, I have been seeking experiences to complement my education. Last summer, while interning for the Florida Governor’s office, I researched the economic feasibility of new-generation commercial nuclear development and its possible place in Florida’s energy market. That experience prompted me to apply for an internship with DOE.

I learned more about environmental policy during my summer with the NEPA office than I ever have in a classroom.

– Taylor Jones

The best aspect of my internship was the variety of tasks and topics on which I worked. My favorite projects included reviewing past NEPA decision documents for geothermal exploration projects to assess the potential for a new categorical exclusion and evaluating how

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A Summer with NEPA

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environmental justice concerns are addressed across DOE's various program offices. Reviewing the comment and response section of a preliminary final EIS for disposal of Greater-Than-Class C low-level radioactive waste revealed to me how much work goes into thoughtfully responding to each individual comment.

I was also able to attend interagency meetings where I got to see exciting new IT solutions in the works for improving government efficiency and increasing communication among agencies and with the private sector. As part of the NEPA IT working group's effort, I added pages to the Council on Environmental Quality page on MAX.gov that detail open-source software and GIS data layers available to the public to assist with the NEPA process.

Federal environmental regulation is expansive, and the fields in which regulators work are diverse. I would like to thank everyone who made this summer internship possible; I will carry the lessons I learned here, always.

Wesley Lien, a rising senior at Northwestern University, is studying Environmental Chemistry, Environmental Policy, and Economics.

As soon as I decided to pursue a career in energy and sustainability, I knew that I wanted to explore opportunities at DOE. The internship at the NEPA Office gave me the perfect opportunity to observe the workings of both the NEPA process and a federal agency.

My duties consisted largely of reviewing draft NEPA documents. My first project involved a supplemental EIS for a proposed elemental mercury storage facility. I quickly learned that thoroughness is absolutely critical in preparing EISs. Atmospheric emissions, groundwater pollution, radiation, potential accidents, loss of human

life, and environmental justice are all factors that have to be accounted for when analyzing the potential impacts of projects. Furthermore, I realized the importance of public involvement in the NEPA process. In almost all cases, comments from citizens and nongovernmental organizations result in improvements to NEPA documents.

Another task I was assigned was compiling metrics and designing presentations for DOE NEPA documents prepared within the last 5 years. I noticed that while a few trends were apparent in the data, the documents varied in preparation time and cost on a case-by-case basis. Each project that DOE analyzes is unique and provides a different set of challenges to our personnel. This is what makes the job interesting.

NEPA serves to demonstrate that the federal government practices what it preaches.

– Wesley Lien

Perhaps the greatest lesson I've taken away from my summer here at DOE is the importance of the NEPA process. Many people assume that the government carelessly stifles the private sector with strict environmental regulations. However, through the NEPA process I have observed how the government holds itself to the same environmental standards. NEPA is a necessary step to ensure that the government is complying with federal environmental legislation. For this reason, I have come to value the work that the Office of NEPA Policy and Compliance conducts on a day-to-day basis. 

The NEPA Office appreciates the hard work of these talented summer interns. We wish them all the best in their remaining studies and future careers.

NEPA Office Issues 2013 Stakeholders Directory

If you are planning to distribute an EA or EIS, or initiate other NEPA public involvement and consultation activities, the Office of NEPA Policy and Compliance encourages you to consult the [Directory of Potential Stakeholders for DOE Actions under NEPA](#). The NEPA Office issued the 30th edition of the directory on July 31. It includes current information for points of contact in federal agencies, states and state government associations, and many nongovernmental organizations, as well as lists of DOE tribal points of contact and reading rooms.

Two organizations are new to this year's directory: the Department of Defense [Siting Clearinghouse](#) and the [Canadian Electricity Association](#). The Clearinghouse

seeks to facilitate early identification of potential conflicts between locations of proposed projects and military operations ([LLQR](#), [December 2011](#), page 15). The Association was added because of its potential interest in cross-border electricity transmission proposals.

Approximately 40 percent of the organizations changed their contact information, more than in any past year. The NEPA Office updates the directory throughout the year, as new contact information is received, and issues a major update annually in July. The current version is posted on the [DOE NEPA Website](#). Send updates and questions to askNEPA@hq.doe.gov. 

EAs and EISs Completed: April 1 to June 30, 2013

EAs¹

Bonneville Power Administration

[DOE/EA-1901](#) (5/15/13)

Kootenai River White Sturgeon and Burbot Hatcheries Project, Boundary County, Idaho
EA was prepared in-house; therefore, cost data are not applicable to DOE metrics.

Time: 20 months

Office of Energy Efficiency and Renewable Energy

[DOE/EA-1918](#) (6/28/13)

Final Rule, 10 CFR 433, Energy Efficiency Standards for New Federal Commercial and Multi-Family High-Rise Residential Buildings

Cost: \$28,000

Time: 14 months

Golden Field Office/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1922](#) (5/6/13)

Combined Power and Biomass Heating System, Fort Yukon, Alaska

Cost was paid by applicant; therefore, cost data are not applicable to DOE metrics.

Time: 14 months

Kansas City Field Office/ National Nuclear Security Administration

[DOE/EA-1947](#) (5/1/13)

Transfer of the Kansas City Plant, Kansas City, Missouri

Cost: \$1,790,000²

Time: 5 months

National Energy Technology Laboratory/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1939](#) (4/25/13)

Center for Commercialization of Electric Technology (CCET), Reese Technology Center (RTC) Wind and Battery Integration Project, Lubbock County, Texas

Cost: \$18,000

Time: 8 months

National Energy Technology Laboratory/ Office of Fossil Energy

[DOE/EA-1886](#) (4/19/13)

Big Sky Regional Carbon Sequestration Partnership – Phase III: Kevin Dome Carbon Storage Project, Toole County, Montana

Cost: \$95,000

Time: 23 months

Oak Ridge Office/ Office of Environmental Management

[DOE/EA-1964](#) (5/29/13)

National Ecological Observation Network (NEON), Oak Ridge, Tennessee

EA was adopted; therefore, cost and time data are not applicable to DOE metrics. [The National Science Foundation was the lead agency.]

EISs

Western Area Power Administration

[DOE/EIS-0400](#) (78 FR 40474, 7/5/13)

(Draft EIS EPA Rating: LO)

Granby Pumping Plant Switchyard-Windy Gap Substation Transmission Line Rebuild Project, Grand County, Colorado

[Note: This EIS was inadvertently omitted from EPA's Notice of Availability published in the *Federal Register* on 6/28/13.]

Cost: \$670,000

Time: 71 months

[DOE/EIS-0413](#) (78 FR 28842, 5/16/13)

(Draft EIS EPA Rating: EC-2)

Searchlight Wind Energy Project, Searchlight, Nevada

EIS was adopted; therefore, cost and time data are not applicable to DOE metrics. [Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² On 11/30/12, DOE/NNSA issued a notice cancelling the EIS originally proposed and stating its intent to prepare an EA instead.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for the preparation of 4 EAs for which cost data were applicable was \$62,000; the average was \$483,000.
- Cumulatively, for the 12 months that ended June 30, 2013, the median cost for the preparation of 12 EAs for which cost data were applicable was \$94,000; the average was \$298,000.
- For this quarter, the median and average completion times for 6 EAs for which time data were applicable were 14 months.
- Cumulatively, for the 12 months that ended June 30, 2013, the median completion time for 17 EAs for which time data were applicable was 12 months; the average was 13 months.

EIS Cost and Completion Times

- For this quarter, the cost for 1 EIS for which cost data were applicable was \$670,000.
- Cumulatively, for the 12 months that ended June 30, 2013, the median cost for the preparation of 3 EISs for which cost data were applicable was \$8,000,000; the average was \$31,220,000.
- For this quarter, the completion time for 1 EIS for which time data were applicable was 71 months.
- Cumulatively, for the 12 months that ended June 30, 2013, the median completion time for 6 EISs for which time data were applicable was 47 months; the average was 50 months.

NEPA Document Manager as COR

(continued from page 11)

a technical or subject matter expert. All COR candidates must be registered in the [Federal Acquisition Institute Training Application System](#) (FAITAS) and have their supervisor's recommendation.

The CO determines the required FAC-COR level based on contract risk and complexity. For level I, no experience is required, but the candidate must complete 8 hours of COR training within 2 years prior to applying. For level II, the COR must have at least 1 year of relevant experience (e.g., as a level I COR, or writing statements of work, developing quality assurance plans, assisting a CO or COR as a subject matter expert, or participating as a subject matter expert on a technical evaluation team), and must complete 40 hours of COR training within 2 years prior to applying. At least 2 years of relevant experience and 60 hours of COR training are required for level III. FAC-COR certification is effective for 2 years, during which time CORs are required to complete refresher training to qualify for renewal.

Certification requirements, training options, and application forms are published on DOE's [Acquisition Workforce Information](#) website, and Powerpedia includes a page to assist CORs in preparing applications for [FAC-COR](#). For further information, contact Lorri Wilkins, Program Manager for COR Certification, at 202-287-1668 or lorri.wilkins@hq.doe.gov or your Site Acquisition Career Manager (SACM). Powerpedia includes a [list of SACMs](#).

NNSA employees should contact Sandra Linhares, NNSA COR Program Manager, Contracts and Procurement Division, at 505-845-4461 or sandra.linhares@nnsa.doe.gov. NNSA maintains a [COR resources website](#) that contains the certification requirements, training options, and application forms. 

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Standard procedures.* No problems were encountered while following standard EA scoping procedures.

Data Collection/Analysis

What Worked

- *Analysis of impacts to cultural resources.* An analysis was done to understand why cultural resources were inadvertently disturbed. The results allowed DOE and tribal representatives to develop an appropriate path forward.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Regular communication.* Maintaining regular communication with appropriate federal and state agencies facilitated timely completion of the EA.
- *Expeditious reviews.* Expeditious reviews of the EA facilitated timely completion of the EA.

Factors that Inhibited Timely Completion of Documents

- *Additional time required for consultation.* Additional time, not anticipated in the original schedule, was required to address consultation and resolution of comments submitted by the state wildlife office.
- *Public controversy.* Several additional studies were required to address issues of public controversy not previously anticipated.
- *Disagreement among key players.* Disagreements among federal agencies over certain authorities related to the project inhibited timely completion of the EIS.

- *Uncooperative cooperating agency.* A cooperating agency seemed more interested in making unsupported assertions than in providing their expertise and assisting the process by providing factual information.
- *Change in NEPA strategy.* Documentation for this project started as an EA, but was changed to an EIS after EA scoping indicated that it was better suited for an EIS-level of analysis, based on controversy and concern over visual impacts and land use.
- *Political impacts.* Document preparation started out early enough to have been successful, but the process was eventually mired in grandstanding and local politics.
- *Project changes.* Substantive comments received during the preliminary EA's public comment period identified the need to modify the proposed project.

Teamwork

Factors that Facilitated Effective Teamwork

- *Good communication.* Regular communication among the DOE project manager, the applicant, and the NEPA contractor proved very important to completing this EA.
- *Timely issue resolution.* Addressing issues in a timely manner proved very important to completing this EA on time.

Process

Successful Aspects of the Public Participation Process

- *Timely public input.* Receiving concerns in a timely manner from much of the public was useful.
- *Tribal consultation.* Participation of Tribal Historic Preservation Officers and Tribal Council Members in several Section 106 consultation meetings was

(continued on next page)

Questionnaire Results

What Worked and Didn't Work (continued from previous page)

effective in resolving minor disturbances to cultural resources.

Unsuccessful Aspects of the Public Participation Process

- *Public trust.* Some stakeholders characterized the proposed project as having hidden purposes related to another project proposed by another agency in the area.
- *NEPA process too long.* Several persons who participated in the EIS process expressed frustration with how long it took.
- *Undesired results.* Several persons who participated were not happy that the use of fact-based data and reasonable assumptions for the EIS did not lead to the answers they wanted.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Flexible approach.* The selection of a multi-faceted preferred alternative provided management with a flexible approach for addressing its needs.

Enhancement/Protection of the Environment

- *Avian protection.* Protection measures were included in the final EA to ensure that avian species are minimally impacted.
- *Wildlife protection.* Mitigation measures were included in the final EA to avoid locating project activities in well-drilling areas and nesting sites.
- *Reduction of impacts.* Based on the EIS findings, viable alternatives were identified that reduced the impacts to visual resources, land use issues, and environmental resources.

Other Issues

Guidance Needs Identified

- *Working effectively with cooperating agencies.* Guidance is needed on how to effectively deal with cooperating agencies and members of the public who are not interested in cooperating.

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to protection of the environment or its influence on decisionmaking.

For the past quarter, in which 3 EA and 1 EIS questionnaire responses were received, all respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “5” stated that the NEPA process facilitated the evaluation of a reasonable range of alternatives.
- A respondent who rated the process as “5” stated that the NEPA process facilitated effective communication among state and federal agencies regarding relevant issues associated with this project.
- A respondent who rated the process as “5” stated that the NEPA process facilitated effective communication and coordination with the state wildlife office and allowed important wildlife protection measures to be incorporated to ensure that avian species are minimally impacted.
- A respondent who rated the process as “3” stated that timely completion of the EA process was impacted by changes in the proposed project.

LESSONS LEARNED

December 2, 2013; Issue No. 77

Fourth Quarter FY 2013

Was Your NEPA Process Just One More Hurdle, Or Did It Make a Difference?

Was your NEPA process useful in project planning and informing decisionmaking? Was the environment protected or enhanced as a result? In other words, did your NEPA process make a difference?

Although some may view NEPA as one more hurdle on the way to project implementation, if you participated in a NEPA process during the past 10 years and completed a [Lessons Learned Questionnaire](#), you very likely answered yes to these questions. This conclusion is based on a review by the Office of NEPA Policy and Compliance of nearly 400 excerpts from questionnaire responses published in *Lessons Learned Quarterly Report (LLQR)* since 2003 regarding the usefulness and effectiveness of the NEPA process.

The overwhelming majority of excerpts describe positive outcomes of the DOE NEPA process and illustrate how DOE's NEPA process is meeting the purposes of NEPA. The findings are consistent with past reviews of questionnaire responses for different time periods (*LLQR*, [March 2013](#), page 1; [March 2010](#), page 10;

[December 2003](#), page 1). These reviews show that, whether an environmental assessment (EA) or environmental impact statement (EIS) is prepared, the DOE NEPA process clearly is making a difference.



How the Lessons Learned Process Works

DOE's NEPA Order ([DOE Order 451.1B](#), paragraph 4.f) requires that "DOE's NEPA Compliance Program shall include a system for reporting lessons learned and encouraging continuous improvement." At the conclusion of each EA and EIS (to meet responsibilities listed at paragraphs 5.g(6), 5.d(4), and 5.e(8) of the Order), the NEPA Office solicits comments from NEPA Compliance Officers and NEPA Document Managers via a questionnaire on what worked and what didn't work. Other involved persons (e.g., counsel, contractors, and NEPA Office staff) also are encouraged to respond.

(continued on page 4)

Bonneville Participates in Regional Infrastructure Team To Streamline NEPA Reviews and Project Decisionmaking

By David Kennedy, NEPA and Policy Planning Supervisor, Bonneville Power Administration

Bonneville Power Administration (BPA) participates in the Pacific Northwest Regional Infrastructure Team (PNWRIT), a regional partnership established in May 2013 to advance infrastructure projects that "spur job creation in communities, further energy independence for national security, manage climate change risk, and build and upgrade necessary infrastructure to support the

Nation's economy, while ensuring environmental and natural resource stewardship."

PNWRIT's goals are to streamline permitting, environmental consultations, and regulatory compliance by coordinating issues for which multiple federal and state agencies have responsibilities – including reviews under

(continued on page 6)

Inside Lessons Learned

Welcome to the 77th quarterly report on lessons learned in the NEPA process. This issue reminds us that, through teamwork and dedication by DOE's NEPA community, we can produce high quality documents that enhance the Department's decisionmaking and help protect the environment. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Songstrom
Director
Office of NEPA Policy and Compliance

Printed on recycled paper 

Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by February 3, 2014, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due February 3, 2014

For NEPA documents completed October 1 through December 31, 2013, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than February 3. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Upcoming Conferences

National Environmental Justice Conference: March 26–28

DOE is co-sponsoring, with other federal agencies, universities, and private companies, the 2014 National Environmental Justice Conference and Training Program in Washington, DC, at the Howard University School of Law on March 26 and the Marriott Hotel at Metro Center on March 27–28. Registration is free for government employees, students and faculty, and community organizations. Registration information is available at thenejc.org.



**2014 National Environmental Justice Conference
& Training Program**

NAEP 2014 Annual Conference: April 7–10

The National Association of Environmental Professionals (NAEP) will host its 2014 conference in St. Petersburg, Florida, April 7–10, with the theme *Changing Tides & Shifting Sands*. The conference will offer presentations and panel discussions organized into tracks addressing coastal resources (multiple uses and priorities), NEPA, brownfields, cultural resources, geology, land management, remediation, sustainability, transportation, visual impacts, water resources, wildlife, and wetlands. On April 7, NAEP will also offer three training classes – Best Practice Principles for Environmental Assessments, Coastal Landscape Visualization, and the Interrelation between Listed Species and Invasive Species – and a free career development workshop.



Conference registration is open to environmental professionals in all levels of government, academia, and the private sector. Early registration rates are available, and discounts are offered to speakers and government employees. Registration and additional information are available on the [NAEP website](#). 

EPA Launches Interactive EIS Mapping Tool



As part of its commitment to utilize information technologies to help increase transparency of its enforcement and compliance programs, the Environmental Protection Agency (EPA) recently launched the *EIS Mapper*, a web-based tool that provides the public information by state on more than 5,000 draft EISs, final EISs, and supplemental EISs filed with EPA since 2004.

Map Interface Enhances Use

The *EIS Mapper* displays information from EPA's EIS database and allows users to select any U.S. state or territory to access a list of EISs in that state. For example, clicking on California generates a list of more than 800 EISs issued since 2004. Users can select individual EISs from the generated list and navigate to the respective webpage on EPA's EIS Database for additional information – such as the EPA comment letter, the EPA rating (for draft EISs), and the lead agency point of contact. (The EPA webpage does not provide a direct link to the EIS itself.) A DOE NEPA Document Manager might use this tool to identify EISs for other projects in the vicinity of the proposed action.

Under the *EIS Mapper*'s "EIS Information" tab, users can view a list of EISs filed since 2004, EISs filed during the previous week, or EISs with open public comment or wait periods (for final EISs). By selecting "EPA Comment Letters," a user can see EISs by states and territories which had comment letters issued by EPA within the last 60 days.

Users can also generate a map of EISs by selecting a year or a set of years.

EISs that have proposed actions covering more than one state or territory and those that are "nationwide" in scope are not graphically displayed in the *EIS Mapper*. However, these EISs (more than 700) are included in the "multi-state EISs" panel. Recent examples of such EISs include the Draft *TransWest Express Transmission Project EIS* (prepared by the Bureau of Land Management and DOE's Western Area Power Administration as co-lead agencies) and the U.S. Nuclear Regulatory Commission's Draft *Waste Confidence Generic EIS*.

EPA EIS Database Advanced Search

Through the *EIS Mapper*'s "Advanced Search" tab, users can access the [EPA EIS Database search feature](#), allowing for a search of EISs filed since 2004 by title, agency, *Federal Register* publication date, or state. This option allows a user to more narrowly define search parameters on a particular subset of EISs. For example, in the *EIS Mapper* there are more than 100 EISs for New Mexico. The user may then click on the advanced search to focus on EISs issued in New Mexico in 2013 by the U.S. Forest Service. For more information on EPA's *EIS Mapper* or EPA's EIS Database, contact Aimee Hessert at hessert.aimee@epa.gov or 202-564-0993. LL

The screenshot shows the EPA EIS Mapper interface. At the top, there are tabs for "Streets", "Imagery", and "Topography". Below these is a search bar with "Go To: Select a State/Territory" and a "Go" button. The main map area shows a map of Washington state with various cities and rivers labeled. A pop-up window titled "Total EISs Filed (since 2004): Washington" is open, displaying a table of EISs. The table has columns for Date, Agency, Document, URL, and Title. The table lists several EISs, including one from 2013 by USN titled "Introduction of the P-8A Multi-Mission Aircraft into the U.S. Navy Fleet". To the right of the map is a sidebar with "EIS Information" and "Advanced Search" sections. The "EIS Information" section has buttons for "EISs filed since 2004", "EISs filed during the previous week", and "EISs with open comment or wait periods". The "Advanced Search" section has a dropdown menu for "EPA Comment Letters" and a section for "EISs by Year". At the bottom right, there is a "Multi-State EISs" section with a table showing "Total EISs since 2004: 738", "EISs filed during the previous week: 0", "EISs with open comment or wait periods: 0", and "EPA Comment letters issued within the last 60 days: 1".

Date	Agency	Document	URL	Title
2013-9-20	USN	Draft Supplement	Info	Introduction of the P-8A Multi-Mission Aircraft into the U.S. Navy Fleet
2013-7-26	FTA	null	Info	Lynnwood Link Extension
2013-7-26	FHWA	Final Supplement	Info	SR 167 Puyallup to SR 509, SR 167 Puyallup River Bridge Replacement
2013-7-26	USFWS	Final EIS	Info	Experimental Removal of Barred Owls to Benefit Threatened Northern Spotted Owls
2013-	NOAA	Final EIS	Info	Final Duwamish River NRDA

Clicking on the State of Washington in EPA's EIS Mapper generates a list of about 200 EISs (filed with EPA since 2004) with date, agency, type of document (e.g., draft EIS, final EIS), link to the EPA EIS Database webpage, and title. This list includes 20 EISs prepared by DOE. (Example generated on November 26, 2013.)

NEPA Makes a Difference

(continued from page 1)

Excerpts from questionnaire responses are reported in each issue of *LLQR*. (See page 17.) The NEPA Office periodically reviews the information to better understand strengths and weaknesses of the NEPA process as assessed by DOE's NEPA Community, analyzes trends, and reports on potential process improvements in *LLQR*.

Among the topics addressed, the questionnaire asks about the usefulness and effectiveness of the NEPA process. Respondents are asked to describe the usefulness of the particular EA or EIS process in terms of how it contributed to agency planning and decisionmaking and whether the process helped protect or enhance the environment. Respondents also are asked to provide an overall rating of the effectiveness of the just-completed NEPA process on a scale of 0–5 (with 5 being the most effective) with respect to protection of the environment or influence on decisionmaking, and describe the basis for the rating. Excerpts presented below are typical of questionnaire responses since 2003.

Usefulness: Agency Planning, Decisionmaking, and Environmental Protection

Respondents provided many examples of how the NEPA process has been useful, including raising awareness of environmental issues among DOE program managers, applicants, cooperating agencies, and members of the public. In many cases, project design changes were made and mitigation measures were implemented as a result of input from other agencies and members of the public.

- *The NEPA process contributed greatly to decisionmaking. It made clear which critical resources were of most concern to those potentially impacted. As a result, the project now contains extraordinary mitigation to protect these resources.*
- *The NEPA process was a fully integrated part of agency planning and decisionmaking. It greatly affected decisionmaking regarding the project and ultimately led to the inclusion of mitigation. These mitigation measures will serve to greatly reduce impacts to air quality.*

- *The EA allowed DOE to choose the best alternative and mitigate impacts to culturally sensitive areas.*
- *The NEPA process provided an opportunity for numerous scientists to review and comment on the proposed action, resulting in several changes to protect groundwater.*
- *The EIS process helped to promote informed and sound decisionmaking. Public comments on the draft EIS clearly influenced DOE's decision.*
- *Environmental considerations guided the planning process and were integral to most design and implementation decisions.*
- *The NEPA process was instrumental in determining viable routes and design, and also vital for informing the public and getting support from numerous agencies and tribes.*
- *The NEPA review caused the project sponsor to define the project scope and locate the project components to minimize potential environmental impacts.*
- *The NEPA process identified several environmental issues that had not been considered. These issues were addressed in the EA and proposed mitigation.*
- *The NEPA process was the impetus for the applicant's full consideration of environmental consequences of its proposal.*
- *The NEPA process helped agency decisionmakers understand the impacts; several mitigation measures were identified as a result of the scrutiny provided by the EIS review.*
- *The NEPA process forced the project folks to get their act together – they started by viewing the process as an irritation, but by the time it was finished they had begun to recognize the real benefit and utility of the process.*

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Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork — even excellent paperwork — but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

– Council on Environmental Quality NEPA Regulations, 40 CFR 1500.1(c)

NEPA Makes a Difference

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Effectiveness Ratings Show Positive Outcomes

Since 2003, about 75 percent of questionnaire respondents have rated the NEPA process as “effective” (rating of 3 or better). In the past 2 years, 94 percent of respondents rated the NEPA process as effective. Frequently cited themes for positive ratings since 2003 include:

- ✓ Identification of project design changes, location alternatives, and mitigation measures to reduce potential environmental impacts
 - *The NEPA process caused the applicant to consider more information before deciding on the project location and led to the selection of a location that had less impact to endemic species.*
 - *Through the NEPA process the habitats for endangered species, wetlands, and other sensitive resources were better protected.*
 - *The NEPA process provided DOE with the information to make good decisions regarding avoidance and minimization of impacts to many different resources.*
 - *The NEPA process resulted in significant environmental protections that may not otherwise have occurred.*
- ✓ Acceptance by stakeholders
 - *The EA process was a way for DOE to have a dialogue with stakeholders for a potentially controversial action.*
 - *The NEPA process allowed interested parties to participate and reach consensus.*
 - *The NEPA process helped facilitate understanding and diffused confrontational action.*
- ✓ Beneficial input from expert agencies and potentially affected parties
 - *The NEPA process allowed the lead agency to develop mitigation plans to protect sensitive resources and enabled the project to proceed in a responsible manner.*
 - *Several mitigation measures were identified through coordination with other agencies.*
 - *The NEPA process was successful, and DOE changed the action based on public comments.*
 - *The NEPA process identified certain locations where additional tribal interactions were needed to maintain culturally significant areas vital to project completion.*

- *Information received from external technical experts during the EA comment period facilitated the selection of a transportation route that minimized potential impacts.*
- *Public input was effective in identifying project design and implementation changes that protected resources and accommodated landowners.*

Where low effectiveness ratings (0-2) were given, respondents typically stated that the NEPA process did not influence the outcome because project decisions had already been made, such as for small projects where the decision was obvious, when the outcome was driven by congressional or judicial mandates, or where the proposed action either had little or no potential for significant impacts or was by its nature environmentally beneficial, but the action did not fit within any of DOE’s categorical exclusions. (See [10 CFR Part 1021](#), Appendices A and B to Subpart D.)

In many of these cases, however, respondents stated that the low assessed rating was based solely on perceived influence on decisionmaking, and that the NEPA process nevertheless was effective in other ways. For example, several respondents said that, although a decision to proceed with the project had already been made, the NEPA process was effective in reducing environmental impacts through design changes or mitigation measures. Some respondents who provided a low effectiveness rating said that the NEPA process was useful in documenting the project’s low potential for impact. One respondent who rated the NEPA process as a “2” said that the rating “was not a reflection of the NEPA process but rather the project’s low potential for impact.” Another respondent who rated the process as a “2” stated, “The EA process allowed identification of public and tribal concerns and how best to proceed to make all parties amenable.”

Some respondents said that, in anticipation of the NEPA process, applicants had already adjusted the project design to avoid or minimize environmental harm so there was little further environmental benefit to be gained. It appears that NEPA is making a difference even before the process formally begins. As one respondent put it, “The general concept of considering the environment in the development of a project has become ingrained in younger generations of engineers.”

The NEPA Office welcomes feedback from the NEPA Community on these findings and on all aspects of the Lessons Learned program. Comments, suggestions, and questions should be sent to Vivian Bowie at vivian.bowie@hq.doe.gov or 202-586-1771. 

Regional Partnership Formed

(continued from page 1)

the National Historic Preservation Act and Endangered Species Act (which typically must be completed prior to finishing a NEPA review). PNWRIT also serves as a forum for innovation in strategies and technologies that support integrated permitting.

PNWRIT focuses on renewable energy generation, electricity transmission, broadband, pipelines, ports and waterways, and water resource development projects. It was established in the spirit of Executive Order 13604, *Improving Performance of Federal Permitting and Review of Infrastructure Projects* (77 FR 18887; March 28, 2012).

Steering Committee and Strike Teams

PNWRIT's Steering Committee consists of the Region 1 Director of the U.S. Fish and Wildlife Service, the Oregon/Washington and Idaho State Directors of the Bureau of Land Management, and representatives of the Governors of Oregon, Washington, and Idaho. Additional PNWRIT participating agencies are the Bureau of Reclamation, USDA Forest Service, National Marine Fisheries Service, U.S. Army Corps of Engineers, and the Environmental Protection Agency, as well as BPA.

PNWRIT proposes to facilitate and troubleshoot priority projects through "Strike Teams" comprised of state and federal agency officials with decisionmaking authority for permits, reviews, and consultations. A Strike Team will develop joint permitting milestones, coordinate consultations, and address challenges to infrastructure development (text box, next page). A principal strategy for expedited permitting and consultation is expected to be the early identification of potential siting conflicts and mitigation measures.

As of late 2013, five BPA proposals (more than for any other agency) are PNWRIT priority projects:

- Two proposed new transmission lines that BPA is evaluating in EISs: I-5 Corridor Reinforcement Project, Oregon and Washington (DOE/EIS-0436) and Hooper Springs Transmission Project, Idaho (DOE/EIS-0451)
- The proposed rebuilding of three transmission line segments that BPA is evaluating in EAs: Alvey-



A linear infrastructure project, such as a transmission line, has the potential to affect many types of environmental, historic, and cultural resources.

Fairview Transmission Line Rebuild, Oregon (DOE/EA-1891), Lane-Wendson Transmission Line Rebuild, Oregon (DOE/EA-1952), and Hills Creek-Lookout Point Transmission Line Rebuild, Oregon (DOE/EA-1967)

Lydia Grimm, Manager for Environmental Planning and Analysis, is one of BPA's representatives participating in the PNWRIT effort. Although the Team focus is not primarily on NEPA compliance, the availability of the PNWRIT forum for discussing a major resource issue, for example, will help BPA in developing quality environmental analyses quickly and effectively.

Substantive Benefits Anticipated

BPA expects substantive benefits from PNWRIT's identification of cross-agency and cross-jurisdictional mitigation opportunities. PNWRIT has a stated priority of providing ecologically effective mitigation strategies for species or natural resources at a watershed- or ecosystem-level. Such strategies include [conservation banking](#) (offsite mitigation through permanently protected

(continued on next page)

BPA expects the state and federal interagency coordination facilitated by PNWRIT to expedite NEPA analysis and compliance for these projects and create more holistic planning and mitigation. When agencies commit to permitting and review as a team, we are more likely to understand key issues early and be able to address them quickly. This will allow BPA to keep on its critical time schedules for infrastructure projects, and create better opportunities with our state and federal partners for meaningful and strategic mitigation of potential impacts.

– Lydia Grimm, BPA

Regional Partnership Formed

(continued from previous page)

lands that contain natural resource values), reinforcing a mitigation hierarchy (avoid, minimize, then mitigate), fulfilling species recovery plans, and integrating multiple agency efforts in conserving the same or similar resources.

As it gains experience, PNWRIT intends to develop a lessons learned program that will include regional workshops. For more information, please contact me at dkkennedy@bpa.gov or 503-230-3769. LL

Challenges to Infrastructure Permitting

Through initial analysis and stakeholder outreach, PNWRIT has identified potential obstacles to expediting infrastructure planning and implementation ([Plan for Implementation](#), September 30, 2013, pages 10–11), and aims to address them through its Steering Committee and Strike Team activities.

- Contrasting agency requirements, expectations, and approaches for environmental or regulatory review and analysis.
- Competing demands for finite staff resources, loss of institutional knowledge, and limits on travel.
- Adhering to a project schedule for multi-year projects involving the public and multiple agencies with distinct missions, procedures, and processes; need for staff with expertise in project management and procurement.
- Uncertainty in decisionmaking authority within or among agencies; application of new policies to an ongoing project; differences of judgment in review and analysis.
- Synchronizing into an overall critical path those activities that some agencies conduct sequentially because of specific requirements, timeframes, and standards.
- Differences among agencies in data collection and survey methods, standards, and approaches to sharing and protecting sensitive or proprietary information.

Online Training on Working with Tribal Governments

A recently updated online training course titled *Working Effectively with Tribal Governments* is available on the U.S. Office of Personnel Management's [GoLearn Knowledge Portal](#). The course was developed by an interagency team, including representatives from DOE, and is offered at no charge. "You will learn how the unique status of Indian tribes and their historical relationship with the federal government affects government programs, responsibilities and initiatives," states the course description.

"Tribal consultation is often like home renovation; in other words, you won't know what you're dealing with until you get in there and get your hands dirty," explained David Conrad, DOE Director for Tribal and Intergovernmental Affairs. "You might expect a straightforward NEPA process integrated with tribal consultation under Section 106 of the National Historic Preservation Act, but, after government-to-government consultation, find that there are complex issues requiring consideration. This course can help you gain a broad perspective and understanding of the DOE team's responsibilities when engaging with tribal governments."

To self-register, go to tribal.golearnportal.org. LL

Key Reference Document on Climate Change Issued

In its latest climate assessment report, the Intergovernmental Panel on Climate Change (IPCC) concludes, with higher confidence than it had previously reported, that human activity is contributing to climate change. “The evidence for human influence has grown since AR4.¹ It is *extremely likely*² that human influence has been the dominant cause of the observed warming since the mid-20th century,” IPCC states in its *Summary for Policymakers of the Working Group I Contribution to the IPCC Fifth Assessment Report (Summary for Policymakers)*.

“I believe that the report is a watershed; we have clear evidence from our climate scientists that global warming is happening and that we as humans are playing a critical role, which is the underpinning of the President’s Climate Action Plan.”

**– Secretary of Energy Ernest Moniz
on the IPCC Report
September 27, 2013**

IPCC’s assessment reports are widely regarded as highly influential, and are often cited in DOE NEPA documents, such as in general discussions of the topic of climate change and in summaries of potential climate change-related impacts. IPCC’s fourth assessment report is cited in a wide range of DOE NEPA documents, including EAs and EISs for renewable energy projects, coal energy facilities, site-wide EISs, waste management projects, electrical energy transmission systems, and other proposed actions. For example, the Final EIS for the FutureGen 2.0 Project (DOE/EIS-0460) contains many references to the fourth assessment report in discussions of the impacts of greenhouse gases on climate, global and regional impacts of climate change, and how climate change can be addressed. (See Section 4.3.4.2 under Cumulative Impacts in Volume 1.)

The *Summary for Policymakers*, issued on September 27, 2013, and the final draft of the associated full Working Group I report, *Climate Change 2013: The Physical Science Basis*,³ are on [IPCC’s website](#). These documents are the first of four reports that will comprise IPCC’s fifth assessment of the state of the global climate (fifth assessment report); IPCC plans to release the remaining reports in phases by November 2014. It is now appropriate to cite the *Summary for Policymakers* in DOE NEPA documents.

¹ AR4 refers to IPCC’s fourth climate change assessment report, issued in 2007, in which IPCC concluded that it is very likely (i.e., probability greater than 90%) that global warming has been caused by human activity (LLQR, [December 2007](#), page 1). “This is an increase from the third assessment report, which gave this probability as greater than 66%,” IPCC concluded in AR4.

² IPCC uses the term “extremely likely” to indicate a 95–100 percent level of confidence in an outcome or conclusion.

³ IPCC’s website states that the full report has been accepted by IPCC’s Working Group I, but not approved in detail.

⁴ Information is from [IPCC’s website](#).

About IPCC⁴

The IPCC was established by the United Nations Environmental Programme and the World Meteorological



Organization in 1988 to assess the scientific, technical and socioeconomic information relevant for the understanding of human induced climate change, its potential impacts, and options for mitigation and adaptation.

One of the main IPCC activities is the preparation of comprehensive assessment reports about the state of knowledge on climate change. The IPCC also produces reports on specific issues and methodology guidelines for the preparation of greenhouse gas inventories.

The IPCC has completed four full assessment reports and is in the process of finalizing the fifth assessment report, which will contain contributions from three Working Groups and a Synthesis Report:

- Working Group I (*Summary for Policymakers* and associated full report) will provide a comprehensive assessment of the physical science basis of climate change. The main topics assessed by Working Group I include: changes in greenhouse gases and aerosols in the atmosphere; observed changes in air, land and ocean temperatures; observed changes in rainfall, glaciers and ice sheets, oceans, and sea level; historical and paleoclimatic perspective on climate change; biogeochemistry, carbon cycle, gases and aerosols; satellite data and other data; climate models; climate projections; and causes and attribution of climate change.
- Working Group II will assess the vulnerability of socio-economic and natural systems to climate change, negative and positive consequences of climate change, and options for adapting to it.
- Working Group III will assess options for mitigating climate change through limiting or preventing greenhouse gas emissions and enhancing activities that remove them from the atmosphere.
- The Synthesis Report will be based on material contained in the three Working Group Reports and other IPCC special reports. This report is to be written in a nontechnical style suitable for policymakers. 

Selected Key Findings in IPCC Summary for Policymakers

Observed Changes:

- Warming in the climate system is unequivocal, and since the 1950s, many changes have been observed throughout the climate system that are unprecedented over decades to millennia.
- Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850.
- It is virtually certain that the upper ocean (0–700 meters) warmed from 1971 to 2010 . . . and it likely warmed between the 1870s and 1971.
- The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.
- Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent.
- The rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia. Over the period 1901–2010, global mean sea level rose by 0.19 [0.17 to 0.21] meters.
- The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide (CO₂), causing ocean acidification.

Attribution:

- It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings.
- The atmospheric concentrations of the greenhouse gases CO₂, methane, and nitrous oxide have all increased since 1750 due to human activity.
- CO₂ concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions.
- Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes.

Future Projections:

- The global ocean will continue to warm during the 21st century. Heat will penetrate from the surface to the deep ocean and affect ocean circulation.
- It is virtually certain that global mean sea level rise will continue beyond 2100, with sea level rise due to thermal expansion to continue for many centuries.
- It is very likely that the Arctic sea ice cover will continue to shrink and thin and that Northern Hemisphere spring snow cover will decrease during the 21st century as global mean surface temperature rises. Global glacier volume will further decrease.
- Most aspects of climate change will persist for many centuries even if emissions of CO₂ are stopped. This represents a substantial multi-century climate change commitment created by past, present and future emissions of CO₂.
- Locally higher surface temperatures in polluted regions will trigger regional feedbacks in chemistry and local emissions that will increase peak levels of ozone and PM_{2.5}. PM_{2.5} refers to particulate matter with a diameter of less than 2.5 micrometers.

Golden Field Office Relocates to State-of-the-Art Facility

About 260 Golden Field Office employees, including NEPA staff, recently moved from leased office space into a new state-of-the-art Research Support Facility at the National Renewable Energy Laboratory (NREL) campus on South Table Mountain in Golden, Colorado. “This was a big move for the office, even though the physical move was only a couple of miles,” said Robin Sweeney, Director of the Environmental Oversight Office and a NEPA Compliance Officer (NCO).

NREL’s goal is to operate the Research Support Facility as a net-zero-energy building, meaning that it generates as much power as it uses. The 360,000-square-foot facility earned Platinum status under the Leadership in Energy and Environmental Design (LEED) building certification program and has won “numerous awards for its innovative design, construction, and sustainable features,” states NREL on its [website](#).

“Working in an ultra-efficient building motivates all of us to keep our individual energy consumption down,” added Ms. Sweeney. “It makes our program’s sustainability goals more real when we each must ‘walk the talk’ to maintain the net zero energy goal, for example by not bringing in personal coffee makers and heaters.”

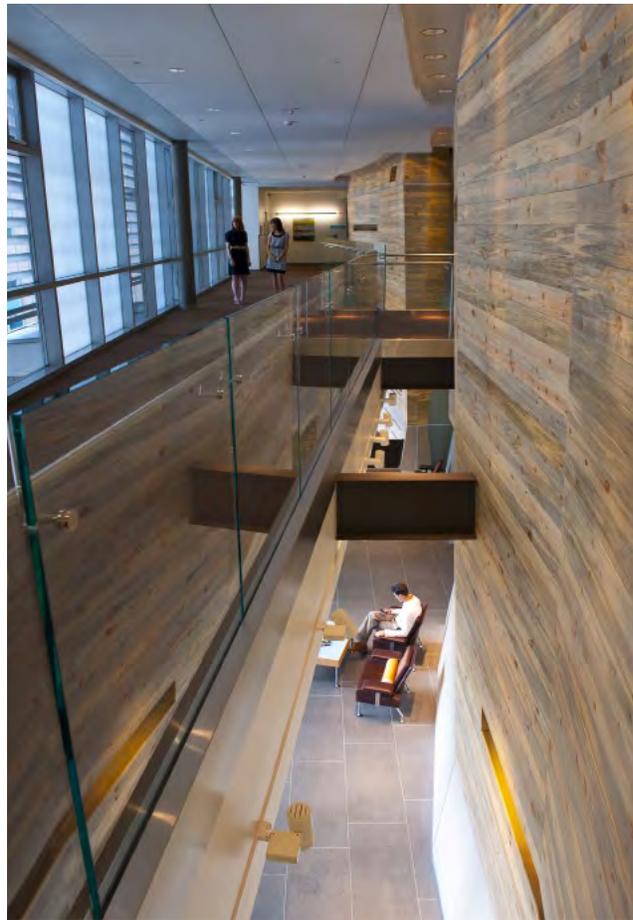
Mitigation To Avoid Traffic Congestion

The Golden Field Office analyzed construction and operation of the Research Support Facility in 2008, as part of a *Supplement to the Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory’s South Table Mountain Complex (DOE/EA-1440-S1)*. The Supplement concluded that increased staffing at the South Table Mountain site “would cause the unacceptable degradation of traffic flow at some intersections near the site.”

In response, Golden developed a [mitigation action plan](#) that included commitments for infrastructure improvements, alternative work schedules, expanded shuttle service, and incentives for carpools and bicycle commuting, among other measures. NREL began implementing those mitigation actions for the Research Support Facility in 2010, when NREL employees moved into the new facility.

The mitigation action plan also established metrics to confirm that the mitigation measures are reducing impacts to insignificant levels and included a plan to monitor traffic flow to and from the site. Monitoring results are reported each year in the [NREL annual site environmental report](#).

In 2013, Lori Gray, another Golden NCO, evaluated the potential environmental impacts of moving Golden’s



More than 19,000 linear feet of wood from trees killed by bark beetles was used to decorate the lobby, after determining that the wall could be made fire resistant in an environmentally-friendly way.

employees to the facility, including potential impacts on local traffic. She used the traffic monitoring reports, among other information, in her conclusion that the impacts from the proposed relocation had been adequately analyzed previously. She also considered the movement of office equipment and other activities associated with the move and determined that those actions qualified for a [categorical exclusion](#).

Working in a New Environment

“It’s exciting to work in the environmental field and get to work in such an advanced building,” said Ms. Gray. “The facility has natural ventilation – the windows open and shut automatically to adjust to changes in the highly-monitored indoor environment.

The open floor plan not only stimulates collaboration, but also provides natural lighting for all work stations –

(continued on next page)

Golden Field Office Relocates

(continued from previous page)

overhead lights come on only at dusk and on cloudy days. Also, the campus is pedestrian-oriented. It supports lots of walking, while a shuttle is available for those cold winter days,” she explained.

Solar panels on the roof of the Research Support Facility generate electricity to offset that used in the building. Among the facility’s innovative features is approximately 42 miles of radiant piping that carries heat from the energy-efficient data center through the floors to heat the building. In total, the facility serves 1,300 staff, with the Golden employees occupying one of the three wings.

For additional information, contact Robin Sweeney (robin.sweeney@go.doe.gov or 720-356-1562). 



Roof-mounted solar panels help the Research Support Facility reduce its carbon footprint.

Golden Field Office Develops FONSI Template

By Robin Sweeney, Director, Environmental Oversight Office, Golden Field Office

The Office of Energy Efficiency and Renewable Energy (EERE) now uses a template to more efficiently prepare, when appropriate, a finding of no significant impact (FONSI) for a project receiving financial assistance.

Casey Strickland and Laura Margason, both NEPA Specialists at the Golden Field Office, proposed early this year that there should be a better way to write and format FONSI. They started by researching the Council on Environmental Quality (CEQ) and DOE regulations and guidance, and FONSI from other federal agencies, looking for a way to clearly lay out potential environmental impacts and increase transparency for the public.

Lori Gray, their Supervisor and a Golden NEPA Compliance Officer, agreed that providing structure to the FONSI process would be a promising approach to streamlining. “My staff had some really good ideas, so I encouraged them to go forward. We are always looking for ways to be more efficient,” said Ms. Gray. EERE issues about six FONSI a year based on analyses in environmental assessments (EAs).

The FONSI template uses a standard set of headings. It starts by identifying the EA it is based on and incorporates the EA by reference. It then summarizes the grant recipient’s commitment to mitigation measures, as analyzed in the EA. The template organizes the discussion of potential environmental impacts according CEQ’s definition of “significantly,” including consideration of both context and intensity (40 CFR 1508.27), and provides model text for each factor.

- The discussion of impacts states that potential adverse impacts were evaluated to determine whether they would be significant in their own right, even if on balance the impacts would be beneficial.
- The discussion of uncertain, unique, or unknown risks states whether conclusions from testing and scientific peer review are sufficient to conclude that risks associated with a proposal’s new technology are low.
- The template provides for discussion of cumulative impacts, consultations with State or Tribal Historic Preservation Officers, permitting considerations, and compliance with other regulations.
- The template includes a place for a floodplain and/or wetland statement of findings, if needed.
- The template concludes with a statement of findings and identification of a contact for further information.

After review by Golden’s NEPA staff and its Office of Chief Counsel, the FONSI template was adopted for use in June 2013. Feedback from financial assistance recipients, Technical Project Officers, and Golden’s legal staff has been positive for the FONSI prepared from the template. (FONSI are posted on the DOE NEPA Website for [DOE/EA-1925](#), [DOE/EA-1922](#), and [DOE/EA-1792-S1](#).) For a copy of the FONSI template, contact me at robin.sweeney@go.doe.gov or 720-356-1562. 

Thirty Percent of DOE Draft EISs Earn EPA's Top Rating

The U.S. Environmental Protection Agency (EPA) data show that it gave a “lack of objections” (LO) rating to about 30 percent (24 out of 82) of DOE draft EISs issued since 2003. This compares favorably to the federal government as a whole, for which EPA reports having assigned an LO rating to less than 25 percent of EISs.

EPA reviews and comments on draft EISs pursuant to its responsibilities and authority under Section 102(2)(C) of NEPA and Section 309 of the Clean Air Act. The rating is based on the potential environmental impacts of the action and the adequacy of the NEPA document.

The lack of objections rating signifies that EPA's review “has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities

for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.” (See the EPA website for [definitions of EPA's EIS ratings.](#))

Eighteen of the 82 draft EISs were subsequently cancelled. Of the 64 DOE EISs that were finalized or are ongoing, 21 (table below) received an LO rating. Twelve were prepared by DOE's large power marketing administrations – Bonneville Power Administration (BPA) and Western Area Power Administration (WAPA) – and 4 were prepared by the National Nuclear Security Administration (NNSA). The others were prepared by the Office of Environmental Management (EM), the Office of Fossil Energy (FE; National Energy Technology Laboratory), and the (former) Office of Civilian Radioactive Waste Management (RW). DOE was the lead or co-lead agency for these EISs. **L**

2003

- BPA Northeast Oregon Hatchery Program Grande Ronde-Imnaha Spring Chinook Projects (DOE/EIS-0340)
- EM West Valley Demonstration Project Waste Management (DOE/EIS-0337)
- NNSA Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory (DOE/EIS-0350)

2006

- NNSA Site-wide EIS for Continued Operation of Los Alamos National Laboratory (DOE/EIS-0380)
- WAPA White Wind Farm Project (DOE/EIS-0376)
- WAPA San Luis Rio Colorado Project (DOE/EIS-0395)

2007

- RW Supplemental EIS for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain – Nevada Rail Transportation Corridor (DOE/EIS-0250-S2)
- WAPA Trinity Public Utilities District Direct Interconnection Project (DOE/EIS-0389)

2008

- BPA Lyle Falls Fish Passage Project (DOE/EIS-0397)
- NNSA Complex Transformation Supplemental Programmatic EIS (DOE/EIS-0236-S4)

2010

- BPA Whistling Ridge Energy Project (DOE/EIS-0419)
- BPA Big Eddy-Knight Transmission Project (DOE/EIS-0421)
- EM Long-Term Management and Storage of Elemental Mercury (DOE/EIS-0423)

2012

- BPA Albany-Eugene 115-kilovolt No. 1 Transmission Line Rebuild Project (DOE/EIS-0457)
- FE W.A. Parish Post-Combustion CO₂ Capture and Sequestration (DOE/EIS-0473)
- NNSA Surplus Plutonium Disposition Supplemental EIS (DOE/EIS-0283-S2)
- WAPA Granby Pumping Plant Switchyard-Windy Gap Substation Transmission Line Rebuild (DOE/EIS-0400)

2013

- FE FutureGen 2.0, Meredosia, Illinois (DOE/EIS-0460)
- WAPA Upper Great Plains Wind Energy Programmatic EIS (DOE/EIS-0408)
- WAPA Wilton IV Wind Energy Center (DOE/EIS-0469)
- WAPA Reauthorization of Permits, Maintenance, and Vegetation Management on WAPA Transmission Lines on Forest Service Lands, Colorado, Nebraska, and Utah (DOE/EIS-0442)

DOE and FWS Sign New Migratory Bird Protection MOU

Did you know that DOE manages approximately 2.28 million acres of land, of which a substantial amount provides habitat for a variety of wildlife, including many species of migratory birds? To enhance collaboration in promoting the conservation of migratory birds, DOE and the Department of the Interior's Fish and Wildlife Service (FWS) have entered into a [Memorandum of Understanding \(MOU\)](#) pursuant to the Migratory Bird Treaty Act (MBTA) and Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, and their eggs, parts, or nests. The Executive Order requires agencies to avoid or minimize, to the extent practicable, the adverse impact of their actions on migratory birds and to ensure that environmental analyses under NEPA evaluate the effects of proposed federal actions on such species (66 FR 3853; January 17, 2001).

This new MOU updates an MOU that DOE and FWS signed in 2006. The MOU explains that the land DOE manages includes wetlands, shrub-steppe, shortgrass prairie, desert, and forested areas that provide habitat for migratory birds. In the MOU, DOE recognizes its activities have the potential to affect migratory birds (e.g., transmission lines, power poles, invasive weed control, and various construction activities) and agrees that it is important to conserve migratory birds and their habitats.

In the MOU, DOE agrees to initiate appropriate actions to avoid or minimize the take of migratory birds. DOE also agrees, among other actions, to engage FWS in the development and implementation of strategies to improve or enhance the conservation of migratory birds and their habitats:

- in the conduct of environmental cleanup activities at DOE sites,
- at ecological resource preservation areas across DOE sites, and
- at water impoundment structures (e.g., dams and retention ponds).

The MOU acknowledges that DOE “routinely uses the NEPA process to evaluate the potential environmental effects of proposed Federal actions . . . including potentially significant effects to migratory birds, and to consider reasonable alternatives to those actions.” Further, the MOU directs DOE to coordinate with FWS regarding proposed actions that may have direct and indirect adverse effects on migratory birds or their habitats through the NEPA process.



Biologists at DOE's Pantex Site in Texas have banded more than 10,000 purple martins with geolocators to better understand the movements and behavior of this migratory bird. (Image source: JJ Cadiz)

DOE EISs Consider Migratory Birds

In its EISs, DOE may describe efforts to enhance conservation of migratory bird species that are present at the subject DOE site(s). For example, at the Nevada National Security Site (NNSS), where 234 of the 239 species protected under the MBTA have been observed, the NNSS Final Site-wide EIS (February 2013) explained how DOE/National Nuclear Security Administration enforces 60-meter buffer areas around active burrows for the western burrowing owl, a species protected under the MBTA.

The MOU, signed and effective on September 12, 2013, will remain in effect for five years. For more information, contact Jane Powers, Office of Sustainability Support, Office of Health, Safety, and Security, at jane.powers@hq.doe.gov or 202-586-7301 or Josh Silverman, Director, Office of Sustainability Support, Office of Health, Safety, and Security, at josh.silverman@hq.doe.gov or 202-586-6535. 

2006 and 2013 MOUs

DOE and FWS first entered into an MOU on migratory bird protection in 2006. (See *LLQR*, March 2007, page 15.) The 2006 MOU focused on conservation activities at DOE sites and interactions with regional FWS offices. The updated 2013 MOU is more detailed and increases collaboration between DOE and FWS on research, third-party funding activities, and issues associated with the protection of migratory birds and their habitats. The 2013 MOU also includes DOE Headquarters program-level and Power Marketing Administration actions. In addition, it specifically recognizes actions currently implemented by DOE that involve migratory bird conservation. Examples include NEPA reviews of DOE actions, compliance with environmental laws during environmental legacy cleanup, and implementation of Environmental Management Systems.

NEPA Office's Jim Daniel To Retire

The New Year will bring many changes for Jim Daniel, Unit Leader, Office of NEPA Policy and Compliance, who will retire at the end of 2013 after almost 40 years of dedicated federal service, including almost 25 years in DOE's NEPA Office.

Just Read It!

When asked to distill decades of experience into a single piece of advice for DOE's NEPA practitioners to remember, Jim said, "Just read the EIS before submitting it for approval. Experienced EIS reviewers can quickly spot a draft document that has been rushed through the program review in order to meet a deadline. It often appears that NEPA Document Managers, especially new and inexperienced ones, rely too much on their contractors to do the QA/QC of EISs instead of taking the time to sit down and read the document themselves."

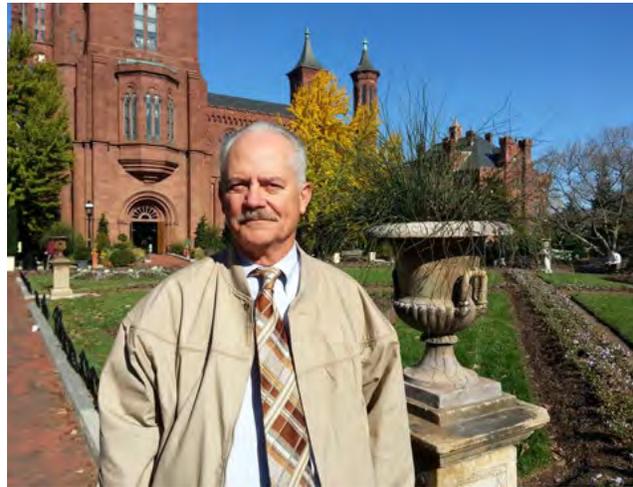
"You can either pay the piper before submitting the EIS or pay afterwards," warns Jim. "Make sure early in the process that the contractor has good writer-editors in addition to technical experts. This will help in preparing high-quality EAs and EISs the first time around. A well-written EA or EIS will take much less time to review and approve."

Major NEPA Accomplishments

After graduating from college in 1972, Jim started his federal service with 4 years in the Army, most of that time overseas. He then worked as an environmental research assistant for an environmental consulting firm before being hired in 1978 as an environmental biologist in the NEPA office of the Federal Energy Regulatory Commission (FERC). After 11 years preparing NEPA reviews on natural gas pipeline and liquefied natural gas projects at FERC, in 1989 he came to DOE's NEPA Office (then part of the Office of Environment, Safety and Health) and has been reviewing DOE's NEPA-related documents and preparing NEPA guidance ever since.

Jim's areas of emphasis include endangered species, nuclear weapons and facilities, classified matters, and security/terrorism issues. He worked on practically all of DOE's EISs for major proposals and programs involving nuclear materials:

- New Production Reactor (DOE/EIS-0144)
- Surplus Plutonium Disposition (DOE/EIS-0283)
- Stockpile Stewardship and Management (DOE/EIS-0236)



Jim Daniel, Unit Leader, Office of NEPA Policy and Compliance, often enjoyed a walk through the Smithsonian gardens across from DOE Headquarters.

- Weapons-Usable Fissile Materials (DOE/EIS-0229)
- Tritium Supply and Recycling (DOE/EIS-0270, 0271, and 0288)
- Nuclear Infrastructure (DOE/EIS-0310)
- the site-wide EISs for Lawrence Livermore National Laboratory (DOE/EIS-0348), Los Alamos National Laboratory (DOE/EIS-0238 and 0380), Nevada National Security Site (DOE/EIS-0243 and 0426), and Y-12 National Security Complex (DOE/EIS-0309 and 0387)

During his 24 years with the NEPA Office, Jim also made significant contributions to DOE's major NEPA rulemakings in 1994 and 2011, and several key DOE NEPA guidance documents, including *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (2004), *Environmental Impact Statement Checklist* (1997), and the *Environmental Assessment Checklist* (1994).

We will miss Jim. He has shared with us the news that in March, he will marry his high school/college sweetheart (also retired). They intend to travel before deciding where to live – probably somewhere near the ocean, as they both have always loved the coastal environment. What better way to enjoy retirement? The NEPA Office, on behalf of the DOE NEPA Community, offers Jim and his bride-to-be best wishes for their future. ☐☐

Transitions: NEPA Compliance Officers

New Richland Operations Office and Office of River Protection NCO: Diori Kreske

The new NCO for the Richland Operations Office and Office of River Protection, both at the Hanford Site, is Diori Kreske – a geologist by training and an environmental planner by profession for over 30 years. Before joining DOE, Ms. Kreske worked for the U.S. Navy, U.S. Forest Service, U.S. Geological Survey, and the Federal Emergency Management Agency. As a federal employee and an environmental consultant, she has managed large, complex NEPA reviews with public and political sensitivities. Ms. Kreske is the author of a book titled *Environmental Impact Statements: A Practical Guide for Agencies, Citizens, and Consultants* (Wiley 1996).

In her new role as the NCO at Hanford, she will focus on NEPA training “for those who want it as well as those who don’t,” she said, “to promote an effective NEPA process and ensure high-quality documentation that can face intense public scrutiny.” Ms. Kreske can be reached at diori.kreske@rl.doe.gov or 509-376-2375.

Excerpts from Ms. Kreske’s Book on EISs

“If the scope of an EIS changes because of public input . . . , a change in the contract scope of work (a contract ‘Change Order’) may be necessary. Changes to a contract normally require additional budget, and they sometimes lengthen the schedule. . . . Change Orders are not a sign of failure on the part of the consultant or any other participant. They reflect the nature of EISs, not contracts.”

Chapter on *EIS Project Management*

“Place environmental impacts in a context that the average person can understand. . . . So what if there is an increase or decrease in something, what does it mean? Don’t make the reader guess whether there is any significance to an impact or why it was identified.”

Chapter on *Writing EISs*

Pacific Northwest Site Office: Theresa Aldridge Retired

Theresa Aldridge, the first NCO for the Office of Science’s Pacific Northwest Site Office (PNSO) in Richland, Washington, retired in late November. Ms. Aldridge had been a member of the PNSO Operations Team, which oversees the technical and operational activities under the Environmental Management System at the Pacific Northwest National Laboratory (PNNL). She served as the PNSO NEPA coordinator for 10 years before being named NCO in 2012.

In addition to fulfilling NEPA duties for the PNSO, Theresa was a helpful commentor on DOE NEPA rulemaking and guidance initiatives and an enthusiastic supporter of efforts to make the NEPA process more efficient. For a recent EA, *Future Development in Proximity to the William R. Wiley Environmental Molecular Science Laboratory, Pacific Northwest National Laboratory, Richland, Washington* (DOE/EA-1958), she reported that PNSO and PNNL followed the recommendations of the Council on Environmental Quality and the Advisory Council on Historic Preservation by integrating National Historic Preservation Act (NHPA) and NEPA compliance (LLQR, June 2013, page 1).

“This was not easy and required support, involvement, and dedication from a number of DOE and contractor programs, as well as support from our stakeholders and tribes. The coordination allowed us to finalize NHPA and NEPA documentation in just 4 months and reduced the EA’s projected cost by a third – from \$113,000 budgeted to \$75,000 – thanks to lower labor effort, streamlined documents, and coordinated regulatory compliance.”

Until a new NCO is designated, Tom McDermott (tom.mcdermott@pns.science.doe.gov or 509-372-4675) is PNSO’s NEPA Contact; Gary Hartman (hartmangs@oro.doe.gov or 865-576-0273) and Peter Siebach (peter.siebach@ch.doe.gov or 630-252-2007), both of the Office of Science Integrated Support Center, will fulfill the NCO responsibilities.

On behalf of the DOE NEPA Community, we offer Theresa best wishes in all her future endeavors.

EAs and EISs Completed July 1 to September 30, 2013

EAs¹

Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1925 (8/8/13)

Midnight Point and Mahogany Geothermal Exploration Projects, Glass Buttes, Oregon
EA was adopted; therefore cost and time data are not applicable to DOE metrics. [Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

Pacific Northwest Site Office/Office of Science

DOE/EA-1958 (7/22/13)

Future Development in Proximity to the William R. Wiley Environmental Molecular Sciences Laboratory, Pacific Northwest National Laboratory, Richland, Washington
Cost: \$75,000
Time: 4 months

Richland Operations Office/ Office of Environmental Management

DOE/EA-1934 (8/15/13)

Expansion of Active Borrow Areas on the Hanford Site, Richland, Washington
Cost: \$305,000
Time: 13 months

EISs

No EISs were completed during this quarter.

NEPA Document Cost and Time Facts²

EA Cost and Completion Times

- For this quarter, the median and average costs for the preparation of 2 EAs for which cost data were applicable were \$190,000.
- Cumulatively, for the 12 months that ended September 30, 2013, the median cost for the preparation of 10 EAs for which cost data were applicable was \$85,000; the average was \$334,000.
- For this quarter, the median and average completion times for 2 EAs for which time data were applicable were 9 months.
- Cumulatively, for the 12 months that ended September 30, 2013, the median and average completion times for 14 EAs for which time data were applicable were 13 months.

EIS Cost and Completion Times

- No EISs were completed during this quarter.
- Cumulatively, for the 12 months that ended September 30, 2013, the median cost for the preparation of 3 EISs for which cost data were applicable was \$8,000,000; the average was \$31,220,000.
- Cumulatively, for the 12 months that ended September 30, 2013, the median completion time for 5 EISs for which time data were applicable was 43 months; the average was 50 months.

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Schedule conflicts addressed.* Initially there were schedule conflicts among interested parties. This was addressed by circulating potential schedules up front so any conflicts could be identified early and avoided.
- *Anticipation of issues.* The scoping process clearly laid out expectations and facilitated good forecasting to anticipate and resolve issues early.
- *Consensus on terminology.* Definitions and terminology that needed to be agreed upon were addressed early in the scoping process.

What Didn't Work

- *Changes to scope.* Information identified after the scoping process required a modified scope and additional analyses.

Data Collection/Analysis

What Worked

- *Integrated team.* Due to the integration of the Project Team and the NEPA EA Team, the data collection was easily tracked.
- *Innovative process.* The use of an innovative internal comment/resolution process (SharePoint collaboration tools and real time comment resolution) facilitated timely completion of the EA.

What Didn't Work

- *Untimely receipt of data.* Late information was received that identified an additional location that needed to be analyzed for potential impacts.
- *Use of old information.* Some of the data used initially to characterize the upper limit of radiological materials in facilities were out of date. Analyses had to be redone.

- *Analysis modifications.* Impact analysis and methodology seemed straightforward, however, the level of analysis for certain resources had to be modified in the course of the NEPA process.
- *Tribal interactions.* The process for dealing with tribal consultation and gathering information regarding tribal sacred sites and traditional cultural properties was not smooth.

Schedule

Factors that Facilitated Timely Completion of Documents

- *External agency communications.* Regular communications with appropriate federal and state agencies facilitated timely completion of the EA.
- *Staged reviews.* Rather than postponing the EA review until all sections were completed, portions of the proposed EA chapters were reviewed as they were completed.
- *Use of NEPA templates.* Timely completion of the EA was facilitated by the use of prior NEPA documents' templates.

Factors that Inhibited Timely Completion of Documents

- *Integrating agency NEPA processes.* Additional time, not considered in the original schedule, was required to address requirements of the lead agency.
- *Unrealistic schedule.* The schedule mandated for completion of the EA was unrealistic.

Teamwork

Factors that Facilitated Effective Teamwork

- *Good communication.* Frequent and open communication facilitated effective teamwork.
- *Cooperation.* Cooperation among the NEPA team members when addressing issues was effective.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Timely issue resolution.* Addressing issues in a timely manner proved very important to completing this EA on time.
- *Strong leadership.* Strong leadership with clear schedule and expectations laid out at the beginning of the process was effective.
- *Involvement.* A high level of involvement and collaboration by the entire team through the entire course of the project was effective.
- *Common goal.* There was team buy-in to expectations and schedule from day one. The team had a common goal.
- *Effective team mix.* The integrated DOE-contractor project team, including legal, environmental, NEPA, project proponent, and senior management, was the right mix for identifying and addressing issues.
- *NEPA mentors.* A new NEPA document manager had two mentors, a prior NEPA Document Manager and a NEPA Compliance Officer, to ensure the preparation of a quality EA.

Usefulness

Enhancement/Protection of the Environment

- *Wildlife protection.* The NEPA process led to greater protection of wildlife than was required.

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 2 EA and 1 EIS questionnaire responses were received, all respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “4” stated that the NEPA process facilitated understanding the views of various stakeholders.
- A respondent who rated the process as “4” stated that the NEPA process was an important planning tool.
- A respondent who rated the process as “4” stated that the NEPA process facilitated effective integration with project planning.

LESSONS LEARNED

March 4, 2014; Issue No. 78

First Quarter FY 2014

GIS and NEPA: Partners in Environmental Analysis



The term geographic information system (GIS) was first used in 1968, just a year before Congress considered and passed NEPA. In the decades since, GIS and NEPA have matured together – with NEPA often providing a purpose to develop and apply GIS tools, and GIS proving time and again to be of immense value to NEPA analysis. As Melissa Ardis, NEPA Document Manager for the Golden Field Office, said, “I absolutely believe that GIS makes the NEPA process not only more efficient – but more correct. GIS allows for greater and more pin-pointed analysis.”

This issue of *Lessons Learned Quarterly Report* examines some recent developments and practices in the use of GIS for NEPA and related environmental reviews. The Office of NEPA Policy and Compliance unveils, in this issue (page 3), a new pilot project – NEPAnode – meant to make it easier for DOE NEPA practitioners to learn about and use a powerful GIS tool.

I recommend that NEPA document managers practice using GIS, particularly since we don't always get to make site visits. Becoming proficient at GIS is a key tool to preparing NEPA documents.

– Melissa Ardis
NEPA Document Manager, Golden Field Office

This issue also presents a description of some of the ways that DOE's Bonneville Power Administration (BPA) uses GIS in its NEPA processes (page 5). BPA's experience is similar to that of other DOE offices. For example, Mark Lusk, NEPA Document Manager, National Energy Technology Laboratory, described how for a recent environmental impact statement (EIS), “We used GIS to develop maps of a corridor for a proposed 80-mile pipeline and overlaid that corridor with existing roads, rivers, parks, wetlands, and other features. The maps that we developed

using GIS were made available for public review at meetings and hearings. We also used GIS to develop figures and maps for the EIS and for consultation letters sent to other agencies.”

Finally, this issue of *LLQR* describes two GIS projects by others. The U.S. Fish and Wildlife Service, in partnership with other federal agencies, has developed a web-based Information, Planning, and Conservation (IPaC) system (page 6) to aid in compliance with the Endangered Species Act, which federal agencies often undertake as part of a NEPA review. The Western Governors' Association recently rolled out its Crucial Habitat Assessment Tool (page 7). This GIS, and related state-level tools, support collaboration in early planning.

CEQ Encourages Sharing Best GIS Practices

One impetus for the focus on GIS in this issue of *LLQR* is recent efforts by the Council on Environmental Quality (CEQ) to encourage federal agencies to share practices and seek to maximize resources across all agencies in developing GIS tools. Toward this end, CEQ convened a meeting of White House Working Groups and the Interagency NEPA contacts in January 2014. Members from CEQ's NEPA & IT Working Group and Rapid Response Teams, the Unified Federal Review Working Group, and OMB's Infrastructure ([Executive Order 13604](#)) Working Group and Broadband Acceleration Working Group, were invited. Horst Greczmiel, Associate Director for NEPA Oversight at CEQ, explained that, “We want to break down the silos between our various groups and agencies, by spreading the word on what's available and by leveraging what's been developed and is currently in development so we minimize the total government expenditure.” 



Related GIS articles: pages 3–7



Inside Lessons Learned

Welcome to the 78th quarterly report on lessons learned in the NEPA process. This issue examines some recent developments and practices in the use of GIS for NEPA and related environmental reviews. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borupstrom

Director
Office of NEPA Policy and Compliance

Printed on recycled paper 

Be Part of Lessons Learned

We Welcome Your Contributions to *LLQR*

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by April 11, 2014, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due May 1, 2014

For NEPA documents completed January 1 through March 31, 2014, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than May 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Most DOE EISs Involve Cooperating Agencies

Cooperating agencies were involved in the preparation of 32 of the 39 DOE EISs ongoing during fiscal year 2013, including 2 of the 3 DOE EISs started that year. These are among the findings contained in DOE’s latest Cooperating Agency Report to the Council on Environmental Quality (CEQ), submitted in February 2014. DOE also reported that 2 of the 15 environmental assessments (EAs) that it completed during the fiscal year were prepared with cooperating agencies.

This year CEQ asked agencies to report the number of NEPA reviews that each cooperating agency participated in preparing and to characterize these working relationships. Twenty-two federal agencies, 13 states, 38 local governmental units, and 10 tribes were cooperating agencies in DOE EISs and EAs active in fiscal year 2013. The U.S. Forest Service, U.S. Army Corps of Engineers, Bureau of Land Management, and the Environmental Protection Agency were cooperating agencies in the largest numbers of DOE NEPA reviews.

This [annual reporting approach](#) is part of CEQ’s ongoing efforts to encourage federal agencies to involve cooperating agencies – at the federal, state, local, and tribal government levels – in NEPA reviews. [CEQ guidance](#)

points to several benefits of involving cooperating agencies, including disclosure of relevant information early in the analytical process, access to technical expertise and staff support, avoidance of duplicative reviews, and establishing a mechanism for addressing inter- and intra-governmental issues.

For additional information on DOE’s report, contact Yardena Mansoor at yardena.mansoor@hq.doe.gov. 

Cooperating Agencies

A cooperating agency participates in the preparation of an EIS based on its jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action (or reasonable alternative) (40 CFR 1508.5). The responsibilities of a cooperating agency include participating in the NEPA process at the earliest possible time, participating in scoping, and – on request of the lead agency – assuming responsibility for developing information and preparing analyses for matters in which the cooperating agency has expertise (40 CFR 1501.6).



DOE NEPA Practitioners Invited To Test NEPAnode

Would easy access to a geographic information system (GIS) help you complete a NEPA review? Would you like to learn more about how GIS works? If so, you may want to test drive [NEPAnode](#), a new year-long pilot project of the Office of NEPA Policy and Compliance.

NEPAnode can assist in the preparation of categorical exclusion determinations, EAs, and EISs. It works entirely within a web browser,¹ so no desktop GIS software is required.

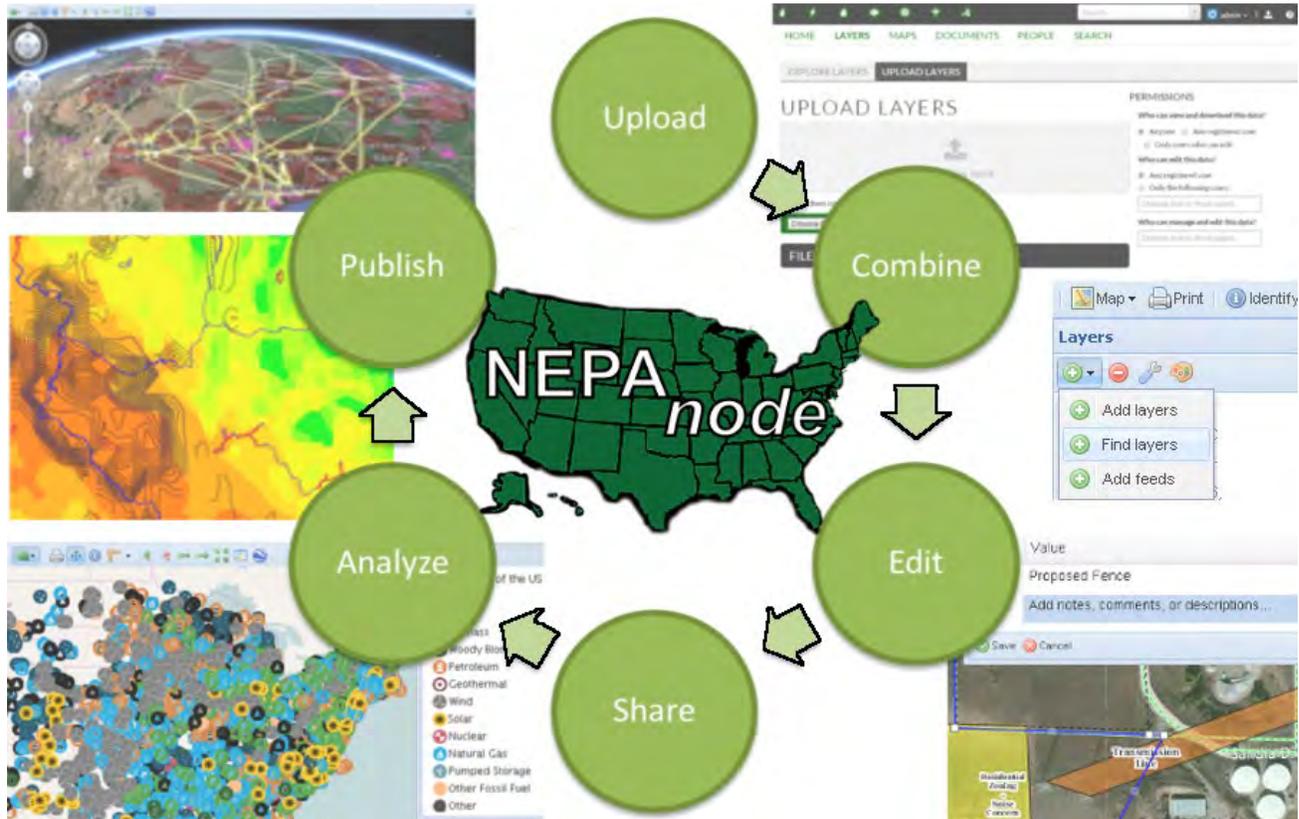
“We’re building on work by other federal agencies to offer DOE’s NEPA community a robust system to improve the efficiency of environmental analyses,” said John Jediny, NEPAnode project lead. “We invite DOE’s NEPA Compliance Officers and Document Managers to join us in this pilot test by using NEPAnode to conduct analyses for their projects. This would help us identify the best available data and make that data easily accessible to NEPA practitioners,” he said.

Pilot Test Underway

The NEPA Office initiated the pilot test of NEPAnode in February 2014. Registered users, currently limited to DOE staff and contractors, can upload data for a proposed project (e.g., alternative sites or routes) or project area (e.g., results of field surveys). They can then combine their project-specific data with data contributed by other NEPAnode users or data, such as the National Wetlands Inventory or Flood Hazards Map, obtained from remote data services maintained by other agencies and entities.

“Data uploaded to NEPAnode will be collaboratively managed by the DOE NEPA community,” Mr. Jediny explained. “The diverse data topics – such as socioeconomic, existing infrastructure, energy resources, biological and ecological resources, air and water resources, previous contamination, and land ownership and management – are broadly useful to NEPA analyses. The more data that are collectively added by NEPAnode users, the more data will be available for future projects.

(continued on next page)



NEPAnode allows DOE NEPA practitioners to **Upload** their data, **Combine** user data with layers contributed by others or available through web services, **Edit** or create features such as project areas or map notes, **Share** these combined layers with others as maps, **Analyze** potential issues or impacts, and **Publish** on another website or as a printed document.

¹ The NEPA Office has tested NEPAnode successfully with the latest versions of Chrome, Firefox, and Internet Explorer. NEPAnode’s features are not fully supported by Internet Explorer 8 or earlier versions.



Test NEPAnode

(continued from previous page)

NEPAnode may significantly reduce the time spent on finding the best available data and free up resources for the more central task of analyzing the data,” he said.

How It Works

Data are uploaded in NEPAnode as individual layers that can be combined in a map for analysis and reporting. A NEPA Document Manager can control what information is presented on the map, how that information appears, and who has permission to view or edit the data and map. In addition to viewing a map within NEPAnode, an interactive version of a map can be embedded in another website, such as an EIS website. Also, a map can be printed from NEPAnode in portable document format (.pdf) for inclusion in a NEPA document, to be published as a stand-alone reference, or for other purposes.

A NEPA Document Manager could develop a map with the project team for internal analysis. They could then refine the map and make it available to other agencies for comment or to facilitate a discussion of potential alternatives. The presentation might then be further refined for public review and involvement. “This opens the door to a new way agencies can collaborate with each other and to how NEPA analyses can be communicated to the public

– not just through text, but through interactive maps,” said Mr. Jediny.

At this time, members of the public can review the site, but cannot register for an account to upload and edit data or save maps. Possible future roles for public access will be considered during the pilot test. The pilot test will help the Office of NEPA Policy and Compliance better understand user requirements and potential uses. Technical review and recommendations will guide future design and planning decisions, including potential new features, management and partnership arrangements, and whether and how to make the tool widely available to NEPA practitioners.

For additional information or (for DOE staff and contractors) to register for NEPAnode, contact Mr. Jediny, NEPA Office, at john.jediny@hq.doe.gov. The NEPA Office also seeks DOE staff to participate in an advisory and feedback group. Contact Mr. Jediny if you are interested.

The NEPA Office thanks the interagency [Federal Geographic Data Committee](#) and [National Oceanic and Atmospheric Administration](#) for their work in developing the foundation upon which NEPAnode is built.

Using GIS Tools for NEPA Analysis

Before using any GIS tool to help inform DOE’s NEPA analysis, it is important to consider the following questions:

- What is the purpose of the particular GIS tool and how do you plan to use it to inform the NEPA analysis?
 - Is the purpose to link data to a specific feature on a map, to visualize changes over time? Will the data improve understanding of the affected environment, aid in developing alternatives, or help analyze potential environmental impacts?
- What is the source of the data available through the GIS tool?
- How current are the data used by the GIS tool?
- After using the GIS tool, what data gaps remain and what other resources should DOE pursue to inform its NEPA analysis?

The proliferation of geospatial data on the web has made it much easier to access information. NEPA Document Managers still must ensure that the EIS uses the best available data.

Select Past LLQR Articles on GIS and NEPA

Dec 2013, page 3 *EIS Mapper*

Jun 2012, page 8 *Geo.data.gov, NEPAassist, EJView*

Sep 2012, page 9 *General discussion of GIS benefits*

Dec 2011, page 15 *READ-Database*

Sep 2012, page 8 *GIS Data Inventory*

Dec 2009, page 10 *NEPAassist*



Using GIS To See the Big Picture and “Zoom In”

By: Katie Pruder-Scruggs, Environmental Planning and Analysis, Bonneville Power Administration

At the Bonneville Power Administration, collaboration with the Geographic Information Systems (GIS) team helps environmental compliance staff clearly understand, visualize, and explain complex proposals. The partnership produces an effective tool to inform project managers and engage stakeholders – keys to the success of any NEPA process.

“GIS allows us to organize a large amount of detailed data within a spatial framework,” says BPA NEPA Compliance Officer Stacy Mason. “This approach helps us see how a proposal’s considerations play out on a map instead of a spreadsheet. This kind of information display makes data easy to understand, so it helps with decisions and is a great tool for public meetings.”

GIS mapping uses two basic types of data: spatial and attribute. Spatial data represent locational features, while attribute data refer to characteristics of those features that are relevant to the analysis. For example, a transmission line has its location represented as a series of latitude and longitude points (spatial data) and may also have associated information on its voltage rating and operating name (attribute data).

Map Layers Inform Project Siting

By layering data regarding habitat, wetlands, population, land uses, land ownership, and even the costs of various alternatives, GIS practitioners can create a map that highlights locations that have different profiles of environmental, logistical, social, and economic characteristics.

The GIS analyst may be asked, “Where are spotted owl nests within 500 feet of a transmission line?” The analyst would map all known nests of this species, which is listed as threatened under the Endangered Species Act, and generate a report. Maps may incorporate sensitive information – for example, specific locations of endangered species and cultural resources – without disclosing it to unauthorized persons.

“GIS maps are a powerful tool for all phases of a project,” says BPA Geographer Dana Collins. “For pre-planning and siting, we can help identify the best alternative locations for transmission lines and access roads. During construction and operation, we can refine the data using surveys, then identify ways to reduce impacts by fine tuning construction activities,” she said.

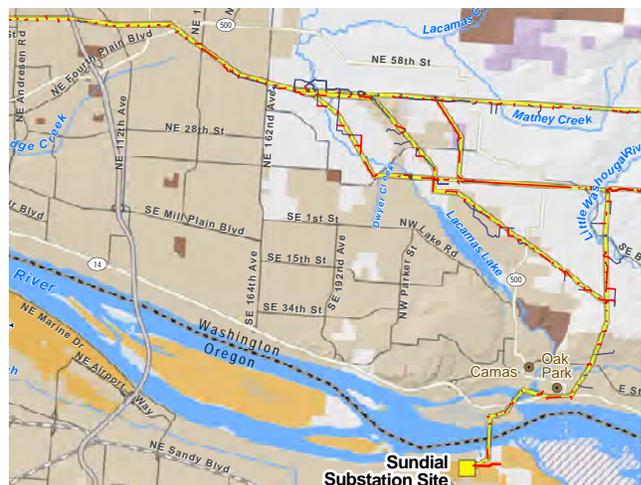
A Popular Tool with Stakeholders

BPA has long used printed maps at public meetings and other events, but recently has found that **interactive, electronic maps** are more effective.

For one of BPA’s largest transmission line construction proposals, the **I-5 Corridor Reinforcement project**, BPA invited stakeholders to sit down with a project manager at a computer, search on the GIS map for their parcel of property or resource of interest, and zoom in to see how the various proposed alternatives would affect them. Stakeholders then received a printed copy of their detailed map.

“The alternative routes and access roads were extensive and complex, and spanned hundreds of miles. The interactive GIS map helped BPA cut through the complexity, and people really liked the personalized approach,” said BPA Environmental Project Lead Nancy Wittpenn.

Virtually every office within BPA now uses the GIS team to some extent. Because of its unique analytical capabilities, GIS tools are especially valuable in aiding environmental compliance and effective NEPA processes. Plus, the maps are really interesting to look at, which makes the projects more engaging. **LL**



BPA uses GIS maps like this one – a section of proposed I-5 Corridor Reinforcement construction – at public meetings and to prepare NEPA documents.



Online Tool for Endangered Species Act Consultation

The U.S. Fish and Wildlife Service (FWS), in partnership with the U.S. Geological Survey, has developed the web-based [Information, Planning, and Conservation \(IPaC\) decision support system](#). IPaC is designed to provide natural resource information and facilitate compliance with the Endangered Species Act (ESA) and streamline the ESA environmental review and consultation processes, which agencies often undertake as part of a NEPA review. It may also assist in the planning and identification of alternatives and could improve coordination between FWS, agencies, and stakeholders. While some features of IPaC are still in development, others are currently functional.

Current Features of IPaC

IPaC can be used to help quickly determine whether a proposed project may affect a threatened or endangered species and/or critical habitat, or intersect a National Wildlife Refuge or National Wetlands Inventory identified wetland habitat. In the past, FWS would respond (normally within 30 days) to a lead agency's written request ([50 CFR 402.12\(c\)\(1\)](#)) for a list of threatened or endangered species and/or critical habitat (hereafter referred to as a "species list") within the proposed project area.

Using IPaC's "Initial Project Scoping" function, the user can select a preloaded base map or upload a map, use drawing tools to delineate the proposed project area, and select map layers to be displayed (e.g., National Wildlife Refuges, National Wetlands Inventory). The user can also select a proposed project type using a drop-down menu (e.g., transmission line, transportation).

IPaC provides the user with an unofficial species list for the proposed project area. This can be used for scoping, and the user can repeat the process to obtain an unofficial species list for each alternative to help evaluate potential impacts on threatened and endangered species and critical habitat. The user also can obtain FWS's recommended conservation measures, if available for the affected areas.

In addition, an agency or its designated representative can use IPaC to request an official species list from FWS.¹ This can essentially eliminate the 30-day period normally required to obtain an official species list.

Future IPaC Capabilities

FWS anticipates that IPaC's "Project Builder," a suite of additional functions, will be available later this year.

Instead of defining the proposed project only in broad terms, the user will be able to identify specific project activities and their components. The user also will be able to specify a proposed project timeline to determine whether species-specific factors (e.g., migration and breeding seasons) could affect impacts.

The user will be able to report their project progress and evaluate the effectiveness of FWS-recommended conservation measures throughout the life of the project.

FWS plans to have recommended conservation measures for all locations in the United States and add a feature to identify migratory bird species and Coastal Barrier Resource System units that may be affected by the proposed action. FWS also plans to create other functions for IPaC, such as assistance in drafting a Biological Assessment or a Biological Opinion (if required).

During a presentation for federal NEPA contacts at the Council on Environmental Quality in late January, FWS staff said that they expect IPaC, when fully implemented, could significantly reduce the time to complete the entire consultation process, which currently ranges from about 3 months for a simple project to 8 months for a large-scale, complex project. FWS also plans to provide the ability to download write-ups on listed species that can be directly incorporated into NEPA documents. For additional information on IPaC, contact Michael Horton, FWS, at michael_horton@fws.gov or 703-358-2371. LL



IPaC provides a quick way to search near a proposed project area for endangered species, such as the [Indiana Bat](#) (*Myotis sodalis*). (Photo: Adam Mann, Environmental Solutions and Innovations)

¹ This function is available for 52 of the 63 FWS offices. FWS is working to activate this function for the remaining 11 offices.



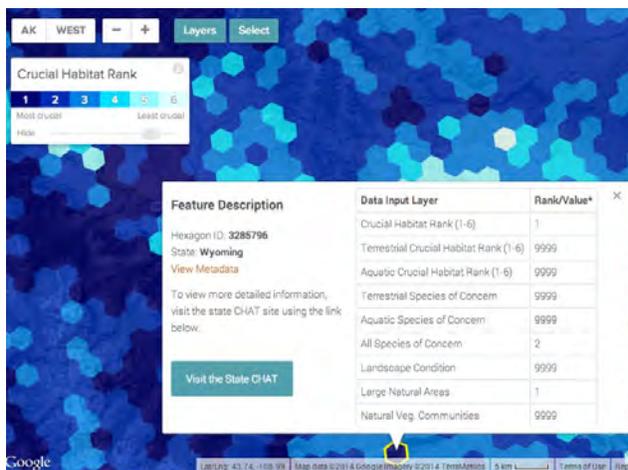
Western Governors Launch Crucial Habitat Assessment Tool

As part of an effort to develop “policies and tools to identify and conserve crucial wildlife habitat and corridors” across the West, the Western Governors’ Association (WGA) launched its Crucial Habitat Assessment Tool (known as “CHAT”) in December 2013. WGA’s CHAT, a free, online geographic information system (GIS), is the result of a cooperative effort involving WGA’s Wildlife Council and 16 Western states (Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming). DOE supported the development of CHAT through a \$3 million grant in 2010 to fund year-long pilot projects for several Western states to inventory common data, improve data development, and increase data sharing.

CHAT “is intended to provide coarse-scale, non-regulatory wildlife information to support early planning for energy, transportation, land use and other large-scale development or conservation projects,” explains WGA on the [CHAT website](#). “CHAT provides a ‘30,000-foot view’ of habitat for pre-planning that can be used for projects as varied as ‘macro-siting’ energy corridors and transmission routes, to comparing fish and wildlife habitat across the West,” said WGA in its [December 12, 2013, press release](#).

State-Generated Input Using a Common Framework

WGA’s CHAT allows users to identify “crucial habitat” in the 16 Western states and to connect to more detailed mapping in individual state CHATs. (Several Western states have developed their own state-specific CHATs.



For a particular location within one of the 16 Western states, WGA’s CHAT displays information about the location and a link to the respective state CHAT, if one exists.

See text box, page 15.) WGA defines **crucial habitats** as “places that are likely to provide the natural resources important to aquatic and terrestrial wildlife.” Crucial habitat is not the same as “critical habitat” under the Endangered Species Act. WGA’s Wildlife Council established common definitions of “crucial habitat” and “important wildlife corridors” and issued guidelines to help each state prioritize habitat within its boundaries to meet its specific conservation objectives. These common definitions “help to achieve compatibility and consistency across state boundaries and address certain discrepancies that may exist in identifying habitat and natural features along state borders,” explains WGA on the CHAT website.



CHAT aims to bring greater certainty and predictability to planning efforts by establishing a common starting point for discussing the intersection of development and wildlife.

– *Western Governors’ Association*

To develop the composite crucial habitat layer, WGA’s Wildlife Council identified several different data inputs and assembled a suite of aggregated datasets (e.g., aquatic and terrestrial species of concern, wetlands, habitat connectivity, species of economic and recreational importance) based on input from each state. The [CHAT metadata webpage](#) describes how each state compiled their crucial habitat data and how the regional data were aggregated.

CHAT Provides A Bird’s Eye View

CHAT may be used most often by project developers prior to applying to a federal agency for a permit or other approval. This pre-application phase is a critical element in developing proposals for later NEPA review. CHAT “will help planners be better informed about wildlife priorities early in the process, so they can be better prepared as they engage in actual permitting with state and federal agencies,” said John Harja, Chairman of WGA’s Wildlife Council.

(continued on page 15)

Annual NEPA Planning Summaries Benefit DOE Offices

Successful NEPA implementation requires active planning, with the involvement of senior managers – not just on a document-by-document basis, but also in terms of an office’s expected cumulative NEPA activity. The goal is to align NEPA compliance with program priorities and allocate resources sufficient to enable timely, informed decisionmaking, as discussed in a [2012 Secretary of Energy memorandum](#) on integrating program and project management with NEPA compliance. The requirement to prepare an Annual NEPA Planning Summary (APS) is meant to support this process.

Preparing the Annual NEPA Planning Summary gives me a chance to sit down and determine the level of effort and scope of talent needed to prepare and review upcoming NEPA documents, and to provide this information to my management. The more information we have had, the more successful we have been. In the end, this leads to better-informed decisionmakers.

– Susan Lacy, NEPA Compliance Officer
Sandia Field Office, NNSA

Although the primary beneficiaries of the APS process are intended to be senior program officials, the Office of NEPA Policy and Compliance examines the submitted APSs to identify aggregate trends and to help plan workload for supporting NEPA reviews. In the 2014 APSs, DOE organizations identified 40 ongoing EISs, 7 EISs projected to start in the next two years, 52 ongoing EAs, 33 EAs projected to start in the next year, and 4 proposals for which the determination to prepare an EA or EIS has not yet been made. These tallies include NEPA documents for which DOE is a cooperating agency and those for which DOE’s role as a lead or cooperating agency has not yet been settled. NEPA documents completed by January 1, 2014, are not included in the totals.

Bonneville Power Administration and Western Area Power Administration account for more than half of the reported ongoing EISs (26 of 40) and projected EISs (6 of 7); together with the Office of Energy Efficiency and Renewable Energy, they account for most of the EAs, as well (39 of 52 ongoing; 16 of 33 projected).

The number of new EISs and EAs that are actually started in 2014–2015 may differ from these projections. For

example, DOE and applicant proposals may be initiated or cancelled, funding availability may cause plans to change, and other agencies may invite DOE participation as a cooperating agency in additional NEPA documents. In addition, a few offices reported in their APSs that supplement analyses are underway or planned. These could result in determinations to prepare additional supplemental or new EISs.

Most of the NEPA reviews in the 2014 APSs do not include cost and schedule information. As expected, the APSs contain more information for ongoing EISs and EAs than for the projected new ones, though even ongoing EISs and EAs often lack future milestones. The APSs include more information on planned costs than future schedules. A NEPA document’s planned schedule may be adjusted such as when data and analytical needs are identified, cooperating agencies provide input, and public comments are reviewed (*LLQR*, June 2012, page 1). In some cases, the absence of a schedule can be attributed to uncertainty about the timing of applicant proposals or the availability of funding for a project or its NEPA review.

This year, the NEPA Office began testing a revised template for preparing APSs. The new format aims to improve consistency and simplify the reports, e.g., by eliminating the request for interim milestones and focusing on start and end points for NEPA reviews. The NEPA Office will continue to work with DOE program and field offices over the next year to further refine the reporting template and associated guidance. [L](#)

What’s an APS?

Established under [DOE Order 451.1B](#), *NEPA Compliance Program*, an Annual NEPA Planning Summary briefly describes the status of the organization’s ongoing NEPA compliance activities, as well as EISs expected to be prepared in the next 24 months, EAs expected to be prepared in the next 12 months, and the planned cost and schedule for completion of each NEPA review. Every Secretarial Officer and Head of a Field Organization is responsible for submitting an APS to the General Counsel by January 31 annually and making it available to the public. APSs are posted on the [DOE NEPA Website](#).

Office of Science Updates Corporate NEPA Procedures

By Peter Siebach, NEPA Compliance Officer, Office of Science Integrated Support Center

The first responsibility of a NEPA Compliance Officer (NCO), under the [DOE NEPA Order](#), is to develop office-level NEPA procedures and information management requirements. Gary Hartman and I, the NCOs for the Integrated Support Center (at the Oak Ridge Office and the Chicago Office, respectively), maintain NEPA procedures within the Office of Science Management System (SCMS), accessible through DOE computers.

The [NEPA module](#) of SCMS – referred to as a “Subject Area” – consists of “procedures” consistent with, and tiered from, the DOE NEPA Order and regulations ([10 CFR Part 1021](#)). Roles are described, as appropriate for each procedure, for an NCO, NEPA Document Manager, counsel, project or program manager, Director of the Office of Science, manager of a site office or the Integrated Support Center, public affairs, and others.

The “NEPA Subject Area” of the SCMS has become a broadly recognized tool within the Office of Science for both NEPA and non-NEPA staff, guiding them through sometimes complex and confusing processes.

– Karl G. Moro, Assistant Manager
Safety, Technical and Infrastructure Services
Integrated Support Center

The NEPA module contains exhibits including useful flowcharts, forms, and document templates (e.g., EA and EIS flowcharts, EA approval memorandum, National Historic Preservation Act memorandum of agreement template). A reference section provides links to relevant resources, such as regulations, directives, and guidance. The individual procedures consist of step-by-step instructions for performing elements of the NEPA process.

- **Implementing NEPA within the Office of Science:** This procedure describes the internal assignment of NEPA responsibilities, e.g., for designating an NCO, establishing a NEPA quality assurance (QA) plan, and incorporating principles of integrated safety management and environmental management systems into the NEPA process. This procedure recommends that every 5 years the NCO should perform an internal self-assessment or arrange for an independent external assessment of the NEPA Program.
- **Determining the level of NEPA review:** This procedure describes the process for determining whether to prepare a categorical exclusion determination, EA, or EIS for a proposal. An environmental checklist for applicants is provided.



U.S. DEPARTMENT OF
ENERGY

Office of
Science

The Office of Science created the [SCMS](#) in 2007 to help the headquarters program office, its Integrated Support Center, and 10 site offices to better function as a coordinated organization. SCMS provides common standards, procedures, and guidelines.

SCMS consists of 19 management systems for operating and business processes. Purpose, ownership, requirements, drivers, customers, system operations, and responsibilities are defined for each system.

- **Processes for NEPA document preparation and consultations:** Six procedures address the steps for preparing, reviewing, approving, and issuing a categorical exclusion determination, EA, EIS, and floodplain and wetland review; complying with the Endangered Species Act; and managing historic and cultural resources under the National Historic Preservation Act (including integration of other regulatory obligations with the NEPA process).
- **Planning and tracking NEPA reviews:** This procedure covers preparation of the annual NEPA planning summary (related article, page 8) and monthly tracking of the progress of each EA and EIS.

The other NEPA procedures cover public participation, preparing QA plans, obtaining a NEPA document preparer, and maintaining administrative records.

The NEPA procedures in SCMS establish a single uniform way of doing business, reports Gary Hartman, which helps the two Integrated Support Center NCOs to serve the smaller site offices effectively and efficiently. “SCMS helps eliminate redundancy, facilitates our ability to advise across sites, and promotes the ability to reassign NEPA staff resources when needed,” he added.

The NEPA module was updated in February 2014. The October 2014 update is planned to include new procedures for the “environmental critique and environmental synopsis” (i.e., a potential NEPA approach for procurement, financial assistance, and joint ventures (10 CFR 1021.216)) and supplement analysis processes. For additional information, contact me at peter.siebach@ch.doe.gov or 630-252-2007.

The Office of NEPA Policy and Compliance encourages DOE NCOs to consider whether a website of internal NEPA procedures would improve efficiency in their office’s NEPA activities. 

Forest Service Applies Alternative NEPA Arrangements To Accelerate Rim Fire Recovery Activities



The Council on Environmental Quality (CEQ) approved alternative arrangements in December 2013 to allow the U.S. Forest Service to reduce the time normally required to complete an EIS for a proposed fire recovery project in California while ensuring adequate opportunity for public involvement. In its [request](#) to CEQ, the Forest Service described projects to address immediate hazards and explained that its request was for emergency actions “needed to move towards long term recovery.”

“Emergency actions needed to remove hazard and dead trees and provide for future restoration treatments do not afford us time to conduct the regular planning process to comply with [NEPA],” explained Forest Service Chief Thomas Tidwell.

Alternative arrangements to address emergency circumstances are provided for in CEQ’s NEPA regulations. Alternative arrangements do not waive NEPA requirements, but establish an alternative means for compliance for actions necessary to control the immediate impacts of the emergency. The arrangements only apply to federal actions that may have significant environmental impacts.

In its December 9, 2013, [letter](#) authorizing alternative arrangements, CEQ commended the Forest Service for ensuring that the arrangements comply with NEPA and “maximize opportunities to engage interested and knowledgeable stakeholders on all sides of the issues.”

The need for emergency actions arose from the Rim Fire, the third largest wildfire in California history, which burned more than 257,000 acres in August 2013, including 154,000 acres of the Stanislaus National Forest. The

proposed Rim Fire Recovery Project would entail removal of hazard trees and dead trees within the affected area of the Stanislaus National Forest, the Forest Service explained in its notice of intent (NOI) to prepare an EIS ([78 FR 73498](#); December 6, 2013). (“[Hazard trees](#) have the potential to cause property damage, personal injury, or fatality in the event of a failure.”)

Shortened Timeframes Planned

The alternative arrangements requested by the Forest Service and subsequently approved by CEQ for the proposed Rim Fire Recovery Project:

- Shorten the comment period for the draft EIS from 45 to 30 days;
- Eliminate the minimum 90-day requirement between the notice of availability for the draft EIS and publication of the record of decision (ROD); and
- Eliminate the 30-day waiting period between publication of the final EIS and the ROD.

Continued Public Engagement Emphasized

In requesting alternative arrangements, the Forest Service pointed to front-end public involvement, including the Yosemite Stanislaus Solutions (an ongoing collaborative group), and planned public workshops that would allow the Forest Service to expedite the draft EIS. CEQ added several public involvement measures, including to:

- Continue to enhance public engagement during scoping initiated by the December 2013 NOI;

(continued on next page)

CEQ Regulations and Guidance on Emergency Actions

“Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements. Agencies and the Council will limit such arrangements to actions necessary to control the immediate impacts of the emergency. Other actions remain subject to NEPA review.”

– 40 CFR 1506.11

CEQ provided guidance soon after Hurricane Katrina to assist federal agencies in responding to emergency situations. CEQ’s September 2005 memorandum, [Emergency Actions and NEPA](#), provided information on how to comply with NEPA during emergencies, reviewed the relevant CEQ NEPA regulatory provision (above), and advised on how to determine whether NEPA is triggered. CEQ issued a [follow-up memorandum](#) on emergencies and NEPA in May 2010. See [LLQR, June 2010](#), page 15; [June 2007](#), page 11; and [December 2005](#), page 30.

CEQ has approved alternative arrangements 43 times. A [list of the 41 alternative arrangements](#) approved by CEQ through September 2008 is available on CEQ’s website. Since then, CEQ has approved alternative arrangements in [the aftermath of the Deepwater Horizon accident in 2010](#) and the 2013 Rim Fire.

Alternative Arrangements

(continued from previous page)

- Continue active engagement of interested parties throughout the preparation of the EIS;
- Continue communication with the Yosemite Stanislaus Solutions collaborative group;
- Attend and continue communication with the Sierra Nevada Conservancy and parties participating in the December 2013 Rim Fire Landscape Restoration Technical Workshop; and
- Post the final EIS and proposed ROD on the Forest Service website for public review for 5–10 business days prior to publishing the notice of availability for the final EIS in the *Federal Register*.

Under the alternative arrangements, the Forest Service expects to make a decision in early August 2014, which would allow for recovery work before winter weather closes access to the area, explained Regional Forester Randy Moore in a December 4, 2013, memo to Forest Service Chief Tidwell. Mr. Moore noted that without alternative arrangements a decision would be expected in October 2014 and operations would likely begin later – in May 2015 – due to winter weather.

“The need to take action and begin operations prior to winter weather seeks to avoid the threat to human health



Alternative NEPA arrangements will speed the Forest Service’s response to a 2013 fire that killed thousands of trees in the Stanislaus National Forest. (Source: USFS)

and safety and the forest ecosystem,” said Mr. Moore. In addition, the alternative arrangements “maximize the value of rapidly deteriorating burned timber in order to capture the economic value of those trees which pays for their removal . . . and other future restoration treatments.” The approved alternative arrangements and related background documents are available on the [Forest Service’s website](#). (See the link to “CEQ Rim Fire Alternative Arrangements” under Project Documents, then Supporting.) **L**

DOE’s Use of Alternative NEPA Arrangements

DOE has used emergency NEPA provisions five times.¹ None of these involved alternative arrangements to shorten the preparation time for an EIS. Instead, on four occasions, DOE consulted with CEQ while planning to respond to an emergency, undertook the response, and then prepared a special environmental analysis to document the actions taken and the resulting environmental impacts, as well as related information such as mitigation. DOE prepared a special environmental analysis in 1991 for a Bonneville Power Administration action to save the endangered sockeye salmon on the Snake River and in 1992 for the threatened failure of the Par Pond dam at the Savannah River Site in South Carolina. DOE prepared another special environmental analysis in 2000 to address actions taken in response to the Cerro Grande wildfire, which burned almost 43,000 acres near and on the Los Alamos National Laboratory in New Mexico (*LLQR*, September 2001, page 4; September 2000, page 1; and June 2000, page 1). Most recently, DOE prepared a special environmental analysis in 2006 for the Secretary of Energy’s Emergency Order to operate a coal-fired power plant in Alexandria, Virginia, under certain limited conditions to address electricity reliability concerns (*LLQR*, March 2006, page 1; December 2006, page 8). In the fifth situation, DOE consulted with CEQ in 2004 on a classified action to transport nuclear material from Libya. DOE relied primarily on pre-existing NEPA analyses for similar actions (*LLQR*, June 2004, page 8).

The current provision in DOE’s NEPA regulations for taking emergency actions (10 CFR 1021.343(a)), which has been in effect since 1992, states:

Emergency actions. DOE may take an action without observing all provisions of this part or the CEQ Regulations, in accordance with 40 CFR 1506.11, in emergency situations that demand immediate action. DOE shall consult with CEQ as soon as possible regarding alternative arrangements for emergency actions having significant environmental impacts. DOE shall document, including publishing a notice in the *Federal Register*, emergency actions covered by this paragraph within 30 days after such action occurs; this documentation shall identify any adverse impacts from the actions taken, further mitigation necessary, and any NEPA documents that may be required.

¹ CEQ approved DOE’s request for alternative arrangements on one other occasion, but the proposed emergency action was not implemented.

Tools Can Help Identify Tribal Contacts

Several tools are available to help NEPA practitioners identify tribes and Native Hawaiian organizations that may have an interest in a proposed federal action. Depending on the circumstances, DOE may need to work with these entities on a government-to-government basis, by engaging in formal consultation, as cooperating agencies, or in less formal ways throughout the NEPA and National Historic Preservation Act (NHPA) Section 106 processes. The scope of the tools listed below varies, but may include federally recognized tribes (which includes Alaska Native villages), Native Hawaiian organizations (which are treated similarly to tribes in the Section 106 process), and groups such as state-recognized or acknowledged tribes.

Native American Consultation Database

This [database](#), developed by the National Park Service under its Native American Graves Protection and Repatriation Act Program, provides users several search options, including: tribal name, state, county, contact name, and reservation. For each tribe or Native Hawaiian organization, search results may include: tribal leaders and other contacts; type of entity (e.g., federally recognized tribe, constituent band, federally recognized Alaska Native village, tribally preferred name) and authority for this status; states and counties inhabited; land claim areas; and related tribes and villages.

Tribal Directory Assessment Tool

The U.S. Department of Housing and Urban Development, Office of Environment and Energy, developed this [database](#). It may be searched by state, county, or tribe to provide contact information for the tribal leader and Tribal Historic Preservation Officer, if one has been designated. (See *LLQR*, December 2008, page 30.) (A Tribal Historic Preservation Officer is designated by a federally recognized tribe to assume all or part of the functions of a State Historic Preservation Officer on tribal lands (NHPA Section 101(d)(2)).)

National Association of Tribal Historic Preservation Officers Directory

This [directory](#) provides contact information for the 142 Tribal Historic Preservation Officers (as of June 30, 2013) recognized by the National Park Service. Listings are organized by state. The association also provides

recommendations, such as in its 2005 publication, *Tribal Consultation: Best Practices In Historic Preservation*.

Bureau of Indian Affairs Tribal Directory

The *Tribal Leaders Directory*, issued semi-annually by the Department of the Interior, Bureau of Indian Affairs (BIA), provides contact information for the leader of each of the 566 federally recognized tribes. Tribes are listed by the BIA region that provides services to them, alphabetically, and by state.

Helpful Tips: When using these search tools, it is important to bear in mind that a tribe may have historical interests in sites far from its current location. Check whether such historical information (e.g., land claim areas) is included in search results. Also, remember that these search tools may not produce definitive results for all purposes. Take note of references to tribes with a historic or other interest in a project area during consultation processes and when working with the State Historic Preservation Office, State Indian Commission, Tribal Historic Preservation Office, and others.

Other Sources

State and local government agencies may provide additional resources. The South Carolina State Historic Preservation Office, for example, maintains a [website](#) that lists federally and state-recognized tribes and includes a map showing each tribe's traditional territory in the state. The website also lists state-recognized Native American Indian groups and special interest organizations.

The [California Native American Heritage Commission](#) provides a [map](#) showing approximate boundaries of tribal cultural areas and world languages. The Commission also provides a [form](#) to request information on California Native American tribes (including Native American contacts) or a search of files about sacred lands.

The *Directory of Potential Stakeholders for DOE Actions under NEPA* lists points of contact at DOE headquarters and site offices for American Indian tribal issues. [LL](#)

Transitions

NEPA Office: Brad Mehaffy

Bradley (Brad) Mehaffy joined the Office of NEPA Policy and Compliance as an Environmental Protection Specialist in December 2013. He brings diverse skills developed over the last 12 years working both as a government employee and in the private sector. Most recently, Mr. Mehaffy was a contractor for the Federal Aviation Administration (FAA) Flight Standards Office, where he provided support for overall NEPA compliance with emphasis on aviation noise analysis and mitigation, air quality, endangered species, and historic preservation. In that capacity, he developed a guide for analyzing and documenting potential environmental impacts from the use of aerobatic practice areas. Earlier, he was an Environmental Protection Specialist for the FAA's Washington Airports District Office, where he oversaw NEPA document preparation for airport development projects throughout Northern Virginia and Maryland.

Mr. Mehaffy earned a Masters Studies of Environmental Law and a Juris Doctor from Vermont Law School in 2001. He then spent two years managing the environmental program (including NEPA compliance) for the U.S. Naval facilities on the island of Guam. He later joined the National Indian Gaming Commission where he was responsible for the Commission's compliance with NEPA for tribal gaming development throughout the country.



Mr. Mehaffy will be assisting the NEPA Office with its review of EISs for proposed transmission lines and in the development of NEPA guidance. “I am planning to build on my NEPA experiences with other agencies to bring new perspectives to the DOE NEPA Office,” said Mr. Mehaffy. He can be reached at bradley.mehaffy@hq.doe.gov or 202-586-7785.

The NEPA Office welcomes Brad to its staff.

NAEP 2014 Annual Conference



The National Association of Environmental Professionals (NAEP) will host its 2014 conference in St. Petersburg, Florida, April 7–10, with the theme *Changing Tides & Shifting Sands*. The conference's NEPA presentations will include an update on the past year's developments in policy and case law, compliance in emergency situations, best practices, and analysis of noise impacts, wind energy projects, and night sky resources.

On April 7, NAEP will offer three training classes – Best Practice Principles for Environmental Assessments, Digital Visualization Simulation, and the Interrelation between Listed Species and Invasive Species – and a free career development workshop.

Further information is available on the [NAEP conference website](#). 

EAs and EISs Completed October 1 to December 31, 2013

EAs¹

Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1965 (11/13/13)

Lease Issuance for Marine Hydrokinetic Technology Testing on the Outer Continental Shelf Offshore Florida, Broward County, Florida

EA was adopted; therefore, cost and time data are not applicable to DOE metrics. [Bureau of Ocean Energy Management was the lead agency; DOE was a cooperating agency.]

Western Area Power Administration

DOE/EA-1960 (10/28/13)

Townsite Solar Project Transmission Line, Clark County, Nevada

EA was adopted; therefore, cost and time data are not applicable to DOE metrics. [Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

EISs

Office of Environmental Management

DOE/EIS-0423-S1 (78 FR 61844, 10/4/13)

(Draft EIS Rating: EC-2)

Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement

Cost: \$290,000

Time: 16 months

Office of Fossil Energy/National Energy Technology Laboratory

DOE/EIS-0460* (78 FR 65643, 11/1/13)

(Draft EIS Rating: LO)

FutureGen 2.0 Project, Morgan County, Illinois

Cost: \$2,800,000

Time: 30 months

DOE/EIS-0464* (78 FR 70041, 11/22/13)

(Draft EIS Rating: EC-2)

Lake Charles Carbon Capture and Sequestration Project, Calcasieu Parish, Louisiana

Cost was paid by applicant; therefore, cost data are not applicable to DOE metrics.

Time: 31 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

* Recovery Act Project

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- There were no EAs completed in this quarter for which cost or time data were applicable.
- Cumulatively, for the 12 months that ended December 31, 2013, the median cost for the preparation of 8 EAs for which cost data were applicable was \$73,000; the average was \$301,000.
- Cumulatively, for the 12 months that ended December 31, 2013, the median completion times for 11 EAs for which time data were applicable was 11 months; the average was 12 months.

EIS Cost and Completion Times

- For this quarter, the median and average costs for the preparation of 2 EISs for which cost data were applicable were \$1,550,000.
- For this quarter, the median completion time for 3 EISs for which time data were applicable was 30 months; the average was 26 months.
- Cumulatively, for the 12 months that ended December 31, 2013, the median cost for the preparation of 4 EISs for which cost data were applicable was \$1,740,000; the average was \$2,940,000.
- Cumulatively, for the 12 months that ended December 31, 2013, the median completion time for 6 EISs for which time data were applicable was 31 months; the average was 35 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Western Governors' Tool

(continued from page 7)

The WGA CHAT website's [FAQ page](#) explains that CHAT is not a regulatory tool and "cannot be used for project-level reviews." Rather, CHAT provides a high-level overview of crucial habitat for pre-planning. For example, CHAT maps crucial habitat for most of the 16 Western states at a resolution of one-square-mile. For the states of California, Idaho, and Wyoming, CHAT uses a three-square-mile resolution and for Alaska a 10-square-mile resolution. CHAT is meant to provide "project planners and the general public access to credible scientific data at the broad scale for use in project assessment, siting, and planning."

Moving Forward

WGA intends for CHAT to be a dynamic web-based information system that will incorporate new datasets and refine priorities as more information becomes available. WGA's Wildlife Council and state technical staff will consider new datasets in future updates to the regional and state-specific CHATs. WGA is soliciting feedback on the CHAT website to help identify enhancements for future updates. For more information, please visit the [WGA CHAT website](#), see the [CHAT brochure](#), or contact Carlee Brown, Policy Advisor, WGA, at cbrown@westgov.org or 303-623-9378. 

State- and Resource-specific CHATs

Currently 7 of the 16 Western states have their own state-specific CHATs. There is also a Southern Great Plains CHAT that designates and prioritizes areas for Lesser Prairie-Chicken conservation activities and industrial development. See <http://westgovchat.org/states>.

Arizona: [HabiMap™ Arizona](#)

California: [Areas of Conservation Emphasis, Phase II \(beta site\)](#)

Montana: [Crucial Areas Planning System](#)

Nevada: [Nevada CHAT](#)

New Mexico: [New Mexico Crucial Habitat Assessment Tool](#)

Washington: [PHS \(Priority Habitats and Species\) on the Web](#)

Wyoming: [Wyoming Interagency Spatial Database and Online Management System](#)

[Southern Great Plains Crucial Habitat Assessment Tool](#)

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Prior scoping.* Scoping issues had been identified during the preparation of an earlier EIS for this project.

What Didn't Work

- *Changes to project scope.* Project changes made during the EIS process required that tasks, not previously identified, had to be completed to support preparation of the document.

Data Collection/Analysis

What Worked

- *Integrated team.* Due to the integration of the Project Team and the NEPA EA Team, the data collection was smooth.
- *Additional analysis completed in response to public comments.* Several public comments questioned the net environmental benefit of the project. With additional analyses, a net environmental benefit for the project was presented in the EIS.

What Didn't Work

- *Funding disagreement.* DOE had a hard time getting additional information and analyses due to a funding disagreement among the EIS contractor, applicant, and DOE.
- *Lengthy Section 7 consultation.* Mostly due to the technology associated with the project being new and impacts not being well documented, the Section 7 consultation was difficult and the biological opinion took over a year to obtain.

Schedule

Factor that Facilitated Timely Completion of Documents

- *Frequent communication.* Frequent communication between the EIS document manager and the NEPA contractor facilitated effective teamwork.

Factors that Inhibited Timely Completion of Documents

- *Changes in project partners.* Changes in project partners/participants made timely completion of the EIS difficult.
- *Limited staff.* The applicant's limited number of employees for the project could not respond to requests for information from DOE or the NEPA contractor in a timely manner. This negatively impacted the EIS completion time.
- *No consensus on terminology.* Terminology was not addressed early in the EIS process. Editing cycles were lengthy to address the high sensitivity of some NEPA team members to word choices.

Teamwork

Factors that Facilitated Effective Teamwork

- *Team flexibility.* The flexibility of team members, including the EIS contractor, facilitated timely completion of the document.
- *Good communication.* Good communication among all team members was effective in managing the flow of information, expectations, and potential obstacles.
- *Cooperation.* Cooperation among the NEPA team members (including project and headquarters participants) was effective in the preparation of a quality EIS.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

Factor that Inhibited Effective Teamwork

- *Late inclusion as a cooperating agency.* DOE became a cooperating agency after issuance of the Draft EA. DOE did not have the same working relationship as team members who were involved earlier.

Process

Successful Aspects of the Public Participation Process

- *Public meetings.* Nearly all EIS public meetings had good attendance and served as a great opportunity to inform the public and hear their issues.
- *Good public feedback.* Positive feedback was received from several citizens regarding opportunities to participate in the EIS process and the availability of project information.

Unsuccessful Aspect of the Public Participation Process

- *Misallocation of time at public meetings.* The length of the informal discussion before the formal comment periods at the scoping meetings and public hearings exceeded what was needed. A 2-hour period of informal question and answer was provided before the formal comment period; 1 hour would have been more than sufficient.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Informed decisionmaking.* The EA process allowed the decisionmakers to make an informed decision regarding the proposed action. They understood the need for the proposed action, the positive and negative impacts of the proposed action, and recognized the steps taken to minimize potential impacts to the environment.
- *Supported funding decision.* The final EIS was used to make the funding decision on the project.
- *Lead agency expertise.* The lead agency's expertise provided a thorough EA document that DOE could adopt and use to support a sound decision even though the technology was new.

Enhancement/Protection of the Environment

- *Enhanced understanding of project issues.* The EIS process led to an enhanced understanding of special environmental issues associated with the project area and supported the development of appropriate mitigation.
- *Mitigation of environmental impacts.* Mitigation was identified for resource areas that had minor to moderate potential environmental impacts.
- *Adaptive management implemented.* Adaptive management was implemented as part of lease provisions since the technology was new and impacts were not well understood.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

For the past quarter, in which 2 EA and 3 EIS questionnaire responses were received, 4 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "5" stated that the NEPA process facilitated the preparation of an excellent document.
- A respondent who rated the process as "4" stated that the NEPA process ensured that the decision to allow the applicant to proceed with the project was environmentally sound.
- A respondent who rated the process as "4" stated that even though the NEPA process was an important planning tool, other influences such as economics and property acquisition also had to be considered.
- A respondent who rated the process as "4" stated that the NEPA process helped to inform the decisionmaker, but other factors such as budget and the need to demonstrate the technology were also important.
- A respondent who rated the process as "1" stated that marine projects go through so much permitting by many federal agencies that the NEPA review does very little in regard to DOE's role as a funding agency for the project. [DOE adopted this EA.]

LESSONS LEARNED

GAO Audit Finds Little Government-wide Data on NEPA Time, Costs, and Benefits



A recent Government Accountability Office (GAO) audit finds that government-wide data on the types of NEPA reviews, completion times, costs, and benefits are generally limited. GAO notes that data collection efforts vary by agency, but indicates that DOE has considerably more information on NEPA metrics than most federal agencies. DOE NEPA metrics are cited frequently in the report.

GAO selected DOE, along with the Departments of Defense, Interior, and Transportation, and the U.S. Forest Service for the audit “because they generally complete the most NEPA analyses.” GAO published its findings in a report, *National Environmental Policy Act: Little Information Exists on NEPA Analyses*, on April 15, 2014. (Actually, two nearly identical reports to different Congressional requesters were issued with no substantive difference between them.)

“DOE began tracking cost and completion time metrics in the mid-1990s because it was concerned about the timeliness and cost of NEPA reviews,” the report states. “DOE officials told us they collect these data because, in their view, ‘what gets measured gets done.’” GAO notes that DOE posts “extensive” agency-wide NEPA documentation on the [DOE NEPA Website](#) and referred to DOE’s NEPA Lessons Learned program and its “[NEPA success stories](#).”

GAO found that government-wide data on the number of environmental assessments (EAs) and categorical exclusion (CX) determinations “are not readily available.” However, GAO notes that the Environmental Protection Agency (EPA) [publishes](#) government-wide information on environmental impact statements (EISs) based on notices of availability for draft and final EISs. In addition, the GAO report finds that “little information exists on

the costs and benefits of completing NEPA analyses.”

In conducting the audit from June 2013 through April 2014, GAO reviewed documents and interviewed individuals from the five federal agencies, academia, and professional groups with expertise in NEPA analyses and litigation. The GAO report describes information on the number and type of NEPA analyses, costs and benefits of completing those analyses, and frequency and outcomes of related litigation. GAO makes no recommendations and notes that its findings cannot be generalized to agencies other than those selected for the audit.

Data on Number and Type Vary by Agency

Based on information provided by federal agencies, the Council on Environmental Quality (CEQ) estimates that about 95 percent of NEPA analyses are CX determinations, less than 5 percent are EAs, and less than 1 percent are EISs, reports GAO. However, the percentages “vary by agency because of differences in project type and agency mission.” For example, GAO reports that from fiscal year 2008 through fiscal year 2012, 95 percent of DOE’s completed NEPA analyses were CX determinations, 2.6 percent were EAs, and 2.4 percent were EISs or supplement analyses. (For more information on the distribution of DOE NEPA documents, see *LLQR*, [September 2013](#), page 1.) In addition, GAO explains that CX determinations are likely underrepresented because some agencies do not track certain categories of CXs. For example, DOE does not require documentation of determinations based on CXs in appendix A of its NEPA regulations, which address primarily administrative matters.

(continued on page 8)

Inside Lessons Learned

Welcome to the 79th quarterly report on lessons learned in the NEPA process. This issue features the recent U.S. Government Accountability Office report on government-wide data on NEPA time, costs, and benefits and new climate change reports available for NEPA analyses. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom
Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by July 18, 2014, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due August 1, 2014

For NEPA documents completed April 1 through June 30, 2014, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than August 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Call for NAEP 2015 Conference Abstracts and Environmental Award Nominations



National Association of
Environmental Professionals

2015 NAEP Conference in Honolulu, HI

The National Association of Environmental Professionals (NAEP) seeks abstracts for individual speakers, panels, and posters to be presented at its 40th annual conference, April 13–17, 2015, in Honolulu. With the theme of *Mauka to Makai: Environmental Stewardship from the Mountains to the Sea*, the conference will cover NEPA and related subjects, and is open to environmental professionals in all levels of government, academia, and the private sector. The call for abstracts is available on the [2015 Conference page](#) of the NAEP website; abstracts are due via the NAEP website by September 30, 2014.

NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. The nomination form is available on the NAEP website. Award nominations are due by August 15, 2014. 

New Climate Change Reports Available for NEPA Analyses

Three reports issued in the last quarter will be helpful references for the analysis of greenhouse gas (GHG) emissions and climate change in DOE NEPA documents. The Intergovernmental Panel on Climate Change (IPCC)¹ released two summary reports, which conclude that the effects of climate change are already occurring on all continents and across the oceans and that global emissions of GHGs have risen to unprecedented levels despite a growing number of policies to reduce climate change. The U.S. Global Change Research Program (USGCRP)² issued a report that summarizes the impacts of climate change on the United States.

IPCC Finalizing Fifth Assessment Report

The IPCC is in the process of finalizing its fifth climate change assessment report. It will be comprised of reports from three working groups and a synthesis report. The first working group report, *Climate Change 2013: The Physical Science Basis*, was released in January 2014. (See *LLQR, December 2013*, page 8, regarding the summary of this report.)

The IPCC released summary reports by Working Groups II and III in March and April 2014, respectively, and has posted the full working group reports online in unedited form. (See selected key findings, page 4.)

Working Group II assessed the vulnerability of socioeconomic and natural systems to climate change, consequences of climate change, and options for adapting to it. Working Group II findings may be appropriate to cite in general discussions of climate change in DOE NEPA documents.

Working Group III assessed options for mitigating climate change through limiting or preventing GHG emissions, as well as activities to remove them from the atmosphere. These mitigation options are discussed for several technologies and market sectors that are potentially relevant to DOE, including: energy supply (coal, natural gas, nuclear, renewable energy); energy end-use sectors (transportation, buildings, industry); and agriculture,

forestry, and other land use (e.g., bioenergy). Working Group III findings may be useful, for example, to provide context for an energy infrastructure project's contribution to addressing climate change.

The synthesis report is expected to be issued in Fall 2014. It will be written in a nontechnical style suitable for policymakers and based on the three working group reports and IPCC special reports.

2014 U.S. National Climate Assessment

USGCRP issued *Climate Change Impacts in the United States: The Third National Climate Assessment* (2014 National Climate Assessment) in May 2014. A team of more than 300 experts guided by a 60-member Federal Advisory Committee produced the report, which was extensively reviewed by the public and experts, including federal agencies and a panel of the National Academy of Sciences. Required by the Global Change Research Act of 1990,³ the report focuses both on changes that are happening now and further changes expected throughout this century.

The report includes analyses of impacts on seven sectors – human health, water, energy, transportation, agriculture, forests, and ecosystems – and the interactions among sectors at the national level. It also assesses key impacts on all U.S. regions: Northeast, Southeast and Caribbean, Midwest, Great Plains, Southwest, Northwest, Alaska, Hawai`i and Pacific Islands, as well as the country's coastal areas, oceans, and marine resources. (See figure, page 5.)

In DOE NEPA documents, the 2014 National Climate Assessment could be used as a source of information for climate change impacts within the United States and for regional trends. In comparison with the IPCC reports, this report contains a greater level of detail regarding climate trends in regions of the United States, including potential risks to human health and a range of environmental resources. [LL](#)

¹ The IPCC was established by the *United Nations Environment Programme* and the *World Meteorological Organization* in 1988 to assess the scientific, technical, and socioeconomic information relevant for the understanding of human-induced climate change, its potential impacts, and options for mitigation and adaptation.

² The USGCRP is made up of 13 federal departments and agencies, including DOE, that carry out research and support the nation's response to global change.

³ The *Global Change Research Act* requires that, every four years, the USGCRP prepare and submit to the President and Congress an assessment of the effects of global change in the United States.

Selected Key Findings in IPCC Working Group II Summary



Observed Impacts, Vulnerability, and Exposure

- Climate-related hazards exacerbate other stressors, often with negative outcomes for livelihoods, especially for people living in poverty.

Future Risks and Opportunities for Adaptation

- Due to sea-level rise projected throughout the 21st century and beyond, coastal systems and low-lying areas will increasingly experience adverse impacts such as submergence, coastal flooding, and coastal erosion.
- Throughout the 21st century, climate change is expected to lead to increases in ill-health in many regions and especially in developing countries with low income.
- A large fraction of both terrestrial and freshwater species faces increased extinction risk under projected climate change during and beyond the 21st century.

Selected Key Findings in IPCC Working Group III Summary

Baseline Scenarios

- Baseline scenarios, those without additional mitigation, result in global mean surface temperature increases in 2100 from 3.7 to 4.8°C compared to pre-industrial levels.

Energy Supply

- Decarbonizing (i.e., reducing the carbon intensity of) electricity generation is a key component of cost-effective mitigation strategies . . .
- Renewable energy technologies still need direct and/or indirect support, if their market shares are to be significantly increased.
- Nuclear energy is a mature low-GHG emission source of baseload power, but its share of global electricity generation has been declining (since 1993). Nuclear energy could make an increasing contribution to low-carbon energy supply, but a variety of barriers and risks exist.
- GHG emissions from energy supply can be reduced significantly by replacing current world average coal-fired power plants with modern, highly efficient natural gas combined-cycle power plants . . . provided that natural gas is available and the fugitive emissions associated with extraction and supply are low or mitigated.
- Carbon dioxide capture and storage (CCS) technologies could reduce the lifecycle GHG emissions of fossil fuel power plants.

Energy End-Use Sectors

- The transport sector accounted for 27 percent of final energy use and 6.7 gigatonnes CO₂ (GtCO₂) direct emissions in 2010, with baseline CO₂ emissions projected to approximately double by 2050.
- Strategies to reduce the carbon intensities of fuel and the rate of reducing carbon intensity are constrained by challenges associated with energy storage and the relatively low energy density of low-carbon transport fuels.
- In 2010, the building sector accounted for around 32 percent of final energy use and 8.8 GtCO₂ emissions, including direct and indirect emissions, with energy demand projected to approximately double and CO₂ emissions to increase by 50–150 percent by mid-century in baseline scenarios.

Bioenergy

- Bioenergy can play a critical role for mitigation, but there are issues to consider, such as the sustainability of practices and the efficiency of bioenergy systems.
- Combining bioenergy with CCS . . . offers the prospect of energy supply with large-scale net negative emissions, which plays an important role in many low-stabilization scenarios, while it entails challenges and risks.
- The scientific debate about the overall climate impact related to land use competition effects of specific bioenergy pathways remains unresolved.

Climate Change Impacts by U.S. Region

	Northeast	Communities are affected by heat waves, more extreme precipitation events, and coastal flooding due to sea level rise and storm surge.
	Southeast and Caribbean	Decreased water availability, exacerbated by population growth and land-use change, causes increased competition for water. There are increased risks associated with extreme events such as hurricanes.
	Midwest	Longer growing seasons and rising carbon dioxide levels increase yields of some crops, although these benefits have already been offset in some instances by occurrence of extreme events such as heat waves, droughts, and floods.
	Great Plains	Rising temperatures lead to increased demand for water and energy and impacts on agricultural practices.
	Southwest	Drought and increased warming foster wildfires and increased competition for scarce water resources for people and ecosystems.
	Northwest	Changes in the timing of streamflow related to earlier snowmelt reduce the supply of water in summer, causing far-reaching ecological and socioeconomic consequences.
	Alaska	Rapidly receding summer sea ice, shrinking glaciers, and thawing permafrost cause damage to infrastructure and major changes to ecosystems. Impacts to Alaska Native communities increase.
	Hawai'i and Pacific Islands	Increasingly constrained freshwater supplies, coupled with increased temperatures, stress both people and ecosystems and decrease food and water security.
	Coasts	Coastal lifelines, such as water supply infrastructure and evacuation routes, are increasingly vulnerable to higher sea levels and storm surges, inland flooding, and other climate-related changes.
	Oceans	The oceans are currently absorbing about a quarter of human-caused carbon dioxide emissions to the atmosphere and over 90% of the heat associated with global warming, leading to ocean acidification and the alteration of marine ecosystems.

The 2014 National Climate Assessment highlights selected observed and projected climate change impacts in various U.S. regions.

EPA Checklist Addresses Changing Climate and Brownfield Cleanups



The Environmental Protection Agency (EPA) issued a checklist in April 2014 related to the consideration of climate change impacts on proposed brownfield cleanup projects. Although not directly applicable to NEPA reviews, the checklist identifies resources and evaluation principles that may be useful to NEPA practitioners.

“Our climate is changing and we need to adapt to make sure our cleanups are still protective of human health and the environment now and into the future,” says EPA in its [new checklist](#). To ensure that brownfield cleanups remain effective as the climate changes, EPA now requires that certain grant recipients “evaluate the resilience of the remedial options in light of reasonably foreseeable changing climate conditions.” EPA provides several examples of conditions that could be affected by climate change, including sea level rise, increased frequency and intensity of flooding and extreme weather events, increased wildfire risk, and changing ecological zones.

EPA’s checklist advises grant recipients that “identified climate change conditions and risk factors should . . . be considered in the evaluation of cleanup alternatives. Both current and forecasted climate change impacts may impact the effectiveness of a remedial alternative (e.g., increased flooding of a site could compromise an engineered cap).” EPA recommends that grant recipients consider the following in addressing climate adaptation for cleanup of brownfields:

- Review an authoritative resource (e.g., U.S. Geological Survey (USGS) website, state or local resources) to identify observed and potential changing climate conditions for the area in which the cleanup project is located.
- Given the pertinent climate change concerns, identify the site-specific risk factors, taking into account known conditions (e.g., proximity to the ocean, property affected by a revised Federal Emergency Management

Agency (FEMA) floodplain map, infrastructure vulnerabilities, vulnerability of soil type due to moisture and hydraulic changes, ground and surface drinking water vulnerabilities).

- Include in your evaluation how well each alternative can accommodate the identified climate change risk factors. Remember to consider all stages of the cleanup and long-term reuse of the site.

In addition, EPA advises that grant recipients do not need to generate new site-specific climate change measurements, but can rely on authoritative sources for climate information. “[G]rant recipients must demonstrate they have reviewed available current and authoritative information for the cleanup analysis. The level of analysis expected depends on the complexity of the project and the degree of risk involved given the feasible remedial options and targeted reuse of the site,” says EPA. EPA’s checklist provides some federal resources to help identify current and potential changing climate conditions:

- [Climate Resources on Data.gov](#)
- [U.S. Global Change Research Program](#)
- [USGS Climate Land Change Science Program](#)
- [EPA’s Climate Change Website](#)
- [Adaptation Tools for Public Officials](#)
- [EPA National Stormwater Calculator Climate Assessment Tool](#)
- [FedCenter Climate Change Adaptation Website](#)
- [FEMA Map Service Center](#)

For information about EPA’s Brownfields Program, see EPA’s webpage on [Brownfields and Land Revitalization](#). Additional guidelines and resources are available on EPA’s [Sustainable Redevelopment of Brownfields](#) webpage. [LL](#)

Use Links To Enhance Digital NEPA Documents

Readers of DOE EISs increasingly request their copy on a compact disk or download the portable document format (pdf) files directly from the EIS website or the [DOE NEPA Website](#). Recognizing this trend, Jane Summerson, DOE NEPA Document Manager for the Hawai'i Clean Energy Programmatic EIS (PEIS) ([DOE/EIS-0459](#)), ensured that the draft PEIS issued in April includes active links to make the pdf files more useful.

“With all the focus on conserving resources, controlling costs, and meeting schedule – all without compromising transparency – we aimed to take full advantage of available technology features to improve public access to our PEIS,” said Dr. Summerson.



Within each chapter, active links are provided:

- To facilitate overall navigation: From the chapter's table of contents to individual sections
- To explain terms: From a term in the text to its glossary definition
- To examine internal sources: From the text to a referenced table or figure
- To identify references: From a citation within text to the chapter's reference list
- To supporting information: From the text or reference list to external websites or reference documents that are posted online

The PEIS also provides bookmarks that make it simple to go directly to a particular section of the document. (Bookmarks are required when filing an EIS with EPA; related article, below.)

The Office of NEPA Policy and Compliance encourages document managers to adopt this practice for their EAs and EISs. We welcome your suggestions regarding this and other methods to enhance the reader's experience and make DOE's NEPA documents more useful. Please send your comments and suggestions to askNEPA@hq.doe.gov. 

EPA Reminds Agencies To Complete Distribution Before EIS Filing

The Environmental Protection Agency (EPA) recently thanked federal agencies for helping in the transition to its system for electronically filing EISs, in an email to NEPA contacts dated May 8, 2014. Since October 2012, EPA has required that draft and final EISs be filed through its website, rather than by delivering printed copies to its office (*LLQR*, [September 2012](#), page 6). “It has been over 18 months since the switch,” observed Cliff Rader, Director, NEPA Compliance Division, EPA Office of Federal Activities, “and the system seems to be working well (for most users!).”

Mr. Rader reminded agencies that distribution of a draft or final EIS must have occurred when filing the EIS with EPA, as distribution requirements – including the potential need to distribute paper copies – have not changed. CEQ's NEPA regulations (40 CFR 1506.9) require that, “Statements shall be filed with EPA no earlier than they are also transmitted to commenting agencies and made available to the public.” Mr. Rader explained that “in order to ensure compliance with this requirement, the electronic filing system has a step that requires that all agencies certify that this distribution has occurred when filing an EIS with EPA.”

Mr. Rader also encouraged agencies to combine files when electronically filing an EIS, as a large number of small files is inconvenient for readers as well as EPA staff. “We believe the time required to file EIS documents could be dramatically decreased by maximizing file sizes closer to the 50MB file size [limit],” he said.

“EPA's electronic filing system has improved efficiency – it greatly simplifies the EIS filing process – and helps the environment by reducing printing needs,” said Eric Cohen, Unit Leader, DOE Office of NEPA Policy and Compliance. “Another efficiency,” he added, “is that electronic files formatted to meet EPA's requirements are suitable for posting on the DOE NEPA Website.” The NEPA Office assists DOE offices in filing EISs with EPA and has worked with EPA's electronic filing system since the pilot stage in early 2012.

For more information, contact Mr. Cohen at eric.cohen@hq.doe.gov or 202-586-7684, or Ms. Dawn Roberts, EPA's filing point of contact, at roberts.dawn@epa.gov or 202-564-7146. 



GAO Report

(continued from page 1)

Little Information on Costs

“We found that, with few exceptions, the agencies did not routinely track data on the cost of completing NEPA analyses, and that the cost associated with conducting an EIS or EA can vary considerably, depending on the complexity and scope of the project,” wrote GAO. GAO cites two NEPA-related studies completed by the Forest Service and the Federal Highway Administration that illustrate “how it is difficult to extract NEPA cost data from agency accounting systems.”

“The biggest challenge in determining the costs and benefits of NEPA is separating activities under NEPA from activities under other environmental laws,” GAO noted. According to Department of Transportation (DOT) officials, “the dollar costs for developing a NEPA analysis reported by agencies also includes costs for developing analyses required by a number of other federal laws, executive orders, and state and local laws, which potentially could be a significant part of the cost estimate.”

GAO adds that, “DOE officials told us that they track the funds the agency pays to contractors to prepare NEPA analyses and does not track other costs, such as the time spent by DOE employees.” GAO cites *LLQR* for data on DOE’s median and average cost for preparing EAs and EISs, completion times, and DOE’s NEPA workload.

Some Information on NEPA Time Frames

GAO finds that some government-wide information is available on time frames for completing EISs, but few estimates exist for EAs and CX determinations “because most agencies do not collect information on the number and type of NEPA analyses, and few guidelines exist on time frames for completing environmental analyses.” GAO identifies the National Association of Environmental Professionals (NAEP) annual reports as a source of government-wide information for EIS time frames.

GAO notes that NAEP reported that the 197 final EISs completed in 2012 had an average preparation time of 4.6 years. GAO reports that some agency officials said the time frame measures for EISs may not account for up-front work that occurs before the notice of intent (NOI), which is typically the start date used to calculate EIS completion time. For example, DOT officials told GAO that the start date is unclear in some cases because of the large volume of project development and planning work that occurs before an NOI is issued.

The GAO report cites DOE’s median and average EA completion time for calendar years 2003 through 2012 (9 and 13 months, respectively). For perspective, GAO reports that Interior’s Office of Surface Mining estimated

its EAs take approximately 4 months on average to complete, and the Forest Service reported that its EAs in fiscal year 2012 averaged about 18 months to complete.

For CX determinations, GAO finds that the little government-wide information that is available “shows that they generally take less time to complete than EAs.” DOE and Interior’s Office of Surface Mining told GAO that they usually take 1–2 days to complete. Forest Service, on the other hand, took an average of 177 days to complete CX determinations in fiscal year 2012. GAO explains that the Forest Service documents its CX determinations with decision memos, which are completed after all necessary consultations, reviews, and other determinations associated with a decision to implement a particular proposed project.

NEPA Benefits Are Largely Qualitative

Regarding the benefits of completing NEPA analyses, GAO finds that information is “largely qualitative.” According to studies and agency officials, “some of the qualitative benefits of NEPA include its role as a tool for encouraging transparency and public participation and in discovering and addressing the potential effects of a proposal in the early design stages to avoid problems that could end up taking more time and being more costly in the long run.” DOE officials referred to the public comment component of NEPA as a piece of “good government architecture.” Forest Service officials said that NEPA leads to better decisions on projects because of the environmental information considered in the process. GAO highlights [CEQ’s examples of benefits from the NEPA process for Recovery Act-funded activities](#), the Environmental Law Institute’s *NEPA Success Stories: Celebrating Forty Years of Transparency and Open Government*, and DOE’s NEPA “success stories” as sources for examples.

Most NEPA Reviews Are Not Challenged

Following its investigation into the frequency and outcome of NEPA litigation, GAO finds that “agency data, interviews with agency officials, and available studies indicate that most NEPA analyses do not result in litigation.” In addition, based on information from CEQ and other sources, GAO notes that “the number of lawsuits filed under NEPA has generally remained stable following a decline after the early years of implementation.” GAO also finds that according to data from CEQ and NAEP, and from legal studies, “the federal government prevails in most NEPA litigation.”

The GAO report, with references to DOE highlighted, is available on the [DOE NEPA Website](#). The GAO reports

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Environmental Justice Updates

DOE Celebrates 20th Anniversary of Executive Order on Environmental Justice

It has been 20 years since President Bill Clinton signed [Executive Order 12898, Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations](#) (February 11, 1994). The Executive Order directs that “each federal agency shall make achieving environmental justice [EJ] part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” throughout the United States.

In celebration, DOE sponsored a series of anniversary-related activities during the month of February, including hosting an EJ exhibit at DOE headquarters; publishing a new EJ brochure, “[A View of Environmental Justice at the U.S. Department of Energy](#)”; and posting to its EJ website a video entitled, “[A Review of the Department of Energy’s Implementation of Executive Order 12898 and Recommendations for A Second Five-Year Implementation Plan](#),” and an accompanying report. In addition, Secretary of Energy Ernest Moniz recently met with the EJ Task Force to convey his appreciation for their dedication and hard work. For more information on these activities, see the [Department’s Legacy Management Program Update, January–March 2014](#).

2014 EJ Conference and Training Program

The 2014 National Environmental Justice Conference and Training Program (NEJC) was held March 26–28 in Washington, DC. A diverse group of more than 400 participants from federal and state agencies, local governments, tribes, community groups, business, and industry were in attendance. Topics included the growing presence of youth in EJ, the future of the EJ movement, and the use of Title VI to address EJ. The 2015 NEJC will be held April 22–24, 2015; registration begins June 2, 2014. More information is available on the [NEJC website](#).

NEPA Training and Guidance in Development

The NEPA Committee of the Interagency Working Group (IWG) on EJ, led by the Environmental Protection Agency’s (EPA’s) Office of Environmental Justice, is developing a compilation of best practices and a training program to improve consideration of EJ in NEPA analyses. The draft documents will be discussed at a meeting of senior federal agency officials in Fall 2014.

The best practices, drawn from experiences across federal agencies, are intended to help NEPA practitioners consistently, efficiently, and effectively consider EJ in NEPA reviews. The training would help NEPA

practitioners, reviewers, and grantees understand ways to incorporate EJ considerations into the NEPA process. Among topics that may be addressed are: (1) appropriate consideration of EJ in the different levels of NEPA review (EAs, EISs, and categorical exclusions), (2) approaches to identify minority or low income populations in the regions of influence of proposed actions and alternatives; and (3) clarifying the concepts of “significance” under NEPA and “disproportionately high and adverse” impacts under Executive Order 12898.



Secretary of Energy Moniz recently met with the EJ Task Force to convey his appreciation for their dedication and hard work. Left to right: Steven Miller, Beverly Whitehead, Jonathan Jackson, Natalie Randolph, Secretary Moniz, Melinda Downing, Chad Bourgoin, June Robinson, Denise Freeman, and Younes Masiky.

Last year, the NEPA Committee produced a [NEPA/EJ Resource Compendium](#) that gathers into one place links to publically available information (e.g., regulations, guidance, EJ strategic plans) from federal agencies on the intersection of EJ and NEPA. Denise Freeman and Eric Cohen, Office of NEPA Policy and Compliance, are participating on the NEPA Committee. For further information on the IWG, see [EPA’s EJ website](#).

DOE To Update EJ Strategy

DOE is planning to update its [EJ Strategy](#) this summer. The strategy outlines how the Department integrates EJ into its operations. The update will be based on contributions from Program and Field Offices.

For further information on any of these EJ-related activities, contact Denise Freeman at denise.freeman@hq.doe.gov or Melinda Downing at melinda.downing@hq.doe.gov. 

How We Celebrated Earth Day 2014

The NEPA Office joined other DOE Headquarters organizations in presenting displays in the Forrestal Building during Earth Week, and then outdoors on a “Community Day” held on April 22. Here are some highlights.



Andy Lawrence (left), Director, Office of Environmental, Sustainability and Corporate Safety Analysis, chatted with **NEPA Office** staff Bradley Mehaffy and Denise Freeman. The NEPA Office’s Earth Day presentation included a display of NEPAnode, a GIS tool for environmental analysis.



The **Office of Electricity Delivery and Energy Reliability** “connected” Earth Day visitors with a display on innovative technologies for modernizing the nation’s electric grid. Joyce Kim and Fred Winter described OE’s initiatives to enhance the reliability, flexibility, and efficiency of the electricity delivery system.



Energy-saving technologies in the home were the featured topic in the **Office of Energy Efficiency and Renewable Energy (EERE)** display.



The **EERE** display of innovative vehicle technology attracted many observers.



The **National Nuclear Security Administration (NNSA)** display (left) highlighted the application of sustainability and conservation principles to DOE’s nuclear complex. NNSA also recognized “The Green Reaper,” (right) a Nevada National Security Site initiative of communications and marketing strategies that promote sustainability goals, successes and best practices.



Earth Day 2014

Field Offices around the DOE Complex celebrated Earth Day in many ways.



Earth Day at the **Argonne Area Site Office** featured the Argonne National Laboratory's sustainability services and programs and an R&D poster session. Children from the Argonne Child Development Center planted a tree as part of the celebration. In a "green vehicle corral" (not pictured), the office displayed laboratory test vehicles and fleet vehicles, and employees displayed and answered questions about their personally owned green vehicles.



The Office of Energy Efficiency and Renewable Energy, **Golden Field Office** organized an Alternative and Green Commuting Expo. Volunteers offered free bike tune-ups while local commuter groups provided information on alternative commuting options, including carpools and vanpools, bus and light rail, and bike trails. Electric vehicle owners opened their hoods and their doors to anyone seeking to find out what it's really like to own an emissions-free vehicle; this electric motorcycle has a range of 150 miles.



Bonneville Power Administration's Sustainability Fair urged employees to "Kick the Can" – to replace a waste basket with small, desk-side bins to separate compostable food scraps and recyclables from trash to be landfilled. Unwanted personal electronics were accepted for recycling and, on May 1, a team of BPA volunteers worked on watershed restoration (not pictured).

NCO Recognized in DOE Earth Day Photo Contest

After submitting a winning photograph in the 2013 DOE Earth Day Photo Contest, Gary Hartman – the long-term NEPA Compliance Officer for the Oak Ridge Office – won in two categories in this year’s contest. DOE employees and contractors, whether professional or amateur photographers, were invited to submit images illustrating “The Things We Do To Conserve and Preserve Our Precious Planet.” One winner was selected from each of five categories: Conservation, Community, Alternative Power, Energy Efficiency, and Sustainability.



Mr. Hartman’s photo of the bus transfer station in Athens, Georgia, was the winner in the Energy Efficiency category. Flexible photovoltaic film had been applied to part of the roof, using funds from DOE’s [Energy Efficiency and Conservation Block Grant Program](#), under the Recovery Act. His photo taken at the Edison-Ford Winter Home in Fort Myers, Florida, was selected as the best representation of the Community category.

Advice from the Photographer

- Follow your passion: “The great thing about photography is that it can be combined with other interests, such as birding, hiking, love of nature, or music. Just remember to take your camera along,” said Mr. Hartman.
- Focus on composition: “Work on ‘seeing through the lens’ to create an image that is aesthetically pleasing. Usually this means placing the subject slightly off-center (i.e., ‘rule of thirds’), but centering the subject works well in some cases. If the photo looks good to you, then it probably looks good to others, also.”
- Keep practicing: “It is never too late to take up photography, and you do not have to have the best equipment to take nice photos. (My photo of the bus transfer station was taken with a ‘point-and-shoot’ camera.) Also, take advantage of the multitude of tips and advice available in ‘how-to’ books and on the Internet. I learn something new every time I browse. With that in mind, it’s not too soon to take pictures that may become entries in the 2015 Earth Day Photo Competition.” 



GAO Report

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(GAO-14-369 and GAO-14-370, April 2014) are available on [GAO’s website](#) under Reports and Testimonies.

Appendix II of the GAO reports contains a summary of federal NEPA data collection efforts, including DOE’s. 

Handbook Issued on Integrating NEPA and CEQA

The Council on Environmental Quality (CEQ) and the California Governor's Office of Planning and Research jointly issued a handbook in February 2014 titled, *NEPA and CEQA: Integrating Federal and State Environmental Reviews*. The handbook emphasizes reducing duplication between, and improving the efficiency of, the NEPA and California Environmental Quality Act (CEQA) processes. The handbook may be helpful to DOE offices responsible for proposed actions that require approvals or other actions by California state and local government agencies. In addition, the principles described in the handbook may be helpful when coordinating with any state approval processes.

"The purpose of this handbook is to provide practitioners with an overview of the NEPA and CEQA processes, and to provide practical suggestions on developing a single environmental review process that can meet the requirements of both statutes," the document states.

CEQA, signed in September 1970 (just 9 months after NEPA), was the first state law to require the incorporation of environmental values in decision making. "NEPA and CEQA are similar, both in intent and in the review process (the analyses, public engagement, and document preparation) that they dictate," states the handbook. Both statutes require agencies to "analyze and disclose the potential environmental impacts of their decisions, and, in the case of CEQA, to minimize significant adverse environmental effects to the extent feasible."

Integrating NEPA and CEQA

"Importantly, both statutes encourage a joint Federal and state review where a project requires both Federal and state approvals," continues the handbook, which emphasizes that "a joint review process can avoid redundancy, improve efficiency and interagency cooperation, and be easier for applicants and citizens to navigate." The handbook also points out that there are differences between the statutes and that, "Conflict arising from these differences can create unnecessary delay, confusion, and legal vulnerability."

[D]eveloping a common understanding of the NEPA and CEQA review processes and their differences at the beginning of a joint review process may be among the most important ways to conduct an efficient and effective review process.

– NEPA and CEQA: Integrating Federal and State Environmental Reviews

The handbook delves further into similarities and differences between NEPA and CEQA and "identifies possible strategies for meeting the requirements of both

laws." Among the topics covered are purpose and need, alternatives, impact analysis, and mitigation. Two examples from the handbook are:

- Both laws allow for existing NEPA and CEQA reviews to satisfy part or all of their requirements. For example, an existing CEQA review can be used by a federal agency to satisfy its NEPA requirements if that agency participated in the preparation of the CEQA document and the CEQA review meets NEPA requirements. However, the CEQA review may not satisfy the federal agency's requirements under other environmental laws (e.g., National Historic Preservation Act, Endangered Species Act). "Consequently, agencies should consider working collaboratively to address those requirements as well," advises the handbook.
- The handbook explains that under CEQA an environmental impact report (EIR) is "required if substantial evidence supports a *fair argument* that a project *may* have a significant impact, even if other substantial evidence indicates that the impact will not be significant." The handbook contrasts this with NEPA where the determination whether to prepare an EIS is based on the agency's "assessment of the context and intensity of the potential impacts." The handbook states that agency staff should take this difference into account when preparing NEPA/CEQA documents. The handbook further explains that this difference may lead to a decision to prepare a joint EA/EIR (rather than EIS/EIR) that includes an explanation why the agencies have made different determinations of potential significance.

The handbook encourages federal agencies to coordinate early with California state and local agencies when reviews under both NEPA and CEQA are required. It provides a framework for preparing a memorandum of understanding (MOU) to facilitate coordination and cooperation. This framework includes an outline of potential elements to include in an MOU, accompanying explanation, and sample text to "stimulate thinking."

The handbook concludes with a discussion on how NEPA can be integrated with the California Energy Commission's licensing process for thermal power plants (50 megawatts and larger) and related facilities including transmission lines. This process is the functional equivalent of a CEQA review, but has several unique elements. For example, the licensing process is an adjudicatory process (requiring different steps than an EIS or EIR), and the California Energy Commission's policy objectives may be broader than the federal agency's purpose and need (thus affecting the range of alternatives for analysis). □



Transitions: NEPA Compliance Officers

Livermore Field Office: Karin King

Karin King has resumed the NCO responsibilities for the National Nuclear Security Administration's (NNSA's) Livermore Field Office, where she previously served as NCO from 2006 through 2011. During that period, she was involved with the office's integration of its NEPA processes with its environmental management system. She also worked on the 2011 supplement analysis for the Lawrence Livermore National Laboratory (LLNL) (*LLQR*, December 2011, page 8). Ms. King is the Office's Sustainability Lead and Federal Energy Manager and has been working on a third-party-financed renewable energy project at Lawrence Livermore National Laboratory. Ms. King is a Certified Energy Manager and a Certified ISO 14001 Environmental Management System (EMS) Lead Auditor. She also has been designated by the U.S. Green Building Council as a Leadership in Energy and Environmental Design (LEED®) Accredited Professional. She has worked for DOE as an environmental engineer since 1992 and has more than 27 years of experience in the environmental and energy field. Ms. King can be reached at karin.king@nnsa.doe.gov or 925-422-0756.

NNSA Production Office

The NNSA Production Office is responsible for contract management and oversight of the Pantex Plant in Amarillo, Texas, and the Y-12 National Security Complex in Oak Ridge, Tennessee.

Pantex: Jack Zanger

Jack Zanger has been designated as NCO for the NNSA Production Office at Pantex, where he is currently the Functional Manager of Environmental Compliance. Mr. Zanger has 24 years of environmental compliance experience at Y-12, both as a federal employee and with the management and operating contractors, where his responsibilities included NEPA compliance and the National Historic Preservation Program. He can be reached at jack.zanger@npo.doe.gov or 806-477-3638.

Y-12: James Donnelly

James Donnelly has been designated as NCO for the NNSA Production Office with primary duties at the Y-12 National Security Complex, where he has worked since 2001. Mr. Donnelly has over 28 years of environmental protection and waste management experience, including at DOE's Oak Ridge and Richland Offices, and the Nuclear Regulatory Commission. He can be reached at james.donnelly@npo.doe.gov or 865-574-6260.

Pantex: Jim Barrows Retired

Jim Barrows retired in January 2014. He joined DOE in 2004 and served as an NCO starting in 2007 for the former Pantex Site Office, and continuing from 2012 through his retirement as the lead NCO for the NNSA Production Office. While NCO, he worked on two supplement analyses to evaluate the continued adequacy of the Pantex site-wide EIS (DOE/EIS-0225; 1996). Prior to his work at DOE, Jim had over 17 years of federal service with the Department of the Interior and the U.S. Army Corps of Engineers.

(continued on next page)

Transitions

(continued from previous page)

Western Area Power Administration, Upper Great Plains

Matt Marsh takes up the NCO mantle from Nick Stas, Upper Great Plains Environmental Manager, who will retire at the end of June after 41 years of federal service.

Matt Marsh

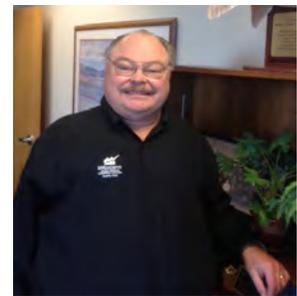
Matthew (Matt) Marsh has been designated NCO for Western's Upper Great Plains Region, located in Billings, Montana. Mr. Marsh began his environmental career working on the Anaconda National Priorities List (Superfund) site in western Montana before joining Western's Upper Great Plains Region in 2000 as the Environmental Protection Specialist for the Montana Maintenance Office in Fort Peck. After years of driving more than 250 miles each way between Fort Peck and Billings, he transferred in 2006 to the Regional Office to replace a retiring NEPA Specialist and has served there as the NEPA lead for 6 years. In that capacity, he has served as NEPA Document Manager for two EISs and five EAs. His other job is as a Reserve Marine – Matt just passed 28 years as a Marine! He can be reached at mmarsh@wapa.gov or 406-255-2811.



Nick Stas: Served Every Secretary of Energy

Nicholas (Nick) Stas will soon retire after a federal career stretching over 4 decades – including 6 years with the U.S. Navy, 12 years with Bonneville Power Administration, and over 23 years with Western Area Power Administration.

Having served under every Secretary of Energy to date, Mr. Stas reflected on DOE's cultural changes related to environmental performance. "I had the privilege of serving on multiple 'Tiger Teams,' an initiative under Admiral Watkins [Secretary of Energy 1989–1993] that brought new focus to safety and environmental protection. I have observed continuous improvement in integrating NEPA with decisionmaking and using the NEPA process as a tool to partner with stakeholders and the public," he noted.



Mr. Stas was invited in 2004 by the United States-Asia Environmental Partnership, a program of the U.S. Agency for International Development, to join a team assisting the state-owned electric utility in Vietnam in establishing a PCB [polychlorinated biphenyl] management program. "Having served in Vietnam 35 years earlier with the U.S. Navy, going back was very special to me," he said. He was recognized by the U.S. Ambassador to Vietnam for his contribution "working in partnership to improve the environment and quality of life for the people of Asia." Mr. Stas then hosted a Vietnamese technical delegation that visited Western's Upper Great Plains Region to observe the implementation of policies and procedures from the Office's award-winning Environmental Management System, including PCB management and clean up. These activities earned the National Association of Environmental Professionals award for excellence in environmental education (*LLQR*, June 2006, page 13).

Completing Western's *Upper Great Plains Wind Energy Programmatic EIS* (DOE/EIS-0408), which will be issued as a final EIS in June, is Mr. Stas' last major contribution as a NEPA Document Manager and NCO. "I enjoyed working with the U.S. Fish and Wildlife Service, the joint lead agency for this EIS, in meeting challenges and overcoming delays. Going forward, this effort will significantly improve the efficiency of interconnecting renewable energy resources in the Upper Great Plains Region to the electrical transmission system."

Nick was appreciated by his staff. Rod O'Sullivan, an Environmental Protection Specialist and NEPA Document Manager first with the Upper Great Plains Region and now at Western's Headquarters, observed, "Nick's many successes can be attributed to his gregarious nature and approachable persona as well as his broad knowledge and technical expertise. A friend to all, and always willing to listen and help, Nick truly has never known a stranger."

As he looks forward to retirement, Nick notes that, "Throughout my federal career, I have sincerely appreciated the opportunity to work with, and for, some of the nation's finest citizens."

On behalf of the DOE NEPA Community, we offer Jim Barrows and Nick Stas best wishes in their retirement.

EAs and EISs Completed January 1 to March 31, 2014

EAs¹

Bonneville Power Administration

[DOE/EA-1931](#) (2/6/14)

Keeler to Tillamook Transmission Line Rebuild Project, Tillamook and Washington Counties, Oregon

Cost: \$695,000

Time: 19 months

[DOE/EA-1941](#) (1/13/14)

Boyer-Tillamook Access Road Improvement Project, Tillamook and Yamhill Counties, Oregon

Cost: \$201,000

Time: 16 months

Golden Field Office/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1903](#) (2/6/14)

Kansas State University's Zond Wind Energy Project, Manhattan, Kansas

Cost: \$38,000

Time: 47 months

Idaho Operations Office/Office of Nuclear Energy

[DOE/EA-1954](#) (2/26/14)

Resumption of Transient Testing of Nuclear Fuels and Materials, Idaho National Laboratory, Idaho Falls, Idaho

Cost: \$777,000

Time: 30 months

National Energy Technology Laboratory/ Office of Fossil Energy

[DOE/EA-1642-S1](#) (2/28/14)

Small-Scale Pilot Plant for the Gasification of Coal and Coal-Biomass Blends and Conversion of Derived Syngas to Liquid Fuels via Fischer-Tropsch Synthesis, Lexington, Kentucky

Cost: \$30,000

Time: 4 months

Western Area Power Administration

[DOE/EA-1948](#) (3/21/14)

Gila-North Gila Transmission Line Rebuild and Upgrade Project, Yuma County, Arizona

Cost: \$215,000

Time: 17 months

EIS

Office of Legacy Management

[DOE/EIS-0472](#) (79 FR 15741, 3/21/14)

(Draft EIS Rating: EC-2)

Uranium Leasing Program Programmatic Environmental Impact Statement, Mesa, Montrose, and San Miguel Counties, Colorado

Cost: \$1,981,000

Time: 33 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for the preparation of 6 EAs for which cost data were applicable was \$208,000; the average was \$326,000.
- For this quarter, the median completion time for 6 EAs for which time data were applicable was 18 months; the average was 22 months.
- Cumulatively, for the 12 months that ended March 31, 2014, the median cost for the preparation of 12 EAs for which cost data were applicable was \$148,000; the average was \$356,000.
- Cumulatively, for the 12 months that ended March 31, 2014, the median completion time for 14 EAs for which time data were applicable was 15 months; the average was 17 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$1,980,000.
- For this quarter, the completion time for 1 EIS for which time data were applicable was 33 months.
- Cumulatively, for the 12 months that ended March 31, 2014, the median cost for the preparation of 4 EISs for which cost data were applicable was \$1,330,000; the average was \$1,440,000.
- Cumulatively, for the 12 months that ended March 31, 2014, the median completion time for 5 EISs for which time data were applicable was 31 months; the average was 36 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Telephone calls.* Telephone calls by DOE staff to tribal government representatives about the proposed project led to the representatives' attendance at the public scoping meeting.
- *Flexible public interaction.* An open-house public scoping meeting beneficially allowed unstructured and flexible interaction with the public.
- *Cooperating agency invitation.* The letter sent to cooperating agencies to invite their participation in the EA process contained a signature line at the bottom to accept or reject the invitation and space to designate a contact person. This facilitated a timely response to the invitation because the agencies did not need to write an entire letter to reply to the invitation.
- *Public communication.* Scoping facilitated an open line of communication with the public.

What Didn't Work

- *Changes to project scope.* Project changes made during the EA process required that tasks, not identified during the scoping process (including consultations), had to be completed to support preparation of the EA.

Data Collection/Analysis

What Worked

- *Use of data from an abandoned project.* Finishing an incomplete cultural resources study from an abandoned project facilitated DOE's completion of a cultural resources study required for the EA in a timely and financially responsible manner.

What Didn't Work

- *Project changes.* Unexpected changes to the project description and study area led to the need for additional analyses.

- *Difficulty obtaining information.* Obtaining all necessary information on project design, locations, the extent of construction activities, and the transfer of GIS data between DOE and the EA contractor, took longer than anticipated.
- *Delayed receipt of GPS data.* Assessing tree removal was important due to the potential existence of terrestrial habitat for the marbled murrelet and northern spotted owl and possible impacts to stream habitat for listed fish; however, a delay in the receipt of GPS location data for the trees, and their distance from stream banks, hindered timely analysis of these data.
- *Delayed receipt of model.* The EA baseline schedule assumed that a radioactive material transportation model would be available when needed. However, the model was not available when needed and a workaround was implemented to allow completion of the work. The workaround involved use of more labor-intensive software. A six-week delay resulted from developing a workaround and a ten-week delay resulted from completing the more labor-intensive workaround.
- *Revised project scope.* A change in the project's scope resulted in the need for reanalysis of data, additional reviews, and delays to the completion of the draft and final EA.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Frequent communication.* Frequent communication among program, headquarters, and cooperating agencies facilitated timely completion of the EIS.
- *Schedule updates.* The EA contractor updated the document preparation schedule as needed, which facilitated efficient time management.
- *Frequent meetings.* DOE met with the project partner every 6-8 weeks to discuss planning, the NEPA process, and funding.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *DOE consolidated comments.* DOE staff consolidated their concise comments on draft deliverables prior to submission of comments to the EA contractor.
- *Weekly meetings.* Weekly meetings to assess EA status helped us stay as close to schedule as possible, especially at the beginning of the project.
- *DOE project partner was not concerned about timeliness.* The DOE project partner was not concerned about project construction start or EA review completion for several years. Monthly calls by DOE to the project partner were ineffective in moving the EA process forward.
- *One-man contractor.* The use of a one-man contractor was ineffective. We recommend to future projects leaders that a contractor with a staff of one not be utilized for NEPA document preparation.

Factors that Inhibited Timely Completion of Documents

- *Establishing tribal relationships.* Identifying appropriate tribal contacts and establishing their preferred relationships for the EIS process and associated activities took longer than anticipated.
- *Website glitches.* Technical glitches associated with the project website led to public communication gaps and resulted in a need to extend the public comment period.
- *Lack of commitment to schedule.* The lack of commitment to the proposed project schedule by headquarters participants inhibited the timely completion of the EIS.
- *Moving timeline.* The timeline for the completion of the EIS had to be reset several times.
- *Unresponsive partner.* The DOE project partner was indecisive and unresponsive at times.
- *Delayed project construction date.* The DOE project partner delayed the estimated construction completion date for the proposed project for several years.
- *Unsatisfactory draft.* An unsatisfactory first version of the draft EA submitted by the contractor required an extensive rewrite.
- *NEPA process started too early.* The NEPA process was started before the identification of the full range of viable alternatives. Addressing newly identified alternatives and components put the NEPA process on a critical path.
- *Extensive coordination.* Extensive coordination was required with another DOE site, a national laboratory, and DOE headquarters staff; this included completion of complex accident and transportation analyses.
- *Contractor performance.* The EA contractor was unable to complete the preliminary draft EA in a timely manner due to ongoing personal problems. The DOE project partner did not take actions to hire a new contractor, even after DOE provided a recommendation to do so.

Teamwork

Factors that Facilitated Effective Teamwork

- *Regular meetings.* Regular meetings of the project team facilitated timely completion of the EA.
- *Good communication.* Good communication among all team members was effective in managing the flow of information, expectations, and potential obstacles.
- *Cooperation.* Cooperation among the NEPA team members was effective in the preparation of a quality EIS.
- *Use of Outlook calendar.* The use of Outlook calendar reminders to alert people of approaching deadlines was helpful.
- *Use of Go-To-Meeting.* Team meetings to review/revise the document were held with local and remotely-located team members using Go-To-Meeting. This gave the team the opportunity to review and revise documents in real time.
- *Face-to-face reviews.* Including EA contractor and DOE personnel in face-to-face reviews helped minimize the number of rewrites to address comments. DOE and the contractor worked together to review and revise the document, rather than in a sequential review - revise cycle.
- *Headquarters support.* Having a liaison at DOE-HQ to help move the EA through the review and revision process was effective.
- *Strong team.* Having a strong core NEPA Team with excellent experience and a knowledgeable program manager facilitated preparation of the EA.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Extensive interaction.* Having extensive interaction between the DOE Document Manager and contractor Document Manager, and including the appropriate team members (e.g., contractor manager and site manager) in key meetings and reviews, was effective in the EA preparation.

Factors that Inhibited Effective Teamwork

- *Timeliness.* Timeliness and adherence to the schedule were not pursued as a team quality factor.
- *Limited sharing of data.* Initially, limited sharing of program data with the NEPA contractor led to information gaps, which had to be addressed once the gaps were identified.
- *External coordination.* Better understanding at the start of the NEPA process of requirements and expectations for coordination and consultations with tribes and other entities would have facilitated a more efficient process.
- *Dispersed team members.* Having team members spread out in different buildings and cities inhibited collaboration.
- *Use of email.* Reliance on email was problematic since they were sometimes overlooked and some responses were delayed.
- *Multiple team members.* The project involved DOE-HQ, two field offices, and a program. The coordination among these multiple groups, while effective at times, also lengthened the review and revision process.

Process

Successful Aspects of the Public Participation Process

- *Public comment tracking.* Setting up a project-specific government email address for public comments on the EA increased their visibility and tracking.
- *Established project website.* Many people visited the project website and found it to be useful.
- *Support for improvements.* There was much support for the improvements to the roads planned for the project, which landowners could use as well.
- *Presentation of project information.* NEPA helped us organize and present the analysis of the proposed action and acted as a tool to inform the public about the project.

- *Helpful public comments.* Some public comments pointed out deficiencies in the draft EA. Once addressed, we had a better document.

Unsuccessful Aspect of the Public Participation Process

- *Reaction to public meetings.* The public participation process did not seem to be an honest dialogue, but rather a “here it is, tell us what you think, and here it is again” situation. The process seemed to discourage open and honest communication in favor of legal and reserved responses that were overly thought out.
- *NEPA process perceived as too long.* Concern was expressed that the NEPA process was taking too long, particularly the 10 months between the scoping meeting and the draft EA.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Transparent decisionmaking.* The EIS process made our decisionmaking more transparent to the public.
- *Focus on scope and purpose.* The EIS process kept the EIS preparers focused on the major underpinnings of the scope and purpose of the document.
- *Framework for future projects.* The programmatic EIS established a consistent framework for future project planning.
- *Sound analyses.* The EA analyses made a clear case for identifying the preferred alternative.

Enhancement/Protection of the Environment

- *Enhanced understanding of project issues.* The EIS process led to an enhanced understanding of special environmental issues associated with the project area and supported the development of appropriate mitigation.
- *Mitigation of environmental impacts.* The environment may be protected due to mitigation beyond requirements to address comment responses.
- *Enhanced resources protection.* The EA process resulted in the addition of resource protection measures to the project.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Consequences of no action.* The EA process highlighted that the environmental consequences for the action alternatives were less for many resources than was the No Action Alternative.
- A respondent who rated the process as “5” stated that the NEPA process provided detailed and accurate analyses to facilitate a confident determination of the potential for significant impacts from the alternatives analyzed.

Other Issues

Guidance Needs Identified

- *Preparation of formal notifications.* There is a need for better explanation of the process and timelines associated with announcements and notifications (Notice of Availability of draft and final documents, congressional notifications, etc.).
- *Development of schedule guidelines.* Schedule and timeliness as a quality factor need to be integrated into the procedures and guidance for document preparation with review times laid out and approved by the programs.
- *Addressing resource issues.* Specific guidance is needed to identify decision criteria for when resource issues can be “considered but dismissed from detailed analysis in an EA.” If a resource is present, must it be analyzed in detail? Can significance criteria be used in EAs? It would be helpful if DOE had a list of resources issues that could be considered in an EA similar to that provided by the U.S. Bureau of Land Management.
- A respondent who rated the process as “4” stated that the NEPA process verified that DOE and the project partner should share a corridor to minimize impacts to agricultural lands.
- A respondent who rated the process as “3” stated that the NEPA process made project staff put more thought and consideration into what wastes would be generated by the project and how those wastes would be handled.
- A respondent who rated the process as “3” stated that the NEPA process made DOE’s decisionmaking more transparent to the public.
- A respondent who rated the process as “3” stated that the NEPA process was viewed as a “hoop” to go through (an approval to get). However, the process yielded good information that led to a better project description and understanding of what was needed to actually go forward with the project.
- A respondent who rated the process as “3” stated that the project would be carried out with better environmental protection than would have likely occurred otherwise; however, this was mostly due to other laws (Endangered Species Act and Clean Water Act).

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 6 EA and 1 EIS questionnaire responses were received, 6 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “2” stated that the proposed project would avoid environmental impacts due to compliance with other regulatory requirements.

LESSONS LEARNED

September 2, 2014; Issue No. 80

Third Quarter FY 2014

Making the Most of Mitigation

By Karen Oden, NEPA Compliance Officer,
Los Alamos Field Office

The Los Alamos Field Office (LAFO) uses a comprehensive Mitigation Action Plan (MAP) to monitor and manage commitments to mitigate adverse environmental impacts associated with the 2008 *Los Alamos National Laboratory (LANL) Site-Wide Environmental Impact Statement (EIS)* (DOE/EIS-0380) and multiple project-specific EISs and environmental assessments (EAs). A MAP describes the plan for implementing commitments made in an EIS record of decision (ROD) to mitigate adverse environmental impacts, or mitigation commitments that are essential to render the impacts of a proposed action not significant. The DOE NEPA Order requires a publicly available annual report on progress made in implementing mitigation commitments and the effectiveness of the mitigation. (See *Key Requirements Involving Mitigation*, pages 5-6.)

Reorganizing the MAP Annual Report

The first NEPA document I reviewed as a new DOE employee at LAFO was a draft of the MAP Annual Report for Fiscal Year (FY) 2013. I was amazed by the range of the commitments by the LAFO NEPA program and the complexity of the LANL mission activities. I had many questions and realized that the MAP Annual Report could be a more useful tool if restructured using a consistent outline for each mitigation commitment:

- Why are we doing it?
- What we are trying to achieve?
- What actions were taken?
- Are the actions effective?
- Should we continue doing it?

The purpose of tracking mitigation is to ensure that DOE and LANL follow through on commitments to minimize, avoid, or compensate for the adverse impacts



The current site-wide approach for long-term protection of LANL's threatened and endangered species originated from the 1995 discovery of a nesting pair of Mexican spotted owls near a proposed explosives testing facility. (See LLQR, June 1999, page 1.) (Photo: Chuck Hathcock, Wildlife Biologist, LANL Environmental Protection Division)

of an action and, furthermore, to examine whether mitigation measures are effective and efficient. The reorganized [MAP Annual Report for FY 2013](#) (issued in January 2014) first discusses each mitigation action in the body of the report and then summarizes all actions in a tracking table that also identifies the responsible organization. The FY 2013 MAP Annual Report answers a series of questions:

NEPA and Other Drivers: Which NEPA document, DOE Order, regulation, or program did the mitigation commitment come from?

Mitigation: What is the purpose and goal of each mitigation commitment?

Action Taken: What steps were taken during the past year?

Effectiveness: Was the mitigation effective?

Recommendation: Should the mitigation be continued, modified, or discontinued?

(continued on page 3)

Celebrating 20 years of LLQR!

1994-2014

Inside Lessons Learned

Welcome to the 80th quarterly report on lessons learned in the NEPA process. This issue features the Los Alamos Field Office's use of a comprehensive mitigation action plan to monitor and manage commitments to mitigation measures and DOE's NEPA node. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom
 Director
 Office of NEPA Policy and Compliance

Printed on recycled paper 

Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by October 17, 2014, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due November 3, 2014

For NEPA documents completed July 1 through September 30, 2014, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than November 3. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Abstracts Invited for 2015 EJ Conference

“Climate Justice” will be a special focus of the March 2015 National Environmental Justice Conference and Training Program (NEJC), to be held in Washington, DC, with an overall theme of *Enhancing Communities Through Capacity Building and Technical Assistance*. DOE co-sponsors this annual free event with other federal agencies, universities, and private companies.

NEJC invites the submittal of abstracts for panel presentations, workshops, training modules, case studies, best practices, and success stories relating to environmental justice. Abstracts are due to email@thenejc.org by November 21, 2014. Additional information is available at thenejc.org. 

SAVE THE DATE

2015 National Environmental Justice Conference and Training Program

Howard University School of Law
2900 Van Ness Street NW
Washington, DC 20008

Washington Marriott at Metro Center
775 12th Street NW
Washington, DC 20005

To volunteer or for sponsorship opportunities and additional information, contact
Lloyd Moore, Conference Coordinator, email@thenejc.org or
Melinda Downing, U.S. Department of Energy Environmental Justice Program Manager, melinda.downing@hq.doe.gov.

www.thenejc.org



MARCH 11-13, 2015




Mitigation

(continued from page 1)

Analysis of Data To Evaluate Effectiveness

Analysis, not just the reporting of data, is essential for a MAP Annual Report to evaluate the effectiveness of mitigation activities and make recommendations. For example, knowing the significance threshold for each type of impact may be necessary. In some cases, a significant impact to a resource is a quantifiable threshold or objective standard based in regulation. For others, a subject matter expert's professional judgment is used to determine significance. In any case, the NEPA document should describe the impact threshold against which the mitigation's effectiveness can be measured.

Numerous mitigation actions have been completed at LANL. When a mitigation commitment has been fully implemented, it is added to a summary table in the MAP Annual Report with a justification for no longer tracking it as ongoing. When a mitigation commitment is integrated into an established LANL environmental management program, such as the Habitat Management Plan or the Air Monitoring Program, it, too, is no longer tracked in the MAP Annual Report, but is included in the summary table.

Revising the MAP

After restructuring the MAP Annual Report for FY 2013, LAFO revisited the MAP itself. This MAP was developed

in the 1990s and had been updated in 2008 after the first ROD for the Site-Wide EIS. The MAP was revised to incorporate mitigation commitments made in the second (2009) ROD for the 2008 Site-Wide EIS, and then for a 2010 EA and finding of no significant impact (FONSI) on the expansion of two LANL facilities. The MAP also covers commitments to Santa Clara Pueblo as part of ongoing government-to-government relations. The MAP describes the implementation and management steps for LAFO and LANL organizations. The process includes task scoping, funding allocation, tracking, technical implementation, annual reporting, and mitigation action commitment closure.

We revised the MAP to update the commitments and reflect the improved approach developed for the MAP Annual Report. For each program or project in its scope, the MAP now summarizes the objective, identifies the NEPA and other drivers, and lists the specific mitigation commitments. The final section lists mitigation commitments previously included in the MAP that have been completed or integrated into ongoing LANL programs. The [revised MAP](#) (just 15 pages) was issued in June 2014. Any mitigation commitments described in future RODs or FONSI will be incorporated into this MAP.

(continued on page 7)

Example: Mitigations Identified in the Cerro Grande Fire Special Environmental Analysis

NEPA Driver: DOE/National Nuclear Security Administration (NNSA) issued a [Special Environmental Analysis](#) in September 2000 to analyze the emergency fire suppression, soil erosion, and flood control actions taken by DOE/NNSA and LANL between May and November in response to the 2000 Cerro Grande Fire. (See [LLQR, June 2000](#), page 1, and [September 2000](#), page 1.) The Special Environmental Analysis also identified mitigations for these actions. While a majority of the mitigations have been completed, the MAP Annual Report for FY 2013 provides information on three ongoing commitments.

Mitigation Measures:

1. Monitor biota and sediment contamination behind the Los Alamos Canyon Weir and the Pajarito Canyon Flood Retention Structure.
2. Periodically remove sediment from the Los Alamos Canyon Weir based on sedimentation rate and contamination accumulation rate.
3. Complete rehabilitation of cultural resources impacted by the Cerro Grande Fire.

Actions Taken: The MAP Annual Report describes sampling of small mammals and vegetation for radionuclides, heavy metals, and polychlorinated biphenyls (PCBs); sediment removals from the canyon weir; and rehabilitation work on prehistoric archaeological sites, historic homestead-era sites, and historic buildings.

Effectiveness of the Mitigations: The MAP Annual Report finds that ongoing Mitigations Measures 1 and 2 are effective, and that Mitigation Measure 3 is effective and completed.

Recommendations: The MAP Annual Report recommends that biota sampling and sediment removal continue, and that LAFO close out Mitigation Measure 3 and manage any further monitoring and repair work under the existing LANL Cultural Resources Management Plan ([LLQR, December 2002](#), page 10).

LANL: A Unique Environmental Setting and History

Los Alamos National Laboratory (LANL) is located in north-central New Mexico. The 36-square-mile laboratory is sited on the Pajarito Plateau, a series of mesas separated by deep canyons cut by stream channels from the Jemez Mountains to the Rio Grande. With the exception of the towns of White Rock and Los Alamos, the surrounding land is undeveloped. Adjoining lands include the Santa Fe National Forest, Bandelier National Monument, and the Pueblo of San Ildefonso.

The Pajarito Plateau formed as the result of a pair of volcanic eruptions from the Valles Caldera that occurred 1.1 to 1.4 million years ago. The historical significance of the area dates back 10,000 years to the Paleoindians, who used the area as hunting grounds. The Plateau was home to ancestral Pueblo Indians from the 1150s through the 1600s, followed by the Spanish colonial period in the 1600s and 1700s. The late 1800s brought the railroad and the homesteading era. The Los Alamos Ranch School, built in the early 1900s, was responsible for educating more than 600 boys, but was closed abruptly in 1942 by the occupancy of the U.S. Army. Military personnel and a group of scientists moved to Los Alamos with the objective of developing the first nuclear weapon as Project Y of the Manhattan Project.

The geology, elevation, and climate contribute to a biologically diverse area including four major plant communities (juniper savanna, piñon-juniper woodland, ponderosa pine forest, and mixed conifer forest) and sensitive habitats, such as wetlands, floodplains, and riparian areas. Natural resource management, including habitat protection, is a major component of the Lab's environmental stewardship program. LANL monitors and protects large game (e.g., elk, deer, and bear) and special classes of species such as migratory birds, federally-listed threatened and endangered species (Mexican spotted owl and the Southwestern willow flycatcher) and state-listed species (Jemez Mountains salamander).

Seven primary watersheds drain from LANL directly into the Rio Grande, requiring a sophisticated program for monitoring surface water and sediment samples near and downstream from potential LANL-produced contaminant sources. Severe drought, three major wildfires in the past 30 years, and a 1000-year flood have dramatically affected the landscape, increasing the amount of ash and sediment transported by storm water as well as the loss of habitat, increased runoff, and visual impacts.

LANL has a large and diverse number of historic and prehistoric properties. More than 1,800 prehistoric and 145 historic sites have been recorded at LANL. Protecting the unique historic, cultural, and natural resources of the area is essential in planning and executing LANL's mission. Mitigation commitments range from removing contaminated sediments from canyons to providing for tribal visits to cultural sites. From simple to complex, there are close to 60 ongoing mitigation commitments.



An objective of several LANL mitigation measures is to decrease risks associated with recreational use of LANL lands, such as the Anniversary Trail, which offers views of the Rio Grande Valley and Sangre de Cristo Mountains. Mitigation commitments include determining appropriate closures and restrictions, and supporting the use of volunteers for trail maintenance projects. (Photo: Phillip Noll)

Key Requirements Involving Mitigation

Council on Environmental Quality NEPA Regulations (40 CFR Parts 1500-1508)

§1502.14 Alternatives including the proposed action.

[Agencies shall] (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

§1505.2 Record of decision in cases requiring environmental impact statements.

[The record of decision shall] (c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

§1505.3 Implementing the decision.

Agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases. Mitigation (§1505.2(c)) and other conditions established in the [EIS] or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency. The lead agency shall:

- (a) Include appropriate conditions in grants, permits or other approvals.
- (b) Condition funding of actions on mitigation.
- (c) Upon request, inform cooperating or commenting agencies on progress in carrying out mitigation measures which they have proposed and which were adopted by the agency making the decision.
- (d) Upon request, make available to the public the results of relevant monitoring.

§1508.20 Mitigation.

“Mitigation” includes:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

DOE NEPA Regulations (10 CFR Part 1021)

§ 1021.104 Definitions.

Mitigation Action Plan means a document that describes the plan for implementing commitments made in a DOE EIS and its associated ROD, or, when appropriate, an EA or FONSI, to mitigate adverse environmental impacts associated with an action.

§ 1021.322 Findings of no significant impact.

(b) [A DOE FONSI shall include]: (1) Any commitments to mitigations that are essential to render the impacts of the proposed action not significant, beyond those mitigations that are integral elements of the proposed action, and a reference to the Mitigation Action Plan prepared under § 1021.331

§ 1021.331 Mitigation action plans.

(a) Following completion of each EIS and its associated ROD, DOE shall prepare a Mitigation Action Plan that addresses mitigation commitments expressed in the ROD. The Mitigation Action Plan shall explain how the corresponding mitigation measures, designed to mitigate adverse environmental impacts associated with the course of action directed by the ROD, will be planned and implemented. The Mitigation Action Plan shall be prepared before DOE takes any action directed by the ROD that is the subject of a mitigation commitment.

Key Requirements Involving Mitigation, continued

(b) In certain circumstances, as specified in § 1021.322(b)(1), DOE shall also prepare a Mitigation Action Plan for commitments to mitigations that are essential to render the impacts of the proposed action not significant. The Mitigation Action Plan shall address all commitments to such necessary mitigations and explain how mitigation will be planned and implemented. The Mitigation Action Plan shall be prepared before the FONSI is issued and shall be referenced therein.

(c) Each Mitigation Action Plan shall be as complete as possible, commensurate with the information available regarding the course of action either directed by the ROD or the action to be covered by the FONSI, as appropriate. DOE may revise the Plan as more specific and detailed information becomes available.

(d) DOE shall make copies of the Mitigation Action Plans available for inspection in the appropriate DOE public reading room(s) or other appropriate location(s) for a reasonable time. Copies of the Mitigation Action Plans shall also be available upon written request.

DOE NEPA Order (DOE O 451.1B)

4. REQUIREMENTS.

In addition to requirements established in NEPA and the Regulations, DOE's NEPA Compliance Program shall include:

g. Tracking and annually reporting progress in implementing a commitment for environmental impact mitigation that is essential to render the impacts of a proposed action not significant, or that is made in a record of decision.

5. RESPONSIBILITIES.

a. [Responsibilities of a Secretarial Officer or a Head of a Field Organization include]:

(9) [For an EA]:

(e) When a commitment to mitigation is essential to render the impacts of a proposed action not significant, preparing a mitigation action plan for any such commitment before issuing the [FONSI].

(f) Tracking and annually reporting progress made in implementing, and the effectiveness of, any commitment for environmental impact mitigation that is essential to render the impacts of a proposed action not significant.

b. [For an EIS, responsibilities of a Secretarial Officer include]:

(4) Preparing any mitigation action plan required under the DOE Regulations before taking an action that is the subject of a mitigation commitment made in a record of decision.

(5) Tracking and annually reporting progress made in implementing, and the effectiveness of, any mitigation commitment made in a record of decision.

d. A NEPA Compliance Officer shall:

(12) Provide the Office of NEPA Policy and Compliance promptly—generally, within two weeks of their availability—two copies and one electronic file of:

(f) A mitigation action plan and corresponding annual mitigation report. The mitigation report may be submitted on the anniversary of a mitigation action plan or in a combined report (for example, as part of the annual NEPA planning summary) for multiple plans until mitigation is completed.

f. The General Counsel shall:

(2) For an [EIS]:

(c) Evaluate proposed and alternative actions, including alternative mitigation measures, and make any appropriate recommendations to mitigate environmental impacts.

Also see *CEQ Guidance on Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact* (2011).

New CEQ Draft Guidance Encourages Use of Programmatic NEPA Reviews



The Council on Environmental Quality (CEQ) is requesting public comments on draft guidance on how federal agencies can effectively use NEPA programmatic reviews, including programmatic EAs and EISs. In a Notice of Availability published in the *Federal Register* on August 25, 2014 (79 FR 50578), CEQ requested public comments by October 9, 2014. The draft guidance, “Effective Use of Programmatic NEPA Reviews,” is available on [CEQ’s website](#).

“Guidance on programmatic NEPA reviews has been requested by the agencies and attention on programmatic NEPA reviews has increased as agencies are increasingly undertaking broad landscape scale analyses for proposals that affect the resources they manage,” CEQ said in the Notice.

In the draft guidance CEQ states that “the programmatic approach under NEPA has not been fully used for its intended purpose and when used, it often has not fulfilled agency or stakeholder expectations.” The draft guidance states that its goal is “to encourage a more

consistent approach to programmatic NEPA reviews so that the analyses and documentation will allow for the expeditious and efficient completion of any necessary tiered reviews,” and that it builds on past CEQ guidance that explains the use of tiering and its place in the NEPA process. (CEQ’s 1983 guidance regarding its NEPA regulations is available on the [DOE NEPA Website](#).)

In describing the potential benefits of programmatic NEPA reviews, the draft guidance states that “one of the main advantages of a programmatic NEPA review is the ability to tier subsequent reviews, such as site- or proposal-specific reviews. Tiering has the advantage of not repeating information that has already been considered at the programmatic level so as to focus and expedite the preparation of the tiered NEPA review(s).” “A programmatic NEPA review can also be an effective means to narrow the consideration of alternatives and impact discussions in a subsequent tiered NEPA review,” the draft guidance states. [L](#)

NEPA Office Issues 2014 Stakeholders Directory

If you are planning to distribute an EA or EIS, or initiate other NEPA public involvement and consultation activities, the Office of NEPA Policy and Compliance encourages you to consult the *Directory of Potential Stakeholders for DOE Actions under NEPA*. The NEPA Office issued the 31st edition of the directory on July 7. It includes current information for points of contact in federal agencies; states, territories, and state government associations; and

many nongovernmental organizations. It also lists DOE tribal points of contact and reading rooms.

For the 2014 Stakeholders Directory, about one third of the organizations changed their contact information. The NEPA Office updates the directory throughout the year, as new contact information is received. Send updates and questions to askNEPA@hq.doe.gov. [L](#)

Mitigation

(continued from page 3)

For more information, contact me at karen.oden@nnsa.doe.gov or 505-667-0886. (The DOE NEPA Website maintains a [webpage](#) for MAPs and MAP Annual Reports. See also related article, page 17.) [L](#)

Editor’s note: Karen Oden (see Transitions, page 18), an Environmental Engineer and Project Management Professional, has spent most of her 25-year career working for the Department of Defense and credits the

Five-Year Site Review process under the Comprehensive Environmental Response, Compensation, and Liability Act as the model for making the FY 2013 MAP Annual Report more effective and informative. She also acknowledges the contributions of Phillip Noll, Ph.D., an Environmental Scientist with the LANL Environmental Protection Division, who is responsible for overseeing the LANL mitigation program.

CEQ Denies Petition for NEPA Rulemaking, Affirms Need To Consider Climate Effects



The Council on Environmental Quality (CEQ) recently denied a petition requesting that CEQ (1) amend its NEPA regulations to require Federal agencies to address greenhouse gases (GHGs) and climate change effects in their NEPA documents, and (2) issue guidance on how agencies should address GHGs and climate change under NEPA.

The petition had been submitted by the International Center for Technology Assessment (ICTA), Natural Resources Defense Council, and the Sierra Club on February 28, 2008 (*LLQR*, June 2008, page 11). ICTA and the Center for Food Safety, on April 2, 2014, sued CEQ in the U.S. District Court for the District of Columbia, seeking to compel CEQ to respond to the 2008 petition. CEQ responded in a letter to the petitioners from Acting Chair Michael J. Boots, dated August 7, 2014, and also filed a Motion to Dismiss the lawsuit. On August 21, 2014, the District Court dismissed the lawsuit.

“CEQ and this Administration have taken seriously the urgency of addressing climate change and we are actively moving forward on a comprehensive [Climate Action Plan](#) focused on reducing greenhouse gas (GHG) emissions domestically, preparing for those climate impacts that are already unavoidable, and leading internationally,” CEQ states in the letter. “Nonetheless,” the letter states, “CEQ is denying the requests that we amend our regulations and issue particular guidance, because, among other things, the existing regulations already encompass consideration of climate effects and CEQ is using mechanisms other than guidance to assist Federal agencies in considering GHGs in their NEPA compliance.”

Climate Impacts Are Reasonably Foreseeable

In explaining why it denied the petition requesting that it amend its NEPA regulations, CEQ emphasized its long-standing position that its NEPA regulations are broad enough to encompass reasonably foreseeable climate change effects (*LLQR*, June 2008, page 10).

“With respect to its NEPA regulations, CEQ does not believe that amending the regulations is necessary to fulfill its obligations to issue regulations under NEPA,” CEQ states in the letter. “Moreover, revisions are unnecessary because NEPA and its implementing regulations already require Federal agencies to evaluate the reasonably foreseeable environmental impacts of their actions, including foreseeable GHG and climate change implications. Courts have found that GHG emissions and climate change issues need to be analyzed under the existing NEPA statute and regulations,” CEQ further states.

Guidance Development Process

With respect to the request that CEQ issue NEPA guidance, CEQ noted that it has a process underway to consider issuing guidance and “has already issued draft NEPA guidance regarding consideration of the effects of climate change and GHG emissions, solicited public comments, and is considering how to proceed.” (For a discussion of CEQ’s February 2010 “[Draft Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions](#),” see *LLQR*, March 2010, page 3; and June 2011, page 8.)

CEQ’s letter describes other actions it has taken to support Federal agencies in considering GHGs in their NEPA compliance, including issuing guidance, such as:

- “[Council on Environmental Quality Guidance on NEPA Analyses for Transboundary Impacts](#)” (July 1997), which clarifies the applicability of NEPA to proposed Federal actions that may have transboundary effects;
- “[Guidance on Federal Greenhouse Gas Accounting and Reporting](#)” (October 2010), which establishes an approach for Federal agencies in calculating and reporting GHG emissions associated with Federal agency operations (*LLQR*, December 2010, page 19);
- “[Technical Support Document for Federal GHG Accounting and Reporting](#)” (June 2012), which provides detailed information on inventory reporting approaches and calculation methodologies.

In addition, CEQ’s letter cites a number of other actions taken by the Administration to develop and promote the science and tools for addressing climate impacts. Among them:

- Approval in 2013 of the Intergovernmental Panel on Climate Change (IPCC) Working Group I report, “[Climate Change 2013: The Physical Science Basis](#).” (IPCC’s assessment reports are widely regarded as highly influential and are often cited in DOE NEPA documents; see *LLQR*, December 2013, page 8).
- Release through the U.S. Global Change Research Program of the “[Third U.S. National Climate Assessment: Climate Change Impacts in the United States](#)” (May 2014), which CEQ describes in its letter as “the most authoritative and comprehensive source of scientific information to date on the domestic impacts of climate change.” (See *LLQR*, March 2014, page 3.)

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Appeals Court Upholds DOE's Biorefinery EA

DOE's EA for a proposed biorefinery plant in Michigan (DOE/EA-1705) "adequately supported its finding that funding the plant would not have a significant impact on the environment," concluded the United States Court of Appeals for the Sixth Circuit in an opinion issued May 21, 2014. DOE completed the [EA and finding of no significant impact](#) (FONSI) in 2011 in response to an application for financial assistance to design, construct, and operate a cellulose-to-ethanol biorefinery.

Plaintiffs initially challenged DOE's FONSI in the United States District Court for the Western District of Michigan (Case No.: 2:11-cv-514). The district court ruled, among other things, that DOE had "complied with NEPA in all respects."

Alternatives Analysis Adequate

On appeal, plaintiffs challenged the EA and FONSI on four grounds. First, plaintiffs criticized the EA for considering only the proposal to fund the project and one alternative – not funding it. The court noted that the EA was organized in this way but that, in fact, the EA went further. DOE made mitigation measures discussed in the EA binding on the applicant, which the court determined "goes beyond just saying 'yes' or 'no' to a funding request."

The court also noted that the EA described alternative sites that the applicant had considered in developing its proposal, potential expansion of the proposed plant, how feedstock (hardwood from area forests) could be varied to avoid depleting resources, and bringing supplies to the proposed plant both via rail and truck. "That is not an analysis preoccupied with one option," the court stated. The court also concluded that DOE had no obligation to consider an alternative for a different type of plant than the applicant had proposed. The court explained that an alternative to use an entirely different feedstock from

what the applicant proposed (based on technology it had developed) "exceeds the 'reasonable alternatives' the Department had to assess."

Second, plaintiffs alleged that the EA failed to adequately consider potential impacts and mitigation. The court, however, concluded that the analysis was sufficient, noting, for example, that the EA included point source emissions of greenhouse gases and "above all the life-cycle *reduction* in greenhouse gases caused by the benefits and burdens of the plant" (emphasis in original).

Mitigation Binding on Applicant

Plaintiffs claimed that mitigation measures discussed in the EA are speculative and unenforceable. The court disagreed, finding it sufficient to rely on future requirements that the state will impose for the plant to receive necessary permits before construction can begin and the funding agreement between DOE and the applicant, which incorporated the mitigation measures and made them binding on the applicant.

Third, plaintiffs argued that DOE should have supplemented the EA based on a press release issued after the EA had been completed that discussed a potential expansion of the plant to a scale larger than analyzed in the EA. The court found this issue moot because the plans had since been abandoned.

Fourth, plaintiffs claimed that the EA failed to consider all of the intensity factors included in the definition of "significantly" in the Council on Environmental Quality's NEPA regulations. To the contrary, the court found that the EA had "considered all of the environmental effects that the intensity factors mention." (*Klein v. U.S. Department of Energy*, 753 F.3d 576 (6th Cir. 2014)) [LL](#)

CEQ Denies Petition

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Historically, DOE has addressed GHGs and climate change in its NEPA documents and CEQ has cited DOE EISs as examples of documents containing such analyses (*LLQR*, [March 2010](#), page 13). As the topic of climate analyses and NEPA has evolved, *LLQR* has

discussed issues and approaches. (See, for example, *LLQR*, [December 2007](#), page 1; [June 2008](#), page 1; [December 2008](#), page 6; [June 2009](#), pages 12 and 18; [March 2010](#), page 3; [June 2011](#), pages 8 and 10; and [June 2013](#), page 10.) [LL](#)

Update on NEPAnode

Since NEPAnode was introduced in the March 2014 issue of *LLQR*, the NEPA Office has continued to develop this geospatial and document management system, including significant improvements in functionality and usability. “NEPAnode is now a powerful and practical tool for NEPA practitioners and we will continue to develop it to make it more useful, even for those who are not experts in using a geographic information system (GIS),” said John Jediny, Office of NEPA Policy and Compliance.

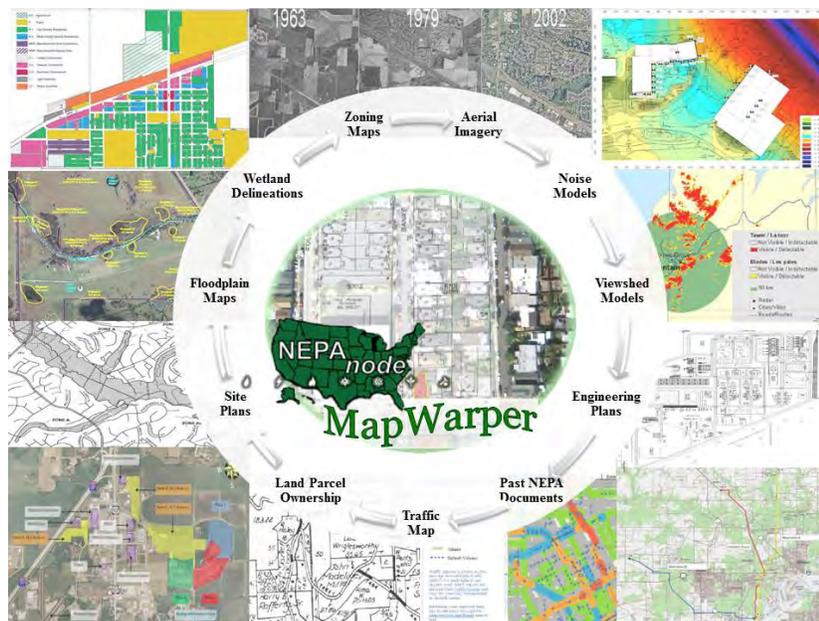
After launching the NEPAnode as a pilot project in February 2014, the NEPA Office has:

- Added more functionality, including
 - More than 200 new map layers that can be used in GIS analyses. (“Map layers,” also referred to as “data layers” or just “layers,” contain geographically accurate representations of “datasets” (information about a resource) that can be combined with other information in a map to enable analysis via GIS.)
 - A blog feature to facilitate training and information exchange among practitioners; and
 - “MapWarper,” a tool designed to make it easy for NEPA practitioners without GIS expertise to make geographically accurate map layers from “static” images and upload the information for GIS analysis.
- Conducted three interactive webinars for the DOE NEPA Community to provide an overview of the tool.

- Added instructional videos to help users at different skill levels.
- Made NEPAnode available to all federal agencies and their contractors. (While anyone may use the information on the NEPAnode website, federal agencies and their contractors can register to upload, combine, edit, and share project data.)
- Received recognition and financial support from the Federal Geographic Data Committee (FGDC), an interagency committee that promotes coordinated development, use, sharing, and dissemination of geospatial data. FGDC’s selection of NEPAnode to be a pilot in this year’s class of “GeoCloud” projects will enable faster development of NEPAnode as a ready-to-use, web-based, security-compliant, and free software solution for federal agencies.

To illustrate some of the ways NEPA practitioners can apply NEPAnode, this issue of *LLQR* presents two articles by NEPA Office staff: John Jediny discusses use of some lesser known datasets and use of the MapWarper tool to facilitate environmental analysis and enhance the NEPA process (page 11) and Brad Mehaffy discusses his use of NEPAnode in conducting quality assurance reviews of NEPA documents (page 13).

For additional information on NEPAnode and DOE’s participation in FGDC’s GeoCloud initiative, contact John Jediny at john.jediny@hq.doe.gov. 



MapWarper makes it easy for NEPA practitioners to use a wide variety of static data sources, such as those presented here, that might otherwise be unavailable for use in GIS analyses.

NEPAnode: Visualizing the Past, Present, and Future

By John Jediny, Office of NEPA Policy and Compliance

When NEPA practitioners think of GIS data, they often think of well-known datasets, such as those for floodplains, wetlands, critical habitats, and populations. Many are not aware of the diverse range of data that can be integrated into an analysis through a tool such as NEPAnode. This article highlights three datasets depicting information from the past, present, and (projected) future to highlight NEPAnode's unique ability to combine information together in a single map to facilitate analysis and enhance the NEPA process. In addition, the article introduces MapWarper, a new tool available through NEPAnode that can expand the range of data sources available for GIS analysis.

Past

Native American Tribes - Historical Ranges

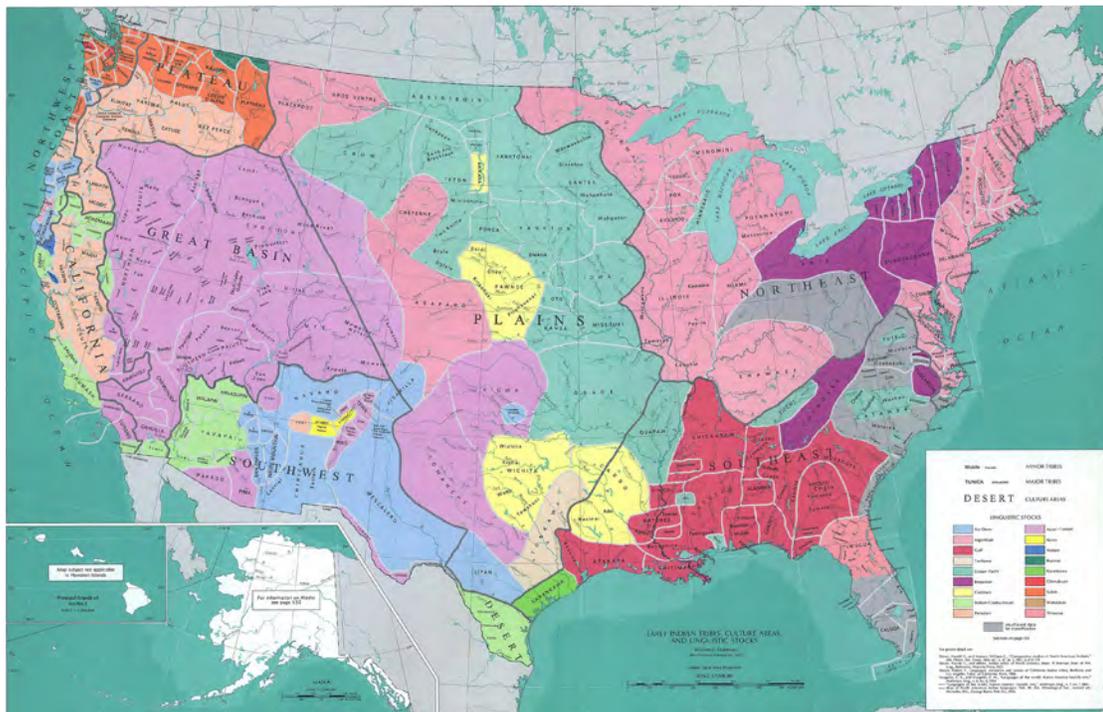
The map (below), "Early Indian Tribes, Cultural Areas, and Linguistic Stocks," was produced by the Smithsonian Institution in 1967 to depict the general historic ranges of many Native American tribal nations and their shared or divergent cultural and linguistic roots. To make the information more usable than in its static form as a scanned image obtained from the Smithsonian Institution Archives, I "georeferenced" the map to create a geographically accurate layer and uploaded it to

NEPAnode, where the layer can be combined with maps of proposed projects to inform the tribal consultation process.

I chose this example for two reasons. The first is to highlight the importance of considering the historic presence of tribes in a particular region because tribes may value cultural sites at locations within the region of a proposed action that are outside their current geographic distribution. This relatively uncommon layer provides a tool to help identify tribes that should be consulted during the NEPA process.

Secondly, this example illustrates how NEPAnode can be used to unlock information for analysis. Vast amounts of information on many topics are contained in static maps. A new tool offered through NEPAnode called MapWarper is designed to make it easy for users without GIS expertise to digitally align ("georeference" or "rectify") static maps, such as the tribal historic range map, to match today's precise digital maps. The resulting rectified maps can then be used in a GIS tool such as NEPAnode where the information can be combined with other project information for visualization and analysis. The graphic (page 10) provides examples of some common sources of static data to illustrate the wide range of data sources that can be rectified for GIS analysis.

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This map layer showing historical ranges of Native American tribal nations can help identify tribes that no longer reside in the affected area of a proposed action to determine whether that tribe should be consulted in the NEPA process.

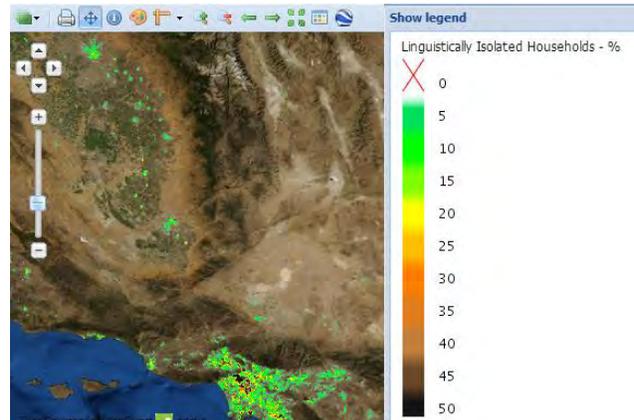
Visualizing

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Present

Linguistically Isolated Households

The U.S. Census Bureau defines “Linguistically Isolated Households” as households in which all members aged 14 years and older speak a non-English language and also speak English less than “very well.” This map (right) depicts the percentage of such households based on data obtained from the [National Aeronautics and Space Administration’s Socioeconomic Data and Applications Center](#). This map can supplement other information from outreach efforts and other sources to help NEPA practitioners identify the presence of linguistically isolated households and determine if providing text translations or translators at public meetings would enhance the public participation process.

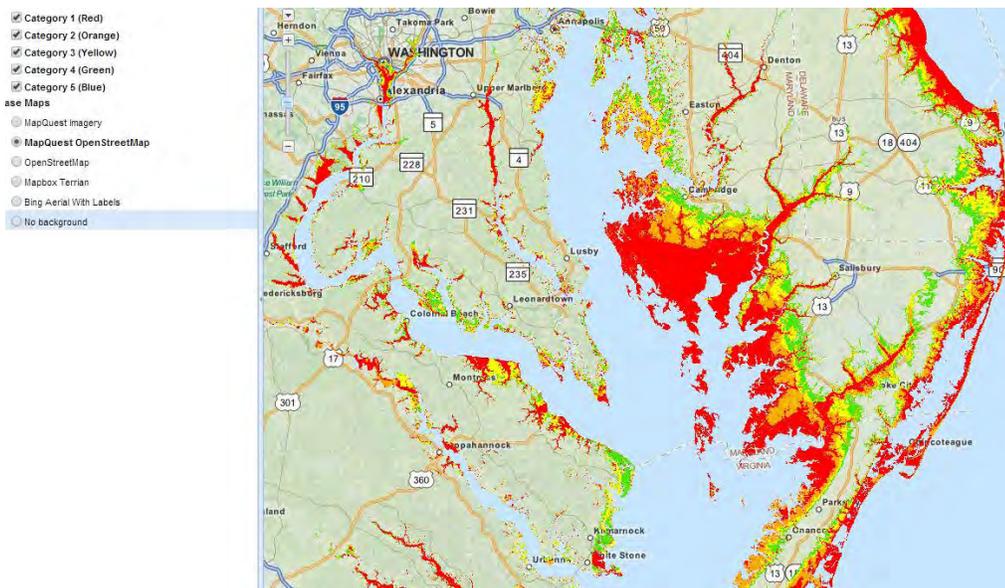


A high concentration of linguistically isolated households exists in the region of southern California shown here. This map layer makes it easy to identify the presence of such households near a proposed action.

Future (Projection)

Potential Storm Surge and Flood Loss

The Federal Emergency Management Agency’s Coastal Flood Loss Atlas depicts projected storm surge and flood inundation risk for hurricane categories 1-5. This layer can be used to inform the siting of proposed actions, such as coastal energy generation facilities and other infrastructure. Vulnerability of infrastructure to flooding, particularly in coastal areas, is a topic of increasing concern because of projected sea level rise and other climate change effects. In several recent reports, for example, the Government Accountability Office highlighted the need to consider such risks to federal assets. (See *LLQR*, June 2013, page 11.)



This map shows, by category (strength) of hurricane, the areas of the Chesapeake Bay region that are potentially subject to storm surge and flooding. The map layer can aid in infrastructure siting by showing the vulnerability of proposed locations to climate impacts.

Other Applications – Cumulative Impacts

The examples above were binned chronologically (past, present, and future) to illustrate the wide range of data that can be analyzed using NEPA node. While these examples address different resource areas at *different* times, examining datasets for the *same* resource area at different times could help in analyzing trends, and thus provide a context for considering cumulative impacts. For example, mapping trends showing decline of a resource (e.g., forest habitat fragmentation, coastal or other wetlands loss, groundwater depletion) could provide a basis for understanding the potential cumulative impacts of further reductions in the resource. Historical data (e.g., maps embedded in a PDF, aerial photos, site surveys) are more

likely to be in a static form than current data, posing an impediment to visual representation and analysis. The ability to easily georeference static data sources using the MapWarper feature available through NEPA node can overcome this impediment and enable the visualization and presentation of more information for use in cumulative impact analyses.

(continued on page 24)

NEPAnode: A Quality Assurance Tool

By Brad Mehaffy, Office of NEPA Policy and Compliance

NEPAnode can be useful both in preparing NEPA documents and in providing quality assurance (QA). As a QA tool, NEPAnode can be used to verify the quality of information in an EA or EIS and supporting documents (e.g., technical reports, other agency studies or reports, and other documents incorporated by reference). Below are two examples of how I recently used NEPAnode for QA purposes.

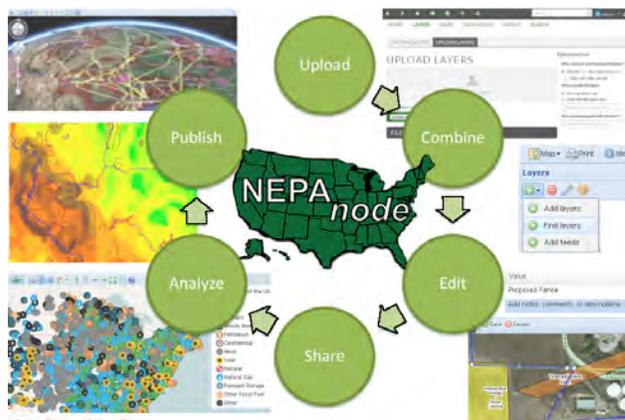
As NEPA documents are prepared, information is collected from numerous sources. Technical reports, for example, contain information compiled from a variety of databases and other sources and are relied upon to support the analyses within a NEPA document. I selected the *Historic and Cultural Resources Technical Report*, a reference in a preliminary draft EIS under review, as my first example. The project's base map (a shapefile), with the proposed project's and alternatives' regions of influence (ROI), had already been uploaded into NEPAnode.

Navigating NEPAnode Layers

Under the word "Layers," I clicked on the green plus sign and selected the "Find layers" feature from the drop-down menu. I did a keyword search using the term "historic." Within the search results, I selected the "National Register of Historic Places [NPS][Jan 2014]" layer to be overlaid on the base map. Zooming in on the project's and alternatives' ROI, I identified three historic places within the ROI, only two of which are mentioned in the project's *Historic and Cultural Technical Report*. As a result of this QA check, I identified the same omission in the preliminary draft EIS and notified the NEPA Document Manager.

NEPAnode can also be used to directly verify information in a NEPA document. For my second example, using the same base map and ROI as in the previous example, I performed a QA check of the land use discussions in the draft EIS. In particular, I looked for a data layer within NEPAnode that identified Wildlife Management Areas and was unable to find one in the layers currently uploaded.

NEPAnode allows for external data layers to be uploaded to the project map. Since such layers are from outside sources, the data layers are only available for project maps that have uploaded them. I found the United States Geological Survey (USGS) has an external data layer of protected areas within the U.S. called "Protected Area Database of the US (PADUS) – USGS GAP Analysis," which contains information on Wildlife Management Areas. To upload an external data layer directly to the project base map, I used the NEPAnode "PAGES" link to the article on "[Adding External Web Mapping Services \(WMS\)](#)," which has instructions and a list of URLs for



data layer sources other than those already available on NEPAnode. I copied the URL for "Protected Area Database of the US (PADUS) – USGS GAP Analysis." Using the "Add layers" function in the green plus sign drop down menu, a second drop down menu entitled "View available data from:" appeared. In that drop down menu, I selected "Add a New Server...", pasted the copied URL into the URL field, and clicked on "Add Server." By double-clicking, I was able to add the data from the "Protected Area Owner Name" server as a new layer to the project's base map in NEPAnode.

NEPAnode overlaid the data layer information on the base map and showed that a specific Wildlife Management Area is located within the project's and alternatives' ROI. I then reviewed the "Parks and Recreational/Natural Areas" discussion in the "Land Use" sections of the draft EIS and found that the Wildlife Management Area was appropriately identified in the draft EIS.

From My Exploration

I concluded that using NEPAnode to check supporting references can be an efficient way to verify and potentially improve the information in a NEPA document. Second, I found that resource category titles in NEPA documents do not necessarily match the data layer names. Multiple NEPAnode data layers may need to be checked to find information for a particular resource category. Third, it is helpful to become familiar with the data layers that are available within NEPAnode, as well as the external data layers that can be accessed. The efficiency of using NEPAnode as a QA tool will be greatly increased if one knows which data layers contain the information being verified. Finally, although the number of data layers available on NEPAnode has grown substantially to over 200, not all resource categories currently have a data layer in NEPAnode, but new datasets or tutorials and training can be requested. [LL](#)

NEPA and Collaboration: A Roadmap for Success

Working collaboratively throughout the NEPA process can offer benefits to both federal agencies and the public. There is often a gap, however, between agencies' and stakeholders' expectations, awareness of available techniques, and even terminology.

To help bridge this gap, the National Forest Foundation has published an electronic toolkit entitled *A Roadmap for Collaboration Before, During and After the NEPA Process*. The *Roadmap* resources were developed collaboratively by *Conservation Connect*, the Foundation's "learning network for collaboration," with the participation of more than 40 governmental agencies, environmental organizations, academic institutions, and consultants. *Roadmap* builds on the Council on Environmental Quality's 2007 *Collaboration in NEPA: A Handbook for NEPA Practitioners* by providing comprehensive, user-friendly resources. (See *LLQR*, June 2007 (multiple articles) and December 2007, page 14.)

Navigating the Roadmap

Roadmap depicts the NEPA process as a road on which federal agencies and stakeholders travel together. It is based on a "NEPA triangle" (below) used in the U.S. Forest Service introductory NEPA course.

The *Roadmap* and related resources are available on the National Forest Foundation's [webpage](#) on collaboration and NEPA.

- The *Roadmap* tool, a 64-page PDF file (also provided as a "Flip Book" suitable for projected presentations), offers detailed resources to support collaboration in the NEPA process. For each step along the road (e.g., developing purpose and need, scoping, identifying alternatives), the *Roadmap* provides perspectives, recommendations, and trouble-shooting tips. Links provide additional information on topics

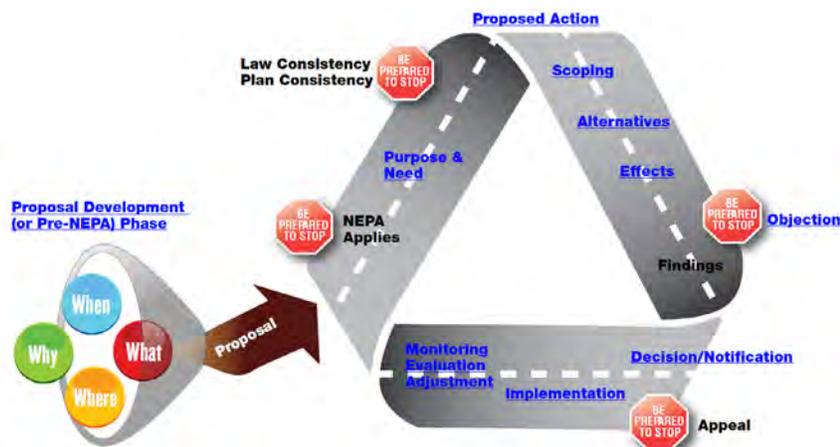
Chartered by Congress, the National Forest Foundation was created in 1993 as the nonprofit partner of the U.S. Forest Service. The Foundation supports community-based and national programs that promote the health and public enjoyment of the National Forest System. It also administers private gifts of funds and land for the benefit of the National Forests.



such as adaptive management, building collaborative groups, collaborating mid-stream, decision documents, communications plans, and public meeting planning.

- The *Roadmap* worksheet, a 7-page Word document, is a table designed for hands-on planning of collaborative activities. It is intended to clarify the process and help develop shared expectations by providing a structure. Based on a list of benefits from collaboration at each stage of the NEPA process, participants identify their desired level of interaction at that stage. Worksheet columns labeled "Tools" and "Notes" are for users to record their commitments to work together, approaches to be used, and preliminary information such as timelines and who will be involved.
- A webcast of a "peer learning session" provides an orientation to the *Roadmap* worksheet and tool.

"Collaboration is not static. Partners come and go, needs change and activities in the *Roadmap* worksheet can (and should) be revised," said Karen DiBari, Director, *Conservation Connect*. "We wanted to create a tool to help collaborative groups and their federal partners work through the NEPA process, talk openly about their roles, and be creative. This is meant to enhance the public engagement required by NEPA, not replace it." LL



Source: U.S. Forest Service

NAEP 2014 NEPA Excellence Award

Many agencies' public involvement opportunities for EAs are limited to scoping and review of the draft document. The Bureau of Land Management (BLM), in its [EA](#) (June 2012) for the annual Burning Man Festival, went beyond these steps and involved the public in gathering data for the EA, and was recognized for this innovative approach by the National Association of Environmental Professionals (NAEP).

The EA analyzed the potential environmental impacts of issuing a Special Recreation Permit (SRP) for Burning Man, a week-long event around Labor Day that is dedicated to "the spirit of community, art, self-expression, and self-reliance." (See [Burning Man website](#).) Annually since 1990, Burning Man has created the temporary "Black Rock City," laid out in a semi-circle on approximately 3,200 acres in northwestern Nevada. The EA analyzed two action alternatives: up to 50,000 participants and up to 70,000 participants. Based on the EA, BLM issued a finding of no significant impact and a Special Recreation Permit for the 2012 event, followed by a 4-year Special Recreation Permit for the 2013-2016 events.

At its annual conference in April, NAEP presented the 2014 NEPA Excellence Award to BLM, Black Rock City LLC, and Aspen Environmental Group for "using innovative methods to quantify impacts of the event and to mitigate the effects of this large-scale, temporary 'city.'" In addition to new data collected during the 2011 event, the EA analysis also uses in-depth historical data collected by volunteers and event participants." (See [NAEP 2014 Conference Program](#), page 16.)

One innovative methodology allowed BLM to quantify the potential impacts of the event on pristine darkness using a Sky Quality Meter to measure sky luminance. Another innovative methodology involved an "Oil Drip Survey" developed and approved by BLM to statistically quantify the total hydrocarbons that could be released from vehicles in the event area.



The NEPA analysis used to support issuing a permit for the event required creative thinking, careful interaction between the NEPA project team, event staff and the public. Due to the unusual nature of the event, innovative methodologies were used to analyze the potential impacts to night skies, air quality, traffic, playa dynamics, noise, and social/economic values. Furthermore, the EA identified creative approaches to mitigation and monitoring of potential impacts.

**Gene Seidlitz, BLM Nevada,
Winnemucca District Manager**

The public's involvement during the preparation of the EA followed similar methods employed by other agencies; the innovation came during the event when the public helped gather information to be used in potential future NEPA documents. 



"Burning Man" event at Black Rock City, a temporary city, with a population of between 50,000 and 70,000 covers 3,200 acres of northwestern Nevada. Source: Will Rogers Peterson, Black Rock City, LLC.

NEPA Office Summer Interns

The NEPA Office benefitted from having two outstanding interns this summer. **Bennett Resnik**, a second year law student at Vermont Law School, is a member of the American Bar Association Section on Environment, Energy, and Resources and a member of the International Association for Energy Economics. His article on mitigation action plans is on page 17. **Brianna Steinmetz**, a rising senior at Tulane University, is majoring in both Environmental Science and International Development. Ms. Steinmetz shared her thoughts on her experiences in the NEPA Office and future goals.

Time Well Spent in the NEPA Office

By Brianna Steinmetz

Throughout my education I planned on pursuing a career path focused on environmental science, drawn to the intricate relationship between man and nature. I quickly noticed a recurring question in my studies: how can we meet the world's energy demands in an environmentally conscious manner, encouraging worldwide development alongside environmental responsibility? While working for the NEPA Office my intention was to gain experience in both the science/technology side as well as the law/policy side of the energy field.



Throughout my internship, I worked on several tasks, gaining experience working with the National Environmental Policy Act (NEPA) from different angles. My main assignment was to work on projects for NEPANode, a pilot program designed to provide free open source GIS software to help implement NEPA. Although I had only a basic knowledge of GIS, I was interested in learning through first-hand, practical experience rather than college courses. I spent the first week organizing EISs and EAs into topics and categories; the resultant “metadata” will be used as an organizational tool within NEPANode and the DOE NEPA website. This project expanded my knowledge of EISs and EAs and helped me to better understand the ways in which NEPANode could be utilized.

I also worked with MapWarper, a web-based tool available through NEPANode that allows users to upload and “georeference” or “rectify” images. Using MapWarper, I exported and rectified project maps from recent EISs and EAs to help develop a map of all active EISs and EAs. When published, this map will make it easier to find NEPA documents on the DOE NEPA website and foster transparency and efficiency of the NEPA process. I enjoyed using MapWarper because I was able to rectify images, visualize project locations, and truly comprehend the value of maps and how GIS can be applied to improve the NEPA process. Working on NEPANode has increased my interest in continuing to study and work with GIS within the realm of environmental science. Through my work with GIS I not only improved my ability to create and interpret maps, but have also developed and refined my spatial thinking.

I also spent time working on compiling and analysing comments on DOE EISs from the Environmental Protection Agency (EPA) regarding environmental justice and air quality. In working on this task, I was able to look at NEPA through a different agency's perspective. I gained a better understanding of the quality and depth of detail the EPA expects within an EIS.

My main goal from this internship was to learn and experience the opportunities available at the Department of Energy to grow as an environmental science student. Spending the past two months at DOE has directed me towards a clearer path for my future career. The science behind a project, a project's environmental impacts, GIS modelling, and GIS applications are the areas which excited me most this summer. I would like to pursue a career that focuses on the technical science that drives policy making. I am very grateful for the opportunity to have worked with the NEPA Office this summer. I have gained a new appreciation for the application of scientific principles as well as the inner workings of a government agency. LL

Learning from Mitigation Action Plans

By Bennett E. Resnik, Summer Intern, Office of NEPA Policy and Compliance

With a background in energy law and policy and a strong interest in environmental issues related to energy exploration, production, transportation, and consumption, I knew that an internship with DOE's Office of NEPA Policy and Compliance would be worthwhile. Throughout my summer here, I had the opportunity to work on issues related to liquefied natural gas (LNG) exports, NEPA requirements and guidance, the Clean Air Act, environmental impacts, and mitigation action plans (MAPs). Though the work on LNG exports is most aligned with my background and current interests, I learned the most from an assignment to analyze several MAPs.

Under 10 CFR 1021.331, "DOE shall prepare a Mitigation Action Plan that addresses mitigation commitments expressed in the ROD [Record of Decision]. The Mitigation Action Plan shall explain how the corresponding mitigation measures, designed to mitigate adverse environmental impacts associated with the course of action directed by the ROD, will be planned and implemented." (See page 5.)

By comparing several MAPs, I gained perspectives on mitigation, monitoring, and reporting requirements. I found patterns in mitigation approaches relating to air quality and climate change, land use, and water resources.

Reducing Air, Climate Change Impacts

Notably, I found that climate change is a strong consideration in mitigation planning to limit greenhouse gas emissions, recycle, and responsibly use local resources. For example, for climate change mitigation, projects will recycle or salvage non-hazardous construction and demolition debris where practicable and locate staging areas close to construction sites to minimize driving distances. Many mitigation measures relevant to air quality and climate change can be applied, such as using construction emission controls, maintaining engines and equipment, limiting vehicle speeds, turning off construction equipment during prolonged periods of non-use, and using dust control measures.

In addition, I found that MAPs for fossil energy facilities contain specific greenhouse gas reduction requirements.

- The FutureGen 2.0 Project MAP requires that the project achieve at least a 90 percent carbon dioxide (CO₂) capture rate during the demonstration period (the CO₂ will be geologically sequestered). (DOE/EIS-0460)
- The Lake Charles Carbon Capture and Sequestration project MAP requires that the applicant must design and construct the project with the goal of capturing at



BPA installs temporary wood mats over wetlands to minimize impacts from heavy vehicles and equipment during construction of transmission line structures.

least 75 percent of the CO₂ from the treated stream, comprising at least 10 percent of CO₂ by volume, which would otherwise be emitted to the atmosphere. (DOE/EIS-0464)

Reducing Construction-Related Impacts

In the MAPs reviewed, the main impacts to land use, recreation, and transportation stem from an increase in construction-related traffic and activities, which potentially result in erosion and disturbance to property, agriculture, and wetlands.

- The Grand Coulee-Creston Transmission Line Rebuild Project's MAP specifies that Bonneville Power Administration and its contractor are responsible for land use mitigation efforts such as publicizing construction schedules for residents and businesses, and consulting with landowners regarding possible disturbances, as well as employing traffic control measures. (DOE/EA-1950)
- The Alvey-Fairview Transmission Line Rebuild Project's MAP includes commitments to mitigate impacts to land use and recreation by providing construction schedules, compensating landowners for the value of commercial crops damaged or destroyed by construction activities, and coordinating with local agencies. (DOE/EA-1891)
- To address impacts to vegetation, the MAP for the Lake Charles Carbon Capture and Sequestration project requires the applicant to revegetate the rights-of-way and adjacent properties to pre-construction conditions.
- The FutureGen 2.0 Project MAP requires mitigating land use impacts by preserving wetland areas and using soil stabilization measures to reduce erosion.

(continued on page 20)

Transitions

The NEPA Office is pleased to welcome two new leaders to the DOE NEPA Community. As noted in the Department's NEPA regulations, "The General Counsel, or his/her designee, is responsible for overall review of DOE NEPA compliance." (10 CFR 1021.105)

DOE General Counsel: Steven P. Croley

Steven Croley was sworn in as DOE's General Counsel on May 21, 2014. He joined DOE after serving as Deputy Counsel to the President and, earlier, Special Assistant to the President for Justice and Regulatory Policy on the Domestic Policy Council.

Mr. Croley is on leave of absence from University of Michigan Law School in Ann Arbor. He earned his J.D. from Yale Law School and a Ph.D. in American politics from Princeton University. Mr. Croley is the author of *Regulation and Public Interests: The Possibility of Good Regulatory Government* (Princeton University Press, 2008).

Deputy General Counsel for Environment and Compliance: Kedric L. Payne

Kedric Payne, who joined DOE in August as Deputy General Counsel for Environment and Compliance, will, among other things, oversee the work of the Office of NEPA Policy and Compliance and the Office of the Assistant General Counsel for Environment.

Mr. Payne came to DOE after serving as Deputy Chief Counsel of the Office of Congressional Ethics. Earlier, he practiced law in the private sector, where he counseled clients on matters related to federal, state, and local laws governing campaign finance, lobbying, and ethics. He is a graduate of Yale University and the University of Pennsylvania Law School, where he was editor-in-chief of the law review.

New NEPA Compliance Officers

Los Alamos Field Office: Karen Oden

Karen Oden is the new NCO for the Los Alamos Field Office (LAFO), which oversees the Los Alamos National Laboratory in New Mexico. Ms. Oden joined LAFO in January 2013 as the Senior NEPA Advisor to George Rael, then the NCO and Assistant Manager for National Security Missions. In addition to leading the Office's NEPA implementation program, she serves as a technical advisor to the [Los Alamos Pueblos Project](#) (which supports four New Mexico pueblo governments in developing and maintaining environmental monitoring programs), and provides oversight for [LANL's Long Term Strategy for Environmental Stewardship and Sustainability](#). Ms. Oden brings to LAFO 25 years of experience as a project manager and environmental engineer for the Department of Defense and an environmental consulting firm. She has a Bachelor of Science in Geosciences, a Bachelor of Science in Communications, and a Master of Science in Civil Engineering. She can be reached at karen.oden@nnsa.doe.gov or 505-667-0886.



On behalf of the DOE NEPA Community, the Office of NEPA Policy and Compliance congratulates George Rael on his May 2014 retirement and offers best wishes for his future endeavors.

Pacific Northwest Site Office: Tom McDermott

Tom McDermott has recently been designated the NCO for the Pacific Northwest Site Office (PNSO), which oversees the Pacific Northwest National Laboratory (PNNL), located in Richland, Washington. Mr. McDermott joined PNSO last year and worked with Theresa Aldridge, the previous NCO, until she retired in November (*LLQR*, [December 2013](#), page 15). He provides oversight for multiple programs under the purview of the Environmental Protection and Regulatory Program division of PNNL. Before joining DOE, Mr. McDermott served in the Navy as a SONAR Technician on board the fast attack submarine *USS San Francisco*. He has a Bachelor of Science in Environmental Science and a Bachelor of Science in General Biological Science. He can be reached at tom.mcdermott@pnsa.science.doe.gov or 509-372-4675.



EAs and EISs Completed April 1 to June 30, 2014

EAs¹

Bonneville Power Administration

[DOE/EA-1891](#) (4/21/14)

Alvey-Fairview Transmission Line Rebuild Project, Coos and Douglas Counties, Oregon
Cost: \$983,000
Time: 34 months

[DOE/EA-1950](#) (5/27/14)

Grand Coulee-Creston Transmission Line Rebuild Project, Grant and Lincoln Counties, Washington
Cost: \$209,000
Time: 19 months

[DOE/EA-1988](#) (5/27/14)

Northwest Fisheries Science Center Earthen Drainage Channel, Burley Creek Hatchery, Kitsap County, Washington
EA was adopted; therefore cost and time data are not applicable. [National Oceanic and Atmospheric Administration was the lead agency; DOE was a cooperating agency.]

Golden Field Office/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1914](#) (5/14/14)

National Renewable Energy Laboratory National Wind Technology Center Site-Wide, Golden, Colorado
Cost: \$195,000
Time: 37 months

National Energy Technology Laboratory/Office of Electricity Delivery and Energy Reliability

[DOE/EA-1752](#) (5/15/14)

Pacific Gas and Electric Company Compressed Air Energy Storage Compression Testing Phase Project, San Joaquin County, California
The cost for this EA was paid by the applicant; therefore cost information does not apply to DOE.
Time: 50 months

EIS

There were no EISs completed during this quarter.

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections
EC – Environmental Concerns
EO – Environmental Objections
EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate
Category 2 – Insufficient Information
Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

New Annual NEPA Planning Summary Template

The NEPA Office is revising the template used in preparing the Annual NEPA Planning Summary (APS) to streamline the process. (See *LLQR*, [March 2014](#), page 8.) A new, easy-to-use one-page template will accommodate all reportable NEPA reviews. The new template will have dropdown menus for data entry and a new user's guide.

In September, the NEPA Office plans to invite NEPA Compliance Officers (NCOs) to review and comment on the new template and user's guide. The revised template and user friendly format will speed up APS preparation,

while ensuring consistency among APSs. When final, the new template and user's guide will be distributed to NCOs.

Under DOE Order 451.1B, *NEPA Compliance Program*, every Secretarial Officer and Head of a Field Organization is responsible for submitting an APS to the General Counsel by January 31 annually. Preparation of these summaries helps ensure that NEPA activities are aligned with program priorities and that resources are allocated to enable timely completion of NEPA documents. APSs are made available to the public on the [DOE NEPA Website](#). 

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times²

- For this quarter, the median cost for the preparation of 3 EAs for which cost data were applicable was \$209,000; the average was \$462,000.
- For this quarter, the median completion time for 4 EAs for which time data were applicable was 36 months; the average was 35 months.
- Cumulatively, for the 12 months that ended June 30, 2014, the median cost for the preparation of 12 EAs for which cost data were applicable was \$209,000; the average was \$338,000.
- Cumulatively, for the 12 months that ended June 30, 2014, the median completion time for 11 EAs for which time data were applicable was 19 months; the average was 24 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

² As always, the NEPA Office advises that cost and completion time metrics should be interpreted cautiously, particularly when there are only a few documents, as is the case for EAs reported in this quarter. For example, completion times for the four EAs this quarter for which time data are applicable substantially exceed DOE's long-term median/average of about 9 months/13 months for 250 EAs completed during the past 10 years. Costs for the three EAs this quarter for which cost data are applicable also exceed the long-term median/average of \$60,000/\$110,000 for more than 300 EAs. Data for this quarter influence the statistics for the relatively few EAs completed in the past 12 months. Among reasons reported by NEPA Document Managers for the above-average cost and completion time this quarter are project delays unrelated to NEPA, changes in the proposed action during the NEPA process, and challenges in working with cooperating agencies and completing tribal consultations.

Mitigation Action Plans

(continued from page 17)

Reducing Impacts to Water Resources

In these MAPs, the main impacts to water resources stem from groundwater infiltration, erosion from exposed soils, materials and waste, spills, and debris. To mitigate these impacts:

- The Grand Coulee-Creston Transmission Line Rebuild Project includes commitments to design and construct roads to minimize drainage from the road surface directly into water features, install sediment barriers and other related control devices, and ensure that temporary travel routes avoid water bodies and wetlands whenever possible.
- The Alvey-Fairview Transmission Line Rebuild Project commits to mitigating impacts to water resources by re-routing access roads, avoiding construction within wetland areas, and depositing and stabilizing all excavated material not reused in an upland area outside the floodplains.
- The FutureGen 2.0 Project obligates the construction contractor to maintain emergency spill kits, contain and clean up any spills, divert any stormwater runoff

EIS Cost and Completion Times

- There were no EISs completed during this quarter.
- Cumulatively, for the 12 months that ended June 30, 2014, the median cost for the preparation of 3 EISs for which cost data were applicable was \$1,980,000; the average was \$1,690,000.
- Cumulatively, for the 12 months that ended June 30, 2014, the median completion time for 4 EISs for which time data were applicable was 31 months; the average was 28 months.

exposed to the coal storage and ash area to the new lined settling basin or passive water treatment system through berms and above-ground conveyance systems, construct injection wells with corrosion-resistant steel and CO₂-resistant cements, remove construction and demolition waste, and keep construction materials, debris, chemicals, staging, and fueling at a safe distance from surface waters, wetlands, and floodplains.

Some mitigation measures are not of great significance individually, but when used for the duration of a project and in combination with other mitigation methods, they significantly reduce the potential environmental impacts. With increased research and development, we will likely see innovative and technologically advanced mitigation measures that will further reduce environmental impacts.

In my future studies, I look forward to furthering my foundational knowledge of mitigation efforts in energy projects, fostering conservation and environmental management alongside energy development and infrastructure. 

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Early identification of participants.* Several DOE personnel and subject matter experts were identified early and were involved in the EA scoping process to ensure that proposed actions were identified.

What Didn't Work

- *Incomplete mailing list.* Some landowners were omitted from the original EA scoping mailing list. An enhanced mailing list was prepared and an additional scoping meeting was held to make sure that all appropriate landowners were included in the public notifications.
- *Public not aware of scoping.* Adjacent landowners expressed frustration that they were not aware that scoping had occurred (the first time the public heard about the project was when the draft EA was released). DOE was a cooperating agency and did not join the project until after a draft EA had been prepared.

Data Collection/Analysis

What Worked

- *Use of data from previous project.* The proposed action was to take place in a corridor for which extensive environmental data had been collected for a previous project. This applicable data did not have to be regenerated.
- *Early design information.* Early project design information facilitated timely analysis of data.
- *Most data readily available.* The various resource impact analyses presented in this EA were mostly supported by data from existing and readily available data sets, surveys and studies such as avian and bat mortality studies, wildlife surveys, wetlands assessments, water usage, etc. New studies were initiated to collect other needed data.

- *Visual impact models.* Studies were initiated for visual impacts from proposed wind turbines and meteorological (met) towers. Using readily available high-resolution topographic elevation data, we were able to construct a viewshed model showing locations within the viewshed where the proposed turbines and met towers would be visible. The model accounted for the highest proposed height(s) of the turbines, met towers, and topographic features. This approach allowed us to focus the analysis and select various vantage points throughout the viewshed at set distances from the proposed project location to demonstrate the potential visual impacts.
- *Noise impact models.* Noise impacts were modeled using the most conservative noise levels that could be generated with a full "build out" of the site.

What Didn't Work

- *Project design changes.* Changes to the project design led to the need for additional analyses.
- *Difficulty collecting information.* Data collection was difficult due to the sheer size of the project area: 97 miles of transmission line right-of-way and 160 miles of access road. The entire area had to be surveyed for various natural resources.
- *Obtaining access permissions.* The length of time it took to obtain permission to enter properties was a challenge for data collection as it necessitated several different field visits from each natural resource data collection crew.
- *Lack of central project data repository.* The lack of a robust central data repository for all project information inhibited easy access to all of the information needed to develop the EA. There was a data repository that was supposed to be used, but much of the information needed had to be tracked down manually by asking people in person, over the phone, or by email. This method of collecting information caused significant inefficiencies in the production of the EA.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

Schedule

Factors that Facilitated Timely Completion of Documents

- *Frequent communication.* Frequent communication among program, Headquarters, and contractor staff facilitated timely completion of the EA.
- *Addressing issues promptly.* Promptly addressing any issues proved very important in the timely completion of this EA.
- *Good teamwork.* Good teamwork proved to be effective in the timely preparation of this EA.
- *Effective schedule.* After a project delay, a new schedule was developed that had every single day allocated to complete the EA in time to meet the anticipated construction start date. The final EA was issued on the target date set 9 months previously.
- *Frequent meetings.* Regular team meetings and weekly (sometimes daily) meetings and phone calls with the project manager enabled us to obtain decisions, information, and reviews, as needed.
- *Establishing a lead agency.* Establishing a lead federal agency to be responsible for coordinating regular conference call check-ins, ensuring clear communication, and outlining each agency's process/responsibilities early in the EA process, helped to keep preparation of the document on track.
- *Use of Microsoft Project.* The DOE NEPA Document Manager used Microsoft Project to create and update the schedule. This kept the project moving forward and tracked completed tasks, action items, due dates, issues, and discussion points.

Factors that Inhibited Timely Completion of Documents

- *Tribal consultations.* The completion of consultations with multiple Indian tribes took longer than anticipated.
- *Lack of coordination.* As a result of the lack of initial coordination between DOE and the lead agency, the project was implemented a year later than desired.
- *Different agency processes.* Coordination between two federal agencies whose processes differed had a negative impact on the document preparation schedule.

- *Limited staff.* Limited staff were available to work on the project due to competing projects' workload.
- *Coordination with cooperating agency.* Coordination with the cooperating agency took much longer than expected. There was confusion as to what data were needed, which made identifying the correct method for completing the NEPA review to the satisfaction of both agencies difficult.
- *Revision of the proposed action.* The description of the proposed action experienced several revisions requiring additional reviews by all stakeholders, including program and Headquarters staff. Since the EA was a site-wide document, covering all proposed activities anticipated over the next 5 to 10 years, it took longer than expected to determine the proposed action and articulate a proper purpose and need.
- *Substantial work for document manager.* Substantial facilitation between different groups and revisions to text by the EA document manager were required to complete the writing of the proposed action.

Teamwork

Factors that Facilitated Effective Teamwork

- *Regular meetings.* Regular meetings of the project team facilitated timely completion of the EA.
- *Good coordination.* The NEPA team made a concerted effort to coordinate with internal team members, the cooperating agency, and outside permitting agencies to ensure that all target dates were met.
- *Daily conversations.* DOE had daily conversations with the project manager and contractor team members. Every two months the EA schedule was reviewed in great detail. The contractor leads attended every team meeting, and interacted independently with DOE staff and other contractors. This proved to be a very efficient and successful approach to identifying problems or information needs and addressing them quickly.
- *Appropriate staff identified early.* Appropriate DOE personnel and subject matter experts were identified early and were involved throughout the EA process to ensure that all topics were addressed properly.

(continued on next page)

What Worked and Didn't Work *(continued from previous page)*

Factors that Inhibited Effective Teamwork

- *Internal communication.* Communication between internal departments was ineffective. Sharing of pertinent project information is very important in the preparation of a quality EA.
- *Inefficient contractor relationship.* The DOE program responsible for this EA did not have a dedicated budget for contracting for NEPA document preparation. NEPA contractors are procured by the program management and operating (M&O) contractor. Given this contractual relationship, DOE could not provide direction to the contractor; however, DOE provided comments and guidance through the M&O. DOE was ultimately responsible for the scope and content of the EA.

Process

Successful Aspects of the Public Participation Process

- *No controversies.* There were no controversies associated with this proposed project.
- *Effective notification process.* The DOE public notification process benefitted the project because it involved communicating with the public via letters to adjacent landowners, ads in newspapers, and posting information online. This outreach ensured that adjacent landowners were aware of the project, and resulted in them providing feedback through their review of the draft EA. This comment process resulted in conducting additional analysis which improved the document and allowed us to address landowner concerns that might not have been raised had we not had the public process.
- *Successful public meetings.* The public meetings seemed to be successful in conveying information to interested parties.
- *Meaningful public involvement.* We went beyond the regulatory requirements to involve the public in the NEPA process during scoping and review of the draft EA. These efforts included notices in various media, such as local newspaper postings, on websites, and distribution of several thousand postcards.
- *“Open house” public meeting.* A public informational meeting was held using an “open house” forum. During the open house forum, no formal discussions and presentations took place, and there were no audience seats. Instead, the public received information

at several poster stations staffed with subject matter experts. Information presented included graphics, maps, photos, and handout documents. At least one technical person was at each station, and agency representatives were also positioned at displays or were roaming throughout the room.

- *Helpful public comments.* We received several good scoping and draft EA comments from agencies, local governmental organizations, and the public.

Unsuccessful Aspects of the Public Participation Process

- *Tribal dissatisfaction with consultations.* Indian tribes expressed dissatisfaction with the consultation process but did not provide specific concerns. DOE believes it made a good faith effort to have meaningful consultation and comply with Section 106 of the National Historic Preservation Act and meet the requests made by the tribes.
- *Low attendance at public meetings.* Despite our extra efforts to advertise the public informational meetings, we had relatively low attendance at the meetings.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Normal NEPA procedures.* Normal EA document preparation procedures were followed and no problems were encountered.
- *Better project decisions.* The EA process, specifically the results of public comments, helped DOE choose the best option for project implementation, and affected how and where the project would be implemented.
- *Selection of alternative.* A build and a no build alternative were considered in this EA. The EA process enabled DOE to identify ways to prevent significant impacts to resources so the decision to build the project was made easily.
- *Better understanding of the proposed action.* This EA process helped the decision makers to make an informed decision regarding the proposed action. They understood the need for the proposed action, the impacts of the proposed action, and recognized the steps taken to minimize potential impacts to human health and the environment.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

Enhancement/Protection of the Environment

- *Wildlife protection.* Wildlife protection measures were included in the final EA to insure that protected species are minimally impacted.
- *Mitigation of environmental impacts.* The environment would be largely protected as a consequence of this EA process. DOE committed to several measures in the EA to avoid, minimize, or mitigate environmental impacts during operation of the proposed action.
- *Enhanced resources protection.* The EA process resulted in the addition of resource protection measures for the project.
- *Mitigation implemented.* The hatchery effluent pipe outlet was screened and riparian and wetland areas were enhanced.
- *Impacts to cultural resources assessed.* DOE provided the State Historic Preservation Office (SHPO) with the results of a viewshed analysis for historic properties within a 2-mile radius of the highest visible feature at the proposed project site. Eleven cultural resource sites were identified within the viewshed, one of which was listed on the National Register of Historic Places (the former Rocky Flats Plant, which has been demolished and the land restored to prairie grassland). The SHPO concurred with DOE's determination that the proposed action would result in no adverse effect on historic properties.

Visualizing

(continued from page 12)

I am really excited about the potential of the MapWarper feature of NEPAnode to serve as a research tool and to further enhance the NEPA process as more "rectified" maps and metadata are added. Adding maps from already-published EISs, for example, would make the large amounts information they contain accessible for use in GIS applications.

To make the information easier to use, we recently enabled users to view the data in NEPAnode using the free version of Google Earth, which many users are familiar with. For any layer in NEPAnode, you can click on the download link and select "View in Google Earth" to access the data online as a web service. Data can be downloaded and used in other formats as well.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

For the past quarter, in which 5 EA questionnaire responses were received, 4 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "5" stated that the NEPA process ensured that protected species are minimally impacted by the proposed action.
- A respondent who rated the process as "5" stated that the NEPA process is extremely important, and is often undervalued by the public. In this project and others, NEPA supported sound agency decisionmaking.
- A respondent who rated the process as "4" stated that the NEPA process facilitated the modification of the proposed project design to minimize impacts.
- A respondent who rated the process as "4" stated that the NEPA process for this project helped the decision makers understand positive and negative impacts of the project on various resources, thereby helping them make an informed decision.
- A respondent who rated the process as "2" stated that for this rebuild project, very few environmental protections were developed under the actual NEPA process (many were developed as part of permitting activities), and the NEPA decision was viewed as a foregone conclusion.

Help Wanted

I am looking for help in contributing to further development of this tool, such as by "rectifying" and uploading additional maps from EISs and other documents. If you are interested in contributing, or just want to learn more about how to apply these features, please contact me at the address below. In addition, I am interested in learning about other datasets or applications for NEPAnode. Recommendations or questions may be addressed to john.jediny@hq.doe.gov. 

LESSONS LEARNED

December 1, 2014; Issue No. 81

Fourth Quarter FY 2014

What Didn't Work – and Making It Work Next Time: Scoping Process

By: Ralph Barr, Office of NEPA Policy and Compliance

From the first issue of *LLQR* in 1994, the Office of NEPA Policy and Compliance has encouraged NEPA practitioners to share their experiences of “What Worked and What Didn't Work in the NEPA Process.” We hope that this information has been helpful to our readers.

As *LLQR* enters its third decade, we are expanding our discussion of common “Didn't Work” issues. With this article, we are launching a series that highlights the reasons why things didn't work, and what can be done to avoid such problems in the future. We begin with a common issue encountered in the public participation process.

What Didn't Work: The public was not aware of upcoming scoping meetings and what scoping involves.

NEPA Document Managers have reported concerns from members of the public who were not aware of scoping meetings in time to attend or comment. The effectiveness of scoping meetings was also reduced when attendees misunderstand the purpose of scoping.

Scoping

“DOE shall hold at least one public meeting as part of the public scoping process for a DOE EIS.”
(10 CFR 1021.311(d))

Why It Didn't Work

LLQR questionnaire respondents have suggested possible explanations for why the scoping meeting process didn't work.

- Insufficient publicity:
 - Advertisement of scoping meetings was at the last minute or did not occur.
 - The meetings were advertised, but not in the right places to reach potentially interested members of the public.

(continued on page 4)



Using an open-house style format with charts, posters, and other displays stimulates discussion between the public and project staff and technical experts. This can lead to better informed scoping comments.

Inside Lessons Learned

Welcome to the 81st quarterly report on lessons learned in the NEPA process. This issue features tools to help NEPA practitioners perform NEPA reviews: MapWarper, EERE's Environmental Questionnaire for funding proposals, and a sustainability rating system. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom
Director
Office of NEPA Policy and Compliance

Printed on recycled paper



Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by January 21, 2015, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due February 2, 2015

For NEPA documents completed October 1 through December 31, 2014, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than February 2. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

NAEP 2015 Conference: April 13–16

The National Association of Environmental Professionals (NAEP) will host its 40th annual conference April 13–16 in Honolulu, with the theme *Mauka to Makai: Environmental Stewardship from the Mountains to the Sea*. The conference will offer presentations and panel discussions on NEPA regulatory developments, guidance, litigation outcomes, public involvement, and analytical techniques. In addition to covering broad environmental topics – e.g., climate change, protection of sensitive environmental resources, and sustainability – the agenda will include diverse case studies. Two full-day training workshops are offered on April 13: topics on career development for environmental professionals (creating and

responding to requests for proposals, top client skills, and job market challenges) and NEPA basics (attaining a working knowledge of NEPA regulations, legal interpretations, and typical federal agency practices).

Registration is open to environmental professionals in all levels of government, academia, and the private sector. Early registration rates are available, and discounts are offered to speakers and government employees. Additional information will be available on the [NAEP website](#) in early 2015. 



NEPA Thoughts on Quality, Training, and Schedules: Deputy GC for Environment and Compliance

In his capacity, since August, as Deputy General Counsel for Environment and Compliance, Kedric Payne oversees the work of the Office of NEPA Policy and Compliance and the Office of the Assistant General Counsel for Environment. Among other responsibilities, he briefs the General Counsel on requests for approval of DOE NEPA documents. The NEPA Office recently asked him to share with *LLQR* readers his insights on how we can help NEPA practitioners accomplish their goals.

At the October NEPA Compliance Officer (NCO) web conference, you emphasized that the NCOs have an important role to play, for example, in maintaining NEPA document quality. How can we back them up?

We should reemphasize that the Office of the General Counsel (OGC) and NCOs share a common goal of producing NEPA documents that comply with the letter and spirit of NEPA. The OGC recognizes that NCOs face challenges maintaining NEPA document quality, while adequately addressing stakeholders' concerns and meeting decisionmakers' needs under stringent time constraints. The OGC values the expertise and judgment of the NCOs and welcomes questions, concerns, and constructive criticism that yield quality and compliant NEPA documents.

What do you envision as the role of training in maintaining a strong NEPA Community? What methods have you found to be successful?

During the recent NCO web conference, it was encouraging to see the value the NEPA Community places on sharing experiences and lessons learned. I believe training plays an essential role in supporting a culture of compliance in the NEPA Community. Training can be most effective for the staff when tailored to their specific career stages. A relatively junior NEPA staffer may benefit from training in areas that are not necessary for seasoned experts. Effective training should be concise, mandatory, and accompanied by detailed reference materials. I encourage the use of web-based training, such as podcasts and exercises, to make training more affordable and available on demand.

What are your views on the importance of schedules in the DOE NEPA process? Preparing a realistic schedule for an environmental impact statement (EIS) seems especially challenging. Do you have any recommendations to help with the process?

I agree with the OGC policy that a schedule accompany notices of intent and draft EISs. Without a schedule for completing an EIS, it is more difficult to anticipate when the Department may make its decision. Ironically,



unrealistic schedules may have the same result as having no schedule at all. Schedules may become unrealistic when potential delays are not taken into account. Many NCOs have learned to expect the unexpected and build some additional time into the schedule. After developing a realistic schedule, another concern is ensuring there is sufficient time to discuss the content of the EIS. Certainly, there is no simple solution for balancing the dual concerns of high quality and timeliness, but one guiding principle is that a deadline should not detract from NEPA compliance.

What experiences from your previous positions can be applied to the DOE NEPA program as new approaches?

Actually, I have noticed approaches from the NEPA program that would have been beneficial in my previous positions, such as the open discussions about lessons learned. One approach from my prior experience that may be helpful is the use of written summaries of precedent. Many conversations during preparation of NEPA documents concern whether additional information and analyses are prudent. When dealing with similar decisions in the past, it was useful to have relevant precedent readily available. Such precedent included summaries of internal decisions and recent court cases. The NEPA program may find that compiling and widely distributing such precedent, especially recent court decisions on the sufficiency of NEPA documents, provides persuasive guidance during daily conversations. LL

Scoping Process

(continued from page 1)

- Incomplete mailing list:
 - The project mailing list did not include all landowners, tribes, and other interested parties.
 - The landowner scoping list was from the last project at this site and was out of date.
- Poor public understanding of the NEPA process:
 - Attendees did not understand what scoping is, resulting in comments that simply expressed support for or opposition to the proposal instead of identifying environmental issues and alternatives to analyze.
 - Interested members of the public did not know that scoping meetings can be an effective way to participate in the NEPA process.
- Include information on the project schedule, not just the dates for the scoping meetings. Allow time to prepare handouts, posters, and similar materials for the meetings.
- Identify local landowners, governments, tribes, nonprofits, and other stakeholders to build a current and comprehensive mailing list. [NEPANode](#) can assist in the collection of this information.
 - Talk to others who have recently conducted NEPA processes in the area.
 - Check the distribution lists of recent EAs and EISs in the region.
 - Work with your organization's tribal contact to ensure that the tribal contact list includes both tribal officials and the administrator who typically works on NEPA issues.
 - Do not rely on mailing lists that were prepared more than a year ago.

Approaches for Making It Work

Experienced NEPA Compliance Officers and the NEPA Office staff are helpful resources for NEPA practitioners.

Lessons learned in a nutshell: Include public participation in the schedule, and identify potentially interested groups at the outset. This is the first opportunity to build a transparent and amiable relationship with stakeholders that will benefit DOE later in the process.

Well-planned communication can help make scoping a valuable public participation process. This includes the key first step of identifying interested local groups and landowners to ensure that publicity is targeted to reach as many as possible. Good publicity should include: (1) project-specific details, locations, and dates; (2) an explanation of the public's opportunities to participate in the NEPA process; and (3) the purpose of scoping meetings.

Make sure publicity for the scoping meeting is part of a coordinated communications plan for the project. All members of the project team and all public statements, including advertising, must be consistent to avoid confusing the public.

***– Drew Grainger, NEPA Compliance Officer,
Savannah River Operations Office***

The following are suggestions for each stage in the scoping process:

1. Before scoping begins

- Identify who on the NEPA team will coordinate stakeholder communication.
- Possible places to advertise a scoping meeting include:
 - Local newspapers – These are often more widely read than the regional daily papers. Note that they are often published weekly or biweekly; schedule your publicity to catch their deadlines
 - Local government websites
 - The site's and agency's website news page and/or newsletter
 - Public service announcements at local radio stations, and
 - *Federal Register* – This is required for EISs, but don't rely on it as your sole publicity, as few members of the public read it.

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Scoping Process

(continued from previous page)

Bonneville Power Administration prefers to hold open-house style scoping meetings – it tends to diffuse grand standing and help foster real conversations between the public and engineers or technical specialists.

***– Stacy Mason, NEPA Compliance Officer,
Bonneville Power Administration***

- As early as possible, set up a project webpage with an easy-to-find link from the agency home page. Consider setting up a unique “NEPA” email address as well.
- Include options for people to register to receive documents and information.
- In your meeting publicity, include the following:
 - A simple explanation of scoping – Assume that some members of the public will be unfamiliar with the NEPA process. Use lay terms rather than technical or regulatory language. A “NEPA 101” poster is a good place to start a conversation with participants
 - A description of what DOE wants to do and why
 - An explanation of the kinds of comments you need from the public during the scoping phase
 - Information about later opportunities for public comment on the project
 - How to submit comments without attending the scoping meeting, and
 - A web address, if the scoping meeting will be available by webcast.

3. Scoping meetings

- Before and during the scoping meeting:
 - Make available to those attending the scoping meeting copies of “[DOE, NEPA, and You: A Guide to Public Participation](#).” Copies of this pamphlet, prepared by the NEPA Office, can be obtained on request or printed from the file on the DOE NEPA Website under Guidance & Requirements.
 - Use an optional address sheet at the entrance of the meeting room to collect mailing or email addresses for people interested in receiving project updates and/or a copy of the draft when it is available. Record names and add them to the project mailing list.

- If you choose to take oral comments during the meeting, provide a sign-in sheet for attendees who want the opportunity to speak.
 - Use a court reporter, if possible, to obtain an accurate transcript of public comments.
 - Make a court reporter available to take oral testimony one-on-one, for those who hesitate to speak in front of crowds or neighbors who may hold different positions.
 - At the start of the meeting, explain what scoping is and what you are asking the public to comment about today. Use lay terms rather than technical or regulatory language. Describe future opportunities for public comment in the project’s NEPA process.
- After the meeting:
 - Send attendees a thank-you note or email for participating in the meeting and remind them that they may continue to participate in scoping until the end of the scoping period.
 - Acknowledge receipt of email scoping comments by return email.
 - Update the project webpage and the site bulletin or newsletter frequently to show where in the NEPA process you are.

Don’t take anything personally, because when you represent the government, you are not an individual. Scoping can be challenging and rewarding as you forge positive relationships with stakeholders and build trust that will bring rewards as you get into hearings on the draft document.

***– Linda Cohn, NEPA Compliance Officer,
Nevada Field Office***

Using these shared strategies can help make scoping “work” for you in the NEPA process. Additional suggestions are welcome; please contact Ralph Barr at ralph.barr@hq.doe.gov with updates to be included in future issues or to suggest topics for future articles in this series. 

“MapWarper” Expands NEPAnode’s Analytic Toolbox

By: Brad Mehaffy, Office of NEPA Policy and Compliance

I’ve been using [NEPAnode](#) since its roll out last spring (*LLQR*, [March 2014](#), page 3). NEPAnode provides easy access to maps with all sorts of data that’s essential to environmental impact analysis. Like any geographic information system (GIS), it allows layering and combining maps to help identify resources that could be affected by a proposed action.

It also does much more (*LLQR*, [September 2014](#), page 11). One of NEPAnode’s newest features is the inclusion of [MapWarper](#). This tool, developed through funding from the [New York Public Library](#), creates usable layers from static maps (from a pdf file or other formats). You can accurately align the maps, even if they were created in different scales, for a variety of uses. I recently used MapWarper to create several custom layers to answer questions regarding an appropriate NEPA scope and strategy.

Several years ago, DOE prepared an environmental assessment (EA) for the proposed transfer of a parcel of land. Some, but not all, of the land was transferred. DOE is now proposing to transfer some of the remaining land, as well as several new parcels that were not considered in the EA. In determining a NEPA strategy for the new proposal, one question was what land had not been evaluated in the previous NEPA review.

To answer this question, I began with a map from the EA. I also had a map showing the area that might be involved in the newly proposed transfer. It was difficult to compare the maps because they were not created at the same scale and they contained different details.

I uploaded the scanned maps into MapWarper and then converted each map into a layer that could be viewed in NEPAnode. The conversion process solves the problem of comparing maps produced at different scales. I identified control points on each map and aligned them with corresponding points on a clean map. I adjusted these until the alignment was right. The most useful control points are features like road intersections, corners of buildings, bridges, and other features with hard edges that can be identified on both the uploaded and clean maps. When done, I had separate custom layers in NEPAnode that could be overlaid on a single map for an accurate comparison. (For more detailed instructions, see the [NEPAnode blog](#).)

I was then able to use the full suite of NEPAnode functions, including the measuring tool to identify the approximate acreage that was not evaluated in the existing EA. The layers created and viewed within MapWarper can be made available to the “public” or can be designated as “private” (i.e., viewable only by the individual creating the layer).

I found MapWarper to be an excellent tool to create custom layers from a variety of sources and scales (PowerPoint presentations, zoning maps, and other NEPA documents) so that the layers can be used to support new NEPA analyses. 

The following figures, from a hypothetical project, are used to show how MapWarper can be used to enhance environmental impact analysis.

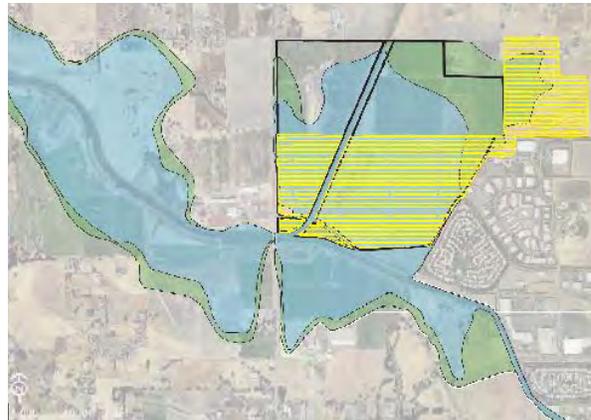


Figure 1: A project site (yellow) map that depicts the 100 and 500 year floodplains (blue and green). The original map was on a scale of 1 inch equals 1,600 feet.



Figure 2: A project site map that depicts two areas of special use (areas with a red border). The original map was on a scale of 1 inch equals 600 feet.



Figure 3: After using MapWarper to rectify the maps, figures 1 and 2 were overlaid on a base map in NEPAnode to determine how much of the special use areas are within the 100 or 500 year floodplain.

IPCC Finalizes Fifth Climate Change Assessment Report

“Continued emission of greenhouse gases [GHGs] will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems,” concludes the Intergovernmental Panel on Climate Change (IPCC)¹ in its latest climate assessment report – *Climate Change 2014: Synthesis Report* (Synthesis Report). “However, options are available to adapt to climate change and implementing stringent mitigations activities can ensure that the impacts of climate change remain within a manageable range, creating a brighter and more sustainable future,” IPCC stated in a [press release](#) summarizing key findings in the Synthesis Report.²

IPCC’s assessment reports are cited in a wide range of DOE NEPA documents. For example, many EAs and EISs have referenced past IPCC assessments in discussions of the impacts of GHGs on climate, global and regional impacts of climate change, and how climate change can be addressed. These EAs and EISs typically cited the Summary for Policymakers for the IPCC assessments, or, in some cases, the longer associated Synthesis Report. Going forward, when citing IPCC assessment reports as a reference for the analysis of GHG emissions and climate change, DOE NEPA documents should cite the IPCC Fifth Assessment Report. [LL](#)

¹ The IPCC was established by the [United Nations Environment Programme](#) and the World Meteorological Organization in 1988 to assess the scientific, technical, and socioeconomic information relevant for the understanding of human-induced climate change, its potential impacts, and the options for mitigation and adaptation.

² The Fifth Assessment Report is comprised of reports from the three working groups and the Synthesis Report. (See [LLQR](#), [December 2013](#), page 8, and [June 2014](#), page 3, regarding the summaries of the three working group reports.)



The Synthesis Report is written in a nontechnical style suitable for policymakers. It “distills and integrates the findings of the IPCC Fifth Assessment Report produced by over 800 scientists and released over the past 13 months – the most comprehensive assessment of climate change ever undertaken,” explains IPCC in its November 2, 2014, press release. In addition, IPCC also issued a shorter companion publication – a 40-page [Summary for Policymakers](#).

Many aspects of climate change and its impacts will continue for centuries, even if anthropogenic emissions of greenhouse gases are stopped. The risks of abrupt or irreversible changes increase as the magnitude of the warming increases.

– IPCC Fifth Assessment Synthesis Report

Transitions

Southwestern Power Administration: Jeremy Rogers

Jeremy Rogers has been designated the NCO for the Southwestern Power Administration (SWPA). From headquarters in Tulsa, Oklahoma, SWPA markets hydroelectric power generated from 24 U.S. Army Corps of Engineers dams to Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas. When Mr. Rogers first joined SWPA in 2005, he worked in the Financial Management Division. Recently he was selected as the agency’s Management Support Officer, with responsibilities for overseeing SWPA’s Environmental and Safety programs. Mr. Rogers came to DOE from the Department of the Interior’s Office of the Special Trustee for American Indians in Albuquerque, New Mexico. He can be reached at jeremy.rogers@swpa.gov or 918-595-6640.



Give NEPAnode a Try

The NEPA Office encourages you to try NEPAnode. Explore the almost 300 layers and 100 maps available in NEPAnode and 420 maps in MapWarper. Examine DOE’s existing NEPA documents – all searchable by location on a map of the United States. The [NEPAnode website](#) includes introductory videos and a [MapWarper tutorial](#). If interested in using NEPAnode’s new “Project Workspace” for your team to collaborate and share information and NEPAnode and MapWarper’s features to support your analysis, contact John Jediny at john.jediny@hq.doe.gov.

Asking the Right Questions for a NEPA Review: An Environmental Questionnaire for Funding Proposals

By: Lisa Jorgensen, NEPA Compliance Officer, Office of Energy Efficiency and Renewable Energy

DOE's Office of Energy Efficiency and Renewable Energy (EERE) uses a questionnaire to obtain, from an applicant for financial assistance, the information needed for a categorical exclusion determination or for a determination that an EA or EIS is needed. In 2014, EERE revised its Environmental Questionnaire and submitted it to the Office of Management and Budget (OMB) for approval pursuant to the Paperwork Reduction Act. This article describes the process and the lessons we learned from our experience.

EERE, through the Golden Field Office and the National Energy Technology Laboratory, provides federal funds to support research, development, demonstration, education, and outreach projects involving energy efficiency and renewable energy. EERE must determine whether a proposal qualifies for a categorical exclusion determination or should be reviewed in an EA or EIS. EERE developed its Environmental Questionnaire to allow an applicant – which may be an educational institution, nonprofit or for-profit organization, or a state, local or tribal government – to provide project-specific information needed for determining the appropriate level of NEPA review.

Questionnaire Designed for Efficiency and Flexibility

In 2014, as part of a major initiative to streamline business processes, EERE revamped its Environmental Questionnaire. The new design consolidated a primary questionnaire and supplemental checklists, which were tailored to specific technologies and types of research, into a single questionnaire that covers all types of applicants and the entire range of projects that EERE could fund. New questions asked whether the proposed project would involve genetically engineered organisms, nanoscale materials or technology, or activities in aquatic environments. This consolidation and expansion streamlined the processing of applications by the EERE NEPA staff.

The process also became more efficient for applicants. EERE received many funding applications for projects that were not defined well enough to have specific answers to environmental questions. Now the Environmental Questionnaire is provided to applicants selected for award negotiation, after initial screening by EERE that the proposal is fully specified and meets the funding requirements. (The environmental information is not used to determine eligibility.)

Improved information: A major challenge facing the EERE NEPA staff has been to collect adequate project-specific information for NEPA reviews, especially for proposed projects that would take place off of DOE property. With the earlier checklists, broad questions



EERE supports hundreds of projects involving renewable energy, such as solar photovoltaic and wind energy. (Photo: EERE)

typically yielded vague responses; the NEPA staff often had to request clarifications and additional information from the applicant. The new Environmental Questionnaire includes definitions to reduce ambiguity and provides examples of responses to indicate the scope and level of detail sought, which has greatly reduced the follow-up requests.

Focused questions: An applicant must answer only the relevant questions.

For projects that are limited to activities that normally fit a categorical exclusion listed in Appendix A to Subpart D of the [DOE NEPA regulations](#), the applicant faces just three questions: to briefly summarize the proposal, identify any other federal government involvement, and state whether the proposal is limited to intellectual, academic, and analytical activities.

If the proposed project involves any physical experiments, prototypes, pilot-scale projects, demonstration projects, field tests, land-disturbing activities, or construction, the applicant must respond to up to 12 additional questions. These questions address the locations, types and scale of activities; air emissions, water effluent, and solid wastes generated; the involvement or proximity of sensitive environmental resources; potential impacts to community infrastructure and services; and other factors relevant to identifying potential environmental impacts. Each

(continued on next page)

Environmental Questionnaire

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“yes” answer requires the applicant to provide additional information.

The questions probe for extraordinary circumstances, such as scientific controversy about the environmental effects of the proposal, uncertain effects, or effects involving unique or unknown risks. If a response identifies known or potential health and safety hazards to workers or the public, the applicant must also describe mitigation measures.

Online submittal: An applicant completes and submits the Environmental Questionnaire online, with responses entered directly into EERE’s Project Management Database. This allows for organized electronic routing and review. A Project Officer (a non-environmental staff member who works with the applicant and monitors the project) completes an “Environmental Questionnaire Verification Checklist” to review the submittal for completeness and accuracy. At that point, a NEPA staff member compares the Environmental Questionnaire responses against other project documents, completes a NEPA determination form, and forwards it to a NEPA Compliance Officer.

Before finalizing the new Environmental Questionnaire, the EERE NEPA staff requested EERE’s Bioenergy Technologies Office to conduct a pilot test, which revealed that some questions needed more specificity to avoid ambiguous responses. After successful pilot testing, EERE submitted the Environmental Questionnaire to OMB for approval.

Pilot testing was instrumental in getting the questions right. The perspective of a first-time reader can be quite different from a staff member who works with such questions every day.

Paperwork Reduction Act Compliance

The [Paperwork Reduction Act](#) (44 U.S.C. § 3501-3521) is intended to minimize the paperwork burden for individuals, small businesses, and other institutions from the collection of information by or for a government agency.

The Act generally provides that a federal agency must obtain OMB approval before using identical questions (for example, in surveys, applications, questionnaires, web forms, and reports) to collect information from 10 or more persons. In short, the agency prepares an Information

Collection Request that describes the information to be collected, gives the reason the information is needed, and estimates the time and cost for the public to answer the request. After reviewing the request, OMB may approve or disapprove, or define conditions that must be met for approval. Once obtained, OMB approval must be renewed every 3 years.

EERE published a *Federal Register* notice ([79 FR 8445](#); February 12, 2014) inviting public comment on the proposed information collection, including ways to improve the questionnaire and minimize the burden of responding. After receiving no comments during the 60-day review period, EERE submitted its Information Collection Request to OMB and issued a second notice ([79 FR 34519](#); June 17, 2014) that announced the beginning of OMB review and a 30-day public comment opportunity. DOE received no comments during the 30-day comment opportunity and OMB approved the Environmental Questionnaire on August 13, 2014, with minimal changes.

Lessons Learned from the OMB Review

Several lessons from our experience may be useful for others to consider:

- Before using a survey or questionnaire to gather information, contact your program’s Information Collection Clearance Manager (ICCM) to determine the applicability of the Paperwork Reduction Act. The ICCM works directly with the DOE Paperwork Reduction Act Officer (informationcollection@hq.doe.gov) to complete the request for OMB review.
- Your office’s Records Management Officer must determine whether a [System of Records Notice](#) (SORN) is required for information that will be collected. Also, determine whether a DOE Form number is needed.
- The information-gathering instrument should be tested on a voluntary basis in its proposed final version, before seeking OMB approval.

The EERE Environmental Questionnaire is available on EERE’s webpage for applicants, “[NEPA Compliance Information & Submissions](#).” For more information, contact me at lisa.jorgensen@ee.doe.gov or 720-356-1569. 

Envisioning a Better Environment: A Sustainability Rating System for NEPA Practitioners

By: Martin Krentz, NEPA Compliance Officer, West Valley Demonstration Project

NEPA Office staff participating in an interagency work group to improve the permitting and review of infrastructure projects learned of a sustainable infrastructure rating system that uses a questionnaire with many similarities to environmental questionnaires used in the NEPA process. To understand whether the system might be of value to NEPA practitioners, we asked Martin Krentz, during an assignment to the NEPA Office in September and October 2014, to evaluate the system from the perspective of a field NEPA Compliance Officer (NCO). His report below includes material presented to NCOs during a web conference in October.



In the United States, we currently enjoy a high quality of life by consuming material and natural resources at a rate that undermines the ability of future generations to sustain this same level of consumption. DOE’s policy is to integrate NEPA with program and project planning. NEPA requires that planning and decisions consider the potential environmental impacts of proposed actions and means to mitigate such impacts, rather than justifying decisions after the fact and trying to remediate adverse impacts. I believe that NCOs can improve the NEPA process by assisting in the development of “greener,” more sustainable alternatives using the Envision^{TM1} checklist as a tool to prompt consideration of the principles of sustainability early in the process. The development of more sustainable alternatives aligns with the purpose of NEPA by encouraging “productive and enjoyable harmony between man and his environment” and by promoting “efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man” (NEPA, 42 U.S.C. § 4321, Section 2).

EnvisionTM is a rating system that assesses the sustainability of infrastructure across five categories: Quality of Life, Leadership, Natural World, Resource Allocation, and Climate and Risk. The system assigns up to 60 “credits” for achievements that contribute to positive social, economic, and environmental impacts in a community from the planning, design and construction of infrastructure projects. EnvisionTM is a decisionmaking guide for improving the sustainability performance of infrastructure projects based on metrics of improvement that exceed a baseline of regulatory compliance.

Checklist Estimates Sustainability Performance

The intent of the EnvisionTM Checklist, as described by ISI, is to provide a rough estimate of a project’s achievement in sustainable performance. The EnvisionTM Checklist is structured as a series of yes/no questions based on a rating system for five categories and

(continued on next page)

						
ENERGY	WATER	WASTE	TRANSPORTATION	LANDSCAPE	COMMUNICATIONS	SITES
Transmission Geothermal Hydro Nuclear Coal Natural Gas Oil/Refinery Wind Solar Biomass	Treatment Capture/Storage Water Reuse Storm Water Flood Control Desalination	Solid waste Recycling Hazardous Waste Collection Waste Transfer	Airports Roads Highways Bikeways Pedestrians Railways Public Transit Ports Waterways	Public Space Parks Ecosystem Management Land Transfer	Telecommunication Broadband Spectrum Data Centers Antennas/Towers	Complexes Communities Business Parks

The EnvisionTM rating system may be applied to a wide range of DOE proposed actions, such as the types of infrastructure projects illustrated here. Source: ISI

¹ EnvisionTM is the product of a joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and the Institute for Sustainable Infrastructure (ISI). ISI was founded by three national engineering associations: the American Society of Civil Engineers, the American Council of Engineering Companies, and the American Public Works Association. ISI supports a credentialing program for EnvisionTM Sustainability Professionals trained in the use of EnvisionTM. There are currently over 2,400 trained professionals predominantly in the United States and Canada. For more information on the EnvisionTM rating system, visit the [EnvisionTM website](#).

Envision

(continued from previous page)

14 subcategories. Each credit has one to six questions to help determine if the project meets the intent for that credit. The questions can be answered as yes, no, or not applicable. A high percentage of “yes” answers indicates that the project is relatively sustainable. A high percentage of “no” answers indicates that the project tends to follow conventional practices and there may be ways to improve the sustainability of the project. For a more in-depth assessment, a project can use the Envision™ sustainable infrastructure rating system, which is available on the ISI website.

Case Study

Recently, I had the opportunity to tour a site for which an EIS had previously been completed and apply the Envision™ checklist to the proposed action. In addition to serving as a case study for my evaluation of the rating system, the purpose of this review was to determine to what degree the principles of sustainability were incorporated into the alternatives for the proposed action and identify potential opportunities for improvement. I found that while the project team had incorporated many aspects of sustainability in their NEPA process and subsequently into the design of the alternatives, additional opportunities to incorporate sustainability could be identified using the checklist as a “brain-storming tool.”

Based on my experience, although training on the Envision™ Rating System is not necessary to use the checklist, I suggest using the Guidance Manual (available upon registering for an account) for clarification and interpretation of the checklist questions. The Guidance Manual describes each credit’s intent, metric, levels of achievement (with explanation of how to advance to a higher achievement level), evaluation criteria and documentation, sources, and related credits. The checklist is a quick and easy-to-use tool. I was able to get through the questions in less than 4 hours.

Broad Applicability

Although intended to apply to infrastructure projects, I concluded that the rating system could apply broadly to many other types of projects, and could add value to NEPA

reviews for a wide range of DOE proposed actions. The potential benefits of using Envision™ include:

- Incentivizing the attainment of sustainability beyond existing requirements
- Refocusing the project team using a consistent approach to assess and evaluate progress
- Improving the NEPA process by focusing on decisionmaking instead of documentation, and
- Engaging the principles of sustainability early in the NEPA process to influence the project’s scope, design, and alternatives.

Free Training

ISI will provide DOE NEPA practitioners full access to the required training and examination to become an Envision™ Sustainability Professional at no cost to you or your office. If you are interested in this opportunity, [register](#) for an account using your DOE email address. For assistance with this process, contact John Jediny at john.jediny@hq.doe.gov.

While anyone may use Envision™ for their project, an Envision™ Sustainability Professional must be involved for projects to be verified or be eligible for a project award and certification. Such certification, which is not essential to gain the benefits of applying the checklist, requires third-party evaluation by a qualified expert contracted by ISI, and involves a substantial fee. (See the [ISI website](#) for details.)

If you have questions or want further information about the sustainability rating system, please contact me at martin.krentz@wv.doe.gov. 

EAs and EISs Completed July 1 to September 30, 2014

EAs¹

Bonneville Power Administration

[DOE/EA-1937](#) (8/1/14)

Pacific Direct Current Intertie Upgrade, Crook, Deschutes, Lake, and Wasco Counties, Oregon

Cost: \$5,100,000²

Time: 24 months

[DOE/EA-1969](#) (7/1/14)

Clark Fork River Delta Restoration Project, Bonner County, Idaho

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 12 months

Idaho Operations Office/Office of Nuclear Energy

[DOE/EA-1984](#) (9/3/14)

Disposition of Five Signature Properties at Idaho National Laboratory, Idaho

EA was prepared in-house; therefore cost data are not applicable.

Time: 9 months

National Energy Technology Laboratory/ Office of Fossil Energy

[DOE/EA-1616-S1](#) (8/1/14)

National Carbon Capture Center Project at Southern Company Services' Power Systems Development Facility, Wilsonville, Alabama

Cost: \$18,000

Time: 4 months

Stanford Linear Accelerator Center Site Office/ Office of Science

[DOE/EA-1975](#) (7/31/14)

LINAC Coherent Light Source-II, Menlo Park, California

Cost: \$110,000

Time: 9 months

EISs

Office of Electricity Delivery and Energy Reliability

[DOE/EIS-0447](#) (79 FR 48140, 8/15/14)

(Draft EIS EPA Rating: EC-2)

Champlain Hudson Power Express Transmission Line Project, Connecticut and New York

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 50 months

Office of Fossil Energy

[DOE/EIS-0488](#) (79 FR 48140, 8/15/14)

(Draft EIS EPA Rating: EC-2)

Cameron Liquefaction Project, Cameron Parish, Louisiana

EIS was adopted; therefore cost and time data are not applicable to DOE; Federal Energy Regulatory Commission was the lead agency; DOE was a cooperating agency.

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² The cost for this EA includes extensive surveys needed for compliance with the National Historic Preservation Act.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for the preparation of 3 EAs for which cost data were applicable was \$110,000; the average was \$1,740,000.
- For this quarter, the median completion time for 5 EAs for which time data were applicable was 9 months; the average was 12 months.
- Cumulatively, for the 12 months that ended September 30, 2014, the median cost for the preparation of 12 EAs for which cost data were applicable was \$205,000; the average was \$714,000.
- Cumulatively, for the 12 months that ended September 30, 2014, the median completion time for 15 EAs for which time data were applicable was 19 months; the average was 22 months.

EIS Cost and Completion Times

- There were no EISs completed during this quarter for which cost data were applicable.
- For this quarter, the completion time for 1 EIS for which time data were applicable was 50 months.
- Cumulatively, for the 12 months that ended September 30, 2014, the median cost for the preparation of 3 EISs for which cost data were applicable was \$1,980,000; the average was \$1,690,000.
- Cumulatively, for the 12 months that ended September 30, 2014, the median completion time for 5 EISs for which time data were applicable was 31 months; the average was 32 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

New NEPA Annual Planning Summary Template

The NEPA Office has finalized the template and user's guide (instructions) to be used in preparing the 2015 NEPA Annual Planning Summaries (APSs). (See *LLQR*, September 2014, page 19.) We appreciate the feedback and recommendations received from NEPA Compliance Officers, and in response, we added some new features (e.g., an "Other" category to the template's dropdown menu for "Type of NEPA Review"). We also provided additional information in the new user's guide (e.g., guidelines for determining the appropriate data to report).

An expanded user's guide has also been prepared to provide detailed assistance for those with more complex reporting requirements such as financial assistance projects. These changes will be reflected in the final template and user's guide that the NEPA Office will distribute early this month.

Per DOE Order 451.1B, *NEPA Compliance Program*, Secretarial Officers and Heads of Field Organizations are responsible for annually submitting APSs to the General Counsel by January 31. Preparation of these Summaries helps ensure that NEPA activities are aligned with program priorities and that resources are allocated to enable timely completion of NEPA documents. APSs are made available to the public on the [DOE NEPA Website](#). For additional information, contact Ralph Barr at ralph.barr@hq.doe.gov. 

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Early involvement.* NEPA was always on the critical path given the desired project construction schedule, but early involvement of the NEPA team in project scoping minimized the risk of the NEPA process negatively impacting the project schedule.
- *Amended EA.* This was an amended EA. The scope, mission, permits, and location remained the same with no significant changes to the ongoing research facility operations. Consequently, this amended EA had no new scope or mission to address.
- *Effective meeting notification.* Scoping included inviting the public to attend public meetings via letters to interested parties, county constituents, and adjacent landowners. We also placed ads in multiple local papers and on the radio, posted information on webpages, and distributed fliers at local businesses well in advance of the meetings.

What Didn't Work

- *Large project area.* The project area was very large and very sparsely populated with the exception of a few population centers. It was challenging to schedule scoping meetings that didn't require interested landowners to travel for a couple of hours.
- *Resource-intensive surveys.* More time spent in evaluating the scope of the project could have been effective in saving time and money on surveys.
- *Changing proposed action.* The proposed action was not clearly defined initially, and changed multiple times throughout the NEPA process. This required multiple reviews by all stakeholders.

Data Collection/Analysis

What Worked

- *Use of established methodology.* The use of established methodology from other successfully completed EAs was effective.
- *Potential to use excess data.* More data were collected than needed. However, the information collected will be useful for future projects that could occur in the current project area.
- *Great analytical data.* A lot of good information on cultural and paleontological resources was gathered that helped inform construction best management practices to reduce environmental impacts.
- *Most data readily available.* The various resource impact analyses presented in this EA were mostly supported by data from an existing EA.
- *Coordinating area access.* Data collection had some challenges due to the project's unique geographic location which is impacted by the annual fluctuation of a dam controlled lake. Careful coordination to access the project area was required because not all of the project area is accessible at all times of the year.

What Didn't Work

- *Section 106 data collection time.* The sheer quantity of cultural resources present along a 265-mile line and consultation with 10 tribes, the state, and 2 federal agencies made the Section 106 consultation (and preparation of a programmatic agreement) time consuming, delaying completion of the EA.
- *Difficulty managing data.* The volume of survey data generated from 265 miles of transmission line right-of-way plus access roads was difficult to manage. In hindsight, more data were collected than

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

was necessary for a thorough analysis in the EA given the scope of the final proposed action. Surveys could have been better limited to anticipated areas of project disturbance.

- *Difficulty obtaining data.* We did not anticipate the lengthy time required to get data from contractors.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Accounting for field surveys in schedule.* Establishing a detailed schedule with the EA contractor, that included time needed for field surveys, facilitated timely completion of the EA.
- *Realistic schedule.* Monthly communication among program, Headquarters, and contractor staff to ensure a realistic schedule facilitated timely completion of the EA.
- *Knowledgeable project manager.* Regular communication with the project manager, who was very knowledgeable of the NEPA process, provided information needed to complete the EA in a timely manner.

Factors that Inhibited Timely Completion of Documents

- *Tribal consultations.* The completion of consultations with multiple Indian tribes took longer than anticipated.
- *Staff availability.* It was difficult to resolve internal work prioritization issues to make sure staff were available when needed.
- *Different agency processes.* Coordination between two federal agencies, whose processes differed, had a negative impact on the document preparation schedule.
- *Lack of effective schedule.* At the outset, there was pressure from external parties to complete the NEPA process in a very short time frame (less than 6 months), so an initial challenge was educating these parties about the NEPA process and setting effective expectations about the schedule.
- *Coordinating with many entities.* There were three federal agencies involved on the project team, as well as one state agency, a private entity, and multiple

tribes, all of whom had a vested interest in the project and the outcome of the NEPA process. Coordinating and communicating with a large number of entities had its challenges - each organization had its specific goals and ideas about the NEPA process and the project itself, and staff had varying levels of familiarity with the NEPA process, so coming to consensus on decisions took a significant amount of effort.

- *Limited staff.* Limited staff were available to work on the project due to competing projects' workload.

Teamwork

Factors that Facilitated Effective Teamwork

- *Regular meetings.* Monthly team meetings and regular e-mail communication helped keep everyone informed on EA schedule and milestones.
- *Management prioritized project.* The management team prioritized this project and provided significant incentives to meet specified goals.
- *Good coordination.* There was regular and clear communication with the project team including weekly status updates in the form of email and monthly conference calls.
- *NEPA expertise.* The NEPA expertise represented by project team members contributed to the success of keeping the EA production on schedule.
- *Good communication.* Communication was very important. Weekly conference calls to check in on status, a collaborative teamwork approach to the project, regular and frequent communication via phone and email helped facilitate effective working relationships.
- *Review queue.* NEPA Compliance Officers and DOE attorneys requested feedback on anticipated review timelines for the EA. There was an established review queue, and the NCOs and attorneys sent out a quarterly email to document managers asking us to schedule when we expect to need them to review the EA.

Factors that Inhibited Effective Teamwork

- *Internal communication.* Communication between internal departments was ineffective. Sharing of pertinent project information is very important in the preparation of a quality EA.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Difficulty obtaining approvals.* We did not anticipate the lengthy time required to get approval from Headquarters to release the EA for public review.
- *Data quality and timelines.* Lack of the EA contractor's efforts to provide timely and good quality data in a format that can be referenced inhibited effective teamwork.

Process

Successful Aspects of the Public Participation Process

- *Use of tools to share project information.* Project mailings and the project website were useful tools for sharing project information.
- *Little public concern.* The project was considered as essentially a large maintenance project replacing equipment on existing structures; therefore, the public expressed little concern through the project website or written comments.

Unsuccessful Aspects of the Public Participation Process

- *Lack of tribal involvement.* Under Section 106, we consulted with 10 tribes, but received involvement from only four.
- *Minimal public participation.* This project had gone through the EA process three times with resulting findings of no significant impact. This may be why there was so little interest in yet another EA on the same facility and project. Comments from only one state agency and one federal agency were received.
- *Little public interest.* There was very little interest in the EA project, even with articles in two newspapers.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Integrated the NEPA process.* We integrated the NEPA process with the Section 106 process. Mitigations were developed in coordination with the State Historic Preservation Office and the Advisory Council on Historic Preservation.
- *Selection of best alternative.* The EA process benefitted the project because it made those individuals designing

the project consider alternative ways to implement the project. The public comment process brought to light some potential issues related to the possibility of contaminated sediments in the delta, so additional testing was conducted. This identified areas of contamination, so the decision was made to modify the design to avoid impacting those areas.

Enhancement/Protection of the Environment

- *Wildlife habitat protection.* Long term or permanent impacts to sage brush habitat were mitigated; we were able to limit the area of disturbance for construction impacts to the minimum needed for safe construction.
- *Mitigation of environmental impacts.* The purpose of the project is to reduce erosion and restore fish and wildlife habitat in the delta. The NEPA process contributed to ensuring this objective would be achieved in an environmentally responsible way.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

For the past quarter, in which 4 EA questionnaire responses were received, 2 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "5" stated that the NEPA process facilitated the preparation of three amended EAs for planning purposes.
- A respondent who rated the process as "3" stated that this project was ultimately a large-scale maintenance project, and much of the area had been disturbed by the construction of a line 40 years ago and its ongoing maintenance.
- A respondent who rated the process as "2" stated that the NEPA preliminary decisions for this project were in conjunction with other agencies that have some authority over the results of the project.
- A respondent who rated the process as "0" stated that it definitely felt like the NEPA process was just another regulatory hurdle to get through, requiring the project team to back track through progress they had made.

LESSONS LEARNED

March 2, 2015; Issue No. 82

First Quarter FY 2015

The Council on Environmental Quality (CEQ) and the White House have taken two important actions to ensure the consideration of climate change in federal decisionmaking. Both have implications for NEPA implementation. Revised draft guidance issued by CEQ would help federal agencies more consistently consider greenhouse gas (GHG) emissions and climate change in their NEPA reviews. A new Executive Order establishes a federal flood risk management standard to respond to climate change, and provides three approaches that federal agencies can use to establish the flood elevation and hazard area for consideration in their decisionmaking.

CEQ Issues Revised Draft NEPA Guidance on GHG Emissions and Climate Change



CEQ issued revised draft guidance in December to “provide Federal agencies direction on when and how to consider the effects of greenhouse gas (GHG) emissions and climate change” in NEPA reviews (79 FR 77802; December 24, 2014). The revised draft guidance supersedes CEQ’s February 2010 draft guidance (LLQR, March 2010, page 3).

At a meeting with Federal NEPA Contacts on January 16, Horst Greczmiel, Associate Director for NEPA Oversight at CEQ, presented an [overview](#) of CEQ’s revised draft guidance, noting that the fundamental NEPA principles (e.g., rule of reason, proportionality, direct and indirect effects) apply to consideration of the potential impacts of GHG emissions and climate change.

Overall, this guidance is designed to provide for better and more informed Federal decisions regarding GHG emissions and effects of climate change consistent with existing NEPA principles.

– Council on Environmental Quality
December 2014 Revised Draft Guidance

The December 2014 revised draft guidance states that consideration of climate change “falls squarely within NEPA’s focus” and recommends that agencies consider (1) the potential effects of a proposed action on climate change as indicated by its GHG emissions, and (2) the implications of climate change for the environmental effects of a proposed action.

(continued on page 4)

New Flood Risk Management Standard Responds to Effects of Climate Change



Observing that impacts of flooding “are anticipated to increase over time due to the effects of climate change and other threats,” President Obama declared in a new Executive Order (E.O.) that, “The Federal Government must take action, informed by the best-available and actionable science, to improve the Nation’s preparedness and resilience against flooding.” E.O. 13690, *Establishing a Federal Flood Risk Management Standard and a*

Process for Further Soliciting and Considering Stakeholder Input, signed January 30, 2015, amends E.O. 11988, *Floodplain Management* (1977), which requires federal agencies “to avoid, to the extent possible, the long- and short-term adverse impacts associated with

(continued on page 8)

Inside Lessons Learned

Welcome to the 82nd quarterly report on lessons learned in the NEPA process. This issue features an Executive Order, draft CEQ guidance, and online tools aimed at improving the consideration of climate change in federal decisionmaking. By using these, our NEPA documents will better inform future decisions to ensure that DOE facilities and communities affected by DOE programs are more resilient in the face of changing environmental conditions. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom
Director

Office of NEPA Policy and Compliance

Printed on recycled paper



Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by April 10, 2015, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due May 1, 2015

For NEPA documents completed January 1 through March 31, 2015, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than May 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. The electronic version of *LLQR* includes links to most of the documents referenced herein. To be notified via email when a new issue of *LLQR* is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Notify Congressional and Intergovernmental Affairs Before Issuing an EIS or Record of Decision

DOE's Office of Congressional and Intergovernmental Affairs (CI) requests that program offices provide information for congressional and intergovernmental notifications at least 3 business days in advance of certain actions and announcements, including issuance of a draft or final EIS or a record of decision. The primary tool for providing this information is the Priority Congressional and Intergovernmental Notification (PCIN) form, which CI issued in late 2014 to replace the previous 72-Hour Prior Notification form.

The PCIN form asks for a program contact and summary of the action, as well as known congressional and intergovernmental interests. CI uses this information to coordinate with the program office regarding communications with Congress, governors, and local and tribal governments.

CI also recently issued a *Guide for Congressional and Intergovernmental Notifications*, which provides information and recommendations on the PCIN process and other categories of CI notifications. The *Guide* states

that the 3-day advance notice should be considered a minimum. "Programs are encouraged to be forward thinking in bringing information to CI's attention as early as possible. As a practical matter, there are many important announcements that require far more than 3 days advance notification," advises the *Guide*.

The PCIN form reminds the program office to coordinate with the Office of NEPA Policy and Compliance, which can review draft distribution communications and otherwise assist in distribution planning. The NEPA Office requests to be copied when the form is provided to CI.

The form and associated *Guide* are posted on [Powerpedia](#) (accessible to DOE staff). Additional information may be requested from the CI Liaisons for DOE Programs, listed on the [CI website](#), or call 202-586-5450. (The National Nuclear Security Administration (NNSA) Office of External Affairs is the lead for NNSA congressional and intergovernmental activities and may be reached at 202-586-7332.)

CEQ Issues Final Guidance on Effective Use of Programmatic NEPA Reviews



In response to agency requests and an increasing number of broad, landscape analyses, the Council on Environmental Quality (CEQ) issued final guidance in December on the effective use of programmatic NEPA reviews. The guidance “is designed to assist agency decisionmakers and the public in understanding the environmental impacts from proposed large-scale Federal actions and activities and to facilitate agency compliance with NEPA by clarifying the different planning scenarios under which an agency may prepare a programmatic, broad-scale, review,” CEQ explains (79 FR 76986; December 23, 2014).

“This final guidance was developed to provide for the consistent, proper, and appropriate development and use of programmatic NEPA reviews by Federal agencies. It reinforces the process required to establish opportunities for public involvement, increased transparency, and informed decision-making,” CEQ continues. The guidance describes: (1) the nature of programmatic NEPA reviews, (2) when to use a programmatic and tiered NEPA review, (3) practical considerations for programmatic reviews and documents, (4) how to effectively conduct subsequent project- or site-specific NEPA reviews, and (5) the lifespan of a programmatic NEPA document.

Determining When to Prepare a Programmatic Review

Although the guidance does not indicate when a programmatic EA or EIS (PEA or PEIS) is required, CEQ explains that “agencies usually benefit by asking two questions when determining whether to prepare a programmatic NEPA review: (1) Could the PEA or PEIS be sufficiently forward looking to contribute to the agency’s basic planning of an overall program?; and (2) Does the PEA or PEIS provide the agency the opportunity to avoid ‘segmenting’ the overall program from subsequent individual actions and thereby avoid unreasonably constricting the scope of the environmental review?” The guidance discusses a variety of circumstances in which a programmatic review may be appropriate.

[A]gencies that are able to clearly explain how specific, outstanding, or future actions will be addressed in subsequent tiered documents, and how the analyses will be vetted publicly, will ensure that the public is informed and can improve the quality of participation and analysis agencies receive from the public, thereby enhancing decision-making.

– Council on Environmental Quality
Effective Use of Programmatic NEPA Reviews

“Programmatic NEPA reviews can facilitate decisions on agency actions that precede site- or project-specific decisions and actions, such as mitigation alternatives or commitments for subsequent actions, or narrowing of future alternatives. They also provide information and analyses that can be incorporated by reference in future NEPA reviews. Programmatic NEPA review may help an agency look at a large or multi-faceted action without becoming immersed in all the details of future site- or project-specific proposals,” states CEQ.

Appropriate Use of Tiered NEPA Reviews

“Effective programmatic NEPA should present document reviewers with the agency’s anticipated timing and sequence of decisions, which decisions are supported by the programmatic NEPA document and which decisions are deferred for some later time, and the time-frame or triggers for a tiered NEPA review,” explains CEQ. “Stating the nature of subsequent tiered decisions allows agencies to craft the alternatives for a programmatic review and focus the scope and development of alternatives for the subsequent tiered NEPA reviews.” CEQ encourages proactive and robust public participation to “ensure agency objectives are understood and to clarify how a programmatic review influences subsequent tiered reviews.” “Clarity of approach is essential to avoid the impression that a programmatic NEPA review creates a situation whereby the public is too early to raise issues in the broader programmatic analysis and then too late to raise them in any subsequent tiered analyses,” states CEQ.

Framework for Potential Impacts in Programmatic and Tiered NEPA Reviews

“The contrast between a programmatic and a project- or site-specific NEPA review is most strongly reflected in how these environmental impacts are analyzed,” explains CEQ. “Because impacts in a programmatic NEPA review typically concern environmental effects of a large geographic and/or time horizon, the depth and detail in programmatic analyses will reflect the major broad and general impacts that might result from making broad programmatic decisions,” states CEQ.

CEQ explains that “the scope and range of impacts may also be more qualitative” particularly when “there is no clear indication – no site- or project-specific proposal pending – for the level of activity that may follow a programmatic decision.” “When a PEA or PEIS has been prepared and an action is one anticipated in, consistent with, and sufficiently explored within the programmatic

(continued on page 7)

CEQ Revised Draft GHG Guidance

(continued from page 1)

Use of a Reference Point

CEQ's revised draft guidance recommends that agencies use a reference point to determine when GHG emissions warrant a quantitative analysis, taking into account available GHG quantification tools and data that are appropriate for proposed agency actions. CEQ provides a reference point of 25,000 metric tons of carbon dioxide (CO₂) equivalent on an annual basis below which a GHG emissions quantitative analysis is not warranted unless quantification below that reference point is easily accomplished.

CEQ further explains that, "If tools or methodologies are available to provide the public and the decision-making process with information that is useful to distinguishing between the no-action and proposed alternatives and mitigations, then agencies should conduct and disclose quantitative estimates of GHG emissions and sequestration." The revised draft guidance acknowledges that there are many widely-available tools and methodologies that can be used to calculate estimates of GHG emissions and carbon storage and provides several examples. (In January, CEQ updated its [website](#) to include a [list](#) of available GHG accounting tools and methodologies.)

CEQ explains that the reference point "would allow agencies to focus their attention on proposed projects with potentially large GHG emissions." CEQ also explains that "agencies should keep in mind that the reference point is for purposes of disclosure and not a substitute for an agency's determination of significance under NEPA. The ultimate determination of significance remains subject to agency practice for the consideration of context and intensity, as set forth in the CEQ Regulations."

Projected GHG Emissions as a Proxy

CEQ recommends that agencies use the quantity of projected GHG emissions as "the proxy for assessing a proposed action's potential climate change impacts." This is consistent with the 2010 CEQ draft guidance, which emphasized quantification of GHG emissions, when appropriate, as an indicator of potential impacts, and recognized the difficulties in determining the specific potential impacts of GHG emissions.

"This approach allows an agency to present the environmental impacts of the proposed action in clear terms and with sufficient information to make a reasoned choice between the no-action and proposed alternatives and mitigations, and ensure the professional and scientific integrity of the discussion and the analysis," explains CEQ. CEQ advises that, "the statement that emissions

This guidance is designed to encourage consistency in the approach Federal agencies employ when assessing their proposed actions, while also recognizing and accommodating a particular agency's unique circumstances.

– Council on Environmental Quality
December 2014 Revised Draft Guidance

from a government action or approach represent only a small fraction of global emissions is more a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether to consider climate impacts under NEPA."

Direct, Indirect, and Cumulative Impacts

The December 2014 revised draft guidance advises that when assessing direct and indirect climate change effects, agencies should take account of the proposed action, including connected actions, "subject to reasonable limits based on feasibility and practicality." CEQ explains that "emissions from activities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for the agency action (often referred to as upstream emissions) and as a consequence of the agency action (often referred to as downstream emissions) should be accounted for in the NEPA analysis." Mr. Greczmiel elaborated on this point in his January presentation to the Federal NEPA Contacts, explaining that "disclosure goes beyond those actions over which the agency has control or responsibility – it includes effects outside the control of the agency; however, the agency should clearly distinguish the effects over which the agency has control or responsibility from effects over which it does not."

CEQ points out that an agency must consider cumulative impacts, but that it "does not expect that an EIS would be required based on cumulative impacts of GHG emissions alone." CEQ explains that "there may remain a concern that an EIS would be required for **any** emissions because of the global significance of aggregated GHG emissions" (emphasis added). However, CEQ advises that "agencies need to consider whether the reasonably foreseeable incremental addition of emissions from the proposed action, when added to the emissions of other relevant actions, is significant when determining whether GHG emissions are a basis for requiring preparation of an EIS."

The revised draft guidance also states that "agencies should consider reasonable mitigation measures and alternatives as provided for under the existing regulations to lower the level of the potential GHG emissions."

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CEQ Revised Draft GHG Guidance

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CEQ identifies enhanced energy efficiency and lower GHG-emitting technology (such as using renewable energy technology), carbon capture, and carbon sequestration, among others, as mitigation that agencies might consider.

Apply “Rule of Reason”

“Agencies should be guided by a ‘rule of reason’ in ensuring that the level of effort expended in analyzing GHG emissions or climate change effects is reasonably proportionate to the importance of climate change related considerations to the agency action being evaluated,” the revised draft guidance states. In addition, CEQ recommends that agencies take advantage of traditional NEPA tools such as scoping, incorporation by reference, using available information (e.g., current scientific information and technologies), and using programmatic – broad based – NEPA reviews, when appropriate. “It is essential, however, that Federal agencies not rely on boilerplate text to avoid meaningful analysis, including consideration of alternatives or mitigation.”

Mr. Greczmiel advised Federal NEPA Contacts to “analyze potential GHG emissions and climate change effects early in the NEPA process to maximize opportunities to adjust alternatives and mitigations which will ultimately lead to more resilient and sustainable proposed actions.”

CEQ notes that agencies “continue to have substantial discretion in how they tailor their NEPA processes to accommodate the concerns raised in this guidance, consistent with the CEQ Regulations and their respective implementing regulations and policies, so long as they provide the public and decisionmakers with explanations of the bases for their determinations.” Further, “the revised draft guidance does not establish regulatory requirements or compel agencies to prohibit or curtail GHG emissions. In conformance with NEPA’s basis principles, it does not

mandate particular results or insist that agencies select the alternative with the least GHG emissions and climate change effects,” explained Mr. Greczmiel at the January meeting.

Development of 2014 Revised Draft Guidance

CEQ circulated draft guidance on this topic in 2010 for agency and public comment. (See *LLQR*, March 2010, page 3; June 2011, page 8.) After considering public and agency comment, CEQ issued revised draft guidance on December 24, 2014.

CEQ’s notice of availability (NOA) of the revised draft guidance includes summaries of and responses to the more than 100 sets of comments that CEQ received on the 2010 draft guidance. CEQ’s preamble in the NOA also provides useful background information to understand CEQ’s reasoning underlying the guidance.

In its NOA, CEQ requested public comments on the revised draft guidance during a 60-day public review period. CEQ later extended the public comment period by 30 days to March 25 (80 FR 9443; February 23, 2015).

The revised draft guidance is available on the [DOE NEPA Website](#) and the [CEQ website](#). Public comments on the 2010 draft guidance and those received on the 2014 revised draft guidance are available on the [CEQ Website](#). 

*Editor’s Note: DOE has a long history of considering GHG emissions and climate change in its NEPA analyses. (See *LLQR*, December 2007, page 1.) DOE’s NEPA practices have been evolving with advances in climate science, litigation experience, and policy direction. For many years, DOE has recognized climate change as a “reasonably foreseeable” impact of GHG emissions and has taken steps to ensure that DOE NEPA documents adequately consider climate change issues.*

In addressing GHG emissions, agencies should be guided by the principle that the extent of the analysis should be commensurate with the quantity of projected GHG emissions. This concept of proportionality is grounded in the fundamental purpose of NEPA to concentrate on matters that are truly important to making a decision on the proposed action. When an agency determines that evaluating the effects of GHG emissions . . . would not be useful . . . to distinguish between the no-action and proposed alternatives and mitigations, the agency should document the rationale for that determination.

– Council on Environmental Quality
December 2014 Revised Draft Guidance

Climate Resilience Toolkit To Aid Planners and Decisionmakers

In response to President Obama’s Climate Action Plan, the Administration unveiled the web-based U.S. Climate Resilience Toolkit in November to help “leaders and others contend with climate impacts and build healthy and resilient communities.” The toolkit, developed by a partnership of federal agencies led by the National Oceanic and Atmospheric Administration (NOAA), “provides for the first time easy, intuitive access to dozens of Federal tools that can directly help planners and decision makers across America conduct their work in the context of a changing climate,” explained the Council on Environmental Quality.

The toolkit provides information and expertise to help people manage climate-based risks and opportunities, and improve communities’ resilience to extreme events. For example, the toolkit includes the Climate Explorer – a visualization tool that offers maps of climate stressors and impacts and interactive graphics showing daily observations. The toolkit also features a [catalog](#) of scientific tools for accessing and analyzing climate data, generating visualizations (e.g., maps), exploring climate projections, and estimating hazards.

The toolkit’s catalog contains, for example, ClimateWizard, where one can retrieve maps of weather observations for the past 50 years or projections for temperature and precipitation in the future. The toolkit’s ClimateWizard could assist NEPA practitioners in describing the current and expected future state of the affected environment based on available climate information, as recommended by CEQ in its revised draft guidance on consideration of greenhouse gases and climate change. In addition, the toolkit presents more than 20 case studies that feature step-by-step examples of how decision makers have used the featured tools, lessons learned, and best practices.

The toolkit’s initial focus is on coastal flood risk and food resilience, but it will be expanded over the next year to more fully address other areas (such as water resources, ecosystem vulnerability, transportation, energy supply and infrastructure, and human health). In addition, information and resources from state and local governments, businesses, academia, and nongovernmental organizations will be added to the toolkit. The toolkit is available at <http://toolkit.climate.gov/>.



Get Started Taking Action **Tools** Topics Expertise

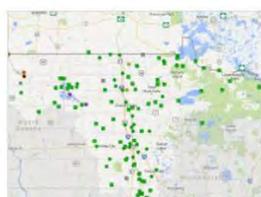
About Contact Funding Opportunities FAQ

Tools

Filter by parent topic: ▼

Filter by functionality: ▼

Tools are available to help you manage your climate-related risks and opportunities, and to help guide you in building resilience to extreme events. Browse the list below, or filter by topic and/or tool functionality in the boxes above. To expand your results, click the Clear Filters link.



Advanced Hydrologic Prediction Service

Individuals and communities consult this comprehensive suite of graphical forecast products to anticipate and plan for potential flooding or drought.

[Read more >](#)



Airborne LIDAR Data Processing and Analysis Tools

Spatial analysts can use this downloadable tool to extract desired information from airborne LIDAR data. The tool's filtering algorithms classify ground and non-ground measurements and auxiliary tools enable users to thin, tile, or grid data.

[Read more >](#)

Climate Resilience Index (CRI)	1990	2020	2050	2080	2100
100	0.100	0.092	0.079	0.051	1,899
110	0.104	0.087	0.043	0.034	1,747
120	0.097	0.052	0.044	0.026	1,700
130	0.111	0.108	0.048	0.028	1,918
140	0.113	0.113	0.048	0.041	1,958
150	0.116	0.116	0.050	0.044	1,920
160	0.116	0.129	0.053	0.047	1,945
170	0.119	0.129	0.056	0.048	1,965
180	0.121	0.130	0.059	0.053	2,029
190	0.120	0.130	0.059	0.057	2,050
200	0.122	0.143	0.064	0.061	2,130
210	0.128	0.140	0.064	0.065	2,265
220	0.128	0.154	0.065	0.065	2,390
230	0.131	0.158	0.067	0.066	2,524
240	0.131	0.181	0.067	0.074	2,540

Annual Greenhouse Gas Index (AGGI)

Compare the total warming effect of heat-trapping gases in Earth's atmosphere to their level in 1990.

[Read more >](#)

The Toolkit features several tools to help planners and decisionmakers manage climate-related risks.

CEQ Programmatic Guidance

(continued from page 3)

NEPA review, the agency need only summarize the issues discussed in the broader statement and incorporate discussion from the broader statement by reference and concentrate on the issues specific to the subsequent tiered proposal,” CEQ states.

Interim Actions Are Allowable, Provided Conditions Are Met

CEQ addresses concerns expressed by some agencies that undertaking programmatic NEPA reviews could delay ongoing and newly proposed actions. The guidance reminds agencies that the CEQ NEPA regulations enable interim actions to proceed provided certain criteria¹ are met. CEQ states that “Typically, proposed actions of relatively limited scope or scale that would have local utility may be taken as an interim action before completing the programmatic analysis.” In addition, CEQ explains that even though the regulations address criteria for interim actions in the context of PEISs, agencies should also use the criteria “in those cases where part of a proposed action needs to proceed while a PEA is being prepared.”

¹ For actions that require a PEIS, the CEQ NEPA regulations (40 CFR 1506.1(c)) state that, while preparation of a PEIS is ongoing, agencies shall not undertake in the interim any major federal action covered by the program which may significantly affect the quality of the human environment unless such action is (1) is justified independently of the program; (2) is itself accompanied by an adequate EIS; and (3) will not prejudice the ultimate decision on the program.

CEQ issued draft guidance on programmatic NEPA reviews for public review and comment in August (79 FR 50578; August 25, 2014). (See *LLQR* September 2014, page 7.) CEQ received 28 public comments on the guidance. The *Federal Register* notice announcing the final guidance addresses the comments that raised policy or substantive concerns (e.g., proper use of tiering, applicability to EAs, the lifespan of programmatic documents). For example, commenters “expressed concern over the timeliness and burden of programmatic NEPA reviews” and “that a tiered approach to review constitutes ‘delay.’” CEQ responded that “in many situations there is merit in looking at a proposal on a broad level and then focusing a subsequent, tiered, review on the relevant issues at the site- or project-specific level. The agency responsible for the NEPA review should take the timing of the decisions and the programmatic and subsequent tiered NEPA reviews into account when determining how best to proceed.”

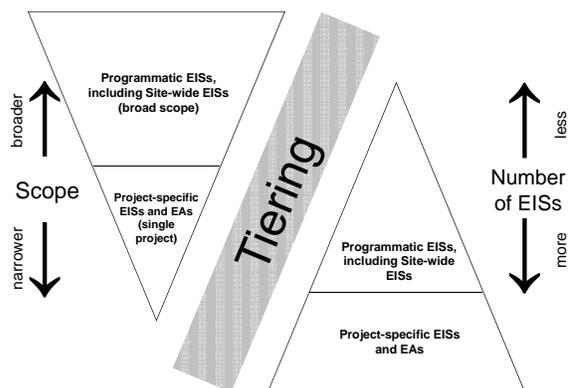
CEQ’s final guidance is available on the [DOE NEPA Website](#) and [CEQ’s website](#). 

DOE’s Programmatic NEPA Experience

DOE has prepared more than 70 PEISs for a variety of actions, including: major or new programs (related or similar actions at multiple sites), technology development programs (e.g., clean coal program), site-wide EISs (activities at certain, large multiple-facility DOE sites), and land use plans. In addition, DOE has prepared more than 30 PEAs for a variety of actions such as energy conservation standards and technology demonstration programs. DOE also has prepared hybrid NEPA documents that support both programmatic and project-specific decisions.

DOE has issued several PEISs that have supported multiple records of decision (RODs) and have withstood the test of time. For example, in 1997, DOE issued the Final Waste Management PEIS (WM PEIS) that, among other things, supported decisions on where to treat and dispose of low-level and low-level mixed radioactive waste and where to store transuranic and high-level waste. DOE subsequently issued four RODs for different waste types and six amended RODs supported by supplement analyses. In addition, DOE has tiered site- and project-specific EISs from the WM PEIS for activities at several sites throughout the DOE Complex (e.g., Hanford Site, Savannah River Site). (See *LLQR*, June 2003, pages 4-5.)

“A PEIS takes time and costs money, but a PEIS isn’t just filed away; it can be used again and again,” said Eric Cohen, Unit Leader, Office of NEPA Policy and Compliance.



Tiering affects the scope and number of EISs and EAs that DOE prepares. For example, PEISs tend to be broader in scope and fewer in number than project-specific EISs.

New Floodplain Standard

(continued from page 1)

the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.”

E.O. 11988 was issued in furtherance of NEPA and flood protection statutes. The current amendment maintains the connection to NEPA. DOE’s implementation of E.O. 11988 is coordinated with NEPA reviews through provisions of the Department’s NEPA regulations (10 CFR Part 1021) and its *Compliance with Floodplain and Wetland Environmental Review Requirements* (10 CFR Part 1022). As explained below, DOE will review its floodplain review requirements according to the process outlined in E.O. 13690.

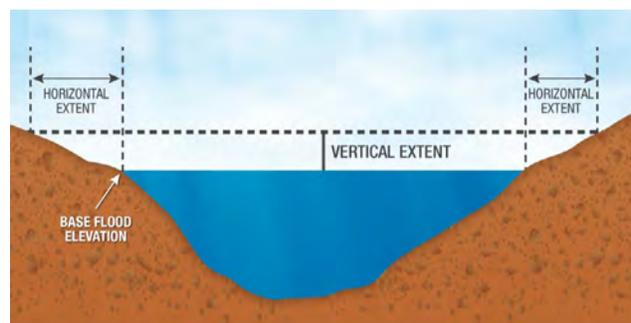
Key Elements of the Federal Flood Risk Management Standard

The principal change in the amended Floodplain Management E.O. is the establishment of the *Federal Flood Risk Management Standard* (FFRMS), “a flexible framework to increase resilience against flooding and help preserve the natural values of floodplains.” The FFRMS is built around three key elements intended to improve implementation of E.O. 11988.

- The FFRMS encourages the use of natural features and nature-based approaches in the development of alternatives for federal actions. “This approach, combined with restoration of natural systems and ecosystem processes where appropriate, recognizes the growing role of natural and restored systems and of features engineered to mimic natural processes (generally known as ‘green infrastructure’) in mitigating flood risk and building the resilience of Federal investments both within and that will affect floodplains,” the FFRMS states.
- The FFRMS provides a higher vertical elevation and corresponding floodplain, where appropriate, to address current and future flood risks. The FFRMS explains that this higher flood elevation establishes “the level to which a structure or facility must be resilient – this may include elevating the structure or, where appropriate, designing it to withstand or otherwise quickly recover from a flood event.” The higher elevation is intended to “ensure that uncertainties associated with climate change and other future changes are more adequately accounted for” in decision processes for federal actions.
- The FFRMS “gives agencies the flexibility to select one of three approaches for establishing the flood

elevation and hazard area they use in siting, design, and construction,” explains a [Council on Environmental Quality fact sheet](#).

- Climate-informed science approach: Utilize the “best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science.” The FFRMS identifies this as the preferred approach, and states that federal agencies “should use this approach when data to support such an analysis are available.”
- Freeboard approach: Add two feet to the base flood elevation or, for a critical action, add three feet. The base flood elevation is the area subject to a one percent or greater chance of flooding in any given year, also known as the 100-year floodplain.
- 500-year flood elevation¹: Use the area that corresponds to a 0.2 percent chance of flooding in any given year.



E.O. 13690 explains that incorporating the FFRMS “will ensure that agencies expand management from the current base flood level to a higher vertical elevation and corresponding horizontal floodplain to address current and future flood risk.”

Draft Revised Implementing Guidelines

The Federal Emergency Management Agency (FEMA) is accepting public comments through April 6 on [draft Revised Guidelines for Implementing Executive Order 11988, Floodplain Management](#). For information on listening sessions that FEMA is hosting to solicit input on implementation of FFRMS, visit [FEMA’s website](#).

The draft revised guidelines explain that E.O. 13690 and the FFRMS reflect “a transition beyond a former emphasis on flood control and protection to a broader focus on

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¹ Current DOE regulations define the critical action floodplain as, at a minimum, the 500-year floodplain (10 CFR 1022.4). Under the FFRMS, federal agencies may use the 500-year floodplain for any type of proposed project.

New Floodplain Standard

(continued from previous page)

flood risk management. This includes an array of methods for managing floodwaters to reduce the risk of flooding and managing and regulating floodplain development to reduce the impacts of flooding. Changes in terminologies from ‘protection’ to a broader focus on resilience and risk management reflect the recognition that floodwaters cannot be fully controlled, full protection from floods cannot be provided by any measure or combination of measures, and risk cannot be completely eliminated. Instead, management techniques involving coordinated efforts of individuals, property owners, businesses, and Federal, State and Local governments can be used to manage the level of risks in a floodplain.”

The draft revised guidelines expand on the key elements of the FFRMS. For example, they encourage agencies to consider nature-based approaches – alone or in combination with other methods – early in their planning processes. “Nature-based systems can include both natural and engineered features. This could include restoration of a system’s natural processes, for example, lowering or removing levees to allow water to flow naturally, restoring wetland functions along a coastal or riverine system, or creating living shorelines [i.e., using plants, stone, sand fill, and other organic materials to protect, restore, or enhance a shoreline],” FEMA explains.

The emphasis on early planning also arises elsewhere in the draft revised guidelines. “Where multiple Federal agencies are jointly engaged in an action, they should begin to coordinate early in the process to select the most appropriate approach for determining the flood elevation and flood hazard area that will be applied to the action. Agencies maintain the responsibility and flexibility to tailor their procedures to meet their prescribed missions while fulfilling the requirements of [E.O. 11988].”

The draft revised guidelines include an updated 8-step process that reflects the decisionmaking process outlined in E.O. 11988. Among the updates are a revised definition of “floodplain” to be consistent with the approaches instituted with E.O. 13690, recognition of critical action determinations by federal agencies, and the use of natural features and nature-based approaches.

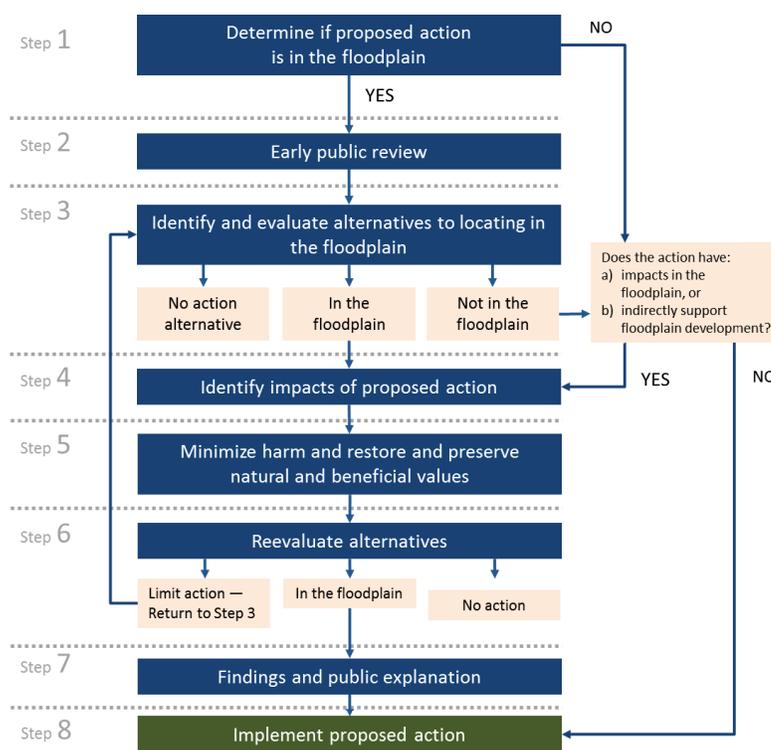
Next Steps

After the [comment period](#) on the draft revised guidelines closes, each federal agency has 30 days to submit an implementation plan that contains milestones and a timeline for the agency’s implementation of the E.O. and the FFRMS, “as it applies to the agency’s processes and mission.”

Concurrently, FEMA, in coordination with other federal agencies through the Mitigation Framework Leadership Group (MitFLG), will consider the public comments received on the draft revised guidelines. The MitFLG will then make recommendations to the Water Resources Council, which will issue amended implementing guidelines. After the Water Resources Council has issued amended implementing guidelines, federal agencies are to update their floodplain regulations and procedures, in consultation with the Water Resources Council, Federal Interagency Floodplain Management Task Force, FEMA, and the Council on Environmental Quality.

For additional information, contact Brian Costner, Office of NEPA Policy and Compliance, at brian.costner@hq.doe.gov. 

Eight-step Decisionmaking Process for E.O. 11988



Source: FEMA’s draft revised guidelines (Figure 1)

CEQ Issues NEPA Pilot Projects Report and Recommendations



"NEPA's purpose is not to generate paperwork . . . but to foster excellent action." (40 CFR 1500.1(c))

The Council on Environmental Quality (CEQ) launched its NEPA Pilot Program in March 2011 to identify innovative NEPA strategies and disseminate them to practitioners. (See *LLQR*, June 2011, page 11.) CEQ received 37 nominations from the public and private sectors, and selected 5 pilot projects that further "transparency and informed decisionmaking in a more timely and effective manner."

This January, CEQ released a [report](#) and [supporting documents](#) on these pilot projects, including lessons learned and recommendations for broad application of their benefits across the NEPA community. In the report, CEQ points out that NEPA continues to serve as the touchstone for environmental protection and public engagement in federal decisionmaking.

NEPA Information Technology (IT) Tools (National Park Service's Planning, Environment, and Public Comment (PEPC) System, and Forest Service's electronic Modernization of NEPA (eMNEPA)) (*LLQR*, December 2011, page 11): PEPC and eMNEPA were selected for "greatly improving efficiency through reduced costs and time to process reviews." As part of the pilot, CEQ collaborated with the Office of Management and Budget and the General Services Administration to integrate PEPC with the [Federal Infrastructure Permitting Dashboard](#) in late 2011. This integration enabled users to track federal permitting and the environmental review process for expedited infrastructure projects. Once this integration was complete, CEQ convened a NEPA Information Technologies Working Group (ITWG). Representatives from over 20 agencies shared experiences developing and implementing NEPA IT tools, and developed NEPA Metric Recommendations for tracking major infrastructure projects.

Based on this pilot, CEQ and the ITWG recommend that agencies develop a suite of NEPA IT tools to meet the varied needs of specific projects, and that they collaborate with other agencies to leverage existing tools and ensure compatibility whenever possible. DOE is already pursuing these goals with recent upgrades of NEPA node that will not only facilitate communication and collaboration on DOE and other agency NEPA projects, but will be expanded to address issues in workflow and information management (*LLQR*, December 2014, page 6).

Best Practice Principles for Environmental Assessments (EAs) (*LLQR*, December 2011, page 11): The National Association of Environmental Professionals (NAEP) analyzed over 30 years of EAs and surveyed NEPA practitioners from the public and private sectors to

identify practices that cut costs, save time, and focus on environmental issues relevant to decisionmaking. CEQ recently released the final NAEP report that identified seven practices, each focused on a different part of the EA process, with the greatest potential to accomplish these goals. A related article in this issue of *LLQR* discusses these practices (page 11). CEQ recommends that agencies review the principles and incorporate them into their standard practices. In addition, CEQ asked agencies to provide comments on which principles should be incorporated into CEQ guidance.

Environmental Protection Agency's NEPA Assist (*LLQR*, December 2011, page 11): NEPA Assist is a web-based Geographic Information System (GIS) platform where users can access datasets from all levels of government, and share findings with team members through customizable reports and maps. As part of the pilot, NEPA Assist was made publically accessible, and further integrated ecological, water, air, socioeconomic, infrastructure, and climate data layers through a new *GIS Inventory for Environmental Professionals*. EPA believes that agencies and the public both benefit from early access to information that can facilitate decisionmaking at all stages of NEPA. CEQ encourages project managers and NEPA practitioners to use NEPA Assist, and asks agencies to ensure their IT tools are compatible with NEPA Assist.

Department of Transportation's Northeast Corridor (NEC) – Tier 1 EIS (*LLQR*, March 2012, page 7): The NEC is a regional and national infrastructure priority stretching from Boston's South Station to Washington, DC's Union Station. The project's large geographic scope and broad range of stakeholders require an innovative approach to engagement and collaboration. The Federal Railroad Administration used early in-person meetings to establish trust among participating agencies, and sought stakeholder input earlier than in the traditional NEPA process. The typical NEPA Memorandum of Understanding (MOU) was reduced to a concise Statement of Principles that didn't require the complex process required to adopt a formal MOU. According to CEQ, these approaches, and others in the [NEC best practices report](#), can serve as a model for large-scale, multi-state, tiered decisionmaking.

U.S. Forest Service's Four Forest Restoration Initiative (4FRI) and Fivemile-Bell Project (*LLQR*, March 2012, page 7): For the fifth NEPA pilot, CEQ selected two Forest Service projects that represent different approaches to restoration management. The Forest Service prepared

(continued on page 15)

Guidance on Best Practice Principles for Environmental Assessments: Report on a CEQ Pilot Project

The Council on Environmental Quality (CEQ), on January 26, 2015, issued a [report and recommendations](#) on its NEPA Pilot Program to identify innovative NEPA strategies (related article, page 10). One pilot project, proposed and conducted by the National Association of Environmental Professionals (NAEP), was to identify best practice principles and develop guidance for preparing timely, cost-effective environmental assessments (EAs) that focus on environmental issues relevant to the decisionmaking process. NAEP's *Guidance on Best Practice Principles for Environmental Assessments* is included in the [supporting documentation](#) for CEQ's Pilot Program report.

In distributing the Pilot Program report, CEQ recommended that federal agencies review the best practice principles and incorporate them into their EA practices. Further, CEQ requested agencies to provide comments to CEQ on which EA best practice principles should be incorporated into CEQ guidance.

Best Practice Principles and Recommendations

NAEP surveyed more than 1,000 NEPA practitioners, including the NAEP membership and federal agency NEPA liaisons; about 30 percent responded. Survey questions addressed EA strengths and inadequacies, selected topics for inclusion in EAs, and potential implementation of best practice principles.

The NAEP team¹ analyzed and grouped responses into seven "Priority One" best practice principles, and reviewed how these principles are addressed in the [CEQ NEPA regulations](#), agency and state-level guidance, case law, and peer-reviewed literature on NEPA practice. The team also reviewed recent EAs.

For each best practice principle, the NAEP report presents background information, discusses survey responses, provides implementation recommendations, and identifies resources. Some highlights are summarized below.

Description of purpose and need. The NAEP report recommends that purpose and need, whether expressed as separate concepts or as a combined statement, should be neither too broad nor too narrow. Agencies should "[c]onsider a collaborative approach when working with cooperating agencies, agencies with regulatory authority over some aspect of the Proposed Action, or other parties." For an EA for an applicant-proposed action (e.g., for financial support or a permit), the agency should consider "the underlying purpose and need of the applicant, in

addition to the purpose and need from the public interest perspective."

Description of proposed action and range of alternatives. Survey responses suggest that an adequate EA includes a well-defined, detailed project description; a clear alternatives analysis, including the "no-action" alternative; discussion of comparative impacts for each alternative; and logical explanation of the reasons for including or dismissing an alternative from consideration. The NAEP report's recommendations include evaluating "a larger range of action alternatives" for EAs that address "broad actions or [those] with unresolved conflicts concerning alternative uses of physical, cultural, or natural resources." "If a stakeholder or other interested party suggests an alternative, practitioners should evaluate the alternative in detail or provide a well-reasoned explanation for why the alternative is being dismissed."

EA contents. The NAEP report provides model formats and recommends that "an EA's length should vary with the scope and scale of potential environmental problems" as well as the extent to which the significance of impacts would rely on mitigation. The report incorporates recommendations from CEQ's *Guidance on Efficient and Timely Environmental Reviews*: only briefly discuss insignificant issues, incorporate relevant analyses by reference to avoid repetition, and use clear language.

Cumulative effects assessment and management. The survey responses included concern about failure to address specific types of impacts, including cumulative impacts. The NAEP report recommends that "every EA should address cumulative effects," and that agencies should "designate spatial and temporal (past to future) boundaries to be considered for the resources to be addressed by the cumulative effects assessments."

Regulatory consultation and coordination. The NAEP recommendations on this topic include to identify and consult early with all entities that are candidates for collaboration, and to "develop schedules and milestones that accommodate and align [their processes] and major decision points with the NEPA process."

Determination of environmental impact significance. Survey responses identified "no clear delineation of impact significance" as the most important factor contributing to inadequate EAs, while "clarity and a defensible and logical significance determination" are associated with adequate

(continued on page 14)

¹ Ron Deverman; P.E. Hudson, Esq.; Karen Johnson, CEP; Ronald Lamb, CEP; Professor Daniel R. Mandelker; Stephen Pyle, Esq.; and Dr. Robert Senner. The team thanks Dr. Larry Canter, David Keys, CEP, and Paul Looney, CEP, for their significant planning of the survey and initial report.

What Didn't Work – And Making It Work Next Time: Keeping NEPA Documents on Schedule

By: Ralph Barr, Office of NEPA Policy and Compliance

This series highlights reasons why things “didn't work” in the NEPA process, and what can be done to avoid such problems in the future. In this issue, we discuss schedules – factors that inhibit timely completion of NEPA documents and how potential problems can be avoided.

In more than 50 comments over the past 4 years, Lessons Learned Questionnaire respondents identified many challenges to keeping NEPA documents on schedule. (Questionnaire responses appear at the end of each issue of *LLQR*.) These comments generally fall into six categories: scope changes, contractor management, consultation logistics, data collection and analysis, public participation, and review process. Below, we present examples of what didn't work well and tips to make it work better next time.

In a nutshell: Understand the project's data, staffing, and public participation needs before you set the schedule, and be ready for change.

Scope Changes

Why it didn't work:

- The scope was poorly defined at the start.
- Project descriptions, design, and priorities often changed, sometimes so much that re-scoping was needed.
- Initial project findings required new analysis, new data, or NEPA document revision.

Making it work:

- Ensure that the scope is clearly defined and realistically scheduled from the start; NEPA Document Managers should attend all project planning meetings.
- Build time into the initial schedule to allow for unforeseen changes.
- Establish a system for dealing with scope changes.
For example:
 - Sections of the NEPA document may require new data or analysis. Involve the document preparation team to identify changes and discuss opportunities to adjust workflow and schedules.

Contractor Management

Why it didn't work:

- Deliverables were late because contractor staff was insufficient or unavailable to complete the work on time.
- Deliverables had to be sent back for revisions because of quality assurance/quality control (QA/QC) issues.

Making it work:

- Avoid schedule slips by keeping the contractor informed of potential work interruptions, expedited deliverables, or scope changes. Most contractors assign staff to several contracts at a time, and may be unable to allocate necessary resources without advance notice. If kept informed, the contractor can ensure that the appropriate staff is available when needed.
- Include quality specifications for deliverables in NEPA related contracts. Discuss your QA/QC expectations with the contractor at the start of the process.

Consultations

Why it didn't work:

- Merging NEPA processes from different agencies slowed progress.
- Tribal consultation took longer than expected.

Making it work:

- Before preparing the schedule, discuss review processes with each agency requiring consultation during the preparation of the document as well as cooperating agencies, and determine how to accommodate their requirements in one master timeline.
- Discuss expectations for document review turnaround and seasonal staffing limitations (e.g., due to fire management). Consider memorializing these commitments and the timeline in an interagency document such as a memorandum or statement of understanding.
- Before preparing the schedule, consult with experienced NEPA Document Managers or your local tribal liaison to learn what local tribes expect from consultation and what processes have worked (or haven't) in the past. For example, determine whether government-to-government consultation has occurred on a one-on-one basis, or if Indian tribes are comfortable participating in meetings with other Indian tribes. Identify any tribe-specific procedural requirements that may extend the review timeline. For example, some Indian tribes require tribal council approval of agreements (e.g., Programmatic Agreements), which may add months to a project timeline.

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Schedules

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Data Collection and Analysis

Why it didn't work:

- The schedule did not realistically estimate the time needed to gather and analyze data.
- Problems with data-sharing logistics delayed analysis.

Making it work:

- Before preparing the schedule, identify the data that will be needed to complete the NEPA document and ask the people who will be providing, collecting, and analyzing data for realistic estimates of the amount of time they will need. If the project will require multistep analyses, include sufficient time in the schedule.
- At the start of the project, consider establishing a central data repository. This can let staff access data quickly, and may prevent delays and duplicate data collection or analysis.

Public Participation

Why it didn't work:

- Public meetings conflicted with regularly scheduled public forums or community activities, resulting in a reduced number of stakeholders in attendance.
- Unanticipated controversy resulted in an extension of the timeline to respond to stakeholder concerns.
- DOE didn't provide a layman's explanation of technical project details.

Making it work:

- Know your audience. Keep abreast of the local media, including publications and correspondence produced by special interest groups. Be aware of controversial issues and proposed alternatives – these may require extra steps in the process that should be included in the schedule.
- Consider workshops or poster sessions at public meetings and make technical experts available to answer questions from public.
- For tips on scheduling public involvement during the scoping process, see *LLQR*, December 2014, page 1.

Review Process

Why it didn't work:

- Internal review of the NEPA document took more time than expected.

- The poor quality of the initial NEPA document increased review time significantly.
- The NEPA document was delayed by management due to higher priority projects.

Making it work:

- Undertake a rigorous QA/QC process. Establish a revision control system and a comment response system to ensure the NEPA document is adequate. This will speed up the review and reduce the number of review comments you will have to respond to later.
- The NEPA Document Manager should review the NEPA document and determine if it is of sufficient quality before forwarding to program management and General Counsel (GC) staff for review.
- Meetings involving the document manager, document drafter(s), and reviewers to discuss reviewer comments, as well as planned revisions or other responses to those comments, will likely expedite resolution.
- Expect delays; your NEPA document is not the only one under review, and schedule changes, priorities, and management decisions may give other projects higher priority. Keep management and GC informed of your schedule throughout the NEPA process and especially prior to submitting a document for review. If you have the opportunity to submit a NEPA document for review earlier than expected, do so.

Keeping NEPA documents on schedule can be a challenge, particularly as the documents go through the review process. Providing advance notice to reviewers about upcoming requests for review and response would assist them in their workload planning; this, in turn, can help ensure their availability when needed.

***– Jeanie Loving
NEPA Compliance Officer
Office of Environmental Management***

Using these shared strategies can help make scheduling “work” for you in the NEPA process. Please contact Ralph Barr at ralph.barr@hq.doe.gov with suggestions for other scheduling strategies or topics for future articles in this series. 

Cooperating Agencies Contribute to Most DOE EISs

All five of the new EISs for which DOE issued a notice of intent in fiscal year (FY) 2014 are being prepared with cooperating agencies. Of the 31 ongoing EISs for which DOE is the lead or co-lead agency, 26 (84 percent) are being prepared with cooperating agencies. These are among the findings contained in DOE's latest Cooperating Agency Report to the Council on Environmental Quality (CEQ), submitted in February. DOE also reported that 5 of the 15 EAs that it completed during FY 2014 were prepared with cooperating agencies.

This annual report is part of CEQ's ongoing effort to encourage federal agencies to involve cooperating agencies – at the federal, state, local, and tribal government levels – in NEPA reviews. [CEQ guidance](#) identifies the benefits of involving cooperating agencies, including disclosure of relevant information early in the analytical process, access to technical expertise and staff support, avoidance of duplicative reviews, and establishing a mechanism for addressing inter- and intra-governmental issues.

In addition to involving other agencies in DOE's EISs and EAs, DOE participates as a cooperating agency in other agencies' NEPA reviews where DOE has jurisdiction or special expertise. At this time, DOE is a cooperating agency in 23 EISs and 7 EAs being prepared by the Bureau of Land Management, Bureau of Reclamation, Department of State, Federal Energy Regulatory Commission, Federal Highway Administration, and U.S. Forest Service.

Cooperating Agencies

A cooperating agency participates in the preparation of an EIS based on its jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action (or reasonable alternative) ([40 CFR 1508.5](#)). The responsibilities of a cooperating agency include participating in the NEPA process at the earliest possible time, participating in scoping, and – on request of the lead agency – assuming responsibility for developing information and preparing analyses for matters in which the cooperating agency has special expertise ([40 CFR 1501.6\(b\)](#)).

Responding to CEQ's question on improving future reporting, the Office of NEPA Policy and Compliance recommended that CEQ add a request for recommendations on how to work effectively with cooperating agencies.

If you have any tips or lessons learned from working with cooperating agencies, or for additional information on DOE's report, contact Yardena Mansoor at yardena.mansoor@hq.doe.gov. [LL](#)

Best Practice Principles for EAs

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EAs. The NAEP report's overall recommendation is that EAs should “document the use of [40 CFR 1508.27, the definition of significance in the CEQ NEPA regulations] to support their significance determinations.” “Clarity and logic are possible only if an agency uses a disciplined procedure, in which the important issues that determine significance are considered.”

Extent of public involvement. The survey responses indicated that public involvement is of high value to

an EA's adequacy. The NAEP report recommends that “agencies should use the elements of public involvement on a sliding scale,” potentially including scoping, public meetings, and providing public comment opportunity for a draft EA. The NAEP report recommends that “at a minimum, the agency must provide a notice of the availability to interested or affected parties and the public.” [LL](#)

EcoINFORMA Provides Web Access to Environmental Information



The U.S. Department of the Interior (DOI) announced the availability of [EcoINFORMA](#), in support of the Climate Data Initiative (a key feature of President Obama’s Climate Action Plan), in December. EcoINFORMA is “designed to facilitate assessments of the impact of climate change, pollution and other stressors on ecosystems, biodiversity and ecosystem services, as well as assessments of management responses to these stressors,” [explained DOI](#). (See text box on page 6 regarding a related web-based tool – the U.S. Climate Resilience Toolkit.)

The primary components of EcoINFORMA are its resource hubs. For example, [Biodiversity Information Serving Our Nation \(BISON\)](#), a web-based geographic information system (GIS) tool being developed by DOI’s U.S. Geological Survey (USGS), serves as EcoINFORMA’s [biodiversity resource hub](#).

BISON offers more than 209 million records of living species nationwide and is integrating millions more records from other sources each year, explains USGS on the BISON website. It provides records on the occurrence¹ of species within the United States and its territories. The records have been gathered from several hundred data providers, including federal agencies, universities, and non-profit organizations. BISON can help determine

whether a proposed project may be located near an occurrence of a species, including endangered and threatened species, and support modeling and analysis for a particular species considered in a NEPA document. BISON’s website notes that the absence of data for any species does not prove or indicate that the species is not present.

EcoINFORMA currently provides access to the biodiversity resource hub and two other resource hubs: ecosystem services and land cover dynamics. [EnviroAtlas](#), a web-based tool consisting of maps, graphs, and analysis tools, and information about ecosystem services for the contiguous United States, is the ecosystem services resource hub. [The Multi-Resolution Land Characteristics Consortium](#), which provides land cover information at the national scale for a variety of environmental, land management, and modeling applications, is the land cover dynamics resource hub. EcoINFORMA also includes a [map viewer](#) for visualizing and integrating geospatial data (from the EcoINFORMA resource hubs and a sampling of other spatial layers) and an [open data catalog](#) containing more than 230 datasets. Additional resource hubs are anticipated in the future. [L](#)[L](#)

CEQ NEPA Pilot Projects

(continued from page 10)

an EIS for the 4FRI, which seeks to restore fire adapted ecosystems in Arizona. CEQ reports that this is the largest project-level NEPA analysis ever undertaken by the Forest Service, covering about one million acres. According to the pilot project report, the Forest Service prepared an EA for the 7,000-acre Fivemile-Bell landscape management project in Oregon. “Though these projects differ dramatically in scale and scope, they share the common goal of forest restoration and employ innovative approaches to NEPA by fully engaging a suite of different stakeholders in the environmental review process,” CEQ concluded. CEQ recommends that agencies examine the best practices identified in the pilot project reports (appendices C and D of the [supporting documents](#)). CEQ also recommends that agencies use collaborative stakeholder groups for developing and monitoring project effects and mitigation effectiveness. [L](#)[L](#)



The Fivemile-Bell Landscape Management Project utilized early stakeholder involvement that will continue through implementation and mitigation monitoring. This helped diminish potential controversy and led to new strategies for solving problems. Source: Ecotrust

Transitions: Retiring NEPA Compliance Officers

Four long-serving NEPA Compliance Officers (NCOs) have recently or will soon retire from DOE: Drew Grainger, NCO for the Savannah River Operations Office; Gary Hartman, NCO for the Oak Ridge Office; Jeff Robbins, NCO for the National Nuclear Security Administration's (NNSA's) Albuquerque Complex; and David Caughey, NCO for NNSA's Kansas City Field Office. On behalf of the DOE NEPA Community, the Office of NEPA Policy and Compliance offers Drew, Gary, Jeff, and David best wishes for their future endeavors.

Valedictory from Drew Grainger, Savannah River Operations Office

Drew Grainger, NCO at the Savannah River Operations Office, is retiring March 31, 2015.

When Carol Borgstrom invited me to write a note for *LLQR* as I prepared to retire, I was happy to take the opportunity. I've been with DOE for 25 years, 20 as the NCO at the Savannah River Operations Office, serving both the Office of Environmental Management and the National Nuclear Security Administration. Before that I worked for a contractor where one of my first jobs was characterization of the proposed salt repository site in Deaf Smith County, Texas. That was before Congress figured out that Nevada, with only one vote in the House, was the ideal host for a waste repository. The rest, as they say, is ... unfortunate.

Before I get to a few brief lessons learned, just a couple of things about the NCO position. My first division director told me that in my position I should never read something in the paper (and he did mean an actual newspaper) about any project at Savannah River that I didn't already know about. I took this advice to heart. As NCO you have your fingers in everybody's business – certainly a great way to meet people, some of whom may not consider you their best friend, at least at first. But given that the penalty for doing a poor job on a NEPA review is an opportunity to do better the second time, they will come to realize that you really are there to help. As an NCO I have come to know and respect colleagues who are also there to help, in particular my counterparts in other DOE field offices.

Carol's office, by any name, has always been committed to helping the DOE NEPA community in every way imaginable. What other Office has ever issued "Dating Guidance"?¹

So, a few Lessons Learned. Remember, the exception proves the rule.

Trust but verify. An NCO has to be skeptical and questioning. Many NCOs, myself included, are not engineers. We have to ask many, many questions to understand the environmental implications of programs and projects. One particular engineer and mission development contractor taught me to translate.

Me: Rick, can we do that?

Rick: Of course we can.

Translation: With enough time and money we can build a ladder to the moon.

Me: Rick, have we ever done that before?

Rick: Yes, many times.

Translation: We have completed many projects that obey the laws of physics. This one will, too.

You have to ask a lot of questions for at least two reasons. First, without somewhat detailed knowledge of the program or project, you cannot provide good advice on the appropriate NEPA strategy. Second, the public is going to want to know about your program or project, not just about the NEPA process and the environmental analysis. In your role in preparing the NEPA document, you need to be able to convert project information into meaningful information for environmental analysis and public understanding.

NEPA carries the ball. The NEPA review is often the only vehicle that conveys to the public the available engineering, scientific, and policy information on a program or project. The NEPA review becomes the public face of the project, a situation I believe is at the root of many challenges that we NCOs face – contentious, unfocused public meetings, encyclopedic EISs (and jumbo EAs), and esoteric technical analysis that may not help differentiate among alternatives on the basis of potential environmental and human health impacts. This is especially the case when we undertake NEPA review at the right time, early in the planning process. Other agencies seem to be more open in regard to program and project information. DOE could improve its credibility by moving in that direction.

"NEPA decisions" very rarely are. They are program or project decisions. While the requirement for a record of decision is found in the CEQ NEPA regulations, it is clear that the intent was to have the "statement" accompany the project documentation on its trek to the decisionmaker,

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¹ The Office of NEPA Policy and Compliance issued Guidance on Dates for NEPA Documents (February 23, 1998) intended to standardize DOE's practice in assigning and referencing dates of NEPA documents.

Retiring NCOs

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with the record of decision to follow the agency's determination. The NEPA process is often blamed for holding up decisions, when in practice the reverse is true.

Don't be parochial. DOE is a large complex of specialized facilities staffed by some of the best scientists and engineers in the world. Your site may not always have the best experience or facility to carry out a particular new mission or to tweak or upgrade an existing mission. An alternative may be perfectly reasonable even if it can't be done by your organization. I believe certain programs have suffered from a belief on the part of a site's staff and contractors that a mission can and must be performed at their site. Get to know the DOE Complex, its missions and its capabilities. As a corollary, remember that every site tries to sell itself. Fall back on lesson #1: trust but verify.

Farewell to Gary Hartman, Oak Ridge Office

Gary Hartman, NCO at the Oak Ridge Office since 2005, is retiring on April 3, 2015, with 41 years of federal service. He worked for the Tennessee Valley Authority (TVA) for 15 years, then with DOE for the remainder of his career. He has been working in the NEPA compliance arena since 1979.

Gary's Parting Message

I have thoroughly enjoyed working with all of you in the DOE NEPA Community. I have been blessed to be able to work in a career that I actually love and believe in, and still maintain that NEPA is the best legislation ever written.

Some of the milestones of my career include:

- TVA's Raccoon Mountain Pumped-Storage Project (I met my wonderful wife there!)
- TVA's proposed Columbia Dam (My fiddling Uncle Clyde introduced me to Bluegrass music.)
- TVA's western uranium mineral rights program, including Edgemont Uranium Mill Decommissioning (and an all-night survey for the endangered Black-footed Ferret)
- Winter bird survey for an EIS for a proposed underground mine in northwest New Mexico (Getting paid to watch birds for a week – it just doesn't get much better than this!)
- TVA Nuclear Licensing and Browns Ferry Nuclear Plant (My daughter was born during this time, and the project was my springboard to DOE's Oak Ridge Office, Enriching Operations Division.)
- DOE's Formerly Utilized Sites Remedial Action Program (the best program I've ever been a part of)
- NEPA Document Manager for the Y-12 Site-Wide EIS (including public meetings with environmental activists in costume)

¹ Gary Hartman's entries into the DOE Earth Day Photo Contest won recognition in 2013 and 2014. He shared tips for success in *LLQR*, June 2014, page 12.

Tell the story. Clear writing is not dumbed down writing. It is writing that conveys information logically and accurately and fulfills the needs of your audience. In the NEPA world, former Deputy Assistant General Counsel Janine Sweeney put it best (*LLQR*, March 2002, page 15): "Every NEPA document must tell the story of how the need for agency action arose, what alternative means are available for addressing the problem, and what potential environmental impacts may result." We tend to concentrate on the data analysis. Unfortunately, accurate and sophisticated analysis is meaningless if it isn't put in the proper context. Without a clear story the analysis will convey neither meaningful information nor your message.

Thanks for listening. Keep smiling and remember public service is an honor.



- Completion of almost 1,000 NEPA reviews for the Energy Efficiency and Conservation Block Grant program (possibly the most stressful, painful, and rewarding project ever)
- Training, training, and more training (They keep trying to train me... what's up with that?)
- DOE Earth Day Photo Competition! (Is it open to retirees? ☺)

My recommendations are pretty straightforward: Eschew obfuscation, and enjoy your career. I have consistently stated "I love my job!" and I really mean that (most of the time). And don't lose sight of what is really important: faith, family, and friends.

I wish all of you the success, happiness, and job satisfaction that I have experienced. I am thankful that I have had the opportunity to work with the NEPA compliance programs at two federal agencies (TVA and DOE). DOE, in particular, has consistently made me feel needed and appreciated, and I am thankful that they gave me the opportunity to succeed. Many of you are aware of my interests in photography, birding, and music. I plan to continue all of these with vigor. Good luck and best wishes to you all! Can I be a stakeholder now?

More Farewells

Albuquerque: Jeff Robbins

Joseph (Jeff) Robbins recently retired, after serving with the Albuquerque Operations Office (now National Nuclear Security Administration, Albuquerque Complex) since 1991 and as its NCO since 1994. He also served at times as the NCO for the Amarillo Site Office at the Pantex Plant. Mr. Robbins was a regular contributor to NEPA rulemaking and guidance initiatives and a member of the team that established the second set of DOE-wide NEPA support contracts. He hosted the 1997 NCO meeting in Albuquerque and, at the May 2000 NCO meeting (celebrating the 10th anniversary of the establishment of NCOs), he led a session on managing the EA process.

Kansas City: David Caughey

David Caughey recently retired after serving since 1989 in various environment, safety, health, and operational positions at the National Nuclear Security Administration's Kansas City Field Office. He served as NCO from 1995 through 2005, and from 2009 through 2014. In 1995, as a member of the Environmental Assessment Process Improvement Team, he received a Secretary of Energy NEPA Team Award.

Transitions: New NEPA Compliance Officers

Office of Science, Fermi Site Office: Rick Hersemann

Rick Hersemann has been designated NCO for the Fermi Site Office (FSO), which oversees the Fermi National Accelerator Laboratory (Fermilab) located in Batavia, Illinois. Mr. Hersemann joined FSO in January 2010 as the NEPA Coordinator assisting the NCO for the Office of Science, Chicago Office. He also serves as Fermilab's Environmental Manager. Mr. Hersemann has 35 years of experience as a project manager and environmental scientist for the U.S. Environmental Protection Agency and as an environmental consultant. He earned a Bachelor of Science in Physical Geography/Geology and has extensive continuing education and training in NEPA compliance and environmental regulations. He can be reached at rick.hersemann@science.doe.gov or 630-840-4122.



Office of Science, Integrated Support Center: Jim Elmore, Katatra Vasquez

James (Jim) Elmore has been designated NCO for the Office of Science Integrated Support Center at the Oak Ridge Operations Office. (The Integrated Support Center, comprised of the combined capabilities of the Chicago and Oak Ridge Offices, provides administrative, business, and technical services to support Office of Science site offices and national laboratories.) Dr. Elmore earned a PhD in Ecology from the University of South Florida and in 1980 began his environmental career in the Environmental Sciences Division at the Oak Ridge National Laboratory. After serving for several years as a NEPA contractor to the Oak Ridge Operations Office, he joined DOE in 1991, and a year later was designated as alternate NCO. He also serves as the Integrated Support Center's Endangered Species and Floodplain/Wetland Coordinator. For the Oak Ridge Reservation, he has served as the Environmental Monitoring Program Coordinator, Wildlife Management Coordinator (for deer and turkey hunts, migratory bird efforts, and other wildlife issues), and a member of the Management Team. In his spare time, Jim enjoys powerlifting, orchid growing, and maintaining a 135-gallon coral reef aquarium. He can be reached at james.elmore@science.doe.gov or 865-576-0938.



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New NCOs

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Katatra Vasquez has been designated as the alternate NCO for the Integrated Support Center, and also serves as its Historic Preservation and Environmental Justice Coordinator. She joined the Oak Ridge Operations Office in 2000, after earning a Bachelor of Science in Environmental Science/Natural Resource Management from Tuskegee University. Since then, she has provided subject matter expertise on several high-level projects across the DOE Complex and has served as the Black Employment Program Manager, Operational Experience and Lessons Learned Coordinator, Equal Employment Opportunity Counselor, and Annual Site Environmental Report Coordinator. (In the summer of 2003, as part of the DOE Technical Intern Program, Katatra spent the summer on a rotational assignment with the Office of NEPA Policy and Compliance. Her reflections on that experience are found in *LLQR*, [December 2003](#), page 14.) She can be reached at katatra.vasquez@science.doe.gov or 865-576-0835.



Dr. Elmore and Ms. Vasquez have also been designated, respectively, as NCO and alternate NCO for the Nuclear Energy Oak Ridge Site Office, the Thomas Jefferson Site Office in Newport News, Virginia, and the Berkeley Site Office.

Transitions: New Staff in the NEPA Office

The Office of NEPA Policy and Compliance welcomed two Environmental Protection Specialists to its staff in January.

Bill Ostrum

Bill Ostrum came to the NEPA Office from the Federal Highway Administration's (FHWA's) Office of Project Development and Environmental Review. At FHWA headquarters, Bill worked on NEPA analysis for major transportation projects, and efforts aimed at streamlining FHWA's environmental review process. He also led development of eNEPA (FHWA's online project development and collaboration tool) and managed a national Every Day Counts initiative team to promote use of this and other environmental tools among state departments of transportation and resource agencies. Bill received his bachelor's degree from the College of William and Mary and his master's degree in Environmental Resource Policy from the George Washington University.



Under the NEPA Office's Science/Nuclear Unit, Bill will serve as the lead on defense and nuclear issues at Y-12 and the Savannah River Site, in addition to working on the Final Supplemental Environmental Impact Statement for Tritium Production. Bill can be reached at william.ostrum@hq.doe.gov or 202-586-4149.

Emily Orler

Prior to joining the NEPA Office, Emily Orler spent almost 5 years with the U.S. Department of Agriculture, Rural Utilities Service (RUS) as an Environmental Protection Specialist. During her time at RUS, Emily managed the NEPA and Section 106 of the National Historic Preservation Act (NHPA) review of thousands of electric and telecommunications infrastructure projects providing affordable and reliable service to rural America. She led the environmental staff's information technology and process improvement initiatives, and contributed to interagency working groups. Emily was also detailed for six months to the U.S. Department of the Interior, Bureau of Land Management to work on interagency transmission permitting efficiency efforts. Emily received her bachelor's degree in Political Science and Environmental Studies from Tulane University. She will begin pursuing her Juris Doctor part-time at Georgetown University Law Center in the fall.

Under the Science/Nuclear Unit, Emily will serve as the lead for Lawrence Livermore National Laboratory and the Nevada National Security Site. She will also provide support reviewing transmission line projects. Emily can be reached at emily.orler@hq.doe.gov or 202-586-4239.

Training Opportunities

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Climate Change/Climate Justice 2015 Environmental Justice Conference



“Enhancing Communities Through Capacity Building and Technology Assistance” is the theme of the 2015 National Environmental Justice Conference and Training Program, a 3-day event sponsored jointly by DOE, other federal agencies, the Howard University School of Law, and private industry partners. The conference, which is free to government employees, community organizations, students, and faculty, will be held in Washington, DC, on March 11–13.

Congressman James Clyburn and Dr. Jonathan Pershing, Principal Deputy Director of DOE’s Office of Energy Policy and Systems Analysis, will present keynote addresses. Melinda Downing, DOE Environmental Justice Program Manager, will present opening and closing remarks, and Denise Freeman, Office of NEPA Policy and Compliance, will participate in a workshop on leveraging NEPA for environmental justice advancement.

Other agenda sessions of potential interest to the NEPA community will cover environmental justice methodologies in NEPA reviews, an overview of climate change and federal government response, and engaging nontraditional partners. Additional information, including an agenda, is available on the [conference website](#).

National Association of Environmental Professionals 2015 Conference



The National Association of Environmental Professionals (NAEP) will host its 40th annual conference April 13–16 in Honolulu, with the theme *Mauka to Makai: Environmental Stewardship from the Mountains to the Sea*. Co-hosted by the NAEP Hawaii Chapter, the conference will offer sessions on NEPA regulatory developments, guidance, litigation outcomes, public involvement, and analytical techniques. The NEPA sessions will feature practitioners showcasing diverse case studies.

Two training workshops are offered on April 13. One workshop is an introduction to NEPA fundamentals (to attain a working knowledge of NEPA regulations, legal interpretations, and typical federal agency practices). The other covers topics of importance to environmental career development.

Registration is open to environmental professionals in all levels of government, academia, and the private sector. Discounts are offered to speakers and government employees. Registration information and the advance program are available on the [NAEP website](#).

U.S. Institute for Environmental Conflict Resolution Offers NEPA-Related Training



The U.S. Institute for Environmental Conflict Resolution is offering a course in Spring 2015 that may be of interest to DOE’s NEPA Community. *Collaboration in NEPA*, scheduled for May 5–6 in Arlington, Virginia, is an intermediate course on effective integration of collaboration into environmental planning and review under NEPA. This training is based on CEQ’s *Collaboration in NEPA: A Handbook for NEPA Practitioners*. Registration information is available on the Institute’s [website](#).

The Institute, an independent federal agency established by Congress in 1998, provides services, including training, to assist parties in resolving environmental, public lands, and natural resource conflicts that involve federal agencies or interests.

EAs and EISs Completed October 1 to December 31, 2014

EAs¹

Bonneville Power Administration

DOE/EA-1946 (11/25/14)

Salem-Albany Transmission Line Rebuild Project, Polk, Benton, Marion, and Linn Counties, Oregon

Cost: \$197,000

Time: 26 months

Office of Energy Efficiency and Renewable Energy

DOE/EA-1991 (10/22/14)

10 CFR 433, "Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings" and 10 CFR 435 "Energy Efficiency Standards for the Design and Construction of New Federal Low-Rise Residential Buildings"

Cost: \$10,000

Time: 53 months

Office of Fossil Energy

DOE/EA-1942 (11/5/14)

Cove Point Liquefaction Project, Lusby, Maryland
EA was adopted; therefore cost and time data are not applicable to DOE. [Federal Energy Regulatory Commission (FERC) was the lead agency; DOE was a cooperating agency.]

Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1968 (12/11/14)

Site-Wide Environmental Assessment, U.S. Department of Energy National Renewable Energy Laboratory South Table Mountain Campus, Golden, Colorado

Cost: \$195,000

Time: 35 months

Western Area Power Administration

DOE/EA-1611-S1 (12/15/14)

Supplemental Environmental Assessment, Request for Modification of Interconnection Agreement for the Colorado Highlands Wind Project, Logan County, Colorado

The cost for this supplemental EA was paid by the applicant; therefore, cost data are not applicable to DOE.

Time: 9 months

DOE/EA-1966 (10/7/14)

Sunflower Wind Project, Morton and Stark Counties, North Dakota

The cost for this EA was paid by the applicant; therefore, cost data are not applicable to DOE.

Time: 16 months

EISs

Office of Fossil Energy

DOE/EIS-0487 (79 FR 61303, 10/10/14)

(Draft EIS EPA Rating: EC-2)

Freeport LNG Liquefaction Project, Brazoria County, Texas

EIS was adopted; therefore cost and time data are not applicable to DOE. [FERC was the lead agency; DOE was a cooperating agency.]

Western Area Power Administration

DOE/EIS-0478 (79 FR 72677, 12/8/14)

(Draft EIS EPA Rating: EC-2)

Antelope Valley Station to Neset Transmission Project, Mercer, Dunn, Billings, Williams, McKenzie, and Mountrail Counties, North Dakota

EIS was adopted; therefore cost and time data are not applicable to DOE. [Rural Utilities Service was the lead agency; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for the preparation of 3 EAs for which cost data were applicable was \$195,000; the average was \$134,000.
- For this quarter, the median completion time for 5 EAs for which time data were applicable was 26 months; the average was 28 months.
- Cumulatively, for the 12 months that ended December 31, 2014, the median cost for the preparation of 15 EAs for which cost data were applicable was \$197,000; the average was \$598,000.
- Cumulatively, for the 12 months that ended December 31, 2014, the median completion time for 20 EAs for which time data were applicable was 19 months; the average was 24 months.

EIS Cost and Completion Times

- There were no EISs completed during this quarter for which cost or time data were applicable.
- Cumulatively, for the 12 months that ended December 31, 2014, the cost for the preparation of 1 EIS for which cost data were applicable was \$1,980,000.
- Cumulatively, for the 12 months that ended December 31, 2014, the median and average completion times for 2 EISs for which time data were applicable were 42 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Good meetings.* The public scoping meetings had good attendance, facilitated interaction with interested parties, and were very productive.
- *Early involvement of subject matter experts.* Several subject matter experts were identified early and were involved in the NEPA scoping process to ensure that all potential activities, improvements, and projects and proposed actions for the site were identified.
- *Comments addressed.* Scoping comments were received from several agencies and local governments, as well as a local nonprofit organization. All scoping comments were considered and addressed during preparation of the EA.

What Didn't Work

- *Changing proposed action.* The EA's proposed action experienced several revisions and required several reviews. Since the EA was a site-wide document covering all proposed activities, improvements, and projects anticipated over the next five to ten years, it took longer than expected to determine the proposed action and to articulate a proper purpose and need.

Data Collection/Analysis

What Worked

- *Use of sliding-scale.* As a site-wide document, no resource area was excluded from analysis in the EA. A sliding-scale approach was used to determine the level of detail and analyses for each resource area.
- *Most data readily available.* The various resource impact analyses presented in the EA were mostly supported by existing and readily available data sets, surveys, and studies such as avian and bat mortality studies, wildlife surveys, wetlands assessments, and water usage. New studies were initiated as needed to collect other data.

What Didn't Work

- *Design changes.* Project design changes were not always distributed to all EA team members in a timely manner which sometimes made needed data collection for new potentially impacted areas challenging.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Regular team meetings.* Regular team meetings to keep staff aware of schedules and document status facilitated timely completion of the EA.
- *Good communication.* Weekly communication between the project manager and the NEPA Document Manager facilitated timely completion of the EA.
- *Weekly status meetings.* Weekly status meetings throughout the EA process with the EA contractor and DOE kept the project moving forward and tracked completed tasks, action items, due dates, issues, and discussion points.
- *Schedule management.* The NEPA Document Manager was responsible for setting and driving the schedule, and the EA contractor was responsible for updating the schedule. This proved to be effective schedule management.
- *Realistic schedule.* Monthly communication among program, Headquarters, and contractor staff to ensure a realistic schedule facilitated timely completion of the EA.

Factors that Inhibited Timely Completion of Documents

- *Tribal consultations.* The completion of consultations with multiple Indian tribes took longer than anticipated.
- *Programmatic agreement.* The National Historic Preservation Act Section 106 process led to the

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

establishment of a programmatic agreement. However, the agreement was not finalized within the original schedule.

- *Staff support.* The same personnel supported the preparation of the EA and the Section 106 process. Because the Section 106 process was more complicated than anticipated, resources were limited for the development of other parts needed for the completion of the EA.
- *Coordinating with other agencies.* Coordinating with other agencies, all of whom had a vested interest in the project and the outcome of the NEPA process, was challenging. Since each agency had its specific goals and ideas about the NEPA process and the project itself, coming to consensus on decisions took significant effort.

Teamwork

Factors that Facilitated Effective Teamwork

- *Contractor authority.* Contractor staff were given the authority to contact other team members independently. Not having to use DOE staff to obtain approval for contact or gain access to information facilitated quicker response times and enhanced communication among the team members.
- *Good NEPA Document Manager coordination.* The NEPA Document Manager had regular and clear communication with the project's EA preparation team and addressed issue resolution as needed during the EA process.
- *Subject matter experts.* Several DOE personnel and subject matter experts were identified early and involved throughout the NEPA process to ensure that all topics were addressed properly. This contributed to the success of keeping the EA on schedule.

Factors that Inhibited Effective Teamwork

- *Contractor availability.* Contractor personnel's location off-site and out of state inhibited team communication and hampered their ability to be fully versed in site operations.

Process

Successful Aspects of the Public Participation Process

- *Public comments.* Public comments received on the draft EA were clear and consideration of them enhanced the final document.
- *Public concern.* Many people expressed concern regarding how the proposed project would impact their property. These comments were addressed in the final EA.
- *Response to public comments.* The NEPA Document Manager responded quickly to the local nongovernmental organization's scoping comments to ensure that they understood the NEPA process and also kept them updated on the EA progress.
- *Positive public comment.* A positive comment was received from a local governmental organization on our sensible approach and public outreach during the EA process.

Unsuccessful Aspects of the Public Participation Process

- *Low public meeting attendance.* Despite extra efforts to advertise the informational meeting, we had low attendance. Given the extensive outreach to the public, we attribute the low attendance to either a lack of controversy or no interest in the proposed action.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Plan development.* The EA process supported the development of an access road plan that minimizes impacts to wetlands and other resources and also provides potential support to future projects in the area.
- *Informed decision.* The EA process helped the decisionmakers understand positive and negative impacts to various resources by the proposed action

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

components, therefore helping them make an informed decision.

- *Future NEPA support.* The EA process helped decisionmakers understand the value of a site-wide document to analyze reasonably foreseeable activities and projects at the site, provide a foundation to tier from, and streamline future NEPA analyses for potential activities, improvements, and projects at the site.

Enhancement/Protection of the Environment

- *Property protection.* Cultural and historic properties were set aside for protection as a result of NEPA and the Section 106 processes.
- *Mitigation of environmental impacts.* Conservation and mitigation measures were developed during the EA process to address any adverse impacts to natural resources.
- *Protection of environment.* The EA lists several committed measures to avoid, minimize, or mitigate environmental impacts during potential activities and operations at the site.

Other Issues

Guidance Needs Identified

- *Property transfers.* Additional guidance is needed regarding the applicability of categorical exclusions versus the need to prepare EAs for property transfers.

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 3 EA questionnaire responses were received, 2 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “4” stated that the NEPA process allowed the decisionmakers to make an informed decision regarding the proposed action.
- A respondent who rated the process as “3” stated that the NEPA process was for a rebuild project that was greatly needed. There was not really another decision to be made. The NEPA process did identify impacts to resources that had to be addressed/mitigated.
- A respondent who rated the process as “1” stated that the project’s decision was political and mostly made outside of the NEPA process.

LESSONS LEARNED

What Didn't Work – And Making It Work Next Time: Data Collection and Sharing

By: Ralph Barr, Office of NEPA Policy and Compliance

This series highlights reasons why things “didn’t work” in the NEPA process, and what can be done to avoid such problems in the future. In this issue, we discuss data collection and sharing – how they can affect NEPA document schedules and how potential problems can be avoided.

Lessons Learned Questionnaire respondents have identified data collection and sharing as potential stumbling blocks in making data analysis work. (Questionnaire responses appear at the end of each issue of *LLQR*.) Below, we present examples of what didn’t work well and tips for making it work better next time.

In a nutshell: Plan early to identify data needs, and use a central data repository to share and manage data.

Collecting Data

Why it didn't work:

Several factors can delay initial data collection or require extra rounds:

- *Changes in project plans* – When project plans change, the data needed for NEPA analysis may also change. If data have already been collected when plans change in response to scoping or final design review, a second round of data collection may be needed to obtain the new data.
- *Delays in getting permission to collect data* – Many NEPA projects require collection of data on public and private land. This process can be slowed if there are delays or omissions in identifying the region of influence, land ownership, or contact information needed to determine the availability of existing data

or to obtain permissions to access land to collect new data.

- *Time required to obtain high-quality data* – Collecting good data can become a lengthy process due to poor communication with contractors about project needs or delays within the contractor’s organization. This can add unanticipated time to a project schedule if a contractor does not request the correct data in a timely manner or there are delays on DOE’s end.
- *Analysts not given timely or full access to data* – Lapses in communication, administrative backlogs, or disputes about interagency and inter-office data sharing can cause delays if they result in analysts not receiving full access to needed data in a timely manner.
- *Subject-matter experts unavailable to collect data* – For specialized topics, data collection may depend on in-demand subject matter experts (DOE or contractors) who need to be scheduled months in advance.

Making it work:

- *Create a Data Collection Plan.*

A Data Collection Plan is a valuable management tool for data analysis that can also help identify poor project design early in the process. An effective plan includes:

1. The NEPA schedule. Keep in mind schedule drivers and requirements, including those associated with DOE Order 413.3B ([DOE O 413.3B](#)), “Program and Project Management for the Acquisition of Capital Assets,” for capital asset projects having a Total Project Cost greater than or equal to \$50 million.

(continued on page 7)

Inside Lessons Learned

Welcome to the 83rd quarterly report on lessons learned in the NEPA process. This issue features recommendations for improving data collection and sharing - another in a series analyzing challenges reported in *LLQR*. Other articles cover the new Executive Order on planning for federal sustainability, the Quadrennial Energy Review on transforming energy infrastructure, the NEPA Office's Earth Day activities, and a retrospective by a NEPA Compliance Officer who has served since DOE established the position 25 years ago. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom

Director
Office of NEPA Policy and Compliance

Printed on recycled paper



Be Part of Lessons Learned

We Welcome Your Contributions to *LLQR*

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by July 17, 2015, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due August 3, 2015

For NEPA documents completed April 1 through June 30, 2015, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than August 3. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Training Opportunities

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Call for NAEP 2016 Conference Abstracts and Environmental Awards Nominations

The National Association of Environmental Professionals (NAEP) seeks abstracts for individual speakers, panels, and posters to be presented at its 41st annual conference, which will be held April 11–14, 2016, in Chicago and hosted by the Illinois Association of Environmental Professionals. With the theme of *Charting the Next 40 Years of Environmental Stewardship*, the conference will cover NEPA and related subjects, and is open to environmental professionals in all levels of government, academia, and the private sector. The call for abstracts is available on the [NAEP website](#); abstracts are due via the website by September 30, 2015. Questions may be directed to Rona Spelleccy at NAEP2016@hdrinc.com.

NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. The nomination form and submittal deadline will be made available on the NAEP website; questions may be directed to Abby Murray at NAEP2@naep.org. See article on the 2015 NEPA Excellence Award, page 8.



25 Years as a NEPA Compliance Officer

By: Raj Sharma, Office of Nuclear Energy

The DOE NEPA Compliance Officer (NCO) position, required in each “headquarters office with NEPA responsibilities and in each operations office,” was instituted through a Secretary of Energy Notice (SEN 15-90) issued by Admiral James D. Watkins on February 5, 1990. Dr. Rajendra Sharma has served as the NCO for the Office of Nuclear Energy continuously since 1990. He is “the survivor” of DOE’s pioneer class of NCOs.

The Secretary of Energy sent a wake-up call in early 1990 to rank-and-file staff and senior managers on DOE’s faltering compliance with NEPA. SEN-15-90 set forth practices to better comply with the letter and spirit of the law. It laid the responsibility directly at the top – with the Program Secretarial Officers and the Operations Office Managers. The notice outlined specific revisions to the DOE NEPA Order and DOE NEPA guidelines, and directed that the revised NEPA guidelines were to be reissued, after public comment, as regulations. If you are not familiar with [SEN-15-90](#), I suggest you take a look at it now. It will give you a historical perspective and better understanding of the origin of some of the procedures we now follow.



The Secretarial Officers, suddenly under the NEPA spotlight, scrambled to understand the requirements of SEN-15-90. As a first step, they sought qualified individuals to appoint as NEPA Compliance Officers. I transferred from the Office of Civilian Radioactive Waste Management to the Office of Nuclear Energy (NE) on March 7, 1990. On the basis of having prepared several commercial reactor and uranium mill EISs, I was appointed NE’s NCO, probably the first NCO appointed by any Secretarial Officer. I confess that I had not yet read SEN-15-90 and had no idea what I was getting into.

Now, reflecting on my 25 years as NCO, I must say that it was mostly enjoyable (despite a few tense moments) and sometimes exciting. I had the privilege of working closely with several dedicated NCOs, including two fellow alumni of Utah State. I worked on some EISs that were completed in record time, some that were canceled after scoping meetings, some that were published as drafts but never finalized, and some that were withdrawn and incorporated into a comprehensive programmatic EIS. (I also worked on an EIS where, after all the sound and fury of urgency, action was not undertaken after a record of decision was published.) Please allow me to share some of my observations and opinions.

Complex-wide NCOs. Establishing an NCO system was an excellent idea. We do not have to hunt for a NEPA contact at another office – just call the NCO. We speak

the same language and communicate efficiently to find responsible officials or additional information. We know the status of NEPA compliance in our programs and sites, and when issues resurface after some hiatus, we know the history. Extremely useful!

Management Responsibilities and the Annual NEPA Planning Summary.

Before 1990, most Secretarial Officers did not pay much attention to the NEPA process. SEN 15-90 changed that, but the pendulum swung too far and their responsibilities became overwhelming. Even a categorical exclusion (CX)

determination had to be signed by the Secretarial Officer. Given the backlog, I processed for NE-1 signature more than 600 CX determinations for NE activities at Idaho, Oak Ridge, Hanford, Paducah, Portsmouth, and other sites, until – in 1995 – authority to make CX determinations was assigned to program and field office NCOs. The requirement for an Annual NEPA Planning Summary now provides the right balance because it gives Secretarial Officers an annual overview of NEPA activities in their programs and sites. Excellent idea!

Support Contractors and NEPA Document Quality. The caliber of a technical support contractor is crucial in NEPA document preparation. As much as possible, the initial draft must be done right the first time. The authors and team leader should prepare a high-quality draft with little need for changes. Relying on GC’s NEPA staff review for editing and error correction wastes time and resources. DOE should strive for considerable improvement in this area.

Scope of NEPA Review. A NEPA Document Manager, with the NCO’s help, should manage the scope of a NEPA review. Excessive expansion of scope results in a voluminous NEPA document of questionable relevance; this may even spell doom for the document. The “sliding-scale” principle should be applied to keep the focus on the analysis of potential environmental impacts, not encyclopedic descriptions of insignificant details.

Length of NEPA Documents. We need to do a better job of controlling the length of DOE NEPA documents, despite their typical complexity. Creating more appendices does

(continued on page 15)

Executive Order 13693: Planning for Federal Sustainability in the Next Decade

Recognizing the federal leadership role in reducing greenhouse gas (GHG) emissions and promoting sustainability, President Obama signed Executive Order (E.O.) 13693, *Planning for Federal Sustainability in the Next Decade*, on March 19, 2015. Among other things, E.O. 13693 revokes E.O. 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (2009), which set some specific sustainability goals, but asked federal agencies to establish their own GHG reduction targets.

The E.O. states that there is an opportunity for the federal government to reduce GHGs by up to 40 percent. Each agency head is required to propose specific, agency-wide reduction targets to reduce GHG emissions by fiscal year 2025 (from a 2008 baseline). In addition, the E.O. sets other energy and waste reduction goals that it says will result in more efficient operations across the government. According to the [White House](#), the reduced energy use and costs from implementing the E.O. will save taxpayers up to \$18 billion in avoided energy costs between 2008 and 2025.

Reducing Energy Use and Cost

DOE has addressed climate change in NEPA documents since the 1980s (*LLQR*, [December 2007](#), page 1). However, DOE's NEPA analyses have not generally examined specific sustainability targets. The E.O. provides concrete goals for reductions in resource use, targeting 12 areas of sustainability, including building efficiency, waste reduction, and reduced energy consumption. Federal agencies are to develop and implement an agency-wide strategic process to meet the goals of the E.O. These goals can be incorporated into alternatives analysis during the NEPA process, if appropriate.

The E.O. sets targeted goals for reducing energy and resource use. By 2025, each agency shall reduce:



Solar panels on the roof of DOE's Forrestal Building in Washington, DC. Photo: DOE

- Potable water consumption per square foot of building space by 36 percent (from 2007 baseline),
- Fleet-wide per-mile GHG emissions by 30 percent (from 2014 baseline), and
- Building energy intensity (British Thermal Units per gross square foot) by 2.5 percent annually (from 2015 baseline).

While the E.O. prioritizes reducing energy use, it also notes the role of renewable or alternative energy solutions in meeting sustainability goals and establishes specific goals for increasing the use of clean energy. The E.O. notes that achieving these goals will improve energy and water security while ensuring federal facilities can continue to meet mission requirements.

- By 2020, all new building plans over 5,000 square feet shall be designed to achieve energy net-zero (annual energy consumption is balanced by on-site renewable energy).
- By 2025, 25 percent of building electric and thermal energy shall come from clean energy sources.
- By 2025, 30 percent of building electric energy shall be from renewable energy sources.
- By 2025, zero emission or plug in hybrid vehicles shall account for 50 percent of new agency passenger vehicles.

To achieve these government-wide emission reductions and sustainability goals, the E.O. sets a number of short-term milestones. The E.O. directs CEQ to release guidance on implementing the E.O., to be followed by updated "Guiding Principles" for federal buildings, and revised guidance on water efficiency, GHG accounting, and sustainable building and landscaping practices.

Federal Leadership

Under E.O. 13514, DOE established a Sustainability Performance Office, and has, as of 2013, cut the Department's emissions by more than [34 percent relative to the 2008 baseline](#).

"As the Federal leader in energy efficiency, renewable energy and clean energy research and development, DOE has both a unique opportunity and a clear responsibility to lead by example and integrate sustainability into all aspects of our operations," said John Shonder, Director of the Department's Sustainability Performance Office. "The new Executive Order provides a framework for us to carry out that responsibility over the next decade and beyond." According to the E.O., federal agencies can "drive national GHG reductions" while "fostering innovation, reducing spending, and strengthening the communities in which our Federal facilities operate."

DOE Introduces NEPAnode to Federal NEPA Contacts

DOE's Office of NEPA Policy and Compliance hosted the Council on Environmental Quality (CEQ) Federal NEPA contacts meeting on May 14, 2015. The meeting featured a presentation by NEPA Office staff on **NEPAnode**, a web application for collaborating on data, maps, and projects for non-GIS experts. "We invite federal agencies to use NEPAnode to help prepare and review NEPA documents," said John Jediny, NEPAnode lead project manager.

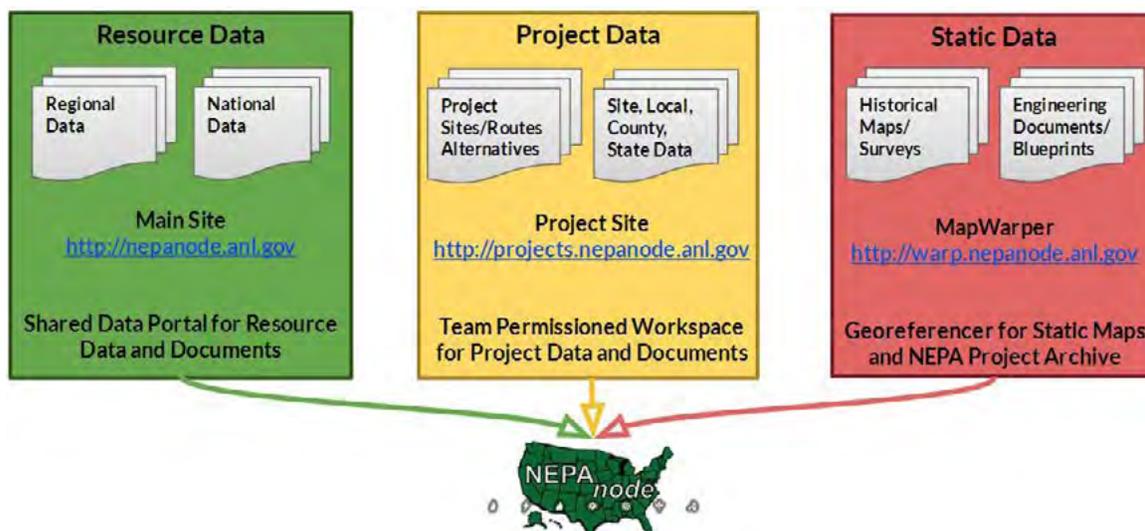
Mr. Jediny highlighted new features of NEPAnode. He introduced the new **projects site** as a workspace where NEPA project teams can upload project-specific information to be combined with the many data collections from the NEPAnode main site. He also highlighted the **MapWarper tool**, which allows users to create data layers from images (e.g., scanned maps, figures from engineering studies and planning documents). Finally, he described the new **GeoJSON editor**, which allows users to create a presentation or blog-like map to which data can be added and displayed using any of three methods:

1. Streaming live data from either the NEPAnode main site or project site.

2. Uploading data directly using various file formats.
3. Creating new layers from scratch (i.e., points, lines, polygons, and their attributes). "This can be used to quickly annotate a project review or create a web map for public and stakeholder outreach, among other uses," Mr. Jediny said.

Brad Mehaffy, NEPAnode project manager, demonstrated some of the practical applications of NEPAnode. "I'm still new to GIS but use NEPAnode regularly to review EISs. I've found it to be a valuable tool," said Mr. Mehaffy. He provided an overview of available base maps and layers included in the new projects site, as well as the ability to edit and document project information.

Mr. Jediny and Mr. Mehaffy encouraged members of the NEPA community throughout the federal government to use NEPAnode and recommend further enhancements. They can be reached at john.jediny@hq.doe.gov and bradley.mehaffy@hq.doe.gov. For more information about NEPAnode, see *LLQR*, September 2014, page 13, and March 2014, page 3. 



NEPAnode has three sites in which NEPA practitioners can upload, view, analyze, and collaborate on data, documents, and projects.

Earth Day 2015 Emphasizes Collaboration and Mitigation

DOE Headquarters observed Earth Day 2015 with almost two full weeks of activities, including displays, workshops, collection of electronics for recycling, a photo contest, and an environmental film series. *Working Together to Reduce Our Environmental Footprint*, this year's Earth Day theme, emphasized two concepts: collaboration to achieve more significant improvements, and mitigation of environmental effects by avoiding, minimizing, rectifying, reducing, or compensating for adverse impacts.

The celebration culminated in a Community Day, held outdoors on a windy April 22. Led by DOE's Office of Environment, Health, Safety and Security, participants included DOE program and field offices, other federal agencies, local elementary schools, and the public. The display and demonstration of electric and alternative fuel vehicles was a popular exhibit.

The Office of NEPA Policy and Compliance display provided information on mitigation under NEPA. The NEPA Office display, staffed by Ralph Barr, Denise Freeman, Emily Orlor, and Lettie Wormley, invited viewers to provide examples (written on paper footprints) of how they could mitigate their personal environmental impacts. In a vote by area elementary school students, the NEPA Office earned two first place awards – for providing good information and being the most interactive. 



"Your conservation efforts save tropical rainforests and me" was the title of Ralph Barr's photo contest entry. This tree snail, *Caracolus caracolla*, one of the 34 species of snails found in El Yunque National (rain) Forest, Puerto Rico, can live for 10 years.

How some viewers of the NEPA Office display would reduce their environmental footprints:

- Don't take long showers
- Reuse water bottles
- Buy local produce from local vendors
- Carpool more often
- Compost using worms
- Don't leave the water running when shaving or brushing teeth
- Use reusable containers (instead of plastic bags) for lunch

Then there's also this way to reduce your footprint:

- Buy small shoes



Data Collection and Sharing

(continued from page 1)

2. Internal milestones, including:
 - Estimated timeframe for completion
 - Data needed to complete each milestone
 - Identify activities, e.g., preparation of a resource report
 - Determine parameters of data set
 - Identify data needs and sources and issue data requests (data calls)
 - Estimate time to collect, analyze, and prepare deliverable
 - Develop contingency plan to address incomplete data sets, unavailability of data, and data inaccuracy
 - Technical expertise and methodology needed for:
 - Data collection
 - Analysis
 - Document preparation
 - Implementation of quality assurance requirements
 - Reviews
3. Contingency plans for delays or lack of funding.
4. Contractor “buy in” with the schedule, with risks and workaround scenarios identified; contractor deliverables clearly defined and agreed upon.

A successful NEPA document is dependent on the timely receipt and quality of data supporting conclusions of the document.

***– Jack Zanger, NEPA Compliance Officer,
National Nuclear Security Administration
Production Office, Pantex Plant***

- *Expect and plan for changing data needs.*

Many of DOE’s projects are unique – for a one-of-a-kind facility or action – and project plans and designs may change during the course of a NEPA review. For example, data needs for NEPA documentation may change when preliminary designs are finalized, additional alternatives are identified in scoping, more current data become available, or the schedule slips at the programmatic level. Accommodating these changes efficiently is a key to maintaining schedule control. Have contingency plans in place that address the time and resources needed for additional data collection.

Sharing Data

Why it didn’t work:

LLQR respondents report that lack of a central data repository for a project can cause the following problems:

- *Ineffective sharing of information among project team members* – Lack of a central repository can inhibit easy access to data for the whole team, making it harder to share information at crucial steps in the analysis.
- *Difficulty managing large volume of data* – The management and organization of extensive data collections make their accessibility to all team members a challenge.

Making it work:

- Collecting, sharing, and analyzing data for NEPA documents can be a major task. A variety of file-sharing tools are available, including some that provide for simultaneous editing of documents. These can facilitate work, especially among teams that are geographically dispersed. ([NEPAnode](#) (related article on page 5) provides project teams with a common space to permission and share data and documents used in the NEPA process.)

Project Funding Uncertainties

Why it didn’t work:

Insufficient or delayed project funding can put data collection on hold and delay data sharing among team members.

Making it work:

While NEPA document managers have little control over funding issues, budgets, and contracting, the Data Collection Plan can allow for contingencies, within reason. As part of the planning process, build flexibility into the project schedule to accommodate delays caused by gaps in funding, and develop a central data repository to store project data if it needs to be put on hold temporarily. As funding issues are resolved, the project team should verify and validate the data to ensure that the data are current and complete, and augmented as necessary. Always keep in mind, a successful NEPA document is built on a solid foundation of defensible data and analyses.

Using these shared strategies can help make data collection and analysis “work” for you in the NEPA process. Please contact Ralph Barr at ralph.barr@hq.doe.gov with suggestions for other data collection strategies or topics for future articles in this series. 

Landscape Restoration and Stewardship EIS Earns NEPA Excellence Award from NAEP

The 2015 NEPA Excellence Award, presented annually by the National Association of Environmental Professionals (NAEP), recognizes the [2014 Landscape Restoration and Stewardship Plan EIS](#) for the Valles Caldera National Preserve in north central New Mexico. In the award citation, NAEP noted that the entire NEPA process and the resulting EIS were especially inclusive and reader friendly. NAEP identified systematic collaboration and adaptive management as strengths that improved decisionmaking.

The plan establishes a restoration and stewardship decisionmaking process for natural and cultural resources in an 89,000-acre volcanic caldera located 18 miles west of Los Alamos. The Valles Caldera contains hot springs, streams, fumaroles (vapor vents), natural gas seeps, and volcanic domes. As a privately owned working ranch for over 150 years, Valles Caldera was intensively logged and grazed, which significantly degraded its forest, grassland, and riparian (river and stream) natural systems.

In 2000, the Preserve was acquired as a unit of the National Forest System under the management of the Valles Caldera Trust, which prepared the EIS. Administration of the Preserve was transferred in December 2014 to the National Park Service.

Accessible, Collaborative NEPA Process; Reader-friendly EIS

Particular effort was devoted to making the NEPA process accessible to the public. “The EIS was very easy to read and understand and models clear explanation of the importance of NEPA in the development of a natural resources management plan. The EIS also did a very good job in describing how the public was brought into the land management process,” stated the NAEP Awards Committee in its citation.

In developing the Landscape Restoration and Stewardship Plan and the EIS, the Valles Caldera Trust conducted a collaborative consultation process with the Santa Fe National Forest, the New Mexico Forest and Watershed

Why do we need to take action here and now?

[T]he preserve’s ecosystems are completely out of whack! The structure (age and size) of our forests is most noticeably out of whack. Currently, the natural systems of the preserve cannot respond and adapt to current risks and threats, especially high-severity wildfire (along with post-fire flooding and erosion . . .), but also forest pests and disease.

Final EIS Summary

Restoration Institute, the Pueblo of Jemez, The Nature Conservancy, Forest Guild, and WildEarth Guardians. A strategic planning workshop brought them together with additional local, state, and federal governmental organizations (including DOE’s Los Alamos National Laboratory), tribes, and nongovernmental organizations.

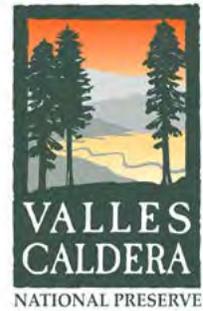
The workshop began with a collaborative assessment of the current “ecological departure” (i.e., degraded conditions). “Because no one actually uses terms like ‘ecological departure’ in normal conversation, we began to say ‘out of whack,’” reports Dr. Marie Rodriguez, Director of Stewardship, Valles Caldera National Preserve. “Adopting this term was the icebreaker that got scientists and citizens talking comfortably,” she said.

The workshop outcomes – early drafts of the proposed action, purpose and need, and alternatives – were made available to the public, along with [2012 State of the Preserve](#), which included information from the affected environment chapter of the EIS. Early distribution of EIS sections and preparation of an “easy to read” summary were intended to facilitate public review of the EIS, explained Dr. Rodriguez. “The collaboration is continuing,” she said, “as implementation and monitoring is being performed with the same organizations that participated in the workshop along with many citizen volunteers.”

Adaptive Management: A Framework for Resiliency

The Landscape Restoration and Stewardship Plan is based on the adaptive management approach of systematically monitoring the environmental outcomes of actions, comparing them to specific environmental objectives, and modifying the actions as appropriate. (See [LLQR, December 2002](#), page 8.)

The **goal** of the Stewardship Plan is to improve the resilience and adaptive capacity of the Preserve’s natural systems, protect people and resources from destructive wildfire, and rehabilitate areas impacted by wildfire. “Resiliency,” in the plan and EIS, means the ability of a system to remain within or return to its natural path of growth and development (“succession”) in the event of disturbances such as fire, insects, disease, severe climatic events, and changing climate.



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Award

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The Stewardship Plan's 10-year **objectives** include moving the preserve's natural systems towards the "reference condition," a state that to the best of the collective knowledge is known to be sustainable and resilient under current and expected regimes of climate change and natural disturbances.

The **record of decision** selects a collaborative restoration strategy. This strategy integrates restoration and management actions, such as forest thinning, reintroduction of fire as a beneficial natural disturbance, and wetland restoration. Restoration actions can be mixed and matched, and implemented at various intensities. The National Park Service is now considering funding the plan as part of its new **Resilient Lands and Waters Initiative**.

Additional information is available from Marie Rodriguez at stewardship@vallescaldera.gov. 



A firefighter ignites a prescribed burn to restore grassland resilience. Photo: Kristen Honig, Professional Wildland Fire Photographer (all rights reserved)



The Preserve is now a unit of the National Park System. Photo: Rourke McDermott, Landscape Architect, Valles Caldera National Preserve

EJ Conference Spotlights Climate Change

By Denise Freeman, Office of NEPA Policy and Compliance

Climate Change and Climate Justice was the theme of the March 2015 National Environmental Justice Conference and Training Program (NEJC), held in Washington, DC. A diverse group of more than 500 participants – representing federal and state agencies, local governments, tribes, community groups, businesses, and academia – shared best practices and continuing challenges in addressing America’s environmental justice (EJ) concerns, that is, disproportionately high and adverse impacts to low-income and minority populations.

On opening day, a Youth and Emerging Leaders’ Summit was held in recognition of the growing role of young people in the EJ movement. On day two, Environmental Protection Agency Administrator Gina McCarthy and DOE’s Dr. Jonathan Pershing, Principal Deputy Director, Office of Energy Policy and Systems Analysis, served as keynote speakers.

Energy Impacts on EJ Communities

In his keynote address, *Climate Change: Energy and Community Impacts*, Dr. Pershing explained that climate change will have “major consequences for the energy arena” and is “likely to disproportionately affect poor and minority communities.” He stated further that the emissions that drive climate change are centered largely in the energy arena and, therefore, so are the solutions to the problem. He cited the Intergovernmental Panel on Climate Change, Fifth Assessment Report, Working Group II, *Summary for Policymakers*, which states, “People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially



Dr. Pershing, Principal Deputy Director, Office of Energy Policy and Systems Analysis at DOE, discussed the relationship between EJ and the Quadrennial Energy Review (related article, page 12). He highlighted EJ analyses in NEPA reviews and “robust public engagement” in the siting, permitting, and review process.

vulnerable to climate change and also to some adaptation and mitigation responses.” (See *LLQR*, December 2013, page 8.)

As an example, Dr. Pershing discussed the \$65 billion in damages and economic loss caused by Hurricane Sandy in 2012, including 650,000 homes damaged or destroyed. Of New York and New Jersey registrants for Federal Emergency Management Agency assistance, 43 percent were renters, and of them, about two-thirds were identified as low-income. He also noted that a warming climate will likely increase electricity demand, and would increase electric sector vulnerability.

Congressman Jim Clyburn (D-SC) provided his perspective on EJ in a video message. “Environmental policies . . . must be fair and balanced in their approach,” he said, and “must foster the protection of human health and the environment and ensure environmental justice while promoting economic development.”

Incorporating EJ Analysis into the NEPA Process

As part of the conference, a cross-agency workshop, *Leveraging [NEPA] for Environmental Justice Advancement*, examined a hypothetical case study on identifying scoping opportunities, potential impacts, EJ

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NEPA and EJ: Meaningful Public Engagement

During the NEPA process it is essential to engage potentially affected EJ communities early and often, and as appropriate – when defining the affected environment, identifying potentially affected EJ communities, assessing potential impacts to EJ communities, assessing potential alternatives, determining whether potential impacts to EJ communities are disproportionately high and adverse, and developing mitigation and monitoring measures.

Mitigation can increase transparency and promote the involvement of the potentially affected communities. The scoping process can be used to guide mitigation needs and recommendations. This feedback process ensures that agencies develop and maintain an open relationship with potentially affected communities throughout the NEPA process.

Transitions: New NCO

NNSA: John Weckerle

John Weckerle has been designated an NCO for the National Nuclear Security Administration (NNSA). He is a hydrogeologist by training, with 28 years of experience in NEPA, environmental restoration, and related subjects. Mr. Weckerle began working as a consultant for DOE in 1991, preparing DOE NEPA documents and supporting other NEPA compliance activities. He joined the NNSA Sandia Field Office in 2011 as a NEPA specialist, and, prior to his designation as NCO, served as the NEPA Document Manager for the Site-wide EIS for Ongoing Operations at Sandia National Laboratories, Albuquerque, New Mexico (DOE/EIS-0466). Mr. Weckerle can be reached at john.weckerle@nnsa.doe.gov or 505-845-6026.



EJ Conference

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communities, disproportionately high and adverse impacts, and mitigation. Workshop presentations emphasized ways that EJ issues can be addressed throughout the NEPA process. For example, the scoping process can identify potentially impacted low-income and minority communities and promote transparency; mitigation can reduce the potential impacts to EJ communities and promote better and more informed decisionmaking. Denise Freeman, DOE Office of NEPA Policy and Compliance, made the presentations on scoping and mitigation.

The final day of the conference included *The Impact of Social Determinants on Health Disparities, Pure Water, Clean Air and a Healthy Environment . . . for the Generations*. This video presentation explored the significant impacts of poverty on health, which in turn

affects quality of life. “While most Americans recognize the role good health plays in their quality of life, many fail to seek quality of life as a precursor to good health. Poverty, location, the water we drink, the food we eat, the air we breathe, access to health care, educational attainment, racism. These and other social determinants affect our health. So much so that zip code is often a better predictor of future health than genetic code. Place matters.” (National Educational Telecommunications Association)

The 2016 NEJC will be held March 9–12 in Washington, DC, jointly with the 9th Annual National Conference on Health Disparities. The theme will be *A National Dialogue for Building Healthy Communities*. Additional information is available on the [NEJC website](#). 

NEPA Committee on EJ Celebrates Progress

On March 30, 2015, members of the cross-agency NEPA Committee on EJ, part of the Federal Interagency Working Group on EJ, met to celebrate the progress it has made since its launch in 2012. The NEPA Committee’s purpose is to improve consideration of EJ in the NEPA process, share promising practices and lessons learned, and provide training.

The committee recently published an *EJ and NEPA Agency Resource Compendium*, prepared with EPA’s Office of Environmental Justice. Key references from the compendium are also available on [EPA’s NEPA Webpage](#).

The committee is now working to complete *Promising Practices for EJ Methodologies in NEPA Review*, a training product, a lexicon of NEPA and EJ terms, and a 3-year action plan.

Quadrennial Energy Review's First Installment Focuses on Transforming Energy Infrastructure

The NEPA Process could play an important role in DOE efforts to modernize energy transmission, storage, and distribution (TS&D) infrastructure, as envisioned in the first installment of the Quadrennial Energy Review (QER), issued April 21, 2015.

“Well informed and forward-looking decisions . . . can enable substantial new economic, consumer service, climate protection, and system reliability benefits. Good decisions . . . can also provide flexibility in taking advantage of new opportunities to achieve our national energy objectives.” This thought, from the QER’s “Summary for Policymakers,” echoes a statement of NEPA’s purpose from the Council on Environmental Quality regulations: “it is not better documents but better decisions that count.” (40 CFR 1500.1(c))

The purpose of the QER, as expressed in a [Presidential Memorandum](#) (January 9, 2014), is to help ensure that federal energy policy is appropriately matched to the nation’s economic, security, and climate goals. The Memorandum established an interagency task force, under DOE management and with its analytical support, to conduct this “first-ever” comprehensive review of energy infrastructure.

Responding to direction in the President’s [Climate Action Plan](#), the QER identifies the threats, risks, and opportunities for U.S. energy and climate security. The outcome is designed to enable the federal government to translate policy goals into a set of analytically based, clearly articulated actions and proposed investments over a 4-year planning horizon.

The [first QER installment](#) (report) proposes policies and investments to “replace, expand, and modernize infrastructure to promote economic competitiveness, energy security, and environmental responsibility.” Future (approximately annual) installments will focus on resource extraction and processing, energy transport and storage, electricity generation, and energy end-use.

NEPA’s Role Recognized in QER

The report’s [discussion of environmental aspects](#) explicitly recognizes NEPA’s role in modernization planning. “Some of the most common land-use and ecosystem impacts . . . are analyzed as part of the environmental and historic preservation review processes for energy infrastructure siting. They include those effects most often considered in the context of [NEPA] and its framework for assessing environmental impacts before a Federal agency decides whether to fund, conduct, permit, or otherwise approve proposed TS&D infrastructure. In its analysis, the permitting agency must consider mitigation requirements

that may be imposed as conditions for unavoidable environmental harms.”

The report outlines environmental effects to consider in planning TS&D infrastructure projects, such as impacts to ecosystem resources, environmental justice, seismicity, visual resources, and aviation. It notes that impacts are associated with all stages of a project, and that cumulative impacts should be assessed.

The report characterizes greenhouse gas emissions for each energy TS&D system and makes mitigation recommendations. For natural gas, for example, approaches for reducing carbon dioxide (CO₂) and methane emissions are ranked by cost efficiency (cost per metric ton CO₂ equivalent) and total emissions abatement potential is calculated. Cost-effective options for reducing methane emissions from the natural gas system include changing operations and maintenance practices, increasing leak detection and repair, and upgrading equipment.

The report notes, “Policies are needed to ensure that private companies can recover costs of such investments to improve safety and reduce emissions. In addition, while a number of actions may not have net benefits when only accounting for the monetary value of conserved gas, some of these can be cost effective if the climate change and safety benefits are taken into account. To achieve these societal benefits, there is an important role for government – often in partnership with industry – to advance new technologies and encourage investments.”

Among the recommendations on environmental issues (text box, next page), the report recommends that DOE should work with other federal agencies to improve data and analysis on environmental characteristics and impacts of TS&D infrastructure.

Infrastructure Siting and Permitting

The QER makes recommendations to address an “urgent” need to improve the siting, permitting and review of infrastructure projects, especially where the involvement of multiple jurisdictions, often with overlapping and conflicting statutory responsibilities, can lead to inefficiencies and delay.

The report identifies a “[pre-application](#)” process as a way to achieve more efficient permitting. Under a pre-application process, an applicant provides information and analysis at the outset to reduce the risk that the permitting review will be delayed by missing, incomplete, or inaccurate information. The process also may establish communication with relevant regulators and

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Quadriennial Energy Review

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stakeholders in the early stages of proposal development to identify their issues, and can help an applicant avoid environmentally sensitive areas.

The report cites DOE's 2013 work on a [proposed Integrated Interagency Pre-Application Process](#) and notes that DOE is piloting a pre-application process for the proposed [Great Northern Transmission Line](#), for which a draft EIS is being prepared.

The report recommends expanding online project tracking, for example through the [Federal Infrastructure Project Permitting Dashboard](#). Also, it identifies information technology tools already available for use by agencies and public stakeholders, including DOE's [NEPAnode](#), a geospatial and document management system. (See related article on page 5 and *LLQR*, [September 2014](#), page 11.)

Electric Grid Partnerships Announced

The QER rollout was accompanied by the President's announcement of two executive actions to modernize and enhance the resilience of the electric grid. The new Partnership for Energy Sector Climate Resilience will address extreme weather and climate change impacts. The Partnership will begin with DOE convening the chief executive officers of the major domestic providers of electricity services. In addition, the U.S. Department of Agriculture will provide loans to support [six new rural electric infrastructure projects](#), including major investments in solar energy and smart grid projects.

Additional information is available at <http://www.energy.gov/epsa/quadrennial-energy-review-qer>. 

FINDINGS IN BRIEF: Addressing Environmental Aspects of TS&D Infrastructure

- TS&D infrastructure can serve as a key enabler for – or barrier to – better environmental outcomes.
- TS&D infrastructure contributes a relatively small share of total air and water pollution from the energy sector.
- Energy infrastructure can have direct, indirect, and cumulative land-use and ecological impacts.
- Energy transport, refining, and processing infrastructure contribute to emissions of criteria air pollutants that pose risks to public health and the environment.
- Transportation of crude oil by pipeline, rail, and waterborne vessels has safety and environmental impacts.
- The United States currently has a network of more than 4,500 miles of CO₂ transportation pipelines that can be a critical component of a low-carbon future.

RECOMMENDATIONS IN BRIEF: Addressing Environmental Aspects of TS&D Infrastructure

- Improve quantification of emissions from natural gas TS&D infrastructure.
- Expand research and development (R&D) programs at DOE on cost-effective technologies to detect and reduce losses from natural gas TS&D systems.
- Invest in R&D to lower the cost of continuous emissions monitoring equipment.
- Support funding to reduce diesel emissions.
- Collaborate on R&D on the beneficial use and/or disposal of dredging material.
- Improve environmental data collection, analysis, and coordination.
- Work with states to promote best practices for regulating and siting CO₂ pipelines.
- Enact financial incentives for the construction of CO₂ pipeline networks.
- Enhance TS&D resilience to a variety of threats, including climate change and extreme weather.
- Enhance natural gas safety, efficiency, and lower emissions by reducing natural gas leakage and improving the efficiency and safety of the natural gas infrastructure.
- Accelerate current development of uniform methods for measuring energy savings.
- Partner with the Arctic Council on Arctic energy safety, reliability, and environmental protection.

EAs and EISs Completed January 1 to March 31, 2015

EAs¹

Bonneville Power Administration

[DOE/EA-1994](#) (2/5/15)

Jordan/Malheur Resource Area Jonesboro Diversion Dam Replacement Project, Malheur County, Oregon
EA was adopted; therefore cost and time data are not applicable to DOE. [The Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

Rocky Mountain Oilfield Testing Center/ Office of Fossil Energy

[DOE/EA-1956](#) (1/29/15)

Site-Wide Environmental Assessment for the Divestiture of Rocky Mountain Oilfield Testing Center and Naval Petroleum Reserve No. 3, Natrona County, Wyoming
Cost: \$165,000
Time: 31 months

Western Area Power Administration

[DOE/EA-1972](#)² (3/13/15)

Electric District 2 to Saguaro No. 2 Transmission Line Rebuild, Pinal County, Arizona
Cost: \$217,000
Time: 16 months

[DOE/EA-2002](#) (3/30/15)

Right-of-Way Application for the Tucson-Apache 115-kV Transmission Line, Pima County, Arizona
This EA was prepared in-house; therefore, contractor cost is not applicable.
Time: 4 months

EISs

Bonneville Power Administration

[DOE/EIS-0451](#) (80 FR 3588, 1/23/15)

(Draft EIS EPA Rating: EC-2)
Hooper Springs Transmission Project, Caribou County, Idaho
Cost: \$1,470,000
Time: 55 months

Western Area Power Administration

[DOE/EIS-0485](#) (80 FR 2414, 1/16/15)

(Draft EIS EPA Rating: EC-2)
Interconnection of the Grande Prairie Wind Farm, Holt County, Nebraska
The cost for this EIS was paid by the applicant; therefore cost information does not apply to DOE.
Time: 34 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections
EC – Environmental Concerns
EO – Environmental Objections
EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate
Category 2 – Insufficient Information
Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² No FONSI has been issued.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median and average costs for the preparation of 2 EAs for which cost data were applicable were \$191,000.
- For this quarter, the median completion time for 3 EAs for which time data were applicable was 16 months; the average was 17 months.
- Cumulatively, for the 12 months that ended March 31, 2015, the median cost for the preparation of 11 EAs for which cost data were applicable was \$195,000; the average was \$673,000.
- Cumulatively, for the 12 months that ended March 31, 2015, the median completion time for 17 EAs for which time data were applicable was 19 months; the average was 23 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$1,470,000.
- For this quarter, the median and average completion times for 2 EISs for which time data were applicable were 44 months.
- Cumulatively, for the 12 months that ended March 31, 2015, the cost for the preparation of 1 EIS for which cost data were applicable was \$1,470,000.
- Cumulatively, for the 12 months that ended March 31, 2015, the median completion time for 3 EISs for which time data were applicable was 50 months; the average was 46 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

25 Years as an NCO

(continued from page 3)

not reduce EIS length because appendices are still part of the EIS and may need the same level of review as the chapters. A bulky EIS translates to more production time, errors, review time, and printing cost – but less usefulness to decisionmakers and the public.

Senior Management Mandate. It is an excellent idea for the Secretarial Officer to emphasize the importance of a particular EIS at the initial start-up meeting with all the key players. If the EIS needs inter-programmatic coordination and input from other sites, depending on the importance of the EIS, consider getting the mandate from an even higher level.

Over the past 25 years, the DOE NEPA Community has met and may have exceeded the expectations set forth in SEN 15-90. Let us focus not only on documentation (NEPA Section 102(2)(c)), but also on the reason for undertaking it, as laid out in Section 101(b). It has been an exciting journey and I am quite certain that we will continue to evolve.

In this article, Raj has offered valuable insights and useful recommendations regarding the role of NCOs. We appreciate his many contributions to the DOE NEPA compliance program. LL

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Preparation of a case study for the project.* The program staff prepared a detailed case study for the proposed project that explained the purpose and need, described alternatives, and provided a conceptual level project description and high-level schedule. Most of the information in this case study was used in the preparation of the EA.
- *Good NEPA Document Manager.* The NEPA Document Manager identified the proposed project, responsibilities, and proposed schedule in the EA Determination Memo. This detail saved time by helping the EA contractor and NEPA team understand the project.
- *Comments addressed.* Scoping comments were received from several agencies. All scoping comments were considered and addressed during preparation of the EA.

What Didn't Work

- *NEPA approach changed.* The EA's proposed action was initially incorporated in a programmatic EIS, but changed to a stand-alone EA because the programmatic EIS was taking too long.

Data Collection/Analysis

What Worked

- *Use of available data.* The NEPA Document Manager obtained data from the regional security manager's staff to support the analysis of intentional destructive acts.
- *Most data readily available.* The various resource impact analyses presented in the EA were mostly supported by existing and readily available data.

What Didn't Work

- *Delayed field work.* The state land managing agency took a long time to issue a right-of-entry for areas adjacent to the proposed project's right-of-way, which delayed biological and cultural field work.
- *Large program area.* The programmatic EIS covered a large geographical area and required data that were not always available.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Weekly conference calls.* Weekly conference calls kept everyone aware of EIS schedules and progress.
- *Regular team meetings.* Regular team meetings to keep staff aware of schedules and document status facilitated timely completion of the EA.
- *Good communication.* Weekly communication between the project manager and the NEPA Document Manager on the EA facilitated timely completion of the EA.
- *Weekly status meetings.* Weekly status meetings with the EA contractor and DOE kept the project moving forward and tracked completed tasks, action items, due dates, issues, and discussion points.
- *Realistic schedule.* Monthly communication among program, Headquarters, and contractor staff to ensure a realistic schedule facilitated timely completion of the EA.

Factors that Inhibited Timely Completion of Documents

- *Long Section 106 consultation process.* The National Historic Preservation Act (NHPA) Section 106 process was longer than anticipated due to consultations with many Indian tribes.

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Programmatic agreement.* The NHPA Section 106 process led to the establishment of a programmatic agreement. However, the agreement was not finalized within the original schedule.
- *Coordinating with other agencies.* Coordinating with other agencies was challenging. Since each agency had its specific goals and ideas about the NEPA process and the program itself, coming to consensus on decisions took longer than anticipated.
- *Schedule delay.* The completion of this EA was delayed while awaiting a biological opinion which was later incorporated into the document.
- *Route changes.* There were changes to alternative routes for the proposed action based on public and local government interest in the project.

Teamwork

Factors that Facilitated Effective Teamwork

- *Adherence to schedule.* Adherence to the EA schedule proposed by the contractor and approved by the DOE team was the single most important tool in facilitating teamwork.
- *Good working relationships.* The good working relationship, among the many persons and multiple agencies involved in the preparation of this programmatic EIS, facilitated timely completion of the document.
- *Good communication.* Good communication among EA team members facilitated timely completion of the document.
- *Responsive team members.* All core project team members were responsive and available throughout the EA process.
- *Cooperating agency participation.* Cooperating agencies participated in preparing scoping materials, attended the scoping meeting, reviewed documents, and were effective team members.

Factors that Inhibited Effective Teamwork

- *Coordination with the regional historic preservation officer.* The preservation officer did not think that NEPA and NHPA Section 106 processes should be integrated. Therefore, the NEPA decision document

was delayed because the Section 106 process was not completed in a timely manner.

- *Terminology disagreement.* A NEPA team member thought that a term should be removed from the EA, even though the word was being used correctly and was defined in the approach to impact analysis. This person's persistence disrupted the team, required several people to review DOE EA guidance material, and took several meetings to resolve.

Process

Successful Aspects of the Public Participation Process

- *Clear public comments.* Public comments received on the draft EA were clear and consideration of them enhanced the final document.
- *Explanation to public.* The public participation process provided an opportunity for DOE to explain the project and the EA process to the public.
- *Tiered off current EIS.* The public participation process was tiered off an EIS for a larger process that included the project area for this EA.
- *Positive tribal support.* Tribal members were in favor of completing the proposed project, which was located entirely on tribal land.

Unsuccessful Aspects of the Public Participation Process

- *Participation of tribal government representatives.* The public scoping meeting was not successful in part because the regional historic preservation officer refused to contact tribal governmental representatives and invite them to the public scoping meeting or to set up a separate government-to-government scoping meeting.
- *Lack of public comments.* Federal and state agencies provided comments during the NEPA process, but local residents did not.
- *Staff participation.* Halfway through an open-house-style public meeting, several NEPA team members left because they were bored when no one showed up.

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Plan development.* The EA process caused the project designer to work collaboratively with the NEPA team to minimize the number of new structures located within sensitive resources.
- *Informed decision.* The EA process helped the decisionmakers understand positive and negative impacts to various resources by the proposed action, therefore helping them make an informed decision.

Enhancement/Protection of the Environment

- *Conservation measures.* Cultural and historic properties were set aside for protection as a result of NEPA and the NHPA Section 106 processes.
- *Mitigation of environmental impacts.* Conservation and mitigation measures were developed during the EIS process to address potential adverse impacts to natural resources.
- *Protection of environment.* The resource protection measures listed in the EA were added to the construction contract, which should result in environmental impacts being avoided or minimized.
- *Endangered Species Act.* The environment was protected in part due to the conservation measures detailed in the EA's biological assessment due to compliance with the Endangered Species Act.

Other Issues

Guidance Needs Identified

- *Property transfers.* Additional guidance is needed regarding the applicability of categorical exclusions versus the need to prepare EAs for property transfers.
- *Qualitative vs. quantitative analysis.* More guidance is needed on the appropriateness of using qualitative vs. quantitative analysis when preparing EAs.
- *Integrating NEPA and NHPA Section 106.* More guidance is needed on integrating NEPA and NHPA Section 106 processes. A policy statement encouraging cooperation and integration would be helpful. [*Note to reader: NEPA and NHPA: A Handbook for Integrating*

NEPA and Section 106, jointly prepared by the Council on Environmental Quality and the Advisory Council on Historic Preservation, provides advice to federal agencies, applicants, project sponsors, and consultants on how to take advantage of existing regulatory provisions to align the NEPA process and the NHPA Section 106 review process.]

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 4 EA and 2 EIS questionnaire responses were received, 5 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “5” stated that the NEPA process allowed the developer to avoid or minimize environmental impacts that were disclosed in the EA.
- A respondent who rated the process as “5” stated that the NEPA process facilitated the implementation of reasonable and prudent measures to minimize the take of listed species.
- A respondent who rated the process as “5” stated that the NEPA process assessed impacts to environmental resources and those who live in the project area.
- A respondent who rated the process as “3” stated that even though the proposed project was not categorically excluded, the EA did not add any real value.
- A respondent who rated the process as “3” stated that program staff were unprepared to make decisions at the end of the EA process because the NHPA Section 106 process had not been completed.
- A respondent who rated the process as “2” stated that the EA was for the renewal and expansion of an existing project which could have occurred using a categorical exclusion. However, because the proposed action included an expansion, an EA was prepared. No new environmental impacts were identified.

LESSONS LEARNED

September 1, 2015; Issue No. 84

Third Quarter FY 2015

Programmatic EIS Posed Many Challenges, Offers Immediate and Lasting Benefits

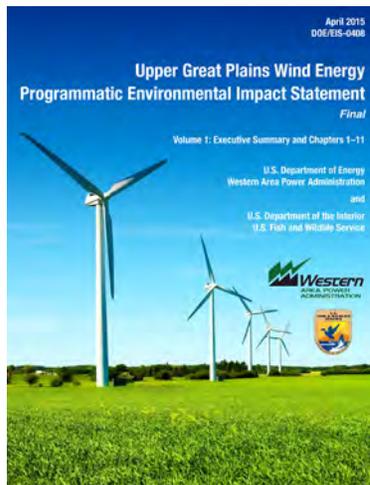
By: Matt Marsh, Mark Wieringa, and Micah Reuber, Western Area Power Administration

Programmatic consideration of environmental impacts and mitigation is a pathway to streamlining NEPA review. The proposals in this example share a common technology (wind energy), geographic scope (upper Midwestern states), and federal action (permitting the interconnection of a new electricity generating facility to the transmission system owned and operated by Western Area Power Administration). The joint lead agencies persisted in addressing many challenges, completed a programmatic EIS (PEIS), and found that it is yielding immediate efficiencies in tiered project-level reviews.

The Upper Great Plains (UGP) area, including all or parts of Iowa, Minnesota, Montana, North Dakota and South Dakota, has a high potential for wind energy development because of widespread strong winds. To address environmental concerns associated with such development, Western Area Power Administration (Western) and the U.S. Fish and Wildlife Service (USFWS) used a programmatic EIS to streamline the NEPA review process and implement cost effective mitigation strategies.

As joint lead agencies, Western and the USFWS prepared the *Upper Great Plains Wind Energy Programmatic Environmental Impact Statement (DOE/EIS-0408; April 2015)* to

- (1) Assess the potential environmental impacts associated with wind energy projects that may interconnect to Western’s transmission system or that may include placement of facilities on grassland or wetland easements managed by the USFWS within the UGP Region; and
- (2) Evaluate how environmental impacts would differ under alternative sets of environmental evaluation procedures, best management practices (BMPs) and



mitigation measures that the agencies could request project developers to implement.

Although the geographic scale of the analysis, the different objectives of the joint lead agencies, and the large number of individuals involved in the preparation and review of the document presented coordination and communication challenges, the PEIS – albeit 7 years in the making – is viewed as a worthwhile effort and valuable reference.

Lessons Learned: What Went Well

Preparation of the PEIS went very well during the planning stage (Summer 2008) and throughout the public scoping period (Fall 2008). Western received only positive comments on the project with the most common comment being, “Hurry up and get your PEIS for wind energy done so we [the wind developers and Western customers] can start using it.”

After delving into writing the PEIS, Western and the USFWS decided it would be best to also prepare a programmatic biological assessment (programmatic BA). Information for 28 species of concern was gathered and

(continued on page 5)

Inside Lessons Learned

Welcome to the 84th quarterly report on lessons learned in the NEPA process. This issue features lessons learned regarding a major programmatic EIS, communication in the NEPA process, administrative record guidance, and our summer interns. In addition, we bid farewell to two outstanding NEPA professionals. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borqstrom

Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by October 16, 2015, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due November 2, 2015

For NEPA documents completed July 1 through September 30, 2015, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than November 2. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue of *LLQR* is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

DOE-wide NEPA Support Services Solicitation Open for Offers on GSA eBuy

DOE's National Nuclear Security Administration (NNSA) recently issued a Request for Quotation (RFQ) for DOE-wide NEPA support services – the preparation of NEPA documents and other environmental documents, as well as support for other activities within the NEPA process. These could include support for preparing floodplain and wetland assessments, and meeting obligations under the National Historic Preservation Act and the Endangered Species Act. The scope is similar to that of the DOE-wide NEPA support contracts that expired in the summer of 2014.

NNSA is conducting the acquisition and will administer the anticipated multiple-award blanket purchase agreements that, like the earlier contracts, will be available for use by all of DOE, including NNSA and the Federal Energy Regulatory Commission. RFQ 1002217, available on the General Services Administration (GSA) [eBuy website](#), will close on October 7, 2015. Questions from DOE staff may be addressed to the DOE Office of NEPA Policy and Compliance; questions about the solicitation from interested GSA vendors should be submitted in accordance with the instructions annotated within the RFQ on eBuy. 

What Didn't Work – And Making It Work Next Time: Communication Among Preparers, Reviewers, and Public

By: Ralph Barr, Office of NEPA Policy and Compliance

This series highlights reasons why things “didn’t work” in the NEPA process, and what can be done to avoid such problems in the future. In this issue, we discuss communication – how it can affect working within the NEPA project team (DOE managers and staff, contractors, and cooperating agencies) and with the public.

Lessons Learned Questionnaire respondents have identified good communication as key to a successful NEPA process. (Questionnaire responses appear at the end of each issue of *LLQR*.) Respondents also have pointed to examples where poor communication among DOE management and staff, agencies, contractors, and the public became an obstacle to preparing a timely, cost-effective document.

In a nutshell: Plan communication the same way you plan other parts of the NEPA process. Make sure that everyone understands all steps in the process.

DOE Staff and Contractor Coordination

Why it didn't work:

- Lack of agreement among DOE and contractor staff on project processes and appropriate terminology negatively affected document preparation time.
- Project design changes were not always distributed to all team members, resulting in challenging data collection efforts and increased costs.
- The offsite location of the contractor inhibited face-to-face team communication and hampered the contractor's ability to be fully versed in site operations.

Making it work:

- Create a communications plan.

Most, if not all, of the communication problems raised in questionnaire responses can be addressed through one of the most important documents prepared for a project: a communications plan. This plan, a companion to the project management plan, establishes

the communications roadmap for the project. It provides:

- The categories of information that need to be distributed
- To whom information needs to go, and when
- Responsibilities of team members in implementing the plan, and
- Confidence that the team is working as a well-oiled machine.

The single biggest problem in communication is the illusion that it has taken place.

– George Bernard Shaw

The communications plan identifies approaches in the NEPA Document Manager's tool box, including a combination of email, progress reports, and periodic staff meetings conducted via conference calls and video conferencing. It provides a process and schedule for the NEPA Document Manager to reach out to each team member and ensures that the whole team understands:

- The scope of the project
- Special requirements to complete some tasks
- Current progress
- Task and project schedules
- Any problems with a project deliverable, and a path forward to solve the problem, and
- Most importantly, the opportunity to acknowledge achievements and recognize team members deserving commendation.

A communications plan is not a static document. Revise it frequently to reflect successful or unsuccessful results and additional tasks and staff.

Interagency Coordination

Why it didn't work:

- Cooperating agencies had conflicting goals and ideas.
- The National Historic Preservation Act Section 106 process was too long and complicated because of dissimilar agency procedures.

(continued on next page)

Earlier in this Series . . .

Data Collection and Sharing
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Keeping NEPA Documents on Schedule
LLQR, March 2015, page 12

Scoping Process
LLQR, December 2014, page 1

Communication

(continued from previous page)

Making it work:

- Prepare an interagency coordination agreement (e.g., Memorandum of Understanding) early in project development that clearly defines each agency's goals and responsibilities. The agreement should:
 - Identify the agencies' regulatory authorities
 - Assign responsibilities to each agency, identifying a "lead agency" where appropriate
 - Establish internal communication procedures
 - Address how privileged and confidential information will be handled, and how information may be disclosed to outside parties
 - Identify points of contact
 - Describe the project scope
 - Identify the lines of authority
 - Determine staffing requirements and potential staffing constraints for each agency
 - Establish that the parties will agree to a schedule with milestones
 - Identify mechanisms for handling change, and
 - Establish dispute resolution procedures.
- Specific to the Section 106 process, an interagency coordination agreement should establish or identify:
 - Whether there will be a lead agency
 - Communications procedures for consultation with other parties (e.g., Indian Tribes and the State Historic Preservation Officer)
 - If and how Section 106 will be integrated with NEPA, including but not limited to public involvement requirements and sequencing of Section 106 steps with release of NEPA review and decision documents, and
 - The regulatory requirements and constraints related to consultation with Indian tribes.

Public Interaction

Why it didn't work:

- Few individuals attended hearings.
- A large project area made it difficult to schedule meetings that did not require interested landowners to travel for hours.
- Local residents did not comment at public hearings.

- The public was discouraged when they perceived their open and honest communication was followed by preapproved legal responses.

Making it work:

- Include public participation in the communications plan, or prepare a public participation plan that covers each stage in the NEPA process. See the scoping article in *LLQR*, December 2014, page 1 for many strategies for communicating with the public. Key suggestions include:
 - Coordinate public participation activities with the local DOE public affairs office or other appropriate contacts.
 - Develop a current stakeholder's list to be used in contacting the public.
 - Use the current [DOE NEPA Stakeholders Directory](#) to supplement the project- or site-specific list. (See page 13.)
 - When scheduling activities, respect local customs and accommodate those with special needs.
 - Put dates for public involvement events, such as meetings and announcements, on the project schedule.
- Use all media – Methods of communication have evolved since the creation of NEPA. In addition to traditional forms of communication, reach out to the community using conference calls, Web conferencing, and social media. These electronic forms of communication can eliminate unnecessary travel, accommodate work and family commitments, comfort those who are anxious about speaking before an audience, and be more user friendly for those with special needs.
- Gain public confidence through transparency.
 - Announce the project as early as possible.
 - Regularly update a project webpage to share information with the public throughout the project's development.
 - Stress the importance of the public's involvement in all communications efforts.
 - Listen to the public, and respect each person's point of view. At meetings, participating members of the public are our guests and should be treated as such.
- Explain the NEPA process so that the public is comfortable with its role.

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UGP Wind Energy PEIS

(continued from page 1)

analyzed. A comprehensive list of conservation measures (BMPs, minimization measures, avoidance measures, and mitigation measures) was developed for each species of concern.

To ensure that project developers using the PEIS will follow the programmatic BA, Western and the USFWS developed a review and approval system based on consistency forms and checklists of conservation measures for each species. If a wind project developer commits to implement the applicable conservation measures, Western's consultation responsibilities under Section 7 of the Endangered Species Act are concluded when Western and the USFWS review and sign the consistency forms; no separate Section 7 consultation is required.

Dispersed Team and Long Schedule Created Challenges

Most large NEPA projects depend on a well-functioning team, and this PEIS was no exception. Western, USFWS, and the PEIS preparation contractor needed to function effectively as an integrated multidisciplinary team of scientists, managers, specialists, biologists, and other team members.

One major challenge was coordinating a large team spread out over five states. Sit down meetings were infrequent due to travel time and cost, as well as difficulty in coordinating schedules. When problems arose – for example, regarding funding limits, schedule conflicts, or resource shortages – conference calls were scheduled almost immediately to start brainstorming on solutions.

Another major challenge was performing the NEPA analysis as joint lead agencies. A joint lead arrangement between a regulated agency and its regulator inevitably entails different perspectives and needs, and sometimes even opposing goals. Coordinating with the approval authorities in one's own agency can take some time, but coordinating approvals concurrently in two agencies multiplied the time required. Often, when decisionmakers in one organization would sign a document and send it to the other organization for signature, decisionmakers in the second organization identified additional changes, thus prompting another round of review.

During the nearly 7 years it took to complete the PEIS, loss of institutional knowledge from the inevitable staff retirements and transfers had a substantial impact on progress. Bringing new staff members up to speed also proved challenging.

At times, key individuals were not available when needed to schedule public scoping meetings, hearings, and document signings. Delays arose when the agencies waited



The UGP Wind PEIS evaluated measures to minimize impacts to the species of concern, including the greater sage grouse (left) and whooping crane, evaluated in the programmatic BA.

for input from those individuals before moving forward, or when the agencies moved forward without key input and needed to coordinate revisions based on that input when it was received later.

Another challenge was that the ESA status of several species analyzed in the programmatic BA changed during the consultation and review process, requiring substantial revision to both the programmatic BA and PEIS. Reaching agreement among the biologists was challenging – internally within each agency, between the two lead agencies, and with the cooperating agencies (Department of the Interior Bureau of Reclamation and Bureau of Indian Affairs, and Department of Agriculture Rural Utilities Service).

A critical issue was the sheer number of individuals involved with review of the document, and the inability for the designated point of contact to speak with one voice for all elements of the joint lead agencies. Decisions made and acted upon by the project team were often challenged at a later point by previously uninvolved parties. Concurrent initiatives, such as the USFWS Section 10 Wind Energy Habitat Conservation Plan effort, caused some project team members to feel that the separate efforts needed to be completely consistent in conservation measures and recommendations. The project schedule expanded accordingly.

How Tiering Will Work

In a [record of decision](#) signed July 14, 2015, Western selected the preferred alternative, which is also the environmentally preferable alternative, to adopt a standardized process for collecting information and evaluating the potential environmental impacts of wind energy interconnection requests. Western and/or the USFWS (as appropriate for a specific project) would coordinate with project developers during project planning

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Headquarters: NEPA Office Unit Leader Eric Cohen Retires

“NEPA Remains Inspiring”

Eric Cohen retired at the end of July after 30 years of dedicated federal service, including 25 years in DOE’s Office of NEPA Policy and Compliance. There he led the review of some of DOE’s most significant and complex EISs and prepared NEPA guidance to improve the effectiveness and efficiency of DOE’s NEPA compliance program.

When asked to distill decades of experience, Eric said that he has always found NEPA to be inspiring as a logical, coherent framework for managing the analysis of complex and even novel issues. The DOE NEPA Community, including the NEPA Office, NEPA Compliance Officers (NCOs), counsel, and staff, should continue efforts to meet environmental review requirements more effectively and efficiently, which our metrics analysis tells us is possible, he said.

“Start with the Premise that NEPA Can Work”

Eric finds it exciting to apply fundamental NEPA principles to novel circumstances or issues that were not specifically envisioned when NEPA was enacted. If unsure how to proceed when faced with a unique proposed action or an emerging environmental issue, such as climate change or intentional destructive acts, instead of arguing that NEPA was not intended to apply, Eric recommends starting with the presumption that NEPA can work.

“Almost by definition, this will lead to a sound, defensible approach,” he said. “There are only so many ways to apply the laws of physics to connect a unique circumstance or new issue to NEPA’s principal requirements to take a hard look and apply the rule of reason. Find the connection and you’ll find a sound NEPA strategy. NEPA does not have to be hard,” he explained.

“It is a testament to NEPA’s flexibility,” Eric continued, “that its principles have met the test of time. They can be applied to new categories of environmental impacts as they become established.”

“Improvement Is Attainable”

After a 1994 Secretary of Energy policy initiated the systematic tracking of DOE’s NEPA metrics, Eric led the NEPA Office’s efforts to collect and analyze NEPA document cost, time, and other performance measures. “When we need to,” he observed, “we can do a good job of preparing a timely environmental review that serves its intended purposes.” During some periods, he noted, DOE’s



Denise Freeman, Office of NEPA Policy and Compliance, presented Eric with her half of the “Green Socks” award (from former General Counsel Scott Blake Harris) that they shared for their work on the DOE NEPA website.

overall NEPA performance has shown reductions in the cost and time spent preparing EISs and EAs. Eric believes taking a “just do it” approach to NEPA compliance can improve outcomes. “Program and field offices should start the process as soon as possible and reviewing offices should bend over backwards to help them succeed,” he said.

Another way to improve NEPA performance is by focusing on maintaining a body of guidance, training, and acceptable examples that DOE’s NEPA document preparers can use. The NCOs can identify their needs, and weaknesses in draft documents under review can also reveal topics suitable for focused attention, he said.

Major Contributions to NEPA Reviews and Guidance at DOE and Beyond

A registered professional engineer, Eric Cohen earned a Masters degree in Environmental Science in Civil Engineering at the University of Illinois. Before joining DOE’s NEPA Office in 1990, he coordinated EPA’s innovative and alternative wastewater technology program, managed the installation restoration program for the U.S. Air Force Systems Command, and served as a technical advisor for a wastewater compliance unit in the Chicago office of the Illinois Environmental Protection Agency.

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Eric Cohen Retires

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At DOE, Eric made significant contributions to major programmatic, site-wide, and project EISs, and led the review of the Waste Management, Spent Nuclear Fuel, and Yucca Mountain EISs, among many others. He contributed substantially to key DOE NEPA guidance products and was the primary author of DOE's accident analysis guidance, interim guidance on considering sabotage and terrorism under NEPA, and DOE training on climate change and NEPA. Eric also authored many *LLQR* articles on NEPA metrics and other topics. Recently, he was called upon by the National Nuclear Security Administration's Office of Defense Programs to help the newly-established Domestic Uranium Enrichment Program office develop a strategy for reestablishing a domestic uranium enrichment capability.

Eric's contributions were not limited to DOE. At the request of the Council on Environmental Quality (CEQ), he participated on the interagency team that drafted CEQ's guidance on *Effective Use of Programmatic NEPA Reviews* (December 2014). He also supported EPA's international environmental capacity building program through briefings to representatives of foreign nations on best practices for environmental impact assessment (EIA), and represented the United States on an international team that developed written guidance on EIA for energy development projects in Central America.

Life after DOE

Fortunately for Eric's NEPA Office colleagues, he will not be far away. The week after his retirement he started



a weekly session volunteering at the Smithsonian's [Mary Livingston Ripley Garden](#) (above), a beautiful garden near the Forrestal Building. He is eager to pursue his many hobbies – home gardening, astrophotography, scuba diving and underwater photography, and teaching chess, just to name a few. ☐☐

The NEPA Office, on behalf of the DOE NEPA Community, appreciates Eric's many contributions to sound NEPA compliance and offers Eric best wishes for his future.

DISTINGUISHED CAREER SERVICE AWARD

Presented by Steven P. Croley, General Counsel

on July 28, 2015

Eric B. Cohen is hereby awarded the Distinguished Career Service Award in recognition of his extraordinary contributions during a Federal career spanning 30 years, 25 of which were with the Department of Energy. As a Unit Leader in the Office of NEPA Policy and Compliance, he excelled in all of his duties, earning the respect and admiration of his colleagues. ... Through his work on these and many other NEPA-related matters, he leaves a legacy of singular professional excellence. Finally, as both a NEPA specialist and a manager, he earned the genuine affection of his associates. Because of his pragmatic, analytically-sound advice, his intelligence, his strength of character, his no-nonsense approach, and his dedication to the public interest, Eric B. Cohen embodies the highest traditions and ideals of public service.



Environmental Management: NCO Retires

Jeanie Loving: Offers Lessons Learned and Hopes for the Future

Approaching retirement is turning out to be a time for major retrospection as well as anticipation. I am thinking especially about the important lesson I've learned from my daughter, Holly: a deep confidence in the value of education. Back when she was her son's current age (6), we started our first little ecosystem in a terrarium. We gave oatmeal to crickets, and fed them to anoles. From there, we diversified: a large talkative bird, a ferret, snakes, rodents, and cats to name a few. The result is a grown-up daughter who takes my grandson to lakes, creeks, and fields and shows him the wonders of life. His observational skills are already remarkable. In all this, I learned a deeper appreciation for the powerful impacts we can have on our children's attitudes and behavior. We should start educating children not later than first grade about the importance of, and methods for, preserving and protecting our natural environment.

Why am I telling you this? If we teach our children to *believe* in the importance of protecting the natural environment for the betterment of public health and welfare, it could become easier to act to achieve improvement. Perhaps society wouldn't take so long to agree on the need to address such serious environmental concerns as climate change and the need to recycle, reuse, and repurpose our natural resources.

These concepts are inherent in NEPA practice. I'm grateful for the opportunities I've had throughout my career to contribute to things I believe in, including participation in DOE's NEPA program. I started my career in a research lab working on the health effects of air pollution, then on radionuclide toxicology for the U.S. Public Health Service, and am happy to have been one of the people identified for transfer to the Environmental Protection Agency when it was established in 1970. I came to DOE nearly 15 years ago, first as a contractor writing NEPA documents, then in the Office of NEPA Policy and Compliance, and finally as NCO for one of DOE's most significant program offices – the Office of Environmental Management.

I leave the DOE NEPA program with several hopes that it will thrive:

- A hope that we can recruit and keep competent and conscientious people who genuinely want to do the right thing by the environment.
- A hope that our politicians will recognize the importance of keeping the decisionmaking process for major federal actions open to public involvement.
- A hope for fewer attempts to weaken or eliminate NEPA, and recognition that the NEPA process is a critical factor in sound decisionmaking and that the time required for the process is not an impediment.



Jeanie Loving, with her daughter, Holly, believes we need to teach our children the importance of preserving our natural environment.

The body of NEPA-related issues addressed in *LLQR* over time is substantive indeed. I recommend that anyone involved in NEPA take advantage of this timely and informative resource.

I would like to endorse the advice to NEPA Document Managers offered by my friend Harold Johnson, who retired as the Carlsbad Field Office NCO in 2007: “Involve GC early and often,” he said, for a smooth Headquarters review; prepare high quality documents so that the NEPA Office can focus on NEPA adequacy of a document instead of editing.

I'd also like to thank all of my colleagues, especially Carol Borgstrom, Director, Office of NEPA Policy and Compliance, and Matthew Urie, Assistant General Counsel for Environment, for their help and patience, willingness to teach me things, and highly capable attention to their jobs, even in the face of adversity. To me, they represent what the ideal public servant should strive to be.

With heartfelt wishes for the continued success of DOE's “NEPA people,”

– Jeanie Loving, NEPA Compliance Officer 

On behalf of the DOE NEPA Community, we offer Jeanie, a dedicated NEPA professional, best wishes on her retirement endeavors.

Ensure that a NEPA Administrative Record Reflects the Decisionmaking Process

By: P.E. Hudson, Counsel, Department of the Navy, Office of General Counsel, Ventura, California

This contributed article describes the important role of an administrative record for a proposal undergoing NEPA review. The author is a NEPA trainer for the Department of the Navy and was a principal contributor to the NEPA pilot program on EA best practice principles (LLQR, March 2015, page 11). This article represents the views of the author, and not necessarily those of the Department of the Navy, the Department of Defense, or the Federal Government.

An Important Role in Litigation

The administrative record (AR) is the paper trail that documents the agency's decisionmaking and NEPA compliance processes, and provides the basis for the agency's decision. The AR should include those materials directly or indirectly considered by the agency decisionmaker at the time of the decision. The AR therefore should include the documents and materials prepared, reviewed, or received by agency personnel. At the start of the NEPA project planning, the agency's executives, project managers, environmental professionals, attorneys, and public affairs personnel should prepare for the development of the AR. At most agencies, a larger file is developed, informally called the project file, for each proposal that is analyzed under NEPA. The project file, which may reside on a shared server or online repository, allows the project team to locate important documents quickly, which reduces inefficiency and duplication of effort, while also reducing the risk of overlooking information. The project file also enables an agency to respond to document requests under the Freedom of Information Act (FOIA) and similar state public records laws.

If a lawsuit is filed, the project file provides a starting point for preparing the AR. Although a best practice is to compile an AR for each project, because of resource constraints some agencies prepare the AR only when litigation is a possibility. Because NEPA does not include a private right of action, a challenge to NEPA occurs pursuant to the Administrative Procedure Act (APA). Under the APA, a court reviews an agency's action to determine whether it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2) (b). In making this determination, a reviewing court must engage in a "thorough, probing, in-depth review" of the agency's decision. *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 415 91 S.Ct. 814, 823 (1971). The court does so through its review of the whole AR.

Environmental lawyers generally acknowledge that we can only truly convince a court that the agency's decisionmaking was sufficient if we have an adequate AR. Generally, if information isn't in the AR before the court reviews an agency decision, the information wasn't

considered. For example, discussion during consultation with regulators can result in agreement that some of the project area is not critical habitat under the Endangered Species Act; creating a written record of oral discussion can be important to show that the agency appropriately considered all potential impacts. See also *Friends of the Earth, Inc. v. U.S. Army Corps of Engineers*, 109 F.Supp. 2d 30 (D.D.C. 2000) (remanding for further analysis of proposed casino projects where the record included conclusory statements but no evidence of actual analysis of impacts). In certain situations the court may allow supplementing the AR, but agencies should not rely upon this possibility.

The NEPA team's hard work will not be successful if the basis for agency decisionmaking isn't well documented in the AR. A close relationship with your attorneys is critical to compiling a defensible AR, especially where litigation is threatened.

Work with Counsel on AR Content

An agency's Office of General Counsel will provide AR guidance, after consulting with the agency litigation team, and at times, the Department of Justice litigation team. The guidance will specify the types of records to be included in the AR and, often, how to submit the records to a central location. It may also designate certain records as "core documents" – critical documents in the decisionmaking process such as draft and final NEPA documents, records of agency decisions, and records of consultation with other agencies and public involvement. The designation allows for these core documents to be quickly located and presented to the court.

The AR may include:

- Documents and materials that do not support the agency decision
- Electronic databases, videos, Twitter feed, or webpages
- Privileged and non-privileged documents and materials (included in the AR but released only to those within scope of privilege)
- Classified materials (which are included in the AR but released only to those with appropriate clearance) and

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Administrative Record

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redacted or summarized unclassified versions of these materials

- Policies, guidelines, directives and manuals
- Articles and books, including scientific literature reviews, after ensuring that any needed intellectual property license(s) are in place, and
- Communications the agency received from other agencies and from the public, and any responses to those communications.

Agencies normally exclude from the AR any documents and materials that were not in existence at the time of the agency decision.

Generally, internal “working” drafts of documents need not be included, but draft documents that were circulated for comment outside the agency should be included, as changes to these documents may reflect significant input into the decisionmaking process.

An AR needs an index to identify and locate documents. For each document, the index provides a unique identification number and brief description, and indicates whether the document is privileged and the basis for the privilege.

General Guidance Resources

A useful publication is *Maintaining a Project File and Preparing an Administrative Record for a NEPA Study*. This 2006 “Practitioner’s Handbook” was prepared by the American Association of State Highway and Transportation Officials (AASHTO) primarily for Federal Highway Administration projects, but it is broadly relevant to other agencies and types of projects. This AR handbook covers: maintaining accurate project files during the NEPA process, using the NEPA process to build a strong

administrative record, identifying potential administrative record documents in project files, making judgment calls about what documents to include in the AR, and submitting the AR to the court.

“[I]t is not uncommon for the administrative record in a NEPA case to include tens of thousands of pages. For that reason, compiling the administrative record requires a substantial effort, which typically involves both program staff and attorneys from the agency or agencies involved. The best way to expedite the preparation of the administrative record during litigation is to maintain accurate and up-to-date project files during the NEPA process.”

– AASHTO Practitioner’s Handbook, 2006

Several government agencies have issued guidance on compiling an AR. These documents may be considered “best practices” guidelines.

- U.S. Department of Justice, Environment and Natural Resources Division, United States Attorneys Bulletin, *Guidance to Client Agencies on Compiling the Administrative Record* (February 2000, a revision of January 1999 guidance).
- National Oceanic and Atmospheric Administration (NOAA) OGC Memorandum *NOAA Guidelines for Compiling an Agency Administrative Record* (December 12, 2012).
- Department of the Interior, United States Fish and Wildlife Service, *Compiling a Decision File and an Administrative Record*, 282 FW 5 (March 2, 2007).

For questions concerning the AR for a NEPA action, consult with your agency’s legal counsel. 

Key Issues to Consider

Excerpt from: *Maintaining a Project File and Preparing an Administrative Record for a NEPA Study*
American Association of State Highway and Transportation Officials

Maintaining the Project File

- Who is tasked with maintaining the project file?
- Are separate files being maintained by [the federal agency, state agency], and/or the project consultants? If so, who is responsible for maintaining key project documents?
- Is there a written filing protocol? What issues are addressed in the filing protocol?
- Will a database be used to manage the project file? If so, what are the strengths and limitations of the database?
- What method is being used for filing or archiving project-related e-mails? How will other electronic documents and data be stored (e.g., maps, modeling results, engineering drawings)?
- Who will identify and retain privileged materials?
- How are you handling oversized documents – for example, displays, maps, etc.?
- How are you handling attachments? For example, if a document is sent to agencies for review, does the file include the attachment?
- What “checks” are in place to ensure that proper filing is taking place?
- What record-keeping requirements or policies must be considered? For example, does the State DOT have a policy regarding records management and disposition?
- Are potential administrative record documents identified or segregated in some manner in the project files? If so, how is this being done?

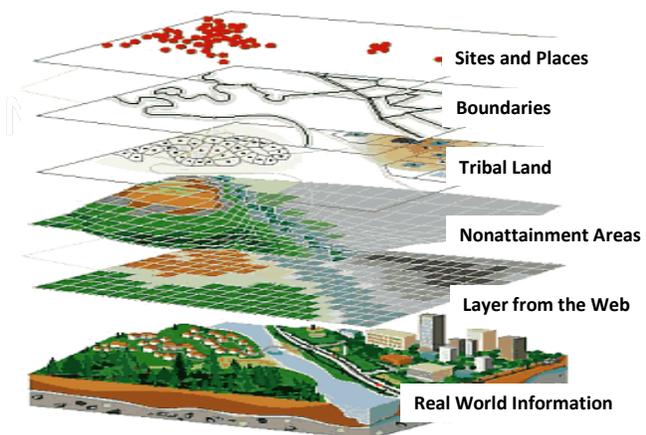
Preparing the Administrative Record

- Is there an existing index?
- Where are study documents located? One central file or multiple files?
- Is there a central repository of e-mails? If not, how will e-mails be located and compiled?
- What system was used for filing documents during the study? As a result of that system, are there any built-in gaps or omissions in the record-keeping?
- Will the record be electronically scanned and incorporated into a litigation database? If so, what technology (e.g., litigation database) will be used? If not, what is the best way to structure the administrative record?
- How will the administrative record be produced to the court and the other parties to the litigation?
- Does the court in which the case has been filed have any specific requirements with respect to the filing of administrative records?
- Aside from [the lead agency], are other federal agency approvals needed? If so, what coordination is needed regarding the preparation of their administrative records?

EJSCREEN: EPA's New Tool Aids EJ Analysis

The Environmental Protection Agency (EPA) recently released EJSCREEN, a new screening and mapping tool that facilitates the consideration of environmental justice (EJ) in the decisionmaking process. "EJSCREEN provides essential information to anyone seeking greater visibility and awareness about the impacts of pollution in American communities," said EPA Administrator Gina McCarthy in the [June 10 announcement](#) that the tool is available for public use.

EJSCREEN utilizes nationally consistent data to highlight places that may have higher environmental burdens and vulnerable populations. EJSCREEN combines demographic factors (percent low-income and percent minority) with environmental indicators to produce 12 EJ Indexes (text box). A high EJ index shows where the combination of three factors is elevated: high environmental indicator, large number of people potentially exposed, and high proportion of low-income and/or minority populations. EJSCREEN produces high resolution, color-coded maps, bar charts, raw data downloads, and printable reports and graphs. For example, the [EJSCREEN website](#) can generate reports based on census block groups or the area surrounding a point (e.g., location of a proposed facility) and compare results to the state, EPA region, and nation.



The mapping tool adds many types of data by overlaying various datasets (called "layers"). Source: EPA

Many Uses of EJSCREEN

EPA uses EJSCREEN to support agency work to inform public outreach and involvement; implement aspects of permitting, enforcement, compliance, and voluntary programs; develop reports of EPA work; and enhance geographically based initiatives. EPA staff who review other agency EISs pursuant to Section 309 of the Clean Air Act report that they primarily use EJSCREEN in the scoping process to identify potential low-income and minority populations and environmental effects. They may also look to EJSCREEN to help identify areas of EJ concern that may have been overlooked in the NEPA process.

"A NEPA review is exactly the sort of practice where EJSCREEN immediately shows its value and power," noted Matthew Tejada, Director of EPA's Office of Environmental Justice. "EJSCREEN can highlight important environmental and demographic data in a very fine resolution. Thus, it allows a NEPA practitioner to get an initial screen, or a 'snapshot' of the community level context of an issue."

DOE NEPA practitioners may find EJSCREEN helpful during the early planning stages of NEPA (e.g., scoping process) as a preliminary step to help highlight communities with greater risk of exposure to pollution (e.g., minority and/or low-income populations). They may also find it beneficial to be familiar with EJSCREEN when evaluating public comments that may be based on information from this tool.

In addition, EPA noted in its June announcement that EJSCREEN could be used to share information with state and tribal partners and the public, and to support

(continued on next page)

12 EJ Indexes Available in EJSCREEN

Hazard Risk:

- Air Toxics Cancer Risk
- Air Toxics Respiratory Hazard
- Air Toxics Neurodevelopmental Hazard

Potential Exposure:

- Diesel PM
- PM_{2.5}
- Ozone
- Lead Paint

Proximity:

- Traffic and Volume
- Risk Management Plan Sites
- Treatment Storage and Disposal Facilities
- National Priorities List Sites
- Major National Pollutant Discharge Elimination System Direct Dischargers

NEPA Office Issues 2015 Stakeholders Directory

If you are planning to distribute an EA or EIS, or initiate other NEPA public involvement and consultation activities, the Office of NEPA Policy and Compliance encourages you to consult the *Directory of Potential Stakeholders for DOE Actions under NEPA*. The NEPA Office issued the 32nd edition of the directory on July 29, 2015. It includes current information for points of contact in federal agencies; states, territories, and state government associations; and nongovernmental organizations. The *Stakeholders Directory* is primarily intended to supplement the lists of interested parties that DOE offices compile for individual projects or facilities. It also lists DOE points of contact for tribal issues, and NEPA document websites

and public reading rooms used by DOE program and field offices.

For the 2015 *Stakeholders Directory*, about 40 percent of listings have changed their contact information since last year's edition. For the first time, NEPA contacts are listed for the Federal Communications Commission, FirstNet, and the District of Columbia. The NEPA Office updates the directory throughout the year, as new contact information is received. Send updates and questions to askNEPA@hq.doe.gov.  

EJSCREEN

(continued from previous page)

educational programs, grant writing, and community awareness efforts.

A Screening Tool Has Limits

On its website, EPA explains that EJSCREEN is a pre-decisional screening tool and that it is important to recognize that EJSCREEN has limitations. For example, EJSCREEN examines some but not all of the relevant issues related to environmental justice, relies on demographic and environmental estimates that involve uncertainty, and the environmental indicators are only screening-level proxies for actual impacts. EPA notes that EJSCREEN does not direct final outcomes or decisions and that the baseline results from EJSCREEN should be

supplemented with more detailed local information and experience.

EJSCREEN incorporates recommendations from the National Environmental Justice Advisory Council and builds upon prior EPA experience, including with EJView (*LLQR*, June 2012, page 8). EPA plans to refine the uses for EJSCREEN as they receive feedback from stakeholders in the next several months and to release a revised version in 2016. More information is available on EPA's [EJSCREEN website](#) or by contacting Kevin Olp, EPA's Office of Environmental Justice, at olp.kevin@epa.gov.  

Communication

(continued from page 4)

- Consider conducting a workshop or webinar that presents, in layperson's terms, the NEPA process and how it involves the public throughout a project.
- Explain the NEPA process on the project webpage.
- Provide informational materials explaining the NEPA process at public hearings (e.g., [the DOE, NEPA, and You brochure](#) available on the DOE NEPA Website).
- Some agencies have produced YouTube videos explaining public participation and the NEPA process. Consider linking to one of them on your project website, or creating one of your own.

Using these shared strategies can help make communication with contractors, other agencies, and the public "work" for you in the NEPA process. Please contact Ralph Barr at ralph.barr@hq.doe.gov with suggestions for other communication strategies or topics for future articles in this series.  

You can have brilliant ideas, but if you can't get them across, your ideas won't get you anywhere.

– Lee Iacocca
Former Chrysler Chairman

A Summer with NEPA

The Office of NEPA Policy and Compliance was fortunate to have two outstanding interns assisting the staff this summer. We asked them to share their thoughts on their experiences in the NEPA Office and their future plans.

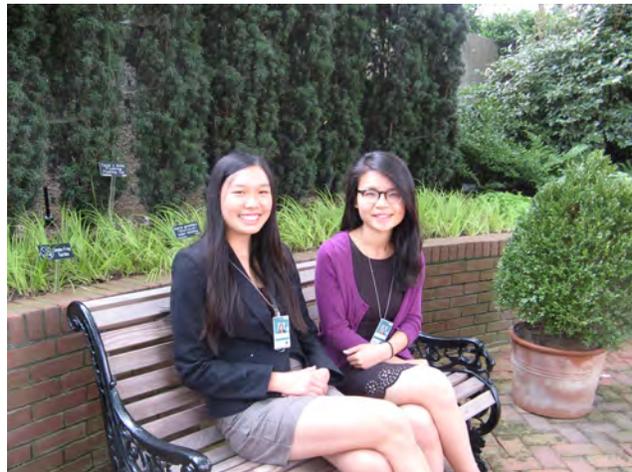
Donna Chen, a rising senior at the University of Chicago, is majoring in Economics and Environmental Studies.

My internship at the DOE Office of NEPA Policy and Compliance has shown me the importance of NEPA and the crucial role it has played in the larger environmental movement. NEPA's requirement that federal agencies consider and publicly disclose the environmental consequences of their decisions was a pivotal change in the governmental decisionmaking. Working directly with this statute has given me a newfound appreciation of how it functions and a hope that the environment's well-being will occupy an ever higher rank among our national priorities.

During my internship, I also became more familiar with the other major environmental statutes and their interactions with NEPA. Seeing how the Endangered Species Act, Clean Air Act, and National Historic Preservation Act operate in coordination with NEPA enhanced my understanding of NEPA and the broader U.S. environmental law and policy framework. I witnessed how all of these combined environmental considerations intersect to produce sometimes daunting, but extremely thorough, NEPA documents. To me, the level of detail was impressive and reassuring in that the DOE environmental review process evidently takes great pains to create an accurate, comprehensive, scientifically-sound, and transparent product.

The EIS projects I worked briefly on this summer included: the proposed Plains & Eastern transmission line, the proposed Greater-Than-Class C (GTCC) Low-Level Radioactive Waste and GTCC-like waste disposal facilities, the Engineered High Energy Crop Programs, and Hawaii Clean Energy Program. Working on such diverse NEPA projects expanded my understanding of their unique environmental concerns. For instance, by reviewing public comments, I saw how differently the public reacted to each proposal or program. These reviews gave me a sense of the wide range of environmental values and issues across the country.

In addition to reviewing EISs, I contributed to the NEPA Office's support for process improvement by examining DOE NEPA metrics. Prior to this internship, I was stunned by the size of the documents and by the time and cost needed for their completion. This summer I reviewed NEPA metrics and learned about the tools DOE uses to reduce the cost and time of preparing NEPA documents. It has been rewarding to contribute to these efforts to streamline and improve the environmental review process.



Florence Chen (left) and Donna Chen made many contributions to the NEPA Office this summer.

In the same spirit of constant improvement, I worked at length on providing recommendations to increase user-friendliness of the NEPA Office website, improve navigation, and better tailor the website to the public's needs.

My experiences here in the NEPA Office have reinforced my determination to continue working in the environmental field. In the future, I plan to attend graduate school and to pursue a career related to environmental research and policy analysis.

Florence Chen, who graduated from Harvard University in May, is continuing her studies in Geology at Cambridge University this fall.

My first day at the NEPA Office consisted of surprise after surprise. Before coming to the NEPA Office, I had been under the impression that implementing a federal law is quite straightforward, that the job of an intern consists of assisting staff members with basic tasks, and that my college research project about formation of sulfur minerals was mainly of interest to other geochemists. Yet upon my arrival, I found a thick binder filled with information about NEPA regulations and implementation guidance. At my first staff meeting, I was asked what types of projects I hoped to pursue independently that summer. Later that day, one of the staff members told me that my mention of geochemistry research on my resume had caught his eye, and he hoped to hear all about it. These surprises gave me a taste of the challenges and the opportunities that a summer at the NEPA Office could provide.

My purpose in coming to the NEPA Office was to gain exposure to federal energy and environmental policymaking. As an Earth and Planetary Sciences major

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Summer Interns

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with an extracurricular passion for government and law, I am always seeking opportunities to work at the intersection of science and government. DOE seemed to be the perfect place for this.

In the NEPA Office, I worked on a wide variety of projects. I reviewed EISs and public comments for projects as diverse as clean energy, electricity transmission, and nuclear fuel shipments. One of my most interesting assignments consisted of drafting an article about a new report from the Environmental Protection Agency that analyzes the benefits of mitigating climate change by reducing greenhouse gas emissions (page 16). In addition, I had the opportunity to pursue my interests in climate change and geology by studying how climate change impacts are being addressed through federal regulations for building structures in floodplains, and by writing reports on recent geochemical and geophysical research that can contribute to fossil and geothermal energy development.

The opportunity to intern in the NEPA Office was especially valuable because it enabled me to learn about the large range of policy issues that fall under DOE's purview. As a NEPA Office intern, I could be attending

a meeting about a nuclear waste storage site one day and looking up the potential environmental impacts of undersea cables on marine life the next day. This summer also taught me about the challenges of balancing economic development, research projects, and policy goals with consideration for environmental impacts on air quality, water quality, climate change, endangered species, and even cultural resources and historic properties. I have come to understand how an act of Congress is just the beginning; implementing a law entails careful research, interpretation, and solicitation of input from the public.

This fall, I will be heading to England on a Fulbright Fellowship. I will work towards earning a Master's degree in Earth Sciences at the University of Cambridge, where my research will focus on changes in the carbon cycle and the climate on million-year time scales. Because of my time at DOE, I know that a scientific background can be very helpful in energy and environmental policy. Therefore, after completing the Master's, I hope to use my knowledge of science and government to help build a political consensus for action on climate change. [LL](#)

UGP Wind Energy PEIS

(continued from page 5)

activities to identify the project-specific measures that would be applicable to each project. A project-specific NEPA analysis, either an EA or EIS, would be tiered from the PEIS provided that the proposed project incorporates the applicable BMPs and mitigation measures analyzed in the PEIS. The tiered NEPA document would summarize the information covered in the PEIS or incorporate it by reference. This approach would allow for more efficient NEPA documents that would properly focus on local or site-specific issues. If a developer does not wish to implement the evaluation process, BMPs, and mitigation measures identified for the proposed project, a separate consultation or NEPA evaluation that does not tier off the analyses in the PEIS would be required, as appropriate, to address specific issues.

A project-specific ESA Section 7 consultation will utilize the programmatic BA provided that the project implement applicable BMPs, minimization measures, mitigation measures, and monitoring requirements established in the programmatic BA. (Consultation under the National Historic Preservation Act Section 106 process and related tribal consultations will continue unchanged from the present practice, since these issues are very site-specific.)

Conclusion: It Was Worth It

The scope and complexity of this effort were daunting, especially in envisioning how all the complex components would work in concert. Administration policy and senior management support proved instrumental in completing the programmatic BA and the PEIS. Nevertheless, the geographic separation of contributors, their philosophical differences, and the agencies' conflicting needs and goals caused schedule slippage and additional expense.

Overall, the UGP PEIS for wind energy was a pioneering initiative; already several current and future developers are using the document. Making environmental reviews for proposed wind energy generation projects more efficient is good governance. Additional information is available on the [PEIS website](#) or contact Matt Marsh at mmarsh@wapa.gov. [LL](#)

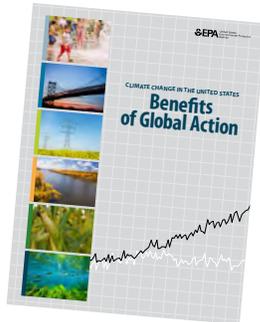
Editor's Note: Matt Marsh is the NEPA Compliance Officer (NCO) for Western's Upper Great Plains Service Region and all three authors are NEPA Document Managers. Former NCO Nick Stas, who retired in the summer of 2014 (LLQR, June 2014, page 15), served as NEPA Document Manager until shortly before the Final PEIS was issued.

Does Greenhouse Gas Mitigation Make a Difference? EPA Study Projects Substantial Benefits

By: Florence Chen, Intern, Office of NEPA Policy and Compliance



The projected environmental impacts of climate change in the United States and the physical and monetary benefits of reducing global greenhouse gas (GHG) emissions are described in a new report issued by the U.S. Environmental Protection Agency (EPA). *Climate Change in the United States: Benefits of Global Action* (EPA 430-R-15-001, June 2015) summarizes the results from EPA's ongoing Climate Change Impacts and Risk Analysis (CIRA) project.



concludes that temperature increases, sea level rise, and changes in precipitation would result in damages to all sectors under the Reference scenario and that global GHG emissions reduction could substantially reduce these damages under the Mitigation scenario.

A Potential NEPA Resource

For DOE NEPA documents, the report complements, and its results are consistent with, other primary sources of information about climate change impacts, such as the 2014 National Climate Assessment issued by the U.S. Global Change Research Program (USGCRP) and the Fifth Assessment Report issued by the IPCC. (See *LLQR*, June 2014, page 3; and December 2014, page 7.) EPA explains on its [website](#) that the CIRA project differs from USGCRP and IPCC climate assessments by focusing on the targeted questions of (1) what the physical and economic damages of climate change would be in the United States and (2) how reducing global emissions could reduce or avoid those impacts.

This peer-reviewed study compares the impacts, in 2050 and in 2100, that could result from two hypothetical climate change scenarios - a "Reference" scenario based on current emission rates and a "Mitigation" scenario in which global GHG emissions are substantially reduced relative to the Reference scenario.

In the "Reference" scenario, GHG emissions would rise to 2.5 times the 2005 emissions level and atmospheric GHG concentrations would reach 1,750 parts per million (ppm) CO₂-equivalent¹ by 2100. In the "Mitigation" scenario, global action would reduce GHG emissions to about a third of the 2005 emissions level, and atmospheric GHG concentrations would be below 500 ppm CO₂-equivalent in 2100.

Physical and Economic Impacts

The CIRA report presents results from a large set of sectoral impact models that quantify and monetize climate change impacts using consistent inputs (e.g., socioeconomic and climate scenarios). The authors of the report developed these scenarios by using current trends for economic development and GHG emissions to make projections for future climate change. According to EPA, these projections fall within the latest range of predictions from the Intergovernmental Panel on Climate Change (IPCC).

The report discusses consequences of the Reference and Mitigation scenarios on six broad sectors in the United States: health, infrastructure, electricity, water resources, agriculture, and ecosystems. Within these broad sectors, the report examines 20 sector-specific climate change impacts, including impacts on flooding, environmental justice, and other resource areas that are typically addressed in NEPA reviews (table, next page). EPA

EPA's Office of Atmospheric Programs, Climate Change Division, coordinated the study; researchers from the Massachusetts Institute of Technology and from the Department of Energy's Pacific Northwest National Laboratory and National Renewable Energy Laboratory were among the contributors. The report includes the results of 35 peer-reviewed scientific articles that model the impacts of climate change, and it underwent additional peer review by seven independent researchers.

Information on the CIRA project, including the report, is available on EPA's website at <http://www2.epa.gov/cira>.

For nearly all sectors analyzed, global GHG mitigation is projected to prevent or substantially reduce adverse impacts in the U.S. this century compared to a future without emissions reductions Therefore, decisions we make today can have long-term effects, and delaying action will likely increase the risks of significant and costly impacts in the future.

– *Climate Change in the United States: Benefits of Global Action Report*

¹ CO₂-equivalent, or CO₂-e, is a common unit of measurement for greenhouse gases. This measurement converts the global warming potential of different greenhouse gases into an equivalent amount of CO₂.

U.S. Impacts of Climate Change (Reference Scenario) and Benefits (Avoided Damages) from Global Action to Mitigate Climate Change (Mitigation Scenario) in 2100

In the CIRA report on climate change impacts in the United States, EPA estimates damages that could result from unmitigated climate change and calculates the savings and avoided damages that could result from global mitigation. This table presents some of EPA's findings. Changes in the Reference Scenario are presented relative to 2005. Changes in the Mitigation Scenario are relative to the Reference Scenario. Unless otherwise noted, the information presents annual impacts in 2100, expressed in 2014 dollars.

IMPACT TYPE	REFERENCE SCENARIO	MITIGATION SCENARIO
Air Quality	Increase in ozone and fine particulate matter pollution	57,000 fewer deaths from poor air quality, valued at \$930 billion
Extreme Temperature	Net increase (from more extreme heat; less extreme cold) of 13,000 projected deaths in 49 cities	12,000 fewer deaths from extreme heat and cold, valued at \$200 billion
Labor	Loss of 1.8 billion labor hours for U.S. workers due to increases in extreme temperatures	Avoided loss of 1.2 billion labor hours, valued at \$110 billion
Water Quality	Decline in Water Quality Index, resulting in over \$3 billion in damages	\$2.6-3.0 billion in avoided damages from poor water quality
Coastal Property	\$5 trillion in damages from sea level rise, storms, property abandonment, and adaptation ²	\$3.1 billion in avoided damages from sea level rise and storm surges and adaptation costs ²
Drought	Increased number of droughts in the Southwest	40-59% fewer severe and extreme droughts, with corresponding avoided damages to the agricultural sector of \$2.6-\$3.1 billion
Agricultural	Substantial decreases in yields for most major irrigated crops and all rainfed crops	\$6.6-11 billion in avoided damages
Shellfish	Reduced U.S. supply of oysters (45%), scallops (48%), and clams (32%)	Avoided loss of U.S. supply of oysters (34%), scallops (37%), and clams (29%), with corresponding consumer benefits of \$380 million
Wildfire	Major increase in area burned by wildfires in most of the contiguous U.S., especially in the West	6.0-7.9 million fewer acres burned and corresponding avoided wildfire response costs of \$940 million-\$1.4 billion

² Cumulative damages and avoided damages from 2000-2100 (discounted at 3%).

EAs and EISs Completed April 1 to June 30, 2015

EAs¹

Bonneville Power Administration

DOE/EA-1973 (5/14/15)

Kootenai River Habitat Restoration at Bonners Ferry Project, Boundary County, Idaho

EA was prepared in-house by DOE; therefore, cost is not applicable.

Time: 17 months

Office of Fossil Energy

DOE/EA-1983 (6/26/15)

Sabine Pass Liquefaction Expansion Project and Cheniere Creole Trail Pipeline Expansion Project, Cameron Parish, Louisiana

EA was adopted; therefore, cost and time data are not applicable to DOE. [Federal Energy Regulatory Commission (FERC) was the lead agency; DOE was a cooperating agency.]

Oak Ridge Office/Office of Environmental Management

DOE/EA-2011 (5/7/15)

Proposed Release of the Biological Control of the Emerald Ash Borer (Agrilus Planipennis) in the Continental United States

EA was adopted; therefore, cost and time data are not applicable to DOE. [US Department of Agriculture (USDA) was the lead agency; DOE was a cooperating agency.]

Western Area Power Administration

DOE/EA-1955 (6/11/15)

Campbell County Wind Farm, Campbell County, South Dakota

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 29 months

EISs

Office of Fossil Energy

DOE/EIS-0493 (80 FR 22992, 4/24/15)

(Draft EIS EPA Rating: EC-2)

Corpus Christi LNG Project, Nueces and San Patricio Counties, Texas

EIS was adopted; therefore cost and time data are not applicable to DOE. [FERC was the lead agency; DOE was a cooperating agency.]

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

* Recovery Act Project

National Nuclear Security Administration/ Savannah River Operations Office

DOE/EIS-0283-S2 (80 FR 26559, 5/8/15)

(Draft EIS EPA Rating: LO)

Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at the Savannah River Site, Aiken, South Carolina

Cost: \$10,000,000

Time: 58 months

Western Area Power Administration

DOE/EIS-0408 (80 FR 24915, 5/1/15)

(Draft EIS EPA Rating: LO)

Upper Great Plains Wind Energy Programmatic EIS, Iowa, Minnesota, Montana, Nebraska, North Dakota, and South Dakota

[DOE and the US Fish and Wildlife Service were co-leads; DOE cost was \$1,889,000.]

Time: 80 months

DOE/EIS-0417 (80 FR 32110, 6/5/15)

(Draft EIS EPA Rating: 3)

South Mountain Freeway (Loop 202) Interstate 10 (Papago Freeway) to Interstate 10 (Maricopa Freeway) Final Environmental Impact Statement and Section 4(f) Evaluation, Phoenix, Arizona

EIS was adopted; therefore, cost and time data are not applicable to DOE. [Federal Highway Administration was the lead agency; DOE was a cooperating agency.]

DOE/EIS-0450* (80 FR 24915, 5/1/15)

(Draft EIS EPA Rating: EC-1)

TransWest Express Transmission Project, Wyoming, Colorado, Utah, and Nevada

EIS preparation cost was paid by the applicant; therefore, cost data are not applicable to DOE. [DOE and the Bureau of Land Management were co-lead agencies.]

Time: 52 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, there were no EAs completed for which cost data were applicable.
- For this quarter, the median and average completion times for 2 EAs for which time data were applicable was 23 months.
- Cumulatively, for the 12 months that ended June 30, 2015, the median cost for the preparation of 8 EAs for which cost data were applicable was \$180,000; the average was \$752,000.
- Cumulatively, for the 12 months that ended June 30, 2015, the median completion time for 15 EAs for which time data were applicable was 16 months; the average was 20 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$10,000,000.
- For this quarter, the median completion time for 3 EISs for which time data were applicable was 58 months; the average was 63 months.
- Cumulatively, for the 12 months that ended June 30, 2015, the median and average costs for the preparation of 2 EISs for which cost data were applicable was \$5,740,000.
- Cumulatively, for the 12 months that ended June 30, 2015, the median completion time for 6 EISs for which time data were applicable was 53 months; the average was 55 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Having sufficient time for NEPA.* The initial decision to move the proposed implementation date for the project back one year allowed sufficient time to conduct the NEPA analysis.
- *Interactive GIS.* Interactive GIS stations were used to provide project site-specific visuals to respond to stakeholder proximity questions and concerns.

Data Collection/Analysis

What Worked

- *Use of best available data.* Since conducting site-specific cultural and biological surveys on over 2,400 miles of alternatives was infeasible, best available data were used to support impact analyses.
- *"Corridor approach."* A "corridor approach" was used to help inform right-of-way siting based on the results of impact analyses. The approach of narrowing an initial 2-mile wide study corridor to a 250-foot right-of-way provided flexibility for avoiding sensitive resources.

What Didn't Work

- *New endangered species identified.* During the EA process, new species of concern were added to the Endangered Species List, resulting in the need for additional data collection.
- *Changes to list of threatened and endangered species list.* Several pertinent changes to the list of threatened and endangered species occurred during development of the NEPA document, each time requiring substantial revision to portions of the document that were already drafted.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Monthly conference calls with project sponsor.* Monthly conference calls with the project sponsor kept everyone aware of EA schedules and progress.
- *Weekly project staff calls.* Weekly project staff calls ensured progress continued throughout the EIS drafting process and facilitated timely completion of the document.
- *Senior management staff support.* Senior management support and occasional prods, especially in the later stages of the EIS review, kept things moving.
- *Contractor availability.* The availability of contractor employees for unscheduled conference calls helped resolve problems as they arose and facilitated timely completion of the EIS.

Factors that Inhibited Timely Completion of Documents

- *Lack of control.* As a joint-lead agency, DOE did not have control of schedule management. This inhibited timely completion of the EIS.
- *Coordinating with other agencies.* Coordination among 50 cooperating agencies was challenging. Since each agency had its specific goals and ideas about the NEPA process and the program itself, coming to consensus on decisions took longer than anticipated.
- *Lack of integration.* The NEPA EIS process was not integrated with the project planning process. This caused some delays in information distribution.
- *Staff resources.* The project was delayed due to the unavailability of staff support at land management agencies.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Joint-lead agency agreement ineffective.* The joint-lead agency arrangement was not very effective; the joint leads had different needs and sometimes opposing goals, which contributed to delays in the completion of the document.
- *Loss of institutional knowledge.* Retirements, transfers, and additions of new staff members occurred at many points during preparation of the EIS. Subsequently, loss of institutional knowledge slowed EIS completion at various points during the process.
- *Differing opinions.* Differences of opinion between and within the joint lead agencies about risk to listed species, risk to agencies, risk to developers, and the financial ramifications of conservation measures led to substantial delays.

Teamwork

Factors that Facilitated Effective Teamwork

- *Good coordination.* Good coordination among team members was instrumental in resolving potential “road blocks” in the EIS process.
- *Good communication with project sponsor.* Project sponsor maintained good communication with NEPA staff to keep them aware of project changes.
- *Bi-monthly telephone calls.* Bimonthly telephone calls between DOE and the developer allowed for project updates to be communicated and facilitated the identification of potential problems before the EA process was too far along.

Factors that Inhibited Effective Teamwork

- *Communication with contractor.* In accordance with the joint-lead agency Memorandum of Understanding, DOE's co-lead agency had control over contractor direction. DOE would have benefited from a direct line of communication with the contractor.
- *Misunderstanding on EA status.* The developer put the design portion of the project on hold but wanted to continue the EA process. Some team members assumed that because the design was on hold, the EA was also on hold. This resulted in people not working on the EA until clarification was conveyed to them.
- *Joint-lead agency approvals problematic.* Approval authorities at one lead agency would occasionally request changes to final documents that were already

signed by approval authorities at the other lead agency, leading to several rounds of revisions before the signature process was completed.

- *Widespread team.* The team of contributors was large and geographically widespread, making meetings and sometimes conference calls difficult to schedule; at times, critical decisions could not be made when key individuals were unavailable.

Process

Successful Aspects of the Public Participation Process

- *Open-house public meetings.* Open-house style public meeting with GIS stations created meaningful and effective opportunities for public involvement.
- *Good scoping comments.* The comments received during scoping helped focus document review on the portions of the EIS needing revision. In several instances, the public comments resulted in the review and revision of sections of the document that the management team felt were already clear and complete.
- *Strong EIS support.* Public support for the document was very strong. The most frequent comment DOE received was some variation of “hurry up and get the PEIS done so we can use it.”

Unsuccessful Aspects of the Public Participation Process

- *Public not really interested in NEPA.* The public meeting was well attended, but the attendees were more interested in getting the project construction started than completing the NEPA process.
- *Length of NEPA process.* Attendees at the public meeting voiced frustration about the length of time necessary to complete the EIS process.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Development of a Programmatic Biological Assessment.* The management team developed a Programmatic Biological Assessment (PBA)

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

to accompany the Programmatic EIS (PEIS). A comprehensive list of conservation measures was developed for each of 28 Endangered Species Act-listed threatened and endangered species, and a review and approval system was developed to ensure the PBA would be followed by developers of projects tiering from the PEIS. The joint-lead agencies developed a consistency evaluation form, essentially a checklist of required conservation measures, for each listed species considered in the PBA. As long as developers agree to implement the applicable conservation measures as stated on the forms, they will receive coverage under the PBA and the Endangered Species Act Section 7 consultation process for their project.

- *Facilitate informed decision.* The PEIS will facilitate informed and sound decisions on tiered projects in the future. Developers are already using the early planning tools developed in the PEIS, especially with respect to siting and wildlife surveys, on several tiered projects.

Enhancement/Protection of the Environment

- *Resource protection.* The NEPA process identified resource issues and constraints that have been used to inform corridor narrowing and will ultimately inform the location of site-specific rights-of-way.
- *Mitigation of environmental impacts.* Conservation and mitigation measures were developed during the EIS process to address potential adverse impacts to natural resources.
- *Protection of environment.* The EA process helped identify sites that were not environmentally appropriate for the proposed project.

Other Issues

Guidance Needs Identified

- *Clarification on the tiering process.* Clarification on the tiering process was identified as a need, however

the Council on Environmental Quality's December 2014 guidance on programmatic documents and tiering resolved the issue.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

For the past quarter, in which 2 EA and 2 EIS questionnaire responses were received, 3 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "5" stated that the EIS provides a template for avoiding or minimizing negative environmental impacts during design of wind farms. Many of the measures developed in the document are already being used by developers to avoid sensitive wildlife entirely in their internal planning, before signing lease agreements and committing to parcels of land that would otherwise be problematic.
- A respondent who rated the process as "3" stated that while the NEPA process has provided a wealth of information to work with, overall effectiveness cannot be measured until the participating land management agencies identify mitigation measures.
- A respondent who rated the process as "3" stated that the EA project was already focused on environmental improvement.
- A respondent who rated the process as "2" stated that the EA was for connection to an existing DOE project. No new environmental impacts were identified.

LESSONS LEARNED

December 1, 2015; Issue No. 85

Fourth Quarter FY 2015

Water Resources Council Revises Floodplain Guidelines

New guidelines will help federal agencies, including DOE, update their procedures to implement Executive Order (E.O.) 11988, *Floodplain Management*, which was amended in January 2015¹ “to improve the Nation’s resilience to current and future flood risks, which are anticipated to increase over time due to the effects of climate change and other threats” (*LLQR*, March 2015, page 1). DOE soon will undertake a rulemaking to revise its *Floodplain and Wetland Environmental Review Requirements* (10 CFR Part 1022) to account for amendments to E.O. 11988 and the guidelines.

The Water Resources Council² in October issued *Guidelines for Implementing Executive Order 11988, Floodplain Management, and Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*. The guidelines were developed by

(continued on page 4)



The new floodplain management guidelines will help prevent losses caused by flooding that affect the environment, economy, and public health and safety. (Photo: U.S. Army Corps of Engineers)

¹ E.O. 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, amended E.O. 11988.

² The Water Resources Council consists of the Secretaries of the Interior, Agriculture, Army, Commerce, Housing and Urban Development, Transportation, and Energy Departments, and the Administrator of the Environmental Protection Agency.

The National Tribal Energy Summit – A NEPA Perspective

By: Rob Seifert, Director, Office of Environmental Compliance, Office of Environmental Management

More than 450 representatives from Tribal, state, and federal government agencies, Tribal corporations, and private sector organizations, including almost 100 representatives from Tribes and Alaska Native Villages, participated in the annual National Tribal Energy Summit. This year’s summit, titled “A Path to Economic Sovereignty,” focused on building partnerships and discussing energy and security issues. Over the three days of presentations, roundtables, and working group meetings, the discussion highlighted the



significant contributions made by Tribes to the DOE mission through partnerships with DOE sites and programs.

The summit was sponsored by DOE’s Office of Indian Energy Policy and Programs in cooperation with the National Center for American Indian Enterprise Development and the National Conference of State Legislatures, on September 23–25.

(continued on page 7)

Inside Lessons Learned

Welcome to the 85th quarterly report on lessons learned in the NEPA process. This issue features Administration changes in environmental policy to better account for climate change and improve watershed- and landscape-scale planning. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borgstrom

Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by January 20, 2016, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due February 1, 2016

For NEPA documents completed October 1 through December 31, 2015, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than February 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue of *LLQR* is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Presidential Memorandum Directs Net Benefit or No Net Loss Goal for Natural Resources Mitigation

President Obama recently directed several federal agencies to enhance their mitigation efforts, including by establishing a goal to achieve a net benefit or no net loss for natural resources they manage. DOE is not mentioned in the November 3 *Presidential Memorandum: Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment*; however, DOE does cooperate on NEPA reviews with agencies listed in the memorandum, including the U.S. Forest Service and the Bureau of Land Management.

In the memorandum, the President recognizes our “moral obligation to the next generation to leave America’s natural resources in better condition than when we inherited them” and the importance of this obligation to “the strength of our economy and quality of life.”

Improving Regulatory Consistency

The Departments of Defense, the Interior, and Agriculture, the Environmental Protection Agency, and the National Oceanic and Atmospheric Administration are directed

to utilize landscape- or watershed-scale planning and establish a net benefit or no net loss goal for natural resources they manage. These agencies should favor advance compensation (mitigation for which measurable benefits are achieved before a project’s harmful impacts occur), and consider the long-term durability of these measures. In addition, they should increase public transparency in their mitigation policies, including the locations of impacts and mitigation projects, and ensure that these policies are implemented consistently across the country. This consistency, the memorandum notes, can “create a regulatory environment that allows us to build the economy while protecting healthy ecosystems.”

Each of the aforementioned agencies is directed to produce mitigation policies or guidance within the next year (180 days for the U.S. Forest Service). When working with these agencies on NEPA reviews, DOE should identify how potential mitigation activities may be impacted by their efforts to achieve the goals of the memorandum. 

Deputy General Counsel Highlights Role of Environmental Justice in NEPA



Kedric L. Payne, DOE Deputy General Counsel for Environment and Compliance, described the evolution of environmental justice (EJ) in NEPA practice at the inaugural National Civil Rights Conference in Washington, DC, on November 4–5. The mission of the National Civil Rights Conference, co-hosted by a coalition of federal departments and agencies, was “to provide a collaborative forum for federal civil rights professionals to receive training, share best practices, and explore cross-cutting issues in enforcement and compliance,” according to the [conference program](#).

The principles of NEPA go hand in hand with the principles of environmental justice.

– Kedric L. Payne
Deputy General Counsel for Environment
and Compliance, DOE

NEPA and EJ Principles

Mr. Payne recounted the history of EJ and NEPA, drawing parallels between them. “NEPA provides an important framework to advance EJ through projects involving federal actions, especially when communities can access the NEPA process early in a project’s development,” he said. Mr. Payne emphasized key NEPA principles, including that the law “recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.”

The connection between EJ and NEPA can be seen in [Executive Order \(E.O.\) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations](#) (February 11, 1994), explained Mr. Payne. E.O. 12898 provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

Mr. Payne described the [Presidential Memorandum](#) issued in conjunction with E.O. 12898, which lists four ways to consider EJ under NEPA: 1) environmental effects, 2) mitigation, 3) community participation, and

4) through EPA’s review of EISs pursuant to Section 309 of the Clean Air Act. Mr. Payne added that the Council on Environmental Quality’s (CEQ’s) 1997 *Environmental Justice: Guidance under NEPA* has helped ensure that EJ concerns are effectively identified and addressed.

Interagency Working Group Preparing Report on EJ Methodologies in NEPA

A federal Interagency Working Group (IWG) on EJ was convened in 1994 as a result of E.O. 12898. Mr. Payne highlighted how the current Administration has reinvigorated the IWG, including its NEPA Committee, which “seeks to improve the effective, efficient and consistent consideration of environmental justice issues in the NEPA process through the sharing of best practices, lessons learned, research, analysis, training, consultation, and other experiences of federal NEPA practitioners.” Mr. Payne described a report that the NEPA Committee is currently preparing, *Promising Practices for EJ Methodologies in NEPA Review*. The NEPA Committee “spent over 36 months researching, analyzing, and discussing the interactions of EJ and NEPA,” he said.

The NEPA Committee is considering several subjects in its development of the report, including: meaningful engagement, scoping process, defining the affected environment, alternatives, identifying minority and low-income populations, disproportionately high and adverse impacts, and mitigation and monitoring, said Mr. Payne. For example, the NEPA Committee identified the importance of selecting a geographic unit of analysis appropriate for the potentially affected area and for ways that minority and low-income populations could be impacted, he explained. In addition, when identifying potential disproportionately high and adverse impacts, Mr. Payne underscored the importance of looking closely at the unique circumstances of the proposed action and alternatives, and the potentially affected communities, to best understand potential impacts.

He said that the NEPA Committee report, which is expected soon, will provide flexible approaches for agencies as they consider EJ in NEPA analyses. The report is intended to assist with implementing CEQ’s 1997 guidance by sharing effective ways to consider EJ that have been used across federal agencies.

Floodplain Guidelines *(continued from page 1)*

an interagency working group that considered more than 2,000 comments received on draft guidelines earlier this year.

The guidelines explain that the amended E.O. 11988 calls for “agencies to use a higher vertical flood elevation and corresponding horizontal floodplain than the base flood for federally funded projects to address current and future flood risk and ensure that projects last as long as intended.” The guidelines also explain that the amended E.O. reinforces important concepts articulated in E.O. 11988 when it was issued in 1977, “such as avoiding adverse impacts associated with actions in a floodplain and minimizing potential harm if an action must be located in a floodplain.”

The guidelines continue to emphasize integrating implementation of E.O. 11988 with NEPA. “When a proposed action is subject to review under E.O. 11988 and NEPA, an agency should include any relevant analysis prepared under E.O. 11988 in the resulting NEPA document,” the guidelines state. DOE integrates floodplain assessments with its NEPA analyses, to the extent practicable, and that practice is expected to continue.

New Definitions for Floodplains

The guidelines explain that the definition of floodplain for purposes of federal decisionmaking depends on the type of proposed action being considered. Under the 1977 version of E.O. 11988, the approach for federal actions has been to define a floodplain as either the 100-year floodplain or, for critical actions, the 500-year floodplain. That practice will continue, the guidelines explain, for federal actions except those deemed “federally funded projects.”

The guidelines define federally funded projects as those for which federal funds are used for new construction, substantial improvements, or to address substantial damage to structures and facilities. For federally funded projects, agencies will use the Federal Flood Risk Management Standard (FFRMS), which was established with the amendments to E.O. 11988; those amendments are articulated in E.O. 13690 (January 30, 2015). (The guidelines describe an exception to the FFRMS for actions that an agency considers to be in the interest of national security.)

The FFRMS provides agencies with a choice of three alternative approaches to define a floodplain for federally funded projects:

- (1) *Climate-Informed Science Approach:* Use the “best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science.”

(E.O. 13690) The FFRMS identifies this as the preferred approach, and states that federal agencies “should use this approach when data to support such an analysis are available.”

- (2) *Freeboard Value Approach:* Add 2 feet to the base flood elevation or, for a critical action, add 3 feet. The base flood elevation is the area subject to a one percent or greater chance of flooding in any given year, also known as the 100-year floodplain.
- (3) *The 0.2-percent-annual-chance Flood Approach:* Use the 500-year flood elevation.

Emphasis on Resiliency

The guidelines clarify that the FFRMS is a resiliency standard. “Changes in terminologies from ‘protection’ to a broader focus on resilience and risk management reflect the recognition that floodwaters cannot be fully controlled, full protection from floods cannot be provided by any measure or combination of measures, and risk cannot be completely eliminated.” Instead, the guidelines continue, coordinated efforts among governmental and non-governmental parties “can be used to manage the level of risks in a floodplain.”

“The vertical flood elevation and corresponding horizontal floodplain determined using the approaches in the FFRMS establish the level to which a structure or facility must be resilient. This may include using structural or nonstructural methods to reduce or prevent damage; elevating a structure; or, where appropriate, designing it to adapt to, withstand and rapidly recover from a flood event,” the guidelines state.

Other New Considerations

Two other concepts included in the guidelines are the use of natural systems in floodplain management and the need to consider potential impacts to vulnerable populations. For all federal actions to which E.O. 11988 applies (not just federally funded projects), agencies, “where possible, shall use natural systems, ecosystem processes, and nature-based approaches in the development of alternatives.” These approaches should be considered in early planning and design of federal actions.

“The use of nature-based approaches, combined with the preservation and restoration of natural systems and ecosystem processes where appropriate, provides numerous benefits and supports a system-wide, watershed approach to flood risk management that considers the interdependencies of natural systems,” the guidelines explain. This consideration of nature-based

(continued on page 10)

Considering Ecosystem Services in Decision Making

Natural systems provide “vital contributions to economic and social well-being,” states a recent memorandum for federal agencies. In *Incorporating Ecosystem Services into Federal Decision Making* (October 7, 2015), the Office of Management and Budget, CEQ, and White House Office of Science and Technology Policy direct agencies to better incorporate “the full range of benefits and tradeoffs among ecosystem services associated with federal actions.” DOE’s Office of Sustainability Performance is leading an inter-office implementation team to help DOE meet the goals of the memorandum.

What are ecosystem services?

Ecosystem services are the benefits that natural systems provide to people. NEPA reviews often consider these benefits – services like timber production, water purification, flood protection, and recreational opportunities.

The memorandum acknowledges that NEPA analysis represents one of the decision making processes where impacts to ecosystem services can be accounted for and analyzed, but not the only one. The accompanying White House [blog post](#) points out that the memorandum complements other Administration efforts such as the Gulf Coast Ecosystem Restoration Council’s [recent draft list](#) of projects to restore natural storm barriers in the Gulf Coast.

When the natural systems that produce ecosystem services are harmed or destroyed, the services may be replaced through new infrastructure or simply lost. For example, loss of a coastal wetland may lead to consideration of a new flood wall to provide flood protection and more substantial drinking water infrastructure to make up for lost water quality improvements that had been provided by the wetland.

Improving NEPA Analysis by Considering the Full Range of Environmental Benefits

Many ecosystem services are public goods that may have benefits not fully recognized in private markets. The memorandum points out that advances in science and technology have provided a better understanding of the

links between ecosystems and the services they provide. Better accounting for these benefits in NEPA and other decision making, the memorandum states, will not just ensure healthy ecosystems for future generations, but will more effectively address the challenges facing the Nation.

The memorandum promotes better integration into federal decision making of the full range of benefits and tradeoffs among ecosystem services. The memorandum explains that an ecosystem-based approach can:

1. More completely inform planning and decisions,
2. Preserve and enhance the benefits provided by ecosystems to society,
3. Reduce the likelihood of unintended consequences, and
4. Where monetization is appropriate and feasible, promote cost efficiencies and increase returns on investment.

Developing the DOE Work Plan

The memorandum directs agencies to develop a report by March 30, 2016, describing how ecosystem services are currently incorporated into agency decision making. Many DOE offices may already be using ecosystem services to inform decision making regarding wetlands and other natural areas. The memorandum directs each agency to establish a work plan on furthering this incorporation and fully meeting the goals of the memorandum. This effort will involve many DOE offices, including the NEPA Office, participating in the inter-office implementation team mentioned above. CEQ will develop government-wide implementation guidance, which will undergo agency and external public review, and will serve as a basis for future updates of the DOE work plan.

To facilitate this DOE-wide effort, the NEPA Office is compiling examples of how ecosystem services are currently accounted for in documents like land use plans, climate-adaptation plans, sustainability or vulnerability reports, and NEPA documents. If you have examples or ideas of how ecosystem services can be better incorporated into DOE analyses, please contact Bill Ostrum at william.ostrum@hq.doe.gov or 202-586-4149. 

Transitions: New NEPA Compliance Officers

Environmental Management: Julie Smith

Julie Ann Smith, on detail from the Office of Electricity Delivery and Energy Reliability (OE), is serving as Acting NCO for the Office of Environmental Management (EM), following the retirement of EM's former NCO, Jeanie Loving. As Acting NCO, Dr. Smith is responsible for providing guidance on NEPA compliance issues associated with the treatment, storage, packaging, transportation, and disposal of hazardous and radiological wastes from EM cleanup activities. She joined DOE's Office of NEPA Policy and Compliance in early 2009 from the Federal Transit Administration and in 2013 took a position as an Electricity Policy Analyst in OE's National Electricity Delivery Division. She is a NEPA Document Manager for OE proposed cross-border electric transmission lines and will continue working part-time with OE during the detail to EM. Dr. Smith has an undergraduate degree in Environmental Chemistry and masters and doctoral degrees in Public Policy – Environmental. She can be reached at juliaa.smith@hq.doe.gov or 202-586-7668.



NNSA, Kansas City Field Office: Sybil Chandler

Sybil Chandler now serves as the NCO for the Kansas City Field Office, which is part of the National Nuclear Security Administration (NNSA). In addition to her NEPA responsibilities, as Environmental Health and Safety Manager, she oversees the site contractor in matters relating to environmental issues and emergency management. Ms. Chandler is also part of the Bannister Federal Complex disposition team, a DOE and General Services Administration collaboration preparing the DOE-owned former Kansas City Plant for redevelopment by demolishing the existing infrastructure and remediating the environmental concerns. (DOE relocated operations from the Kansas City Plant to a new National Security Campus in 2014.) Before joining DOE in July 2015, her 25-year career included responsibility for regulatory compliance and safety in private sector enterprises and serving as the Environmental Health and Safety Program Coordinator for a community college. She received her Bachelor of Science in Occupational Safety from Louisiana State University and her Master of Science in Health Education/Occupational Safety from the University of Southern Mississippi. She is a Certified Hazardous Materials Manager and a Certified Safety Professional. Ms. Chandler can be reached at sybil.chandler@nnsa.doe.gov or 816-488-3417.



Ms. Chandler replaces David Caughey as NCO for the Kansas City Field Office. Mr. Caughey retired late last year.

Southwestern Power Administration: Aiden Smith

Aiden Smith has been named NCO for the Southwestern Power Administration (SWPA), headquartered in Tulsa, Oklahoma. Mr. Smith began his career as a student intern at SWPA and transitioned to full-time employment in 2006. First as an Electrical Engineer and then as a Public Utilities Specialist, he worked closely with SWPA's stakeholders to develop power sales, transmission service, and infrastructure agreements. Now as SWPA's Vice President, Transmission Strategy, Mr. Smith manages SWPA's coordination with Regional Transmission Organizations and energy markets, organizes SWPA's efforts under Section 1222 of the Energy Policy Act of 2005 (including the *Plains & Eastern Clean Line Transmission Line Project FEIS (DOE/EIS-0486)* issued November 2015), and oversees SWPA's environmental program. Mr. Smith is a Certified Energy Manager and holds a Bachelor of Science in Engineering Physics from the University of Tulsa. He can be reached at aiden.smith@swpa.gov or 918-595-6764.



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New NCOs *(continued from previous page)*

Western Area Power Administration, Rocky Mountain Region: Brian Little

Brian Little has been designated NCO for Western's Rocky Mountain Region (RMR) in Loveland, Colorado. He started his environmental career as a Student Career Experience Program trainee in the Bureau of Reclamation and, after graduating from Kent State University with a Bachelor of Science in Conservation Biology, accepted a Natural Resource Specialist position in Bureau of Reclamation's Eastern Colorado Area Office. Since joining RMR in March 2013, Mr. Little has been involved in environmental planning and compliance activities for construction and maintenance projects. In August 2015, he was selected as Environmental Manager, responsible for overseeing RMR's environmental and cultural resource protection programs. Prior to his federal civilian career, he served in the United States Marine Corps; he currently serves in the Colorado Air National Guard. Mr. Little can be reached at blittle@wapa.gov or 970-461-7287.



On behalf of the DOE NEPA Community, the NEPA Office offers Gene Iley, RMR's former NCO, best wishes on his retirement.

Tribal Summit *(continued from page 1)*

Lessons Learned from the Tribes

DOE senior leadership participated in and benefited from a Tribal-led training session. The Tribes provided information on their histories and values, and shared how a deeper understanding of Tribal perspectives can help inform DOE's decisions. The training provided a broad foundational understanding of the relationship between Tribes and the federal government, examined key sensitivities to support positive and communicative government-to-government relationships, and identified key cultural perspectives.

DOE's Office of Environmental Management also met with the Tribes in a listening session to hear their perspectives on DOE's efforts to engage Tribes in waste cleanup efforts. This session focused on identifying best practices in Tribal consultation that can provide for meaningful engagement and protection of valued cultural, natural, and other Tribal resources.

In both the training and listening sessions, the Tribes raised concerns about the limited review timeframe for NEPA documents. For lengthy and complex documents, the Tribes shared that the minimum review periods established under CEQ's and DOE's NEPA implementing regulations do not provide sufficient time for a Tribe's review and internal approval before submitting comments to DOE. The Tribes emphasized that as sovereign nations, they must comply with their own internal bureaucratic procedures before they can submit documents to DOE. The comment periods established in DOE's NEPA regulations may not provide enough notice to get a NEPA document on a Tribe's agenda at Tribal council meetings for approval, let alone provide comments on the document to DOE. Recognizing that there are many factors to be considered when determining the appropriate

length of a comment period on a NEPA document, Tribal participants at the summit requested that DOE be mindful of Tribes' capacity constraints and internal processes when establishing NEPA document review schedules.

Putting Lessons Learned into Practice

Meaningful engagement with Tribes is an essential component of the NEPA process and is vital to the success of DOE's programs. Tribal comments introduce different perspectives that enhance the planning process and improve DOE's decisions by helping DOE to better understand the communities that DOE projects may affect. While minimum timeframes exist, they are not always the best answer. To ensure that Tribes have the opportunity to provide meaningful evaluation of and feedback on NEPA documents, DOE, in partnership with its stakeholders, should consult with Tribes early in the NEPA process to establish a schedule that supports an inclusive and well-informed decisionmaking process.

DOE can offer cooperating agency status when a Tribe has jurisdiction or special expertise, as noted in CEQ's NEPA regulations (40 CFR 1508.5) and encouraged in the CEQ and Advisory Council on Historic Preservation's *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106*. (See *LLQR*, June 2013, page 1.) DOE can also consider providing the Tribes advance notice of when NEPA documents will be available, and the opportunity to submit their own narratives for inclusion in a NEPA document. (See *LLQR*, June 2011, pages 9 and 15.)

More information about the summit, including the program and links to the presentations, is available on the [Office of Indian Energy Policy and Program's website](#). 

Transitions: NCO Retirements

Bonneville Power Administration: Kathy Pierce

Every federal career has to start somewhere, and for Kathy Pierce, it was at age 16, as a GS-2 Personnel Clerk Typist for the Navy. After 40 years of federal service – 35 of them with the Bonneville Power Administration (BPA) – she retired on October 1, 2015. She served as BPA’s NEPA Compliance Officer since 2005, but had been active in NEPA issues since she joined BPA in 1981.

In those early years, Ms. Pierce contributed to major EISs for BPA’s Resource Programs, Delivery of the Canadian Entitlement,¹ and other generation and energy efficiency projects and programs. In the Environmental Planning and Analysis group, she was a key member of the team that successfully sought delegation of all NEPA authorities, based on the quality and uniqueness of BPA’s NEPA program.

Ms. Pierce then led the team that produced the *BPA Business Plan EIS* (DOE/EIS-0183), which has supported BPA’s daily business operations for 20 years and has served as a model for expediting projects and saving money while meeting the spirit and letter of environmental laws. She also led the team that developed a tiered *Fish and Wildlife Implementation Program EIS* (DOE/EIS-0312), which has supported BPA’s fish and wildlife mitigation and enhancement efforts since 2003.

Kathy Pierce worked closely with the Office of NEPA Policy and Compliance during DOE NEPA rulemakings in 1992, 1996, and 2011. She proposed revisions to the Subpart D classes of actions (i.e., that normally fit within a categorical exclusion or that require an EA or EIS)

Kathy Pierce shared innovative approaches used by BPA NEPA program in *LLQR* articles:

- BPA’s Reader’s Guide Makes EIS Reader-Friendly (with Charles Alton, [June 2001](#), page 6)
- Card Game Highlights Diversity at Federal-Tribal NEPA Clinic ([June 2004](#), page 10)
- Bonneville’s “Balanced Scorecard” Approach to Mitigation, Monitoring, and Adaptive Management ([June 2011](#), page 1)

that reflected power marketing administration experience and promoted efficiency in DOE’s NEPA practice.

She was a strong voice in the DOE NEPA Community. A consistent theme of her presentations was that NCOs and NEPA Document Managers must manage the NEPA process and pay special attention to quality assurance, schedule management, and communication both within the NEPA team and with external stakeholders. “We can’t make sure there are no surprises during the course of a project, but we can make sure everyone is equally surprised,” she remarked in an *LLQR* article ([June 2012](#), page 1) on managing EIS schedules.

She received a Meritorious Service Award and the Administrator’s Excellence Award, BPA’s highest award, in March 2010 ([June 2010](#), page 12). She was recognized for providing extraordinary contributions to BPA’s mission – through “unusual initiative, regional and national innovation, and outstanding customer service; exemplary management skills and devotion to duty; and dramatic cost-savings for BPA and the region.”

In retirement, Kathy plans to spend more time on her long-standing volunteer activities, many of which reflect her environmental values and cultural interests. She is a docent at the Chinook Tribe’s Cathlopotle Plankhouse and helped build the replica long house. She also volunteers at the Ridgefield National Wildlife Refuge (Clark County, Washington) and the Title VII Indian Education Program.

The Office of NEPA Policy and Compliance will miss Kathy’s thoughtful contributions, as well as her unflinching positive attitude. On behalf of the DOE NEPA Community, the NEPA Office wishes her a happy and fulfilling retirement.

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Kathy Pierce (right) visited DOE Headquarters in October to say farewell to Carol Borgstrom and NEPA Office staff.

¹ *The Columbia River Treaty, a water management agreement between the United States and Canada, optimizes flood management and power generation by coordinating the operations of reservoirs and water flows of the Columbia and Kootenay Rivers on both sides of the border. Under the Treaty, the United States provides Canada one-half of downstream power benefits, “the Canadian Entitlement.” (Based on <http://blog.gov.bc.ca/columbiarivertreaty/faqs/>.)*

NCO Retirements *(continued from previous page)*

Reflections and Farewell from Raj Sharma, Office of Nuclear Energy

Standing at the threshold of retirement leads one to contemplate the past.

Major early steps in the federal approach to environmental regulation focused on protecting water – the 1899 Refuse Act (to prevent the obstruction of harbors) and the 1948 Federal Water Pollution Control Act (to establish water quality standards and control discharges of pollutants). Publication of Rachel Carson’s *Silent Spring* (1962) is widely credited with inspiring the modern environmental movement, as well as resulting in the insecticide DDT being banned from use first in the United States and later worldwide.

By the late 1960s, it was recognized that pollution is a multimedia issue, and the 1970s witnessed a blossoming of the interdisciplinary field of environmental sciences. President Richard M. Nixon signed NEPA into law on January 1, 1970, and created the Environmental Protection Agency the same year. During the rest of the decade, major environmental legislation encompassing all media (water, air, and land) was enacted with bipartisan support.

With the enactment of a comprehensive set of environmental laws, compliance with and enforcement of regulations became high priority. Except for NEPA, though, as late as the mid-1980s, federal agencies claimed “sovereign immunity” and took the position that complying with environmental regulations was a matter of “comity.” In essence, agencies would comply informally, as a matter of courtesy, not subject to enforcement action. In other words, agencies asserted that they could not be held responsible for noncompliance. This posture changed due to the federal government’s own initiative, and in response to court decisions, as well as due to the enactment of the Federal Facilities Compliance Act of 1992. Now, environmental laws are uniformly enforced for public and private undertakings.

NEPA Policy Drives the Analysis

As NEPA practitioners, most of us are quite familiar with Section 102(2)(C) of NEPA, which requires analysis of environmental impacts for major federal actions significantly affecting the quality of the environment. Section 101, which embodies the declaration of national environmental policy, is intangible and not amenable to prescriptive guidance. Section 101(b) leaves it up to the federal government to use all practicable means to

carry out the stated environmental policy. To use an analogy, the NEPA documents prepared under Section 102 are the trees and the policy stated in Section 101 is the forest. We should not be so engrossed working with the trees that we become oblivious of the forest.

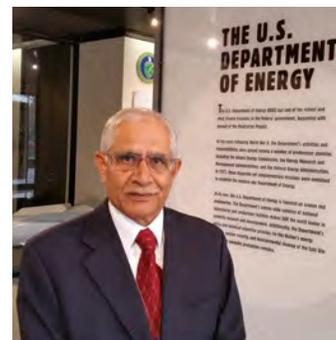
We should not lose sight of the fact that it is the policy that drives the impact analysis.

I feel privileged to have lived and worked during these times of environmental renaissance, which have spanned almost three generations. While working for the Consolidated Edison Company of New York, I got involved with NEPA in 1971, soon after the Calvert Cliffs decision, which required the Atomic Energy Commission (precursor of the Nuclear Regulatory Commission) to prepare an EIS for reactor licensing because issuance of the license for construction or operation of a reactor was considered a major federal action. In the early 1970s, while working on commercial reactor EISs, I struggled to define what constitutes a significant impact. Working at a power company, a national laboratory, and then a federal agency helped me understand how the perspective changes depending on the kind of organization one works for.

In the end, I must say that I enjoyed working for DOE for the last 32 years. I met Carol Borgstrom soon after I joined (April 1984, in a snowstorm in Denver). As years went by, I developed a high regard for her and her very hard-working staff. At least for as long as she is at DOE, the Department’s NEPA program is in good hands.

My best regards to DOE’s NEPA Community. I wish you well.

On behalf of the DOE NEPA Community, the NEPA Office offers best wishes to Dr. Rajendra Sharma on his retirement at the end of December. The last of the pioneer class of NCOs, Raj has served as the NCO for the Office of Nuclear Energy continuously since 1990, when the position was established (Secretary of Energy Notice (SEN) 15-90). In 25 years as an NCO, he has made many contributions to DOE’s NEPA rulemakings, guidance development, and NCO meetings. See his recent observations in LLQR, [June 2015](#), page 3.



(continued on next page)

NCO Retirements *(continued from previous page)*

Nevada Field Office: Linda Cohn

Linda Cohn is retiring in late January from the Nevada Field Office, National Nuclear Security Administration, where she has served as NCO since 2008 and as Deputy NCO for several years earlier. Ms. Cohn also has served as the Nevada Field Office's Cultural Resource Program Manager, American Indian Consultation Program Manager, and Program Coordinator for classified projects. She has served as a NEPA Document Manager, most notably for the Nevada site-wide EIS issued in 2013

(Continued Operation of the Department of Energy/ National Nuclear Security Administration Nevada National Security Site and Off-Site Locations in the State of Nevada, DOE/EIS-0426). In addition, she has contributed insights and recommendations in NEPA guidance efforts, rulemaking, and the lessons learned program.

Linda is well respected and frequently consulted by NCOs and headquarters staff. On behalf of the DOE NEPA Community, the NEPA Office offers her best wishes on her retirement.

Floodplain Guidelines *(continued from page 4)*

approaches does not “prevent agencies from using more traditional structural and nonstructural flood risk management approaches.”

Also, the guidelines “recognize the importance of considering impacts to and engagement of vulnerable populations” and acknowledge that this relates to the consideration of environmental justice.

“For example, those in lower income brackets often live in housing most vulnerable to flooding and lack the resources (financial or other) to undertake recommended loss-reduction, evacuation, or recovery measures,” the guidelines explain. “The elderly, children, individuals with existing health conditions, non-English speaking or illiterate groups, groups lacking access to public or private transportation, or those with disabilities may be unable to undertake self-protective actions before, during, or after a flood. Agencies should ensure that Federal actions proactively avoid environmental injustices by identifying any disproportionately high and adverse impacts to the public safety, human health, or environmental resources of such vulnerable populations.”

Agency Regulations to Be Revised

The guidelines emphasize that each agency, through its regulations or procedures for floodplain management, is

responsible for determining how best to determine the floodplain for federally funded projects. For projects involving multiple agencies, the guidelines recommend early coordination among agencies to resolve potential conflicts.

E.O. 13690 directs agencies to update their floodplain regulations and procedures after the Water Resources Council issues implementing guidelines. Now that the Council has done so, the Office of NEPA Policy and Compliance, in coordination with the Office of the Assistant General Counsel for Environment and DOE's NEPA Compliance Officers, is beginning the process of updating DOE's *Floodplain and Wetlands Environmental Review Requirements (10 CFR Part 1022)*. During the rulemaking process, the existing regulations remain in effect.

For additional information, contact Brad Mehaffy, NEPA Office, at bradley.mehaffy@hq.doe.gov. 

Agencies maintain the responsibility and flexibility to tailor their procedures to meet their prescribed missions while fulfilling the requirements of E.O. 11988.

– Guidelines, Part I, E.O. 11988 Section 6

DOE-wide NEPA Contracting Update

A DOE team is evaluating the offers received in response to a Request for Quotations to provide NEPA support services. The scope of the solicitation is similar to that of the DOE-wide NEPA support contracts that expired in the summer of 2014, i.e., the preparation of NEPA documents and other environmental documents, as well as support for other environmental activities. These activities could include, for example, public involvement, obtaining and analyzing environmental data, preparing floodplain and wetland assessments, and assisting DOE in meeting its

obligations under the National Historic Preservation Act and the Endangered Species Act.

DOE's National Nuclear Security Administration (NNSA) is conducting the acquisition and will administer the anticipated blanket purchase agreements. Like the earlier DOE-wide contracts, they will be available for use by all of DOE, including NNSA and the Federal Energy Regulatory Commission. 

Training Opportunities

Migratory Bird Conservation Training Washington, DC; January 26–28, 2016



DOE will host migratory bird conservation training presented by the U.S. Fish and Wildlife Service (FWS) on January 26–28 at DOE Headquarters (Forrestal Building). The program will include sessions related to NEPA. “We will discuss common questions and issues NEPA practitioners often encounter when trying to incorporate the Migratory Bird Treaty Act into their NEPA documents,” said Lesley Kordella, one of the FWS trainers. Topics will include environmental laws relevant to migratory bird protection and how to address migratory birds in evaluating the affected environment, impact analysis, cumulative impacts, and mitigation. The training also will include a session on issues specific to DOE and its current Memorandum of Understanding with FWS regarding implementation of Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

Registration is open to all federal agency staff. For further information, including the agenda, contact Beverly Whitehead, Office of Sustainable Environmental Stewardship, at beverly.whitehead@hq.doe.gov or 202-586-6073.

National Environmental Justice Conference and Training Program and National Conference on Health Disparities Washington, DC; March 9–12, 2016



A National Dialog for Building Healthy Communities is the theme of the 2016 National Environmental Justice Conference and Training Program, which will be held jointly with the Ninth Annual National Conference on Health Disparities on March 9–12 in Washington, DC. The conference, sponsored jointly by DOE, other federal agencies, the Howard University School of Law, and private industry partners, is free to government employees, community organizations, students, and faculty.

Agenda sessions will include panels on the impacts of climate change on human health and the environment, the connection between public health and environmental justice, and the role of environmental exposure in reducing health disparities. Additional information is available on the [conference website](#).

National Association of Environmental Professionals Chicago; April 11–14, 2016



The National Association of Environmental Professionals (NAEP) will hold its 41st annual conference April 11–14 in Chicago with a theme of *Charting the Next 40 Years of Environmental Stewardship*. Presentations and panel discussions will explore NEPA regulatory developments, guidance, litigation outcomes, public involvement, and analytical techniques.

The opening address of the conference will be presented by Karen Weigert, Chief Sustainability Officer of the City of Chicago. The keynote speaker will be Susan Hedman, Administrator of EPA’s Region 5 and Manager of the Great Lakes National Program, which coordinates with Canada and brings together federal, state, tribal, local, and industry partners to restore and protect the world’s largest freshwater system.

Optional training workshops are offered (for an additional registration fee) on April 11: a full-day “intermediate/advanced” NEPA workshop; a half-day seminar by the National Park Service, Natural Sounds and Night Skies Division, on the assessment of impacts from anthropogenic light and noise on natural and cultural resources and national park visitors; and a half-day workshop offered by American Public University on interdisciplinary team management and effective community engagement.

Conference attendance is open to environmental professionals in all levels of government, academia, and the private sector. Early registration rates are available, and discounts are offered to speakers and government employees. Additional information is available on the [NAEP conference website](#).

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

EAs and EISs Completed July 1 to September 30, 2015

EAs¹

Bonneville Power Administration

[DOE/EA-1974](#) (7/7/15)

Wallooskee-Youngs Confluence Restoration Project,
Clatsop County, Oregon
Cost: \$141,000
Time: 19 months

[DOE/EA-1995*](#) (9/10/15)

Trestle Bay Restoration Project,
Clatsop County, Oregon
EA was adopted; therefore cost and time data are not applicable to DOE. [US Army Corps of Engineers was the lead agency; DOE was a cooperating agency.]

Office of Energy Efficiency and Renewable Energy

[DOE/EA-2001](#) (9/30/15)

Final Rule, 10 CFR Part 433, Energy Efficiency Standards for New Federal Commercial and Multi-Family High Rise Residential Buildings' Baseline Standards Update
Cost: \$5,000
Time: 10 months

Fermi Site Office/Office of Science

[DOE/EA-1943](#) (9/25/15)

Construction and Operation of the Long Baseline Neutrino Facility and Deep Underground Neutrino Experiment at Fermilab and Sanford Underground Facility, Batavia, Illinois and Lead, South Dakota
Cost: \$1,070,000
Time: 36 months

Golden Field Office/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1985*](#) (9/10/15)

Virginia Offshore Wind Technology Advancement Project on the Atlantic Outer Continental Shelf Offshore Virginia
EA was adopted; therefore cost and time data are not applicable to DOE. [US Department of the Interior Bureau of Ocean Energy Management was the lead agency; DOE was a cooperating agency.]

Richland Operations Office/ Office of Environmental Management

[DOE/EA-1915](#) (9/30/15)

Proposed Conveyance of Land at the Hanford Site,
Richland, Washington
Cost: \$1,440,000
Time: 46 months

Western Area Power Administration

[DOE/EA-1979](#) (8/17/15)

SummitWind Farm, Grant County, South Dakota
The cost for this EA was paid by the applicant; therefore cost information does not apply to DOE.
Time: 23 months

[DOE/EA-1982](#) (9/30/15)

Parker-Davis Transmission System Routine Operation and Maintenance Project and Proposed Integrated Vegetation Management Program,
Arizona, California, and Nevada
Cost: \$197,000
Time: 20 months

EISs

Advanced Research Projects Agency-Energy

[DOE/EIS-0481](#) (80 FR 47489, 8/7/15)

(Draft EIS EPA Rating: LO)
Engineered High Energy Crops Programs, Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia
Cost: \$1,100,000
Time: 42 months

Bonneville Power Administration

[DOE/EIS-0506*](#) (80 FR 50616, 8/20/15)

(Draft EIS EPA Rating: LO)
Crooked River Valley Rehabilitation,
Idaho County, Idaho
EIS was adopted; therefore cost and time data are not applicable to DOE. [US Forest Service was the lead agency; DOE was a cooperating agency.]

(continued on next page)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

* Adopted

EAs and EISs Completed *(continued from previous page)*

Office of Electricity Delivery and Energy Reliability

DOE/EIS-0459 (80 FR 56466, 9/18/15)

(Draft EIS EPA Rating: EC-2)

Hawaii Clean Energy Programmatic EIS, Hawaii

The cost for the preparation of this EIS was shared with the state; therefore total cost is not applicable to DOE. [DOE cost was \$1,000,000 and Hawaii cost was \$2,100,000.]

Time: 57 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at <http://www2.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>.)

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for 5 EAs for which cost data were applicable was \$197,000; the average was \$570,000.
- For this quarter, the median completion time for 6 EAs for which time data were applicable was 21 months; the average was 26 months.
- Cumulatively, for the 12 months that ended September 30, 2015, the median cost for the preparation of 10 EAs for which cost data were applicable was \$196,000; the average was \$363,000.
- Cumulatively, for the 12 months that ended September 30, 2015, the median completion time for 16 EAs for which time data were applicable was 21 months; the average was 24 months.

EIS Cost and Completion Times

- For this quarter, the cost for the preparation of 1 EIS for which cost data were applicable was \$1,100,000.
- For this quarter, the median and average completion times for 2 EISs for which time data were applicable were 50 months.
- Cumulatively, for the 12 months that ended September 30, 2015, the median cost for the preparation of 3 EISs for which cost data were applicable was \$1,470,000; the average was \$4,190,000.
- Cumulatively, for the 12 months that ended September 30, 2015, the median completion time for 7 EISs for which time data were applicable was 55 months; the average was 54 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Narrowing EIS scope.* The original proposal had two major projects. The information about the two projects was very different. DOE decided to eliminate one of the projects from detailed study because it did not meet the need to directly improve habitat and water quality, it was only at 25 percent design, and it was a separate action not dependent on or connected to the other component.
- *Good meetings.* The public meeting and individual meetings with Tribal Nations resulted in DOE gaining a very good understanding of issues that needed to be addressed in the EA.

What Didn't Work

- *Changes to scope.* A number of changes to the scope of the project resulted in associated NEPA lag time and schedule re-baselining.

Data Collection/Analysis

What Worked

- *Most data readily available.* The resource impact analyses presented in the EA were mostly supported by existing and readily available data from other projects undertaken in the area.

What Didn't Work

- *Delay in receipt of cultural resource information.* Cultural resource information came in very slowly, which delayed analyses and findings.
- *Large program area.* The programmatic EIS covered a large geographical area and required data that were not always available.
- *Use of out-of-date data.* Sharing data between the site contractor and NEPA contractor was problematic. In some cases, the NEPA contractor used information

obtained from internet searches that was out of date or not comprehensive. The correct data were later identified and used.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Frequent conference calls.* Frequent conference calls kept everyone aware of "to-do" lists and EA progress.
- *Statutory driver.* A statutory directive to complete the EA by a certain date led to focus on the schedule for timely completion of the document.

Factors that Inhibited Timely Completion of Documents

- *New review process.* The cooperating agency used a new administrative review process with new procedures. This project, which was the first to use the new process, identified workflow problems.
- *Inadequate schedule.* The EIS schedule did not include adequate time for internal reviews of revised documents.
- *Inadequate staff.* The lead federal agency had limited staff available to work on the project. This staff also had little EIS experience and no familiarity with their new NEPA procedures.

Teamwork

Factors that Facilitated Effective Teamwork

- *Committed cooperating agencies.* Cooperating agencies committed to and met all schedules set for the EIS process.
- *Effective cooperating agency participation.* The cooperating agency participated in team meetings and reviews, assisted with the Clean Water Act analysis/compliance, and helped respond to public comments.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Effective team participation.* Having regular conference calls and NEPA team participation on the Integrated Project Team helped to keep the project moving toward completion.
- *NEPA Team Charter.* Preparation of a NEPA Team Charter, which addressed how four DOE organizations, three laboratories, and a number of contractors would work together to prepare the EA, facilitated effective teamwork.
- *Good working relationships.* The good working relationship, among the many persons and multiple agencies involved in the preparation of this programmatic EIS, facilitated timely completion of the document.
- *Responsive team members.* All core project team members were responsive and available throughout the EA process.

Factors that Inhibited Effective Teamwork

- *Coordination with NEPA contractor.* Coordinating the comment review process was cumbersome because the same comments had to be submitted several times before being addressed by the NEPA contractor.
- *Disagreements among team members.* Disagreements among EA team members on the NEPA process led to long meetings to achieve resolutions.
- *Contractor not always available.* The NEPA contractor was not always available at critical times during the EA process. This caused delays in the preparation of the document.
- *Differing NEPA regulations.* Different NEPA implementing regulations and different styles of NEPA documentation between agencies proved to be confounding.
- *Busy staff.* Staff were often very busy or out of the office on travel. Therefore, attendance at meetings and on conference calls was inconsistent.

Process

Successful Aspects of the Public Participation Process

- *Field trips.* After scoping and release of the draft EIS, there were field trips for the public and the regulatory

agencies involved in the project to tour the proposed project site.

- *Focused public meetings.* Holding poster sessions in conjunction with public meetings led to more focused meetings and a more casual opportunity for interface between DOE and the public.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Addressing statutory responsibility.* The EIS addresses statutory responsibility to protect, mitigate, and enhance fish and wildlife habitat affected by the development of the project, as well as obligations under the Endangered Species Act.
- *Informed decision.* The NEPA process led to environmental clearance for the project. Additionally, certain impacts like transportation were flagged that will need to be closely managed.

Enhancement/Protection of the Environment

- *Enhanced environment.* As a result of the EIS process, the project area will be enhanced for fish and wildlife, as well as for the local economy.
- *Mitigation of environmental impacts.* Conservation and mitigation measures were developed during the EIS process to address potential adverse impacts to natural resources.
- *Protection of environment.* The resource protection measures listed in the EA would result in environmental impacts being avoided or minimized.

Other Issues

Guidance Needs Identified

- *Property transfers.* Additional guidance is needed regarding the applicability of categorical exclusions versus the need to prepare EAs for property transfers.
- *Noise and vibration assessment.* More guidance is needed on assessing the impacts of noise and vibration in NEPA documents.

(continued on next page)

What Worked and Didn't Work *(continued from previous page)*

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 2 EA and 1 EIS questionnaire responses were received, 3 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “4” stated that the NEPA process facilitated the avoidance or minimization of potential environmental impacts that were disclosed in the EA.
- A respondent who rated the process as “4” stated that the NEPA process disclosed the potential environmental impacts of implementing the project and informed the DOE decision to fund it.
- A respondent who rated the process as “5” stated that the NEPA process assessed potential impacts to environmental resources in the project area.

LESSONS LEARNED

March 1, 2016; Issue No. 86

First Quarter FY 2016

Expand Your EJ Toolkit To Enhance NEPA Reviews

Seeking to “provide the groundwork for a renewed and dynamic process to advance environmental justice principles through NEPA implementation and thereby promote a more effective, efficient, and consistent consideration of environmental justice during NEPA reviews,” the NEPA Committee of the Interagency Working Group on Environmental Justice (EJ IWG) prepared a *Report on Promising Practices for EJ Methodologies in NEPA Reviews*.

During a Collaborative Conversation on EJ held on February 4, the EJ IWG distributed the report to federal agencies and asked them to consider it in their NEPA activities and report their recommendations at an EJ IWG meeting this summer.

David Klaus, Deputy Under Secretary for Management and Performance, represents DOE on the EJ IWG. Suzi Ruhl, Environmental Protection Agency (EPA), and Helen Serassio, Department of Transportation, co-chair the NEPA Committee, which includes participants from 13 federal agencies. Denise Freeman, Office of NEPA Policy and Compliance, represents DOE on the NEPA Committee.

“Promising Practices” Meet Community Needs

Kedric Payne, DOE Deputy General Counsel for Environment and Compliance, provided an overview of the *Promising Practices* report at February’s meeting. He emphasized how the goals of NEPA and EJ are closely aligned. “The experience that each agency brought to preparing this report demonstrates the flexibility available through the NEPA process to adapt public involvement and analysis to meet real needs of local communities,” he said after the meeting.

The *Promising Practices* report is a compilation of approaches that the NEPA Committee gleaned from an



Kedric Payne (left); Suzi Ruhl; Melinda Downing, DOE Environmental Justice Program Manager; and Denise Freeman participated in the Collaborative Conversation on EJ.

almost 4-year review of agency practices. The report consists of nine sections:

- Meaningful Engagement
- Scoping Process
- Defining the Affected Environment
- Developing and Selecting Alternatives
- Identifying Minority Populations
- Identifying Low-Income Populations
- Impacts
- Disproportionately High and Adverse Impacts
- Mitigation and Monitoring

Within each section, the report provides guiding principles and specific steps to consider during the NEPA process. “This effort highlights the fundamental approach of using federal environmental laws as a framework to advance environmental justice,” explained Ms. Ruhl.

(continued on page 4)

Inside Lessons Learned

Welcome to the 86th quarterly report on lessons learned in the NEPA process. This issue highlights practices to improve NEPA implementation for environmental justice and public access to references; these practices remind us of NEPA's emphasis on meaningful public involvement. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Borqstrom

Director
Office of NEPA Policy and Compliance

Printed on recycled paper 

Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by April 11, 2016, to Yarden Mansoor at [yardena.mansoor@hq.doe.gov](mailto:yarden.mansoor@hq.doe.gov).

Quarterly Questionnaires Due May 2, 2016

For NEPA documents completed January 1 through March 31, 2016, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than May 2. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue is available, send your email address to [yardena.mansoor@hq.doe.gov](mailto:yarden.mansoor@hq.doe.gov). (DOE provides paper copies only on request.)

Cooperating Agencies Contribute to Most DOE EISs

During fiscal year 2015, cooperating agencies participated in the preparation of 25 of the 27 ongoing EISs (93 percent) for which DOE was the lead or co-lead agency. In addition, 5 of the 16 EAs that DOE completed during the year were prepared with cooperating agencies. These are among the findings in DOE's latest Cooperating Agency Report to the Council on Environmental Quality (CEQ), submitted in January.

This annual report is part of CEQ's continuing effort to encourage federal agencies to involve cooperating agencies – at the federal, state, local, and tribal government levels – in NEPA reviews. CEQ [guidance](#) identifies the benefits of involving cooperating agencies, including disclosure of relevant information early in the analytical process, access to technical expertise and staff support, avoidance of duplicative reviews, and facilitating the resolution of inter- and intra-governmental issues.

DOE worked with 84 distinct cooperating agencies on EISs during fiscal year 2015: 24 federal agencies,

15 state agencies, 30 counties, 6 conservation districts, 7 tribal entities, a grazing board, and a university. Most cooperating agencies participated in only one EIS, but 11 participated in multiple documents. The U.S. Forest Service was a cooperating agency in 10 EISs. The U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service each participated in more than 5 EISs.

In addition to involving other agencies in DOE's EISs and EAs, DOE participates as a cooperating agency in other agencies' NEPA reviews where DOE has jurisdiction or special expertise. DOE is a cooperating agency in 27 EISs and 5 EAs being prepared by the Bureau of Land Management, Bureau of Reclamation, Federal Energy Regulatory Commission, U.S. Forest Service, and other agencies.

For a copy of DOE's report or additional information, contact Yarden Mansoor, Office of NEPA Policy and Compliance, at [yardena.mansoor@hq.doe.gov](mailto:yarden.mansoor@hq.doe.gov). 

Horst Greczmiel, a NEPA Champion, Retires from CEQ

Horst Greczmiel retired from the Council on Environmental Quality (CEQ) in December, having served for 15 years as Associate Director for NEPA Oversight. Mr. Greczmiel was a steady voice for the value and practicality of NEPA. He assisted agencies countless times in resolving questions about NEPA implementation, encouraged early public participation, and led initiatives to make NEPA implementation more efficient and effective.



Mr. Greczmiel oversaw an interagency task force on NEPA modernization and spearheaded the development for CEQ of guidance on topics as diverse as involving cooperating agencies, undertaking emergency actions, consideration of past actions in cumulative effects analysis, aligning the NEPA process with environmental management systems, environmental collaboration

and conflict resolution, public involvement, categorical exclusions, mitigation, integrating NEPA with the National Historic Preservation Act Section 106 review process and with state environmental reviews, and programmatic NEPA reviews. He instituted monthly meetings of federal agency NEPA contacts to promote information sharing and development of collegial relationships across agencies.

An Enthusiastic Supporter of DOE's NEPA Program

Mr. Greczmiel was an enthusiastic supporter of DOE's NEPA program.

In addition to assisting DOE's NEPA rulemaking and guidance efforts, he was a featured speaker at DOE's meetings of NEPA Compliance Officers, the DOE NEPA Community, and the interagency conference sponsored by DOE in partnership with CEQ to celebrate NEPA's 35th anniversary.



"There is a difference between delay and time well spent."

– Horst Greczmiel (LLQR, June 2010, page 14)

"We turned to Horst many times for advice on ways to improve DOE's NEPA program," said Carol Borgstrom, Director, Office of NEPA Policy and Compliance. "He always took the time to understand our issues, regularly asked probing questions, and helped the Department, as he did other agencies."

Before joining CEQ, Mr. Greczmiel served in the Office of Environmental Law at U.S. Coast Guard headquarters, where he received the Commandant's Award for Superior Achievement and a Department of Justice Commendation for his work on environmental planning and species protection litigation. Earlier, he had practiced law in the New Jersey Public Defender's Office, in a private firm, and for the U.S. Army. [LL](#)

Mr. Greczmiel's NEPA colleagues and friends said their farewells at a celebration at the Executive Office Building on February 5. On behalf of the DOE NEPA Community, and with appreciation for Mr. Greczmiel's dedicated leadership and commitment to environmental stewardship, we offer best wishes on the occasion of his retirement.

Edward (Ted) Boling, who served as CEQ's General Counsel from 2000–2010 before joining the Office of the Solicitor, Department of the Interior, now serves as CEQ Associate Director for NEPA. At a Federal NEPA Contacts meeting on March 2, Mr. Boling plans to provide updates on CEQ guidance documents (greenhouse gases and climate; environmental assessments), FAST Act implementation, and an overview of CEQ's NEPA priorities for 2016.

Insights from Horst Greczmiel, as Reported in LLQR

From his position at CEQ, Mr. Greczmiel grappled with questions of NEPA implementation in the broadest sense, involving not only challenges facing federal agencies but concerns of tribal, state, and local governments, Congress, the courts, and the public. *LLQR* captured some of his insights over the years.

- "By using my position to help strengthen the NEPA process (a fundamental step in addressing the environmental component of any decision), the broader environmental initiatives designed to make communities more livable and to address preservation of habitat and biological diversity will continue to move forward." (March 2000, page 8)
- Senior decisionmakers will read the Summary. "Why do they read it? Because it's in plain English; it distills the key points that they need to be aware of, provides them options, and makes a recommendation on how they should proceed. That sounds an awful lot like what a good NEPA document should do." (December 2005, page 8)

(continued on page 9)

EJ Promising Practices *(continued from page 1)*

Outcome of a Renewed Focus on EJ

The EJ IWG was established by [Executive Order 12898](#), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), and reinvigorated through a [memorandum of understanding](#) (MOU) signed in 2011 by 17 federal agencies, including DOE. The MOU declared the continued importance of identifying and addressing EJ considerations in agency programs, policies, and activities.

In 2012, the EJ IWG created the NEPA Committee¹ “to improve the effective, efficient and consistent consideration of environmental justice issues in the NEPA process through the sharing of best practices, lessons learned, research, analysis, training, consultation, and other experiences of federal NEPA practitioners.”

“We shared EJ and NEPA-related promising practices and experiences through regular conference calls and face-to-face meetings,” recalled Ms. Freeman. “And finally, after much discussion and collaboration, the NEPA Committee has produced a living document ready for use and consideration by NEPA practitioners in their preparation and review of NEPA documents.”

Work With Local Communities

The *Promising Practices* report contains many suggestions. An overarching theme is to understand the particular interests of local communities. Agencies should recognize that assumptions and practices appropriate for the general population may not be the best for minority populations and low-income populations. The report offers steps that agencies can take throughout the NEPA process to address these differences.

Meaningful Engagement – Agencies can consider “adaptive and innovative approaches to both public outreach (i.e., disseminating relevant information) and participation (i.e., receiving community input).” The report acknowledges the value of “conducting early and diligent efforts to meaningfully engage” potentially affected people and organizations throughout the NEPA process and of using a variety of communication methods targeted to interested audiences, such as “holding some meetings outside of traditional work hours and locations” and providing “multiple forms of communication (e.g., written, oral, pictorial) to accommodate varied levels of reading proficiency . . . and to account for limited English proficiency.”

Scoping Process – The report notes that “minority populations and low-income populations may have increased or unique vulnerabilities from multiple impacts in one or more environmental resource topics or from cumulative impacts.” Taking a “broad cross-media perspective of affected resource topics” during scoping “may help ensure potential human health and environmental effects on minority populations and low-income populations are considered.” As follow up to the scoping process, the report suggests that agencies consider documenting the “rationale for any scoping determinations made concerning minority populations and low-income populations (e.g., alternatives development, mitigation measures)” and notes that a post-scoping summary report may assist agencies in keeping the community informed and improve the prospects for meaningful engagement later in the NEPA process.

Defining the Affected Environment – Input from many sources, including minority populations and low-income populations, may provide “useful insight into how the community’s conditions, characteristics, and/or location can influence the extent of the affected environment.” The report suggests consideration of the “unique conditions (e.g., ecological, aesthetic, historic, cultural, economic, social, or health) of the potentially affected minority populations and low-income populations” and of exposure pathways, among other factors, when defining the affected environment. It adds that the affected environment may not be contiguous.

Developing and Selecting Alternatives – The report identifies several opportunities to involve the local community and others in the development of alternatives, including by providing the purpose and need statement to “help focus public input regarding appropriate reasonable alternatives” and “encouraging communities to propose their own alternatives.” The report states that agencies can be informed by including “a comparable level of detail concerning issues affecting minority populations and low-income populations” and that agencies may wish to consider which alternative has the “least adverse impact to minority populations and low-income populations” when identifying the preferred alternative.

Identifying Minority Populations – The report describes three approaches that agencies have used to identify minority populations.

- *Meaningfully Greater* analysis involves comparing the percentage of minority population in the affected

(continued on next page)

¹ The EJ IWG NEPA Committee includes representatives of the U.S. Departments of Agriculture, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Justice, State, and Transportation; EPA; Nuclear Regulatory Commission; Veterans Administration; and Council on Environmental Quality.

EJ Promising Practices *(continued from previous page)*

area to a reference population. The choice of affected area (e.g., census block), reference population, and definition of “meaningfully greater” varies by agency and proposed action.

- In a *Fifty Percent* analysis, an agency determines whether the “percentage of minorities residing within the geographic unit of analysis meets or exceeds 50%”; a *Fifty Percent* analysis may be followed by a *Meaningfully Greater* analysis.
- A *No Threshold* analysis reports the “percent minority for each geographic unit of analysis within the affected environment.”

The report states that, “Some populations may not be fully accounted for in Census data. As appropriate, agencies can consider using local sources of data (including data provided by the community and Tribes) to conduct the No Threshold analysis.” The report cautions that, “Selecting a geographic unit of analysis (e.g., county, state, or region) without sufficient justification may portray minority population percentages inaccurately by artificially diluting their representation within the selected unit of analysis.”

Identifying Low-Income Populations – Agencies often conduct this analysis based on poverty level using the Census Bureau’s poverty thresholds or agency-specific poverty guidelines. The report notes that there is more than one way to assess low-income thresholds (e.g., proportion of individuals, households, or families with children below the poverty level). The report also notes that, “In some instances, it may be appropriate for agencies to select a threshold for identifying low-income populations that exceeds the poverty level.”

The analytic approaches described in the report involve comparing population groups at or below the selected threshold level. As it does for minority populations, the report cautions that the choice of geographic area for analysis may artificially dilute the representation of low-income populations.

Impacts – When assessing potential impacts, an agency can consider unique conditions among minority populations and low-income populations (e.g., unique routes of exposure or cultural practices) that may affect impact estimates and the potential “for any unique or amplified impacts” to transient or geographically dispersed minority populations and low-income populations. The report notes that there may be cultural differences “regarding what constitutes an impact or the severity of an impact” and that responsible opposing views, “including views regarding an impact’s status as disproportionately high and adverse, may warrant discussion in a NEPA document.”

Disproportionately High and Adverse Impacts –

A conclusion that impacts to the general population are insignificant does not, in itself, the report explains, demonstrate that there are no disproportionately high and adverse impacts to minority populations or low-income populations. As noted above, there may be special exposure pathways or other factors that amplify potential impacts to certain populations. The report states that a determination of disproportionately high and adverse impacts may lead an agency to “consider heightening its focus on meaningful public engagement regarding community preferences, considering an appropriate range of alternatives (including alternative sites), and mitigation and monitoring measures.”

Agencies’ approaches should not determine that a proposed action or alternative would not have a disproportionately high and adverse impact on minority populations and low-income populations solely because the potential impacts of the proposed action or alternative on the general population would be less than significant (as defined by NEPA).

– Promising Practices report

Mitigation and Monitoring – The report points out that the “unique characteristics and conditions of minority populations and low-income populations” may require “adaptive and innovative mitigation measures.” The report also notes that, “Agencies may wish to evaluate mitigation measures even if the project will have some benefits to minority populations and low-income populations.” Agencies can discuss monitoring plans with affected communities to “improve the effectiveness of monitoring efforts,” the report states, and may identify in a NEPA document those “mitigation and monitoring measures designed specifically to address impacts to minority populations and low-income populations.”

Feedback Requested

The *Promising Practices* report is not guidance. It is a collection of successful ideas from which all federal agencies can draw to develop their approaches to address EJ in their NEPA processes. The NEPA Office will be collecting feedback over the next few months on ways the report can benefit DOE and ways to build on the report. These ideas will be shared with the EJ IWG this summer.

The report will be available on the EJ IWG’s [website](#) and the DOE NEPA [Website](#) in March. For more information, contact Suzi Ruhl (ruhl.suzi@epa.gov) or Denise Freeman (denise.freeman@hq.doe.gov). 

Consider Availability of References When Planning to Issue a NEPA Document

Providing easy access to the references cited in a NEPA document enhances transparency and opportunities for public involvement. By being proactive – for example, making references available when a draft EIS is issued for public review – DOE can improve relations with the public and avoid requests for comment period extensions due to the unavailability of reference documents.

A NEPA document may rely on references for a variety of purposes, such as to identify the source of data or to explain models used in the analysis. In order to “cut down on bulk,” DOE may briefly describe and cite (rather than repeat) pre-existing material to integrate it into a NEPA analysis so long as the material “is reasonably available for inspection by potentially interested persons within the time allowed for comment” (40 CFR 1502.21).

However a reference is used, DOE is relying on it to help demonstrate the thoroughness and quality of its analysis. People who want to independently review that analysis often need access to reference documents.

Plan Ahead for Reference Access

As new references are identified, gather the documents and prepare them for release. Doing so throughout the NEPA process can be easier than backtracking when a document is nearly complete. It can also help avoid delays associated with preparing a reference document for public release.

- If a contractor is supporting preparation of the NEPA document, include providing a copy of reference documents among the deliverables.
- When it will not affect the quality of the referenced information, use a document already cleared for public release. Otherwise, arrange any required reviews (e.g., for sensitive information) to be consistent with

plans for release of the draft or final NEPA document. When possible, redact text from a document, rather than withhold the entire document.

Approach Depends on the Reference

Most reference documents are distributed as pdf files.

- For example, DOE sometimes posts the reference documents on the EIS website at the time of the EIS’s release. In other cases, DOE includes the references on disk with distribution of the NEPA document. For documents publicly available online, DOE sometimes provides a link to those documents in the reference section rather than posting the full documents; re-check links immediately before publication of the NEPA document.
- If a document cannot be made publicly available online (e.g., copyrighted journal articles), add the reference document to the library or reading room where the EIS is available for public review.
- Some references, such as data maintained in a Geographic Information System (GIS), may require special software to view. These references, and the required software, can be shown in the reference list under a special category such as “GIS References.”
- In the reference list printed in the NEPA document, explain where and how stakeholders can access reference documents. Note which reference documents are partially redacted or not available.

For more information or to share other examples of effective ways to manage reference documents, contact Bill Ostrum, Office of NEPA Policy and Compliance (william.ostrum@hq.doe.gov or 202-586-4149). 

CEQ NEPA Regulations, 40 CFR 1502.21: *Incorporation by reference*

Agencies shall incorporate material into an environmental impact statement by reference when the effect will be to cut down on bulk without impeding agency and public review of the action. The incorporated material shall be cited in the statement and its content briefly described. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment. Material based on proprietary data which is itself not available for review and comment shall not be incorporated by reference.

Training Opportunities

National Environmental Justice Conference and Training Program and National Conference on Health Disparities Washington, DC; March 9–12, 2016



2016 National Environmental Justice Conference
& Training Program

A National Dialogue for Building Healthy Communities is the theme of the 2016 National Environmental Justice Conference and Training Program, which will be held jointly with the Ninth Annual National Conference on Health Disparities on March 9–12 in Washington, DC. The conference, sponsored by DOE, other federal agencies, the Howard University School of Law, and private industry partners, is free to government employees, community organizations, students, and faculty.

One of several training workshops will address incorporating environmental justice and climate change into NEPA reviews. Other sessions will include panels on the impacts of climate change on human health and the environment, the connection between public health and environmental justice, and the role of environmental exposure in reducing health disparities. Additional information is available on the [conference website](#).

National Association of Environmental Professionals Chicago; April 11–14, 2016

The National Association of Environmental Professionals (NAEP) will hold its 41st annual conference April 11–14 in Chicago with a theme of *Charting the Next 40 Years of Environmental Stewardship*. Presentations will explore NEPA regulatory developments, guidance, litigation outcomes, public involvement, and analytical techniques.



The opening address will be presented by Karen Weigert, Chief Sustainability Officer, City of Chicago. The keynote speaker will be Cameron Davis, Senior Advisor to the EPA Region 5 Administrator on the Great Lakes Restoration Initiative, which coordinates with Canada and brings together federal, state, tribal, local, and industry partners to restore and protect the world's largest freshwater system.

On April 13, the NAEP Conference will present panel discussions on the Cohen NEPA Summit, a 2-day symposium held in December 2014 in honor of the work and service of William M. Cohen who, before his death in 2010, was one of the nation's leading NEPA practitioners, instructors, and mentors. The dual purposes of the Cohen NEPA Summit were to examine whether and how NEPA has achieved its objectives and to identify possible improvements. The NAEP panels will disseminate the recommendations of the Summit and solicit ideas from conference attendees on how to improve NEPA practice. Additional information is available on the NAEP [conference website](#).

Migratory Bird Conservation Training Washington, DC; May 24–26, 2016

DOE has rescheduled its migratory bird conservation training to be presented by the U.S. Fish and Wildlife Service (FWS) at DOE Headquarters (Forrestal Building). Snowed out from its initially scheduled offering in January, the training will take place on May 24–26.



The program includes sessions related to NEPA. “We will discuss common questions and issues that NEPA practitioners often encounter when trying to incorporate the Migratory Bird Treaty Act into their NEPA documents,” said Lesley Kordella, one of the FWS trainers. Topics will include environmental laws relevant to migratory bird protection and how to address migratory birds in evaluating the affected environment, impact analysis, cumulative impacts, and mitigation. The training also will include a session on issues specific to DOE and its current Memorandum of Understanding with FWS regarding implementation of [Executive Order 13186](#), *Responsibilities of Federal Agencies to Protect Migratory Birds*.

Registration is open to all federal agency staff. For further information, including the agenda, contact Beverly Whitehead, Office of Sustainable Environmental Stewardship, at beverly.whitehead@hq.doe.gov or 202-586-6073.

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Transitions

New NEPA Compliance Officers

Nuclear Energy: Jay Jones

Jay Jones was designated NCO for the Office of Nuclear Energy (NE), following the retirement of **Raj Sharma** (*LLQR*, December 2015, page 9). For 33 years, Mr. Jones has served in technical and management positions in NE, as well as the former Office of Civilian Radioactive Waste Management, where he worked on the EIS for a geologic repository at Yucca Mountain. He is currently a staff member in NE's Nuclear Fuels Storage and Transportation Planning Project, where his duties include overseeing environmental compliance documentation, serving as principal point of contact for tribal relations, participating in consent-based siting aspects for an interim storage facility and repository for spent nuclear fuel and high-level radioactive waste, engaging with stakeholders, and coordinating on the international aspects of radioactive waste management. Before joining DOE, he worked for 3 years with the U.S. Bureau of Mines as a field geologist. Mr. Jones attended the University of Virginia, majoring in Environmental Sciences, and Boston College for graduate studies in Geology. He can be reached at jay.jones@hq.doe.gov or 202-586-1330.



NNSA, Nevada Field Office: Carrie Stewart

Carrie Stewart was designated NCO for the National Nuclear Security Administration (NNSA) Nevada Field Office after the retirement of **Linda Cohn** (*LLQR*, December 2015, page 10). In addition to serving as the NCO, Ms. Stewart is responsible for the Office's Cultural Resources Management Program, American Indian Consultation Program, Community Environmental Monitoring Program, and Ecology Program. She has 27 years of experience managing and preparing NEPA documents and providing regulatory support to several federal agencies including DOE. Before joining DOE, she owned an environmental consulting business specializing in NEPA and permitting, and worked for national environmental and engineering firms in Las Vegas. Ms. Stewart holds a Bachelor of Science in Geology, a Master of Arts in Computer Resources and Information Systems, and a Master of Arts in Human Resources and Development. She can be reached at carrie.stewart@nnsa.doe.gov or 702-295-0077.



Savannah River Operations Office: Tracy Williams

Tracy Williams, the new NCO for the Savannah River Operations Office, is the Senior Technical Advisor for the NEPA and Natural Resources Team, within the Environmental Quality Management Division in the Office of the Assistant Manager for Infrastructure and Environmental Stewardship. She is responsible for overseeing and directing preparation of all NEPA documents and providing NEPA technical support to line organizations. (**Drew Grainger**, the Office's long-serving NCO, retired in March 2015 (*LLQR*, March 2015, page 16).) Ms. Williams has nearly 28 years of experience in environmental compliance, sustainability, and management. Before joining DOE, she worked for the Alabama Department of Environmental Management, Lockheed Martin/Bechtel Jacobs LLC, and the Anniston Army Depot. Ms. Williams holds a Bachelor of Science in Mathematics and Chemistry, and a Master of Science in Civil Engineering. She can be reached at tracy.williams@srs.gov or 803-952-8278.



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Horst Greczmiel: Insights in LLQR *(continued from page 3)*

- CEQ has focused attention on involving cooperating agencies because “the sooner you engage the people who are going to be affected . . . the better off you will be as you go through the process. . . . [Y]ou’ll get a lot better product because you’re focusing on the things that matter to the people on the ground.” (December 2005, page 8)
- “Public involvement for an EA is required, but what you do varies because EAs vary in terms of their potential significance. . . . You owe it to yourself and your organization to reach out and provide quality information to the people who care, so that they have an opportunity to participate in a meaningful way.” (June 2006, page 6)
- One thing he hates to see on page one of an EIS, he confided, is a statement that “this NEPA document is being prepared to comply with NEPA and the CEQ and agency NEPA regulations.” An EIS is prepared to inform the public and decisionmakers of the environmental consequences of proposals, of course. (June 2007, page 14)
- When people refer to NEPA as “just a process,” they are forgetting the goal set forth in Section 101 of NEPA – “to create and maintain conditions under which man and nature can exist in productive harmony.” (June 2008, page 6)
- NEPA documents do not need to repeat information from another source in its entirety, under 40 CFR 1502.21, *Incorporation by reference*, but must briefly describe the materials referenced and their relevance to the current analysis. Writers must also make sure that any references are available to readers. (June 2008, page 7)
- “Focus on what counts.” (June 2008, page 7)
- “NEPA began a brand new chapter in the way America treats the public.” (June 2010, page 1)
- NEPA is not an umbrella to hold up and cover other environmental statutes. “It’s an upside down umbrella to contain all those statutes, to bring it all together.” (June 2010, page 10) 

Transitions *(continued from previous page)*

New Assignments

NNSA, Sandia Field Office (Albuquerque Complex) and Los Alamos Field Office

Karen Oden, formerly the NCO for the NNSA Los Alamos Field Office, is now assigned to the NNSA Sandia Field Office Engineering Group and serves as the NCO for the Albuquerque Complex. She can be reached at karen.oden@nnsa.doe.gov or 505-845-5162.

NNSA NCOs **Jane Summerson** (jane.summerson01@nnsa.doe.gov or 505-845-4091) and **John Weckerle** (john.weckerle@nnsa.doe.gov or 505-845-6026) are providing assistance to the Los Alamos Field Office as acting NCOs for NNSA activities. For NEPA-related inquiries regarding Office of Environmental Management (EM) activities at the Los Alamos Field Office, contact **Julie Smith**, EM’s Acting NCO (juliea.smith@hq.doe.gov or 202-586-7668).

National Energy Technology Laboratory

As a result of the American Recovery and Reinvestment Act (enacted February 2009), the Office of Fossil Energy’s National Energy Technology Laboratory (NETL) received a large number of grant proposals requiring NEPA review. To meet the expanded workload, in 2009 and 2010, NETL increased the NCO team from two to nine at its offices in Morgantown, West Virginia, and Pittsburgh. Since that work was completed, the NETL NCO team has been getting smaller through retirement and reorganization. **Cliff Whyte**, formerly Director of the Environmental Compliance Division, now serves as Acting Associate Director of Business Integration at NETL and is no longer an NCO.

On behalf of the DOE NEPA Community, we thank Cliff for his service as NCO since 2009 and as the NEPA Document Manager for several major EISs. We especially appreciate his article offering practical and humorous advice on managing major NEPA documents, Eating the NEPA Elephant (LLQR, September 2013, page 12), which deserves a second reading.

EAs and EISs Completed October 1 to December 31, 2015

EAs¹

Golden Field Office/Office of Energy Efficiency and Renewable Energy

[DOE/EA-1970](#) (12/21/15)

Fishermen's Atlantic City Windfarm,

Offshore Atlantic City, New Jersey

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE.
Time: 17 months

[DOE/EA-2004](#) (10/5/15)

Seneca Nation Wind Turbine Project,

Cattaraugus Territory, Erie County, New York

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE. [DOE and the Seneca Nation were co-leads in the preparation of this EA.]

Time: 20 months

[DOE/EA-2017*](#) (8/17/15)

Braddock Locks and Dam Hydro Electric Project,
Allegheny County, Pennsylvania

EA was adopted; therefore, cost and time data are not applicable to DOE. [The Federal Energy Regulatory Commission was the lead agency; DOE was not a cooperating agency.]

Los Alamos Field Office/ Office of Environmental Management

[DOE/EA-2005](#) (12/16/15)

Chromium Plume Control Interim Measure and Plume-Center Characterization, Los Alamos National Laboratory, Los Alamos, New Mexico

Cost: \$460,000

Time: 11 months

National Energy Technology Laboratory/ Office of Fossil Energy

[DOE/EA-1976](#) (10/19/15)

Emera CNG, LLC. Compressed Natural Gas Project,
Palm Beach County, Florida

The cost for this EA was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 21 months

National Nuclear Security Administration

[DOE/EA-2024](#) (12/28/15)

Gap Material Plutonium – Transport, Receipt, and Processing, Aiken County, South Carolina

Cost: \$130,000

Time: 6 months

Portsmouth/Paducah Project Office/ Office of Environmental Management

[DOE/EA-1927](#) (12/14/15)

Paducah Gaseous Diffusion Plant Final Environmental Assessment for Potential Land and Facilities Transfers, McCracken County, Kentucky

Cost: \$230,000

Time: 44 months

Y-12 Site Office/National Nuclear Security Administration

[DOE/EA-2014](#) (9/25/15)

Emergency Operations Center Project,

Oak Ridge, Tennessee

Cost: \$195,000

Time: 36 months

EISs

Office of Electricity Delivery and Energy Reliability

[DOE/EIS-0486](#) (80 FR 70206, 11/13/15)

(Draft EIS EPA Rating: LO)

Plains & Eastern Clean Line Transmission Line Project

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 40 months

[DOE/EIS-0499](#) (80 FR 68867, 11/6/15)

(Draft EIS EPA Rating: EC-2)

Great Northern Transmission Line Project, Roseau, Lake of the Woods, Koochiching, Beltrami, and Itasca Counties, Minnesota

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 17 months

(continued on next page)

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

* Adopted

EAs and EISs Completed *(continued from previous page)*

DOE/EIS-0503 (80 FR 68867, 11/6/15)

(Draft EIS EPA Rating: EC-2)

New England Clean Power Link Project, Grand Isle, Chittenden, Addison, and Windsor Counties, Vermont

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

Time: 16 months

Western Area Power Administration

DOE/EIS-0474 (80 FR 68867, 11/6/15)

(Draft EIS EPA Rating: EC-2)

Southline Transmission Line Project, Arizona and New Mexico

The cost for this EIS was paid by the applicant; therefore, cost information does not apply to DOE.

[The Bureau of Land Management and DOE were co-lead agencies.]

Time: 43 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at <http://www2.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>.)

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for 4 EAs for which cost data were applicable was \$213,000; the average was \$254,000.
- For this quarter, the median completion time for 7 EAs for which time data were applicable was 17 months; the average was 19 months.
- Cumulatively, for the 12 months that ended December 31, 2015, the median cost for the preparation of 11 EAs for which cost data were applicable was \$197,000; the average was \$386,000.
- Cumulatively, for the 12 months that ended December 31, 2015, the median completion time for 18 EAs for which time data were applicable was 19 months; the average was 21 months.

EIS Cost and Completion Times

- For this quarter, there were no EISs completed for which cost data were applicable.
- For this quarter, the median completion time for 4 EISs for which time data were applicable was 26 months; the average was 27 months.
- Cumulatively, for the 12 months that ended December 31, 2015, the median cost for the preparation of 3 EISs for which cost data were applicable was \$1,470,000; the average was \$4,190,000.
- Cumulatively, for the 12 months that ended December 31, 2015, the median completion time for 11 EISs for which time data were applicable was 43 months; the average was 49 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Revised proposal.* As a result of the scoping process, the proposal was revised accordingly, allowing a clearer and more focused analysis of the potential environmental impacts of the program.
- *Identifying logistical problems.* The scoping process identified elements of the proposed action that were potentially problematic from a logistical standpoint.

Data Collection/Analysis

What Worked

- *Close collaboration.* There was close collaboration with resource agencies (e.g., National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service) to ensure that the impact analysis and methodologies that were used would be acceptable for their areas of jurisdiction.

What Didn't Work

- *Obtaining data.* The EA contractor did not provide calculation/modeling packages with the preliminary draft EA, as requested. As a result, additional effort was required of the DOE technical reviewers to obtain access to this essential information.
- *Initiating research late.* A Federal Aviation Administration study and process to reach a No Hazard to Air Navigation was not initiated in a timely manner by the project proponent to obtain necessary approvals.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Frequent conference calls.* Frequent conference calls kept everyone aware of EA progress.

- *Revised schedule as needed.* After the review of each draft document, the EA contractor was asked to revise the schedule to consider impacts to the EA preparation time that would result from the proposed changes.
- *Frequent communication.* Frequent communication facilitated timely completion of the EA. Usually daily, but no less than weekly, communication among the co-lead agencies and the EA contractor on progress was essential to timely completion of the EA.
- *Anticipating potential problems.* The anticipation of potential problems before they occurred helped to identify viable solutions and to stay on schedule.
- *Commitment to schedule.* The NEPA team adhered to the project schedule as much as possible.

Factors that Inhibited Timely Completion of Documents

- *Cooperating agency not committed to schedule.* A cooperating agency did not adhere to the agreed upon schedule for draft document reviews.
- *Disagreement on EA structure.* Disagreement associated with establishing the EA organization, technical content, and editorial quality made timely completion of the EA difficult.
- *State Historic Preservation Officer (SHPO) concurrence.* The SHPO concurrence on the Section 106 determination took a lot more time than was allotted in the EA preparation schedule.
- *New threatened species listing.* The listing of a new threatened species in the middle of the EA preparation led to increased document preparation time.

Teamwork

Factors that Facilitated Effective Teamwork

- *Team members' co-location.* Having all NEPA team members (including EA contractor) located in the same physical location facilitated effective teamwork.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Memorandum of Understanding (MOU)*. A MOU with the project proponent and the EA contractor facilitated teamwork because everyone understood their responsibilities.
- *Rapid resolution of issues*. Frequent communication via phone and e-mail facilitated rapid resolution of issues.

Factors that Inhibited Effective Teamwork

- *Ineffective communication strategy*. The communication strategy established for the co-lead agencies and the EA contractor was not efficient and led to delays.
- *Differing opinions on Section 7 consultation*. The co-lead agencies and the EA contractor had different ideas in regard to how to address Section 7 consultation.

Process

Successful Aspects of the Public Participation Process

- *Extensive planning and training*. Extensive planning conducted prior to public meetings included training of subject matter experts to ensure they were prepared for public dialog and understood the purpose of the public meeting.
- *Favorable public input*. Limited public input was received; however, it was mostly favorable.

Unsuccessful Aspects of the Public Participation Process

- *Problematic mail distribution*. The proposed location for the project was a rural area where many people did not have street mail delivery. Therefore, physical mail distribution did not reach as many people as expected.
- *No public feedback*. DOE did not receive any feedback from the public on the NEPA process.
- *Not including NCO in communications plan development*. The program office coordinated with some organizations in developing a communications

plan (it is not clear whether it was ever finalized). However, the NCO was not informed that the communications plan had been developed. Therefore, the timing of the final EA and FONSI release were not consistent with the content of the plan and what the public had expected.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Addressing siting issues*. The NEPA process helped adjust the scope of the proposed action by identifying and finding solutions to project siting issues that were identified during scoping.
- *Packaging issue resolved*. The NEPA process identified and addressed a material packaging issue that the program office had not previously identified.
- *Informed decisionmaking*. The NEPA process led to a clear understanding of potential environmental impacts, and measures taken to avoid them were used by the agency in decisionmaking.

Enhancement/Protection of the Environment

- *Minimization of environmental impacts*. Information developed during the NEPA process was incorporated in the EA to minimize environmental impacts.
- *Protection of environment*. As a result of the NEPA process, the proposed action was configured to include measures protective of the environment.

Other Issues

Guidance Needs Identified

- *Property transfers*. Additional guidance is needed regarding the applicability of categorical exclusions versus the need to prepare EAs for property transfers.
- *Managing contractor performance*. Detailed guidance for NEPA Document Managers on managing contractor performance would be valuable.

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 4 EA questionnaire responses were received, 3 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “5” stated that the NEPA process identified issues that the program office had not identified previously.
- A respondent who rated the process as “4” stated that due to the “newness” of technology, the decisionmakers did pay more attention to the NEPA process and outcomes prior to their decisionmaking.
- A respondent who rated the process as “4” stated that without the NEPA process, multiple resource areas may have been impacted more.
- A respondent who rated the process as “2” stated that a prior NEPA process and EA helped to support DOE decisionmaking.

LESSONS LEARNED

The Value of Ecosystem Services in NEPA Reviews

The Council on Environmental Quality (CEQ) hosted an interagency workshop on May 12, 2016, that brought environmental practitioners together to discuss opportunities for incorporating consideration of ecosystem services in environmental reviews under NEPA. The effort was prompted by a memorandum issued in October 2015 by the Office of Management and Budget, CEQ, and the Office of Science and Technology Policy, *Incorporating Ecosystem Services into Federal Decision Making*, which directs agencies to develop and institutionalize policies to promote consideration of ecosystem services in decisionmaking, including under NEPA.

The workshop was based on feedback provided in agencies' descriptions of their current practices. (See *LLQR*, December 2015, page 5.) In her opening remarks, Christy Goldfuss, Managing Director of CEQ, noted that there is a deep connection between ecosystem services and NEPA. The workshop provided an opportunity to get closer to a common understanding of this connection.

Defining Ecosystem Services

Ecosystem services, as defined by the policy memorandum, are the benefits that flow from nature to people, for example, groundwater purification and recharge provided by a wetland. Often, these services are not traded in markets, difficult to quantify, and not fully considered in decisionmaking. Ted Boling, CEQ's Associate Director for NEPA, noted that while the term ecosystem services might not currently be used by all agencies, it is really "a new way of articulating the central core of NEPA."

The keynote speaker, Lynn Scarlett (Managing Director for Public Policy, The Nature Conservancy), noted that landscape-scale decisionmaking promoted by an ecosystem services approach provides community benefits – by avoiding unintended consequences, promoting resilience, and providing nontraditional benefits – that go beyond the usual approach of analyzing "discrete components."



(continued on page 5)

Considering Pollinator Protection in NEPA Reviews

NEPA reviews should consider potential impacts to pollinators – bees, butterflies, other insects, birds, and bats – and potential mitigation should include site-specific best management practices (BMPs) to promote pollinator health and habitat. This is an example of factoring ecosystem services into decisionmaking and a natural outcome of DOE's Pollinator Protection Plan, issued as part of the National Strategy to Promote the Health of Honey Bees and Other Pollinators (May 2015).

National Strategy Provides Overarching Goals

The National Strategy was developed by an interagency task force established through a June 2014 *Presidential Memorandum*. It describes decades of habitat degradation and loss, introduced pests and diseases, decline in genetic diversity, and exposure to pesticides and other toxins. These factors have all contributed to significant declines in pollinator populations.



(continued on page 5)

Inside Lessons Learned

Welcome to the 87th quarterly report on lessons learned in the NEPA process. This issue highlights recent developments concerning ecosystem services (the benefits that flow from nature to people) and the value of protecting and preserving pollinators. In addition, we feature lessons learned at the 2016 NAEP conference. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Bongstrom

Director
Office of NEPA Policy and Compliance

Printed on recycled paper



Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by July 11, 2016, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due August 8, 2016

For NEPA documents completed April 1 through June 30, 2016, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than August 8. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

NAEP 2017 Conference Abstracts – Due September 15 Environmental Awards Nominations – Due October 14

The National Association of Environmental Professionals (NAEP) seeks abstracts for individual speakers, panels, and posters to be presented at its 42nd annual conference, which will be held March 27–30, 2017, in Durham, North Carolina. With the theme of *An Environmental Crossroads: Navigating our Ever-Changing Regulatory Landscape*, the conference will cover NEPA and related subjects and is open to environmental professionals in all levels of government, academia, and the private sector. Abstracts for the [2017 conference](#) are due by September 15, 2016. Questions may be directed to Lynn McLeod at naep2017@battelle.org or 781-681-5510.

NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. [Award nominations](#) are due by October 14, 2016. Questions may be directed to Abby Murray at 856-470-4521.

See the article in this issue, page 11, on the 2016 Conference including, on page 16, the 2016 NAEP Environmental Stewardship award recognizing the Los Alamos National Laboratory Trails Management Program.

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.



Climate Change: A New Focus of the EJ Conversation

This year's National Environmental Justice Conference and Training Program brought into focus the relationship between environmental justice (EJ) and climate change – two subjects important to DOE's NEPA analyses.

Several speakers at the conference, held March 9–12 in Washington, DC, described ways that the environmental consequences of climate change would disproportionately affect low-income and minority populations.

Climate change is not just a long-term change in average temperature or sea level, observed several conference speakers. It can also increase the variability of measures like precipitation and extreme weather events. Speakers explained that the trajectory of climate change for the next few decades is largely set because greenhouse gases remain in the atmosphere and continue to affect climate long after they are emitted.

Consequences of Inequities

A common theme was the recognition that inequities in current conditions and access to resources could make it more difficult for low-income and minority communities to avoid or mitigate impacts. Examples include difficulties people could encounter protecting their homes or moving in response to sea level rise, upgrading community infrastructure to address declining water quality and quantity, and adapting to longer, hotter summers.

Dr. LaVerne Ragster, Retired Professor and President Emerita of University of the Virgin Islands, emphasized that no one is exempt from climate change impacts. She introduced a video, *Climate Change: A Global Reality*, produced by South Carolina ETV (a public broadcasting network) with the support of DOE and others. In the video, individuals of diverse personal and professional experience, some of whom were speakers at the EJ Conference, discuss the effects of climate change on minority and low-income communities.

Health and Water Impacts of Climate Change

The human health impacts of climate change fall more severely on minority and low-income communities, said Dr. Mark Mitchel, Co-Chair of the National Medical Association Commission on Environmental Health. Respiratory and cardiac problems are worsened by heat and air pollutant emissions, pollen and mold seasons are becoming longer and more severe, the incidence of heat stroke death is increasing, and insect-transmitted diseases are affecting people in a larger geographic area – these impacts all are worsened by climate change. He cited successful examples of community-based strategies for addressing these challenges: identify and reach out to the most vulnerable individuals, establish cooling stations, and undertake “the greening” of cities to reduce “heat islands” (a metropolitan area that is significantly warmer than its surrounding rural areas due to human activities).

Mr. Jack Moyer, URS Corporation, offered advice on enhancing water supply and security: don't use potable water for irrigation, avoid landscaping with nonnative plants (which often require more water), and increase the production and use of reclaimed water. He noted that flooding disproportionately harms low-income residents, who are likely to have low ability to evacuate, relocate, or invest in measures that improve resilience. Low-income communities often do not have the resources to improve their water system infrastructure, he added.

EJ after 22 Years: “Are We There Yet?”

In introducing a workshop on incorporating EJ and climate change considerations into NEPA documents, Kim Lambert, Fish and Wildlife Service EJ Coordinator, noted that it has been more than 22 years since the issuance of [E.O. 12898](#), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. “Are we there yet?” she asked.

(continued on next page)

Report: Impacts of Climate Change on Human Health

On April 4, 2016, the U.S. Global Change Research Program (USGCRP) issued *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, a report called for under the *President's Climate Action Plan*. This report synthesizes the scientific literature on current and projected health impacts from climate change in the United States. Its lead authors are USGCRP representatives of the U.S. Environmental Protection Agency, National Institutes of Health, Centers for Disease Control and Prevention, National Oceanic and Atmospheric Administration, and other federal agencies; an academic research center; and a consulting firm.

The report forecasts that in the absence of major action to combat climate change, air quality will be degraded due to rising temperatures, ozone, drought, and wildfires; heavy rains will be more frequent; heat waves will be more intense; and hurricanes will be more severe. These changes in weather and environment would result in major adverse consequences for public health. Predicted impacts include worsened symptoms of lung disease and other chronic illnesses; higher risk of heat stroke and heat exhaustion; new threats of food- and waterborne diseases; and increased hospital admissions for cardiovascular and kidney disorders.

Climate Change and EJ *(continued from previous page)*

In her view, efforts have fallen short – both in analytical practice and in the outcomes of decisionmaking. The development of guidance documents has not significantly helped, she claimed, as federal practitioners and contractors still struggle to identify and assess climate change and EJ impacts in NEPA documents. For example, she observed, EISs are often many thousands of pages long, but include at most a couple of pages of EJ discussion that generally does not influence the decision.

She described the activities of the Federal Interagency Working Group on EJ (EJ IWG) and invited workshop participants to provide input to the EJ IWG to help communicate strategies, share success stories and best practices, and identify barriers to better incorporation of climate change and EJ considerations in NEPA documents. The EJ IWG compiled federal agency experience addressing EJ in a recent report, *Promising Practices for EJ Methodologies in NEPA Reviews*. (See *LLQR*, March 2016, page 1.)

EPA Administrator’s Keynote Address: “Too Many Communities Left Behind”

The Environmental Protection Agency (EPA) is, in essence, a public health agency, said Administrator Gina McCarthy in her keynote address at the EJ conference. She explained that to improve public health, efforts should be targeted to help communities that are disproportionately affected by climate change, pollution, and poverty.

Administrator McCarthy described EPA initiatives that take a localized view of environmental issues. *Making a Visible Difference in Communities*, an agency-wide strategy initiated in 2015, identified more than 50 environmentally burdened and economically distressed communities that are the focus of coordinated action. This strategy involves EPA listening to community leaders and residents to understand their needs and then working with local, state, and federal partners and other stakeholders to more effectively support local goals.

Administrator McCarthy emphasized that today’s action or inaction determines the conditions in the future. Today’s children are the ones who will experience the environmental consequences of today’s choices, she said.

Limited English Proficiency as an EJ Issue

Ricardo Martinez, Limited English Proficiency (LEP) Program Manager for the U.S. Forest Service (USFS), led a session that described USFS initiatives in conservation

education and community outreach. [Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency](#) (2000), requires federal agencies “to examine the services they provide, identify any need for services to those with [LEP], and develop and implement a system to provide those services so LEP persons can have meaningful access to them.” (DOE’s Office of Civil Rights and Diversity issued [DOE’s LEP Plan](#) in September 2007.)

Mr. Martinez recommended case-specific approaches to LEP participation, such as providing public notices in appropriate languages, providing individual translators, and translating documents – a “sliding scale” that varies in applicability and cost. Other panelists provided recommendations on effective LEP practices, including using the Department of Justice interagency resources website ([lep.gov](#)), especially the mapping tool and census data. They noted that 10 percent of the U.S. population may be considered LEP, and more than that in some states.

Elaine Chalmers, USFS Diversity and EJ Outreach National Program Manager, and Tamberly Conway, USFS National Program Manager for Conservation Education, cautioned that effective translation is not the simple substitution of words from one language to another. Ms. Chalmers advised that cultures – like languages – are not monolithic, and that culturally nuanced translation may be called for. “Know your audience, do surveys to improve your performance, and develop culturally appropriate outreach,” she recommended.



Cultural differences can lead to different meanings for the same term. In Spanish, “torta” can mean cake or sandwich.

The 2016 EJ conference was held jointly with the 9th Annual National Conference on Health Disparities. Presentations, as well as EPA Administrator McCarthy’s keynote address and Q&A session, are posted on the [Conference website](#). DOE EJ Program Manager, Melinda Downing, served as the Conference Manager. For additional information, contact Ms. Downing at melinda.downing@hq.doe.gov or 202-586-7703. **LL**

EPA’s forthcoming “EJ 2020 Action Agenda” will focus EPA’s EJ practice on outcomes that matter to communities, said Administrator McCarthy. EPA invites comments on its [Final Draft EJ 2020 Action Agenda](#) through July 7, 2016, to ejstrategy@epa.gov. Additional information is provided on the [Action Agenda webpage](#).

Ecosystems Services *(continued from page 1)*

During the workshop, speakers from the U.S. Geological Survey (USGS), Bureau of Land Management, National Oceanic and Atmospheric Administration, Department of Agriculture, and Duke University shared their experiences integrating ecosystem services into planning and NEPA processes. Lydia Olander, Director of the Ecosystem Services Program at the Nicholas Institute for Environmental Policy Solutions at Duke University, recommended that practitioners take the next step and look not just at the change in a baseline ecosystem condition (e.g., acres of wetlands), but at the “connection to people,” the quantified change in some service provided by that ecosystem (e.g., the water quality and recreational fishery benefits provided by those wetlands).

Valuing Ecosystem Services

While quantifying ecosystem services can be challenging for nonmarket values, Sarah Ryker, Deputy Associate Director for Climate and Land Use Change at USGS, noted that existing NEPA strategies, such as scoping, can help focus attention on key ecosystem services. According to DOE’s April 2016 submission to CEQ on ecosystem services, environmental information already analyzed in Site Sustainability Plans and Annual Site Environmental Reports can be valuable information sources for DOE practitioners.

Section 102(2)(B) of NEPA directs agencies to “identify and develop methods and procedures ... which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations.”

CEQ plans to issue draft guidance in December 2016 on incorporating ecosystem services into agency decisionmaking, including NEPA. The guidance would be a “living document” subject to changes based on the agency experiences. Following the release of the guidance, as directed by the memorandum, federal agencies will revise and refine their workplans to lay out policies, programs, and projects to meet the goals of the policy memorandum. The Environmental Protection Agency (EPA) Office of Federal Activities will develop, with input from CEQ’s Federal NEPA Contacts, internal guidance on including ecosystem services in EPA’s EIS reviews.

For more information on DOE’s efforts to incorporate ecosystem services into decisionmaking, contact Bill Ostrum, Environmental Protection Specialist in the Office of NEPA Policy and Compliance, at william.ostrum@hq.doe.gov or 202-586-4149; or John Shonder, Director of the Sustainability Performance Office, at john.shonder@hq.doe.gov or 202-586-8645. 

Pollinator Protection *(continued from page 1)*

The National Strategy outlines current and planned federal actions to achieve three goals focused on honey bees, monarch butterflies, and overall pollinator habitat.



Goal 1, Honey Bees: Within 10 years, reduce honey bee colony losses during winter (overwintering mortality) to no more than 15 percent. (Additional goal metrics will be developed for summer and total annual colony loss.)

Honey bees add more than \$15 billion in value annually to agricultural crops in the United States, almost five times as much as other pollinators. Annual surveys of beekeepers since 2006 indicate overwintering losses averaging around 31 percent, which far exceeds the 15-17 percent average loss rate that commercial beekeepers have indicated is economically sustainable. (Photo: USDA)



Goal 2, Monarch Butterflies: By 2020, through domestic and international actions, and public/private partnerships, increase the Eastern population of the monarch butterfly to 225 million and increase the occupied overwintering grounds in Mexico to approximately 15 acres.

The monarch butterfly Eastern migration, from Canada across the United States and into Mexico, has steeply declined over the past two decades – with a high of 44 acres of occupied overwintering grounds and a low of 2.8 acres. This is due in part to loss of nectar-producing plants that sustain adult butterflies and milkweed plants that are the exclusive food of monarch larvae. (Photo: USDA)

Goal 3, Pollinator Habitat Acreage: Over the next 5 years, through federal actions and public/private partnerships, restore or enhance 7 million acres of land for pollinators.

(continued on next page)

Pollinator Protection *(continued from previous page)*

The National Strategy recognizes that the federal government, as the nation's largest land manager, can strongly influence private sector actions. It lists ways, within existing budgetary and staff resources, to align agency priorities to state, private sector, and philanthropic activities. In many situations, it also notes, improved pollinator habitat can be budget-neutral or provide cost savings, for example when self-sustaining native vegetation reduces mowing and maintenance costs. In conjunction with development of the National Strategy, the U.S. Department of Agriculture and Department of the Interior compiled information on [pollinator-friendly BMPs for federal lands](#), which can be a useful resource for NEPA practitioners.

In the [NEPA] context, if impacts to pollinators are expected, the ... team would describe site-specific prescriptions to prevent those impacts.

– Pollinator-Friendly Best Management Practices for Federal Lands

DOE Plan Addresses Sites and Rights-of-Way

DOE directly or indirectly manages millions of acres associated with its field offices, sites, facilities, and national laboratories. As its contribution to the National Strategy, DOE developed a *Pollinator Protection Plan* that makes several commitments.

One commitment requires DOE sites to self-assess whether implementation of pollinator-friendly BMPs is appropriate on their property and, if so, to determine the number of suitable acres. Almost all DOE sites have already completed their assessments. Deployment of BMPs, resources permitting, is to occur over a maximum 10-year period; sites will report annually the number of acres on which BMPs were implemented in the previous year.

Another commitment made in the Plan is that DOE will work with land management agencies with land near (i.e., within a mile of) DOE land to determine if those agencies' pollinator protection programs are applicable to DOE land. The Plan also commits DOE's Power Marketing Administrations to incorporate BMPs on transmission system rights-of-way, where feasible under the terms of the right-of-way lease, by working with private land owners, tribes, and federal, state, and local governmental entities.

As specific actions are proposed to adopt pollinator-friendly BMPs, whether as an integral part of larger proposals or as potential mitigation commitments, they would be reviewed in environmental impact statements, environmental assessments, or categorical exclusion (CX) determinations. For example, such BMPs could be considered in actions fitting within CX B1.3: "routine maintenance activities and custodial services for buildings, structures, rights of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), ... and localized vegetation and pest control, ... provided that the activities would be conducted in a manner in accordance with applicable requirements."

Site feedback indicates that pollinator-friendly BMPs are already in place on many of the acres DOE manages. It is likely that BMP implementation on some of those acres is attributable to the NEPA process, and we look forward to more acres being added through it.

*– Beverly Whitehead, DOE Headquarters
Pollinator Protection Initiative Coordinator*

The Office of the Associate Under Secretary for Environment, Health, Safety and Security (AU) is the lead for implementing the DOE Pollinator Protection Plan. For additional information, contact Beverly Whitehead, Office of Sustainable Environmental Stewardship (AU-21), at beverly.whitehead@hq.doe.gov. 

Additional Resources

DOE's Powerpedia [page](#) (accessible to DOE staff) on the Pollinator Protection Program provides links to resources and references.

The General Services Administration (GSA) has integrated pollinator protection into its most recent *Facilities Standards* (P100), the mandatory design standards for new buildings, repairs and alterations, and modernization of GSA buildings.

EA Team Award *(continued from previous page)*

The EA team and partnering organizations conducted seven well-attended public meetings, each with a poster session that facilitated one-on-one interactions. One of the meetings was carried live on local cable television. Some stakeholders expressed concerns regarding potential impacts of the neutrino beams. (“Neutrinos arriving at [Sanford Underground Research Facility], or anywhere along their course from Fermilab, would not result in any radiation exposure,” states the FONSI.)

Other concerns involved potential impacts of facility construction at the Fermilab and Sanford sites (e.g., noise, vibration, groundwater contamination, and disposal of excavated rock). As a result of carefully nurtured partnerships and substantial outreach efforts, public concerns were addressed and critical stakeholder relationships were strengthened.

LBNF/DUNE is the largest project currently in development by the Office of Science, which is the Nation’s primary supporter of fundamental research in the physical sciences. The participation of more than 700 collaborating scientists and engineers from 23



The EA analyzed disposal of 800,000 tons of excavated rock, conveyed by truck or conveyor system to the Homestake Mine Open Cut. Lead's City Commission in May unanimously approved the conveyor system, the EA's preferred alternative.

countries led to LBNF/DUNE being characterized as the “International Mega-Science Project.” Additional information is available on the project’s [website](#) or contact me at peter.siebach@science.doe.gov. 

DOE Embraces EARTH DAY, EVERY DAY!

DOE observed the 46th annual Earth Day on April 18–28. At DOE headquarters in Washington, DC, varied activities and displays celebrated DOE environmental achievements and encouraged commitments to future improvement.

The Office of NEPA Policy and Compliance displayed a poster on analyzing climate change in NEPA reviews. The poster (next page) describes several recent DOE projects that included substantive discussion of a proposal’s contributions to climate change, as well as potential impacts of climate change on the proposal. The poster outlines a 5-step approach, based on the Council on Environmental Quality’s 2014 *Revised Draft Guidance on Climate Change and NEPA*:

- Discuss global climate change
- Consider GHG emissions and sequestration
- Analyze cumulative climate change impacts on the environment and project
- Provide a context for evaluating significance
- Explore potential mitigation



In addition to a poster display, the NEPA Office co-developed a “pledge board” for DOE staff and visitors to post their commitments to “Make Every Day Earth Day.”

Other Earth Day Events at DOE HQ

Leadership Videos: The Office of Environment, Health, Safety and Security produced a [video montage](#) of DOE senior managers and staff, including Secretary Moniz, discussing this year’s “Earth Day, Every Day” theme. President Obama introduces the video that highlights DOE sustainability efforts and emphasizes DOE commitments to protecting the environment. The video played continuously on displays throughout the observance.

Including Daughters and Sons: 2016 Earth Day activities coincided with Take Our Daughters and Sons to Work Day, held on April 28. The young participants enjoyed hands-on workshops, career talks, energy technology demonstrations, and a tree planting and tour of Earth Day Park (on the east side of the Forrestal Building). The children recorded their own pledges – for example, to turn off unused lights, pick up trash, and plant gardens.

A Picture Is Worth a Thousand Words: DOE invited employees and contractors to submit photos illustrating any of five Earth Day subjects: Conservation, Community, Alternative Power, Energy Efficiency, and (new this year) Climate Change Adaptation and Resilience. Over 150 photos were displayed at Forrestal, and the category winners were announced on April 28.



The winner in the Community category was “Science Night, Woodland Elementary School,” by Lynn Freeny, DOE photographer at Oak Ridge.

Play Ball: As a part of the Earth Day celebration, DOE’s Sustainability Performance Office, in cooperation with the Department of Transportation and Major League Baseball, organized a “Celebration of Sustainability” at Nationals Park on April 22, before the Washington Nationals baseball game against the Minnesota Twins. The pregame events included an Earth Day public service announcement and a [video](#) that shows easy ways to reduce greenhouse gases, prevent pollution and waste, and increase electronic stewardship. Over 250 DOE staff attended the game to support sustainability and had a great time watching the Nationals beat the Twins! 



To promote workplace sustainability, Department of Transportation’s Assistant Secretary of Administration, Jeff Marootian (far left) and DOE Deputy Secretary Elizabeth Sherwood-Randall (left of mascot “Screech”) participated in the pregame ceremonies and the Nationals’ “Presidents’ Race.”

NEPA Analyses of Greenhouse Gas Emissions

DOE has analyzed greenhouse gas (GHG) emissions in National Environmental Policy Act (NEPA) documents for many years, starting with the Clean Coal Technology Program Environmental Impact Statement (EIS) in 1989 (DOE/EIS-0146).

Today, DOE NEPA documents analyze not just the effect of projects' emissions, but also how climate change impacts, such as sea level rise and changes in precipitation, may affect a project.

DOE Practices for Considering Climate Change under NEPA:

- **Discuss** global climate change
- **Consider** GHG emissions and sequestration over the life of the project
- **Analyze** cumulative climate change impacts on the environment and project
- **Provide** a context for evaluating significance using annual CO_{2-e} emissions as a proxy for impacts
- **Explore** potential mitigation such as energy efficiency, renewable energy, and Carbon Capture and Sequestration (CCS)

Examples



Energy Efficiency Rulemaking/Standards Environmental Assessments (EAs) analyze how different energy conservation standards for consumer products and commercial equipment, such as incandescent reflector lamps and general service fluorescent lamps (left) (DOE/EA-1664, 2009), would affect carbon dioxide (CO₂) emission rates. This helps DOE develop standards to decrease the Nation's carbon footprint.

Renewable Energy technologies, such as solar photovoltaics and wind turbines, can produce electricity without generating substantial quantities of GHGs. DOE's EAs and EISs analyze the carbon offsets associated with individual project proposals, as well as environmental impacts associated with siting the project (e.g., impacts to wildlife and habitat, visual impacts, noise).



The EIS for Engineered High Energy Crops (DOE/EIS-0481, 2015) evaluated the potential impacts of field trials of crops specifically engineered to produce more energy per acre using existing energy infrastructure.



Carbon Capture and Sequestration (CCS) EISs analyze the impacts of projects that capture CO₂ exhaust so that it can be permanently stored rather than be released into the atmosphere. DOE funding may be used in demonstration projects like the W.A. Parish Post-Combustion CCS Project (DOE/EIS-0473, 2013), which is designed to capture approximately 90 percent of the CO₂ emissions from one of the existing units of the power plant. DOE NEPA documents examine the positive and negative impacts of the project, and ensure adequate public participation.

The DOE NEPA Office 2016 Earth Day Poster

NAEP Conference Explored NEPA's Future

By: Yardena Mansoor and Ralph Barr, Office of NEPA Policy and Compliance



The April 2016 conference of the National Association of Environmental Professionals (NAEP), held in Chicago, focused on topics related to a theme of *Charting the Next 40 Years of Environmental Stewardship*. NEPA sessions at the conference focused on approaches for improving NEPA implementation. Four sessions discussed ways to improve NEPA's usefulness to senior decisionmakers and help them become more engaged in the NEPA process, take advantage of NEPA's inherent flexibility, streamline implementation, and adapt NEPA to better serve future decisionmaking needs.

NEPA has sustainability built in. As we have become more experienced, we are becoming more aware of the interconnectedness of ecosystems.

– Lynn Scarlett, Managing Director for Public Policy
The Nature Conservancy

Many of the ideas discussed arose from the “Cohen NEPA Summit.” Held in December 2014, the summit engaged approximately 45 NEPA experts from the federal government, states, private companies, nonprofit groups, and academia in an examination of whether NEPA has achieved its objectives and approaches for improving NEPA implementation. The summit honored the work and lifelong service of William M. Cohen who, before his death in 2010, was one of the nation's leading NEPA practitioners, instructors, and mentors. (See *LLQR*, June 2010, page 17.) The summit was sponsored by the Environmental Law Institute, the Nicholas Institute for Environmental Policy Solutions at Duke University, and the law firm Perkins Coie LLP.

At the NAEP conference, moderators, panelists, and members of the audience shared diverse experiences and expressed a range of positions on these topics. A common message was that the best way to address the challenges ahead is not to “do NEPA” the same way it has been done for four decades.



Ted Boling, Associate Director for NEPA, Council on Environmental Quality (CEQ), reviewed guidance issued (Final Guidance on Effective Use of Programmatic NEPA Reviews, December 2014) and planned (guidance on greenhouse gases and climate change).

Recommit Senior Managers

A major finding of the Cohen Summit was that addressing environmental issues along with social, economic, security, and other needs can occur when NEPA staff are appropriately placed within their agency and when senior managers get involved in the NEPA process. The NAEP conference discussants were experienced former high-level agency decisionmakers, led by Dinah Bear, former General Counsel of CEQ.

The panel and members of the audience provided insights and approaches for addressing these challenges:

- A survey performed in preparation for the Cohen Summit found that the biggest issue limiting NEPA effectiveness is lack of access to, and engagement of, top managers. Practitioners believe that NEPA documents have valuable information that the decisionmaker may not be considering.
- A decisionmaker may be held back by ineffective public engagement. One manager had a breakthrough by organizing a potluck dinner with stakeholders; informal discussion unlocked a collaborative approach that allowed the project to proceed.
- In 2012, the Bureau of Land Management issued *Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental Partners* to address changes to the Department of the Interior NEPA regulations and incorporate lessons learned from engaging with federal, state, local, and tribal partners on resource management plans.

Take Advantage of Flexibility

The Cohen NEPA Summit recognized that NEPA, the law, emphasizes analysis and disclosure rather than prescribing process and results. The CEQ regulations allow agencies wide discretion in adopting implementing procedures suitable to their organization's needs. Yet, at this NAEP conference session, participants observed that agency NEPA implementation is often cumbersome and rigid. Participants noted that:

- Agency implementation has been risk averse and conservative, due in part to the threat of litigation. This results in voluminous EISs and EAs and greatly increases the time and cost of the NEPA process.
- The CEQ regulations may not have anticipated the wide use of categorical exclusions, EAs, and mitigated FONSI. CEQ guidance should be reviewed to consider whether it can be improved by incorporating the lessons learned from over 40 years of experience.

(continued on next page)

NAEP Conference *(continued from previous page)*

- Environmental decisionmaking has changed, and should no longer be considered a single-step event. Predictions are not necessarily borne out. More attention should be paid to incorporating adaptive management and tiered decisionmaking into the NEPA process. For example, the [Greater Sage Grouse Management Plan](#) includes provisions for monitoring the effectiveness of efforts to restore the sagebrush steppe ecosystem and modifying mitigation as needed.

Design for NEPA Efficiency

The Cohen NEPA Summit cited the inefficiencies and delays caused by inadequate funding, which can result in too few staff and insufficient training to manage the NEPA process efficiently. The NAEP panel, moderated by Michael Smith, ENERCON, discussed examples of agency initiatives and guidance that have substantially improved their NEPA process. The message of this session is that NEPA “streamlining” takes more than just a command to “get it done faster.” Two of the initiatives discussed during this session were:

- Federal Highway Administration’s “[Every Day Counts](#)” initiative focuses on “frontloading” the permitting process to resolve issues early. The agency commits to 15 days for legal review, for example, if legal consultation occurred at an early stage of the environmental review. (See *LLQR*, June 2013, page 6.)
- Fixing America’s Surface Transportation Act (“FAST Act,” Pub. L. No. 114-94) is an ambitious attempt to speed infrastructure permitting. Covered actions include construction of infrastructure that: is in a designated energy or transportation sector, is subject to NEPA, and is likely to cost more than \$200 million or is of a size and complexity likely to benefit from enhanced oversight and coordination. Its provisions establish – with time limits – early consultation among parties to the decision, designation of cooperating and participating agencies, participation of state, local and tribal governments, the posting of detailed project review timetables, and dispute resolution.

Reimagine NEPA

One goal of the 2014 Cohen NEPA Summit was to “reimagine NEPA as a fully iterative process for the 21st century.” In reporting on this session of the Cohen Summit, the NAEP panel discussed approaches for facilitating decisionmaking, improving NEPA documents, and realigning the incentives of contractors supporting the NEPA process.

- Ray Clark, RiverCrossing Strategies, moderated the panel by providing an overview of 40 years of change

since NEPA was enacted. The CEQ regulations were written 2 years after the introduction of the Apple computer. Since then, he said, we have experienced a revolution in capacity for data collection, analysis, and communications, but we still know little about the marine environment, for example.

- Rick Cornelius, Environmental Consulting and Training (ECATS), pointed out that the stated aims of the CEQ regulations are to reduce paperwork, reduce delays, and support better decisions. Too often, though, the EIS has become an end in itself. He asked the participants to consider three questions: Can we predict impacts well enough? Do we account for resilience? And can we reduce the disconnect between an EIS and the senior decisionmaker?
- Ron Deverman, HNTB Associates, recommended that NEPA document preparers aim for an EIS of less than 200 pages in a reader-friendly format. He also had advice concerning “community engagement,” a term he recommended in place of “public involvement”: tell the story underlying the analysis, emphasize the common ground (the “we” part of the story), and pay attention to each person. (See [Improving the Quality of Environmental Documents](#), American Association of State Highway and Transportation Officials, May 2006.)
- David Mattern, Parametrix, discussed the innovative approach applied to EIS support contracting for the Tappan Zee Bridge replacement project, a Hudson River crossing north of New York City. He summarized a traditional contracting model as based on time and level of effort, in which contractors have an incentive to spend the full budget and depend on repeat business. The alternative model used for the \$2 billion, multiyear EIS incorporated goals of protecting or improving the environment, achieving consensus, and efficiency. The contractor was paid a base cost plus a bonus based on frequently assessed metrics that reflected these three goals.



After an efficient EIS process, the Tappan Zee Bridge replacement project is now underway.

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Other Sessions

Tips and Techniques

This session presented examples of best practices in NEPA implementation.

- Tom Hale, SWCA Environmental Consultants, discussed effective use of impact indicators in NEPA analyses. A useful indicator species, he said, is an animal or plant that is sensitive to changes in the environment (that is, conditions raised in scoping or important to the impact analysis), and responds to such changes in a manner that is understandable and causally linked to environmental changes, and measurable. Ideally, an indicator species would be responsive enough to distinguish among alternatives. Bird, fish, and amphibian species are often selected as indicators of degradation of their habitat, and there are many candidate indicator species for climate change.
- Owen Schmidt, Owen L Schmidt, LLC, critiqued the practice of expressing the statement of purpose and need as the need for the proposed action. He recommended, instead, an approach that expresses it as a finding (i.e., a noun, for example, the agency finds that [statement of the problem condition]). The action alternatives can then be directly and logically expressed as taking action (a verb) to meet the need.
- Steven Ott, WSP Parsons Brinckerhoff, discussed a resource issued in September 2015 by CEQ, Office of Management and Budget, and nine federal agencies, *Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects (Red Book)*. Intended for federal, state, and local agencies that review permit applications for, fund, or develop major infrastructure projects, the *Red Book* provides guidance for concurrent or aligned procedures to improve the efficiency of multi-jurisdictional reviews. The goal, he said, is to eliminate redundancy, coordinate schedules, and work with a single document. This handbook incorporates lessons learned from previous synchronization efforts, and includes best practices such as the use of liaisons, innovative mitigation practices, and communication technology.

2015 NEPA Litigation Outcomes

An annual presentation at the NAEP Conference is a survey of the past year's litigation decisions involving substantive NEPA issues. This session was presented by Lucinda Low Swartz, an environmental consultant, and Pamela Hudson, Office of General Counsel, Department of the Navy, Ted Boling, and Michael Smith.

In 2015, the U.S. Courts of Appeals issued 14 decisions involving NEPA implementation. (In the past decade, the number of NEPA opinions issued each year range from 14 to 28.) The federal agencies (none of them DOE) prevailed in 11 of the 14 cases. The U.S. Supreme Court issued no NEPA opinions in 2015.

Eight of the substantive appellate decisions where NEPA documents were reviewed involved EAs, with challenges largely focused on the significance determination, connected actions, and cumulative effect assessment. One EA was found to be partially inadequate because it did not discuss a reasonably foreseeable action.

Two of the substantive appellate decisions where NEPA documents were reviewed involved EISs. One case, *WildEarth Guardians v. Montana Snowmobile Association*, 790 F.3d 920 (9th Cir. 2015), involved a challenge to a U.S. Forest Service EIS that considered alternatives that would provide varying degrees of protection for big game wildlife by managing vehicle access to two million acres of public land in the Beaverhead-Deerlodge National Forest. The court held that the EIS did not provide the public adequate access to information about the impact of snowmobiles on big game wildlife and habitat, and that the information included in and referenced by the EIS did not allow the public to “play a role in both the decisionmaking process and the implementation of that decision.”

The complete litigation analysis, including case summaries, will be included in the NAEP 2015 Annual NEPA Report and are the subject of NAEP [webinars](#).

Tiering Strategies for Programmatic EISs

As part of a panel on using programmatic NEPA reviews, Stacy Mason, NEPA Compliance Officer for the Bonneville Power Administration (BPA), described the use of programmatic EISs and tiered NEPA reviews. A series of interrelated programmatic EISs establish priorities and principles to govern specific decisions and generically analyze the potential environmental impacts of activities, including mitigation measures. Tiered decisions can then be made as needed, incorporating the programmatic results as appropriate. Examples discussed include:

- BPA's Business Plan EIS ([DOE/EIS-0183](#), 1995) established policy to guide BPA decisions, such as setting power rates, acquiring power or interconnecting power generators, promoting energy conservation, and supporting fish and wildlife mitigation and recovery efforts. The tiering strategies used with this EIS include categorical exclusion determinations, EAs, EISs, tiered records of decision, and supplement analyses.

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NAEP Conference *(continued from previous page)*

- BPA's Transmission System Vegetation Management Program (DOE/EIS-00285, 2000) analyzed the potential environmental and socioeconomic impacts of a program for managing vegetation on 84,000 acres of rights-of-way and at 357 substations and other facilities through a seven-state service area. Tiering strategies include identifying the planning steps for site-specific project implementation and using DOE's supplement analysis process to verify that the actions and impacts are consistent with those analyzed in the EIS.
- The Fish and Wildlife Implementation Plan EIS (DOE/EIS-0312, 2003), was tiered from the Business Plan EIS. It adopted a fish and wildlife program and considered the environmental impacts of typical actions under the plan. BPA's tiering strategies consist of a validation process to ensure compliance with other laws and public involvement, and a process for identifying actions that require additional NEPA review (beyond validation).

Ms. Mason described the challenges involved in this approach, including ensuring that other regulations are being addressed, considering whether additional public outreach is appropriate, and ensuring that a programmatic review remains valid over time (as technology and terminology change).

Additional insights were shared by Shannon Stewart, Environmental Science Associates (ESA) and formerly the Bureau of Land Management (BLM) NEPA Coordinator for the programmatic EIS for *Solar Energy Development in Six Southwestern States* (DOE co-lead; DOE/EIS 0403, 2012). BLM was able to approve three utility-scale renewable energy projects in 10 months, she reported, by tiering EAs from the programmatic EIS.

To use this strategy successfully, Ms. Stewart recommended that senior NEPA staff be assigned responsibility for setting policy, developing guidance, and performing oversight. The agency NEPA leader, therefore, must be well-trained even if much of the technical expertise is provided by contractors. Ms. Stewart further recommended that public involvement be tailored to meet the specific needs of the NEPA review, that irrelevant environmental issues be eliminated from the analysis early, and that a full range of effective mitigation measures be included in the analysis.

EPA Keynote Speaker: "The Great Lakes are HOMES"

A virtual tour of the Great Lakes was provided by the keynote speaker, Cameron Davis, Senior Advisor to the U.S. Environmental Protection Agency Region 5

Site Tours after the Conference

Following the NAEP conference in Chicago, DOE and national laboratory staff had the opportunity to visit the Argonne and Fermi Accelerator National Laboratories. The tours were coordinated by Peter Siebach and Rick Hersemann, NCOs respectively for the Argonne and Fermi Site Offices.



Fermilab's first director established a bison herd onsite to recognize the site's prairie heritage. A double fence around the Fermilab pasture protects the buffalo and the public from each other. (Photo: Fermilab)

Administrator and coordinator for the Great Lakes Restoration Initiative. He reminded conference attendees that the HOMES mnemonic (Huron, Ontario, Michigan, Erie, and Superior) is so apt because the Great Lakes, with more than 10,000 miles of shoreline and 1,000 islands, support natural and human communities that depend on the lake resources and ecosystems.

The Great Lakes, which contain 90–95 percent of the freshwater available to the United States, have been under stress since the Industrial Revolution, stated Mr. Davis. The causes include decades of dumping of waste into the lakes and rivers feeding into them, invasive species such as lampreys and zebra mussels, and toxic "hot spots" that have allowed discharge and seepage of contaminants into the watershed. By the 1960s, he said, Lake Erie was declared "biologically dead" and rivers had caught fire – including the Buffalo and Chicago Rivers and, most famously, the Cuyahoga River (in 1969, contributing to enactment of the Clean Water Act).

The framework for identifying priorities and implementing actions that improve water quality is the Great Lakes Water Quality Agreement between the United States and Canada, signed in 1972 and updated in 2012. The agreement has become more proactive, with an emphasis on predicting and preventing problems.

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NAEP Conference *(continued from previous page)*

Mr. Davis described progress to date: stabilization and clean-up of toxic sites, preventing invasive Asian carp from becoming established in the Great Lakes ecosystem, reducing phosphorus runoff from farmland, and restoring and enhancing many acres of wetland, coastal, upland, and island habitat. The initiative uses a science-based adaptive management framework to prioritize ecosystem projects to address.

Case Study: Northerly Island

The NAEP conference sessions on water resource management focused on projects in urban settings and illustrated the application of stormwater runoff management techniques to benefit ecosystem restoration efforts. The U.S. Army Corps of Engineers (USACE) Chicago District's Northerly Island Great Lakes Fishery and Ecosystem Restoration Project was presented as a notable environmental success story by Frank Varaldi and Robert Sliwinski, Christopher B. Burke Engineering, Ltd.

Northerly Island is a 91-acre artificial peninsula on Lake Michigan, adjacent to Chicago. It served from 1948 until 2003 as the home to the single-runway Merrill C. Meigs Field Airport.

The project's purpose was to create a natural landform that would integrate geology and hydrology to support ecological communities and provide critical migratory bird and fish habitat within the coastal zone. After issuing a Finding of No Significant Impact in September 2012, USACE awarded a 5-year contract to restore 40 acres of the peninsula.



A restored ecosystem brings natural beauty to land that was once Meigs Field, the busiest single-strip airport in the U.S. (Photo: ENCAP, Inc.)

Major obstacles had to be overcome: a manmade shoreline, the absence of coastal wetlands and estuary, limited littoral (shoreline) and estuary fish spawning and rearing habitat, limited migratory bird refuges, and limited migratory waterfowl resources. Restoring the ecosystem required establishing the ecological niches needed to support migratory birds and fish, reestablishing natural coastal pond communities, and replacing soils.

So far, as a result of this project, a restored pond, marsh, wet prairie, mesic prairie, and oak savanna are being enjoyed by the Chicago community, as well as resident and migrating bird and fish populations. Although a small area compared to the highly urbanized and industrialized greater Chicago, the project provides a window into the original Lake Michigan ecosystem. L

Any reference to a nonfederal entity should not be construed as an endorsement on the part of the government.

NAEP Environmental Stewardship Award Earned by LANL Trails Management Program

The NAEP Board of Directors presented nine Environmental Excellence Awards for significant achievements in environmental practice.

The 2016 Environmental Stewardship Excellence Award went to DOE's Los Alamos National Laboratory (LANL) Trails Management Program. The use of trails at LANL is one of the benefits of working and living in Los Alamos County, New Mexico. There was no DOE or LANL policy or mechanism, however, to balance recreational trails use on LANL property with environmental, cultural, safety, security, and operational concerns. In 2003, DOE's National Nuclear Security Administration (NNSA) directed LANL to establish such a program and issued an EA, finding of no significant impact, and mitigation action plan.

The LANL Trails Management Program is implemented through individual projects, including measures for planning, repair and construction, environmental protection, safety, security, and end-state conditions assessments. Mitigation commitments include determining appropriate closures and restrictions, and supporting the use of volunteers for trail maintenance projects. The Trails Working Group – representatives of LANL, neighboring jurisdictions, and other stakeholders – has met regularly for 13 years to provide guidance and to integrate trail management decisions across jurisdictional boundaries.



Mitigation measures decrease the risks associated with recreational use of LANL lands, such as the Anniversary Trail, which offers views of the Rio Grande Valley and Sangre de Cristo Mountains. (Photo: Phillip Noll)

State Review Wins NEPA Award

The 2016 NEPA Excellence Award recognized a California Department of Food and Agriculture program environmental impact report (PEIR) for the *Statewide Plant Pest Prevention and Management Program*. The PEIR constitutes the program's compliance with the California Environmental Quality Act (CEQA) and covers a broad range of activities, including pesticide use, trapping surveys, promulgation of quarantine regulations, and rapid response eradication measures. The PEIR's comprehensive human health and ecological risk assessments evaluate hundreds of pest management scenarios, said NAEP's award citation, and incorporate science-based mitigation measures to protect the public, agricultural workers, and the environment. A CEQA tiering strategy allows the efficient incorporation of new technologies and activities as they become available.

Transitions

New Staff: Office of NEPA Policy and Compliance

The NEPA Office's Energy and Waste Management Unit welcomed two Environmental Protection Specialists to its staff in April. Their initial assignments include supporting NEPA reviews for the DOE Offices of Environmental Management and of Electricity Delivery and Energy Reliability.

Juliet Bochicchio

Juliet Bochicchio joins the headquarters NEPA team after 5 years with the U.S. Department of Agriculture (USDA), where she was responsible for reviewing NEPA documents for business and community facilities in rural America, including commercial-scale biorefinery and energy efficiency projects. She has a diverse NEPA background, including experience in water quality, wetland and floodplain management, brownfields/hazmat, and Section 106 of the National Historic Preservation Act. Ms. Bochicchio was active in the interagency Federal Flood Risk Management Standard Working Group and USDA's interagency Sustainability Council, and served as the Federal Preservation Officer for the Rural Business-Cooperative Service.

Prior to her federal service, Ms. Bochicchio spent 14 years in the private sector as a research scientist and NEPA consultant and received a Master of Science in soil science from the University of Maryland. Her mantra is "NEPA is an indispensable planning tool" that can avoid major pitfalls and reduce overall project costs while protecting the environment. She can be reached at juliet.bochicchio@hq.doe.gov or 202-586-7684.

Janine Cefalu

Janine Cefalu joins DOE with 15 years of NEPA experience with the private sector and the Federal Energy Regulatory Commission (FERC), evaluating environmental impacts from the construction and operation of complex, and sometimes controversial, infrastructure projects for the FERC, DOE, and the National Institutes of Health. While at the FERC, she served as a project manager for NEPA documents and team lead for the analysis and writing of NEPA document sections on biological resources and socioeconomic impacts. Ms. Cefalu coordinated with internal teams and multiple federal, state, and local agencies to develop NEPA documents that would meet the regulatory needs of all parties.

Ms. Cefalu earned an undergraduate degree in international relations, a master's degree in environmental studies, and is working to complete a second masters in conflict analysis and resolution. Her watchword is "NEPA provides the nexus for diverse groups to work together to improve the quality of the environment for everyone." She can be reached at janine.cefula@hq.doe.gov or 202-586-4790.



Janine Cefalu (left) and Juliet Bochicchio joined the Office of NEPA Policy and Compliance in April.

Transitions

New NEPA Compliance Officers

Bonneville Power Administration: Sarah Biegel



Sarah Biegel was designated NCO for the Bonneville Power Administration (BPA) in Portland, Oregon, following the retirement of Kathy Pierce (*LLQR*, December 2015, page 8). Ms. Biegel has 19 years of experience preparing and advising on NEPA reviews. For the past 13 years, she worked for the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service in Massachusetts and Oregon as a NEPA Coordinator advising on NEPA strategy and document development for both the commercial fisheries and endangered species realms. Prior to federal service, Ms. Biegel worked on a variety of natural resource damage assessments and ecological risk assessments as an environmental consultant for NOAA, U.S. Fish and Wildlife Service, the United Nations, and other clients. Ms. Biegel holds a Bachelor of Science in Biological Sciences (freshwater ecology) from the University of Notre Dame and a Master of Science in Biology (marine ecology) from Boston University Marine Program in Woods Hole, Massachusetts. She can be reached at stbiegel@bpa.gov or 503-230-3920.

Western Area Power Administration: Matt Blevins

Matthew (Matt) Blevins was recently selected for a long-term detail as Western's Natural Resources Manager and NCO. As the Environment Team Lead for 9 years in Western's headquarters in Lakewood, Colorado, he assisted the NCO by providing technical direction for NEPA planners, biologists, archeologists, and regulatory compliance staff, and by collaborating with Western's five regional environmental managers to maintain a consistent and sound compliance program. Mr. Blevins served as the NEPA Document Manager for the Grapevine Wind Canyon EIS and the Big Stone II Power Plant and Transmission Project EIS. Before joining Western, he worked for the U.S. Army, U.S. Marine Corps, Nuclear Regulatory Commission (where he worked on the Idaho Spent Fuel Facility EIS, the American Centrifuge Plant EIS, the Mixed Oxide Fuel Fabrication Facility EIS, and the National Enrichment Facility EIS, among others), and as a consultant at the West Valley Demonstration Project. Mr. Blevins earned his Bachelor of Science in Chemistry from West Virginia University and Master of Science in Environmental Engineering from Clemson University. He can be reached at blevins@wapa.gov or 720-962-7261.



Western's previous Natural Resources Manager and NCO, Shane Kimbrough, is now on detail serving as Western's Deputy Chief Operating Officer. In that capacity, she is assisting the COO with various managerial, administrative, and supervisory activities.

EAs and EISs Completed January 1 to March 31, 2016

EAs¹

Bonneville Power Administration

[DOE/EA-1945](#) (3/4/16)

Northern Mid-Columbia Joint Project, Douglas and Chelan Counties, Washington

Cost: \$540,000

Time: 41 months

[DOE/EA-1951](#) (2/18/16)

Midway-Moxee Rebuild and Midway-Grandview Upgrade Transmission Line Project, Benton and Yakima Counties, Washington

Cost: \$1,140,000

Time: 38 months

[DOE/EA-1959](#) (3/30/16)

Eightmile Ranch Coho Acclimation Site, Okanogan County, Washington

DOE and the US Forest Service were co-lead federal agencies; therefore total cost data are not applicable to DOE.

Time: 36 months

Office of Fossil Energy

[DOE/EA-2036](#) (3/11/16)

Sabine Pass Liquefaction Project (design optimization), Cameron Parish, Louisiana

EA was adopted; therefore cost and time data are not applicable to DOE. [The Federal Energy Regulatory Commission was the lead agency; DOE was a cooperating agency.]

Oak Ridge Office/

Office of Environmental Management

[DOE/EA-2000](#) (2/19/16)

Property Transfer to Develop a General Aviation Airport at the East Tennessee Technology Park Heritage Center, Oak Ridge, Tennessee

Cost: \$210,000

Time: 16 months

Western Area Power Administration

[DOE/EA-2013](#) (2/5/16)

Herbicide Application at Western Area Power Administration Stations, Maricopa and Yuma Counties, Arizona and Imperial County, California
DOE and the Bureau of Land Management were co-lead federal agencies; therefore total cost data are not applicable to DOE.

Time: 8 months

[DOE/EA-2022](#) (1/11/16)

Sleeping Giant Hydropower Project, Lewis and Clark County, Montana

EA was adopted; therefore cost and time data are not applicable to DOE. [The Bureau of Reclamation was the lead agency; DOE was a cooperating agency.]

EISs

Bonneville Power Administration

[DOE/EIS-0436](#) (81 FR 7538, 2/12/16)

(Draft EIS EPA Rating: EC-2)

I-5 Corridor Reinforcement Project, Multnomah County, Oregon, and Cowlitz and Clark Counties, Washington

Cost: \$12,000,000

Time: 76 months

Office of Environmental Management

[DOE/EIS-0375](#) (81 FR 11557, 3/4/16)

(Draft EIS EPA Rating: EC-2)

Disposal of Greater-Than-Class C (GTCC)

Low-Level Radioactive Waste and GTCC-Like Waste

Cost: \$8,900,000

Time: 104 months

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¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

EAs and EISs Completed (continued from previous page)

National Nuclear Security Administration

DOE/EIS-0288-S1 (81 FR 11557, 3/4/16)

(Draft EIS EPA Rating: EC-2)

Production of Tritium in a Commercial Light Water Reactor Supplemental EIS, Tennessee and South Carolina

Cost: \$1,926,000

Time: 53 months

Western Area Power Administration

DOE/EIS-0370 (81 FR 5740, 2/3/16)

(Draft EIS EPA Rating: EO-2)

Windy Gap Firing Project, North Central Colorado EIS was adopted; therefore cost and time data are not applicable to DOE. [The Bureau of Reclamation was the lead agency; DOE was a cooperating agency.]

DOE/EIS-0496 (81 FR 16175, 3/25/16)

(Draft EIS EPA Rating: EC-2)

San Luis Transmission Project, Alameda, Merced, San Joaquin, and Stanislaus Counties, California

Cost: \$1,400,000

Time: 28 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For a full explanation of these definitions, see the EPA website at <http://www2.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>.)

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for 3 EAs for which cost data were applicable was \$540,000; the average was \$630,000.
- For this quarter, the median completion time for 5 EAs for which time data were applicable was 36 months; the average was 28 months.
- Cumulatively, for the 12 months that ended March 31, 2016, the median cost for the preparation of 12 EAs for which cost data were applicable was \$220,000; the average was \$480,000.
- Cumulatively, for the 12 months that ended March 31, 2016, the median completion time for 20 EAs for which time data were applicable was 20 months; the average was 24 months.

EIS Cost and Completion Times

- For this quarter, the median cost for 4 EISs for which cost data were applicable was \$6,060,000; the average was \$5,410,000.
- For this quarter, the median and average completion times for 4 EISs for which time data were applicable were 65 months.
- Cumulatively, for the 12 months that ended March 31, 2016, the median cost for the preparation of 7 EISs for which cost data were applicable was \$2,000,000; the average was \$5,330,000.
- Cumulatively, for the 12 months that ended March 31, 2016, the median completion time for 13 EISs for which time data were applicable was 52 months; the average was 51 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Effective public scoping.* A 60-day public scoping period facilitated great input from the public on alternatives analyses.
- *Scoping was not complicated.* The public scoping process was straightforward and the scope did not change during the EIS process.

What Didn't Work

- *Addition to the project's scope.* Additional scoping time was needed due to a second transmission line being added to the original project's scope.
- *Unrealistic original EIS schedule.* The original EIS schedule was unrealistic due to management's very ambitious energy agenda.

Data Collection/Analysis

What Worked

- *Effective surveys.* On the ground and aerial surveys conducted for biological and cultural resources facilitated resource impact analyses needed for the EIS.
- *Access to good resources.* The NEPA contractor had the appropriate expertise needed for this type of EIS and also used state of the art modeling for analyses.
- *Most data readily available.* The NEPA support contractor and the cooperating agency had access to most of the data needed to support the EIS analyses.
- *DOE data.* DOE provided data to the lead agency and the developer to ensure that all DOE-specific information was correct.
- *Use of GIS approach.* Over 300 miles of right-of-way, over 200 miles of access roads, and 4 substation sites were studied using a predominately GIS approach to facilitate the identification of a preferred alternative.

- *Use of previous EA data.* Use of data generated for a previous EA at the site helped expedite the NEPA process.
- *Use of data in recent EISs.* Use of applicable data in recent EISs helped expedite the EIS process.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Working closely with the EIS contractor.* DOE project management staff worked closely with contractor staff on maintaining the EIS schedule and deliverables. This included the completion of all documentation critical to the finalization of the EIS and record of decision.
- *Good contractor support.* The support of several good environmental contractors working throughout the EIS process helped facilitate timely completion of the EIS.
- *Regular team meetings.* Regular team meetings (twice a month) to keep staff aware of schedules and document status facilitated timely completion of the EA.
- *Tribal meetings.* Monthly meetings with tribes to discuss the proposed project were effective in keeping the EA on schedule.
- *Focus on obtaining approvals.* In order to keep the EIS on schedule, the NEPA document manager focused on obtaining necessary approvals in a timely manner.
- *Knowledgeable contractors.* The EA contractors were very knowledgeable about projects similar to the proposed action. This facilitated the completion of the draft EA in 6 months.
- *Recognized NEPA leaders.* The NEPA document manager and NEPA compliance officer were recognized by their community as responsible shepherds in the preparation of NEPA documents.

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Cooperating agency participation.* Cooperating agency participation provided specific expertise and also facilitated the issuance of permits as needed for the project. This ensured that all topics were addressed properly and contributed to the success of keeping the EIS on schedule.

Factors that Inhibited Timely Completion of Documents

- *Complex issues.* The complexity of issues due to numerous sensitive resources and uncertainty regarding the listing status of the greater sage-grouse during the development of the EA made timely completion of the EA difficult.
- *Several review cycles.* The EIS review process took longer than anticipated due to multiple review cycles involving stakeholder reviewers.
- *Coordinating with the cooperating agency.* Coordinating with the cooperating agency, who had a vested interest in the project and the outcome of the NEPA process, was challenging. Since the agency had its specific goals and ideas about the NEPA process and the project itself, coming to consensus on decisions took significant effort on some occasions.
- *Increased review time.* Working with a co-lead agency added to the review timelines that we were accustomed to when we prepared EAs as the sole lead.
- *Lack of staff support.* EA was written by in-house NEPA document manager. Original document manager left the agency mid-process, and the additional project workload for the second document manager was an issue in dedicating time to this EA.
- *Extensive siting and public outreach.* The proposed project was in a highly populated area and required extensive siting and public outreach processes.
- *Unforeseen circumstances.* Policy changes, administration changes, political implications, and certain unforeseen events at DOE sites inhibited timely completion of the EIS.
- *Long review process.* The EIS review and comment resolution process within headquarters was long (over 5 months) and there were multiple rounds (4) to get the final EIS approved. Conflicting comments were received at times from various headquarter offices who reviewed the final EIS. It was also difficult to field

8 different individuals' requests and direct questions from one office. It would be better to have at most 1 to 2 points of contact from an office, not 8 individuals from 3 internal offices.

- *Inconsistent advice.* Advice received from within individual headquarter offices was not always consistent.
- *Need for the proposed action.* The preparation of the final EA took longer than anticipated because of the need to justify the need for the proposed action.
- *Coordination with other agencies.* Coordination with a separate agency, that was responsible for the design of the transmission line and access roads, took more time than anticipated.

Teamwork

Factors that Facilitated Effective Teamwork

- *Team cooperation.* There was good cooperation among NEPA team members on the preparation of the EA and meeting milestones.
- *Interagency meetings.* Interagency meetings were very helpful in resolving issues, especially when they were face-to-face.
- *Agency coordination.* Great coordination among the lead agency, DOE, and the developer facilitated timely completion of the EA.
- *Management support.* Management gave the project team latitude to make timely decisions to keep the project moving. Management was briefed on the status of the project at intervals.

Process

Successful Aspects of the Public Participation Process

- *Input at public meetings.* Meeting with landowners and local land conservation easement agencies and groups provided good input for assessing potential viewshed impacts.
- *Interest in project.* The attendance at the draft EIS hearings was good. More people came to address this project during the draft EIS hearings than for the earlier scoping meetings.

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Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Effective public comments.* Public comments were received on the draft EIS from private landowners, public agencies, and interested individuals; these comments were clear and consideration of them enhanced the final EIS.
- *Addressed public concern.* Many people expressed concern regarding how the proposed project would impact their property. Residents of one small city were very concerned about environmental justice and visual impacts; wildlife agencies were very concerned about impacts to wildlife species; farmers were concerned about impacts to orchards; and tribes were very involved in the cultural consultation under NHPA. All concerns were addressed in the final EA.
- *Project-specific website.* A project-specific website was developed to share information with the public. It was a very effective tool to get information to stakeholders and to get information back from stakeholders. It also had a library of all materials and interactive maps where property owners could locate their property in relation to the project.
- *Project database developed.* A database was developed to collect, track, and organize public comments.
- *Well organized public meetings.* Public meetings were well organized and could accommodate approximately 600 attendees.
- *Pre-meetings on draft EIS.* We had draft EIS pre-meetings where staff was available to help stakeholders navigate the draft EIS while still having time to submit comments.
- *Participation of EIS team members in community meetings.* Management and project team members were invited to and participated in many community meetings.
- *Tribal participation.* Even though DOE had not entered into formal consultation, two tribes were actively involved in regular EIS meetings and outreach.
- *Low public meeting attendance.* This was a low visibility project. Despite extra efforts to advertise the informational meeting, there was very little public participation.
- *Little public interest.* The public was not interested in the proposed project. No non-federal or developer associated people were present at the public meeting.
- *Lack of tribal participation.* The program office produced a listing of tribal organizations that could be stakeholders. Of the approximately 20 listed, none chose to participate.
- *No preferred alternative in draft EIS.* Some members of the public felt that a preferred alternative should have been identified in the draft EIS.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Confidence in decision.* The EA process allowed each participating agency to sign the finding of no significant impacts (FONSI) with confidence that there were no issues associated with the proposed project.
- *Informed decision.* The EA process helped the decisionmakers understand potential positive and negative impacts to various resources that could result from the proposed action.
- *Project design.* The EIS process facilitated a project design that incorporated avoidance and minimization of impacts to the environment.

Enhancement/Protection of the Environment

- *Mitigation of environmental impacts.* Conservation and mitigation measures were developed during the NEPA process to avoid or minimize impacts to natural resources.
- *Property transfers.* Additional guidance is needed regarding the applicability of categorical exclusions versus the need to prepare EAs for property transfers.
- *Managing contractor performance.* Detailed guidance for NEPA Document Managers on managing contractor performance would be valuable.

Unsuccessful Aspects of the Public Participation Process

- *Project proponent new to public involvement.* The project proponent was a non-federal agency and unaccustomed to much public involvement.

(continued on next page)

What Worked and Didn't Work

(continued from previous page)

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 5 EA and 5 EIS questionnaire responses were received, 9 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “5” stated that during the NEPA process, input from agencies, tribes, and the public influenced the location of alternatives considered.
- A respondent who rated the process as “5” stated that the NEPA process identified multiple mitigation measures that could minimize environmental impacts.
- A respondent who rated the process as “5” stated that the NEPA process helped program management to understand the potential impacts of the proposed action.
- A respondent who rated the process as “5” stated that the NEPA process facilitated environmental stewardship, which is fundamental to agency action.
- A respondent who rated the process as “4” stated that the NEPA process facilitated resource avoidance and identified mitigation measures.
- A respondent who rated the process as “4” stated that the NEPA process supported the implementation of a great project that would have provided green carbon-free energy. [Project was withdrawn by applicant.]
- A respondent who rated the process as “4” stated that the NEPA process was helpful.
- A respondent who rated the process as “4” stated that the NEPA process provided “pieces to the puzzle” needed to evaluate potential environmental impacts resulting from the proposed action.
- A respondent who rated the process as “4” stated that the NEPA process was a valid effort to support the evaluation of the proposed action.
- A respondent who rated the process as “0” stated that the NEPA process was a paperwork exercise.

LESSONS LEARNED

CEQ Issues Guidance on Consideration of GHGs and Climate Change in NEPA Reviews



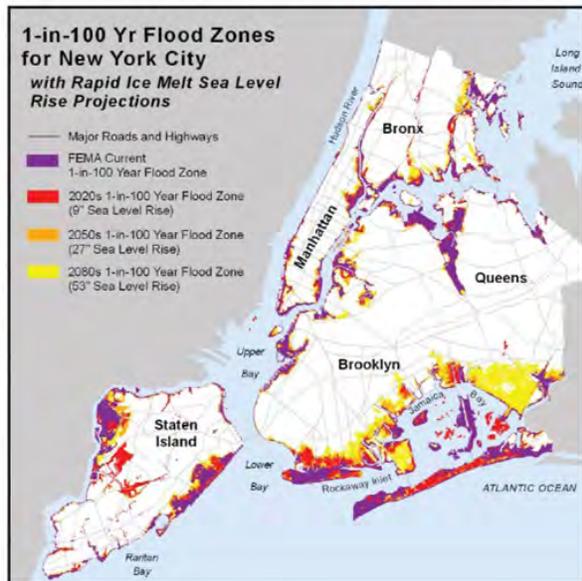
The Council on Environmental Quality (CEQ) recently released its *Final Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews*. The Guidance recommends that agencies quantify a proposed action’s projected direct and indirect greenhouse gas (GHG) emissions when tools and data inputs are reasonably available, and use these emissions as a proxy for assessing potential climate change effects. The Guidance also recommends that where

agencies do not quantify such emissions, agencies should include a qualitative analysis and explain the basis for determining that quantification is not reasonably available.

The Guidance is CEQ’s effort to ensure that agencies consider how federal actions may impact climate change and to identify opportunities to build climate resilience (i.e., consider alternatives that would make the proposed actions and affected communities more resilient to the effects of a changing climate). The Guidance provides a level of predictability and certainty on how agencies describe potential climate change impacts in NEPA reviews, and will help agencies make informed decisions about the potential impacts of climate change associated with their actions. The Guidance emphasizes consideration of the rule of reason and proportionality in preparing GHG and climate change analyses. The Guidance does not establish new requirements, but courts may reference the document as a persuasive authority.

Consideration of climate change in NEPA reviews will improve the quality of decisionmaking by identifying “practicable opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to safeguarding communities and their infrastructure against the effects of extreme weather events and other climate-related impacts,” states the Guidance. CEQ issued the Guidance on August 2, followed by an announcement in the *Federal Register* on August 5 (81 FR 51866).

New York City and Sea Level Rise



Sea level rise may affect the resilience of projects and infrastructure. According to the Guidance, agencies should “take into account the ways in which a changing climate may impact the proposed action and any alternative actions, change the action’s environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.” (Image: U.S. Climate Resilience Toolkit)

Use Existing NEPA Tools and Principles

The Guidance states that climate change impacts should be analyzed using existing NEPA tools and practices. It further states that, “Agencies should be guided by the principle that the extent of the analysis should be

(continued on page 4)

Inside Lessons Learned

Welcome to the 88th quarterly report on lessons learned in the NEPA process. This issue highlights the Council on Environmental Quality final guidance on climate change, U.S. Fish and Wildlife Service migratory bird training, an updated Environmental Protection Agency screening tool for environmental justice analysis, and contributions by our summer interns. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Carol Boughton

Director
Office of NEPA Policy and Compliance

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Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles – especially case studies on successful NEPA practices – by October 17, 2016, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due November 7, 2016

For NEPA documents completed July 1 through September 30, 2016, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than November 7. Other document preparation team members are encouraged to submit a questionnaire, too. Contact Vivian Bowie at vivian.bowie@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

NEPA Compliance Officers To Meet

DOE’s NEPA Compliance Officers (NCOs) will meet October 18–19 at DOE Headquarters in Washington, DC. The meeting will feature discussion on approaches for working with decisionmakers and NEPA document teams, ensuring document quality, making categorical exclusion (CX) determinations, and CEQ’s recent climate change guidance.



DOE established the NCO position in 1990 “in each headquarters office having NEPA responsibilities and in each operations office.” The responsibilities of an NCO are listed in the DOE NEPA Order ([DOE O 451.1B, NEPA Compliance Program](#)) and include:

- Developing NEPA procedures for the NCO’s office, coordinating the office’s NEPA compliance strategies, assisting with the NEPA process and document preparation, and advising on the adequacy of NEPA documents.
- Making CX determinations and approving and issuing associated floodplain and wetland documents.
- Participating in periodic NEPA meetings and workshops conducted by the Office of NEPA Policy and Compliance, providing NEPA training, and disseminating NEPA guidance and related information.

Training: Migratory Bird Conservation for Federal Partners



Environmental professionals from across the DOE complex gathered in Washington, DC, in late May for the U.S. Fish and Wildlife Service (FWS) training [Migratory Bird Conservation for Federal Partners](#). FWS staff provided an overview of the Migratory Bird Treaty Act (MBTA) and related laws, and recommended use of the FWS “stressor management approach” in the NEPA process to analyze and reduce potential impacts to migratory birds. “One of the key takeaways from the training,” said Susan Lacy, NCO for the National Nuclear Security Administration’s Sandia Field Office, “is that NEPA often is the best process for assessing ways to protect birds.”

cause devastating population declines. “A key NEPA lesson from the training,” said Brad Mehaffy, Office of NEPA Policy and Compliance, “is that addressing migratory bird vulnerabilities over their full life cycle is essential to reducing potential impacts.”

What is a “Migratory Bird”?

Enacted almost a century ago, the MBTA is one of the nation’s oldest wildlife protection laws. The FWS maintains a [list](#) of species protected under the MBTA at 50 CFR 10.13. Most native bird species belong to a protected family and are therefore protected by the MBTA. The FWS also tracks [Birds of Conservation Concern](#) (BCCs), which are species that “without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973.”

FWS Stressor Management Approach

FWS staff explained that NEPA reviews should analyze potential impacts to migratory birds in accordance with the MBTA as well as the Bald and Golden Eagle Protection Act, the Endangered Species Act, the Fish and Wildlife Conservation Act, and [Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds](#).

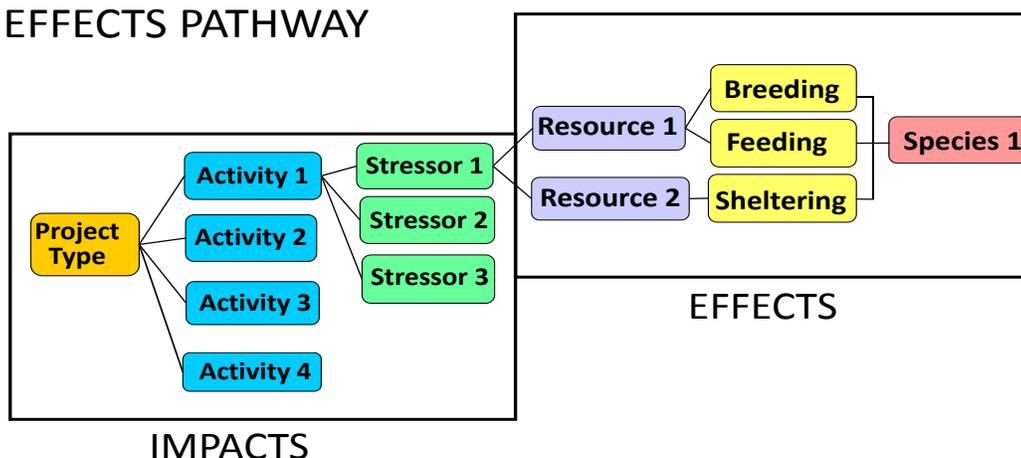
Affected Environment: For developing the discussion of migratory birds and their habitat in a NEPA document’s affected environment section, FWS staff recommended: coordinating with FWS at an early stage and on an ongoing basis, consulting the BCC lists, and using the “Information for Planning and Conservation” (IPaC) online tool ([LLQR, March 2014](#), page 6). Other potentially useful resources include the [Avian Knowledge Network](#), state natural heritage databases, public information, and direct field assessments.

Birds are under pressure from the potential cumulative effects of habitat loss, cat predation, building/structure collisions, electrocution, hunting, and pollution, which can

Environmental Consequences: FWS staff recommended using a stressor management approach when assessing potential environmental impacts. A stressor is defined as any alteration of or addition to the environment that

(continued on page 7)

EFFECTS PATHWAY



The FWS’s Effects Pathway distinguishes between “impacts” and “effects.” This approach deconstructs an action and links cause-and-effect relationships between an activity and bird demography to avoid or minimize impacts and identify conservation measures that target the activity-related stressor. (Source: FWS Migratory Bird Conservation for Federal Partners [Webinar](#))
 Note: “Effects” and “impacts” are synonymous in the CEQ NEPA regulations (40 CFR 1505.8).

Climate Change Guidance *(continued from page 1)*

commensurate with the quantity of projected GHG emissions....” As with all potential environmental impacts, the agency should use expertise and experience to determine the focus and depth of analysis, as well as the appropriate level (programmatic, project- or site-specific) of NEPA review.

Quantification of GHG Emissions

According to the Guidance, agencies should analyze potential impacts over the “life of the proposed action and its effects.” This includes both the potential effects of a proposed action on climate change, using emissions as a “proxy” for impacts, and the effects of climate change on both the proposed action and the potential impacts of that action.

The Guidance advises that agencies analyze both the short- and long-term adverse and beneficial effects of the proposed action, recognizing that some projects may have short-term negative climate effects that are ultimately outweighed by the long-term benefits of the project. Agencies should quantify emissions as long as “tools, methodologies, or data inputs” are “reasonably available.” Otherwise, agencies should describe emissions qualitatively and explain the basis for determining that quantification is not reasonably available. The Guidance explains that a “qualitative analysis can rely on sector-specific descriptions of the GHG emissions of the category of Federal agency action that is the subject of the NEPA analysis.”

The Guidance eliminates the 25,000 metric ton CO₂-equivalent annual emission reference point for quantification that had been included in the 2014 revised draft Guidance. This change expands the suite of projects for which the Guidance recommends quantification of projected direct and indirect GHG emissions. To support implementation of the Guidance, CEQ has updated its [list](#) of GHG accounting tools, including five developed by DOE.

When [an existing, timely, objective, and authoritative analysis of estimated direct and indirect emissions] or information for quantification is unavailable, or the complexity of comparing emissions from various sources would make quantification overly speculative, then the agency should quantify emissions to the extent that this information is available and explain the extent to which quantified emissions information is unavailable while providing a qualitative analysis of those emissions.

— CEQ Final GHG Guidance

According to the Guidance, “for the purposes of NEPA, the analysis of the effects of GHG emissions is essentially a cumulative effects analysis.... Therefore, direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change... and a separate cumulative effects analysis for GHG emissions is not needed.”

Agencies are not expected to “fund and conduct original climate change research” or “undertake new research or analysis” of local impacts. Instead, the Guidance stresses that agencies should use existing information and science in NEPA reviews. Further, the Guidance notes that “agencies can rely on basic NEPA principles to determine and explain the reasonable parameters of their analyses in order to disclose the reasonably foreseeable effects that may result from their proposed actions.”

The Guidance also recommends discussing relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate adaptation and making it clear “whether a proposed project’s GHG emissions are consistent” with them. For example, by FY 2025, DOE has committed to reducing greenhouse scope 1 (direct) and 2 (direct – purchased energy) emissions by 50 percent and scope 3 (indirect) emissions by 25 percent from a FY 2008 baseline (*2015 Strategic Sustainability Performance Plan*).

“Agencies should not limit themselves to calculating a proposed action’s emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA.” CEQ explains that “these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact.”

Examination of Alternatives

Rather than focusing on sector, nationwide, or global emissions, the Guidance advises agencies to use their quantification of GHG emissions to compare GHG emissions across alternative scenarios and alternatives to both lessen net GHG emissions (e.g., carbon sequestration, energy efficiency) and improve resiliency to future climate change impacts (e.g., avoiding development in floodplains). “Considering alternatives, including

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Climate Change Guidance *(continued from previous page)*

alternatives that mitigate GHG emissions, is fundamental to the NEPA process,” states the Guidance.

In addition, CEQ notes that “[a]gency decisions are aided when there are reasonable alternatives that allow for comparing GHG emissions and carbon sequestration potential, trade-offs with other environmental values, and the risk from – and resilience to – climate change inherent in a proposed action and its design.” “For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures.”

The Guidance is consistent with Administration efforts to promote sustainability (Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*) (*LLQR*, June 2015, page 4) and improve resilience (E.O. 11988 as amended, *Floodplain Management*) (*LLQR*, December 2015, page 1). The Guidance notes that NEPA does not require selection of the alternative with the lowest net level of GHG emissions or greatest resilience. The Guidance

states, “When conducting the analysis, an agency should compare the anticipated levels of GHG emissions from each alternative ... and mitigation actions to provide information to the public and enable the decision maker to make an informed choice.”

DOE’s Approach to GHG and Climate Change Analysis

DOE has analyzed GHG emissions and climate change in its NEPA reviews for almost 30 years, beginning with the 1989 *Programmatic Environmental Impact Statement for the Clean Coal Technology Demonstration Program* (DOE/EIS-0146). DOE has honed its approach since then based on its experience and consideration of draft versions of the Guidance. DOE will discuss the Guidance at this fall’s NEPA Compliance Officers Meeting (page 2), and will continue to monitor developments in climate change analysis in NEPA and the need for additional guidance. “We’ll continue to encourage DOE to be at the forefront of considering climate change in NEPA,” said Carol Borgstrom, Director, Office of NEPA Policy and Compliance.

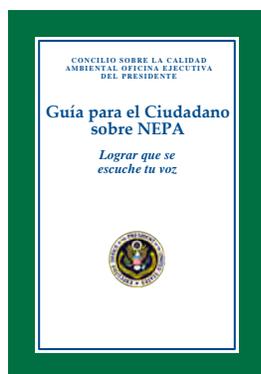
Past issues of *LLQR* have described DOE’s approach to GHG and climate change analysis (December 2007, page 1) and the development of Guidance (March 2010, page 3; March 2015, page 1). For more information, contact Bill Ostrum at william.ostrum@hq.doe.gov or 202-586-4149. 

[T]he effects of climate change observed to date and projected to occur in the future include more frequent and intense heat waves, longer fire seasons and more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, ocean acidification, and harm to wildlife and ecosystems.

— CEQ Final GHG Guidance

Key Climate Change References

Available resources include references such as the U.S. Global Change Research Group *National Climate Assessment* and Intergovernmental Panel on Climate Change *Fifth Assessment Report*. They also include regional and site-specific documents such as vulnerability assessments and site sustainability plans.



Now available / Ahora disponible: Guía para el Ciudadano sobre NEPA

The DOE NEPA Website now offers CEQ’s *A Citizen’s Guide to NEPA: Having Your Voice Heard* in Spanish as well as English. Developed by an interagency work group, the Guide provides an orientation to NEPA to facilitate public involvement (*LLQR*, March 2008, page 8).

El sitio web de NEPA del Departamento de Energía (DOE) ahora ofrece la *Guía para el Ciudadano sobre NEPA: Lograr que se escuche tu voz* en español y en inglés. Desarrollado por un grupo de trabajo interinstitucional, la guía ofrece una orientación a NEPA para facilitar la participación pública (*LLQR*, marzo 2008, página 8). 

EJSCREEN 2016: EPA's Enhanced EJ Screening Tool

The Environmental Protection Agency (EPA) recently updated [EJSCREEN](#) with additional data and features. EJSCREEN can be used by agencies and the public when considering potential environmental justice (EJ) impacts, such as during the NEPA process.

The web-based mapping tool provides environmental and demographic information for locations across the United States and allows comparisons, including to the rest of a state, EPA region, or the nation. This can help identify locations that may have higher environmental burdens and vulnerable populations than the surrounding areas.

EPA began working on EJSCREEN in 2010 and released it for public use last year (*LLQR*, [September 2015](#), page 12). Following that release, EPA conducted “hundreds of outreach events to a broad range of stakeholders” and “worked with other federal and state partners to assist in incorporating EJSCREEN into various activities, analyses, and programs,” recalled Matthew Tejada, Director of EPA’s Office of Environmental Justice, in a [blog post](#) describing the update. The recent changes were based on feedback received during those efforts and include:

- Inclusion of National Air Toxic Assessment environmental indicators for cancer risk, respiratory hazard, and diesel particulate matter exposure
- Scalable maps that summarize data at the Census block group or tract, or county level
- New layers such as parks/green spaces and unemployment rates
- The ability to save sessions and print maps

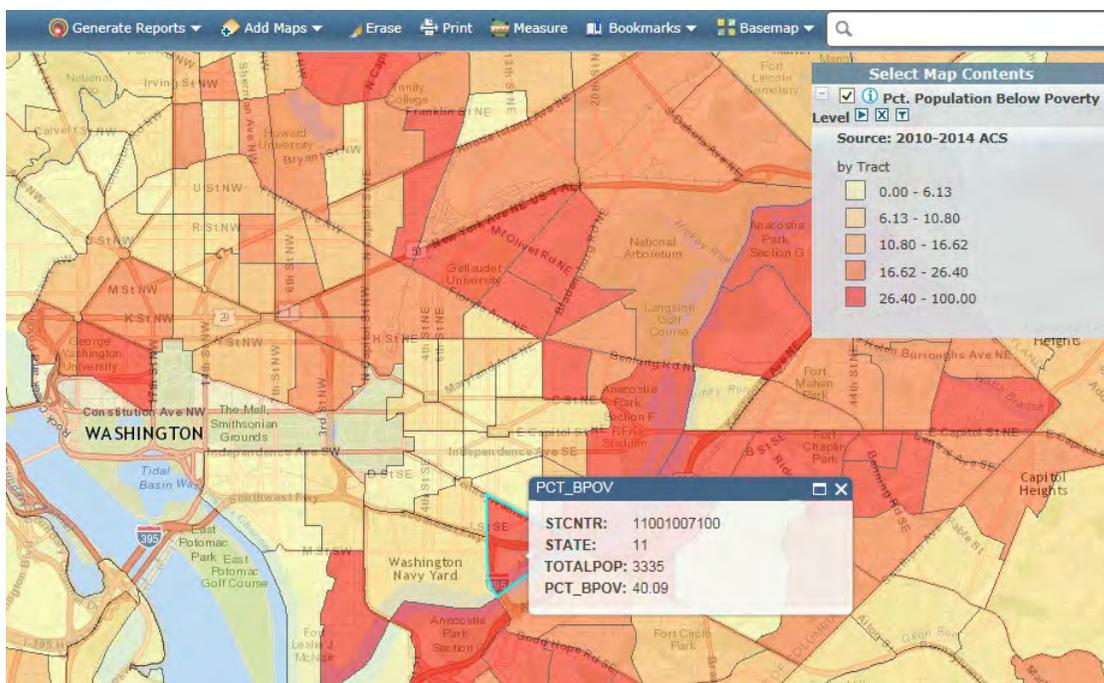
- A side-by-side view of different datasets
- Inclusion of data for Puerto Rico
- An updated interface to improve usability

Uses in NEPA Reviews

EJSCREEN can be helpful in the NEPA process, including during scoping and in evaluating public comments. For example, the recent report of the NEPA Committee of the Interagency Working Group on Environmental Justice, *Promising Practices for EJ Methodologies in NEPA Reviews*, notes that EJSCREEN “can be used to help identify the location and concentrations of minority populations and low-income populations” at the beginning of the scoping process. (See *LLQR*, [March 2016](#), page 1.)

EPA uses EJSCREEN to support agency work to inform public outreach and involvement; implement aspects of permitting, enforcement, compliance, and voluntary programs; develop reports of EPA work; and enhance geographically based initiatives. In addition, EPA points out that EJSCREEN can be used to share information with state and tribal partners and the public, and to support educational programs, grant writing, and community awareness efforts. EPA cautions that screening-level results “do not, by themselves, determine the existence or absence of environmental justice concerns in a given location.” Results from EJSCREEN should be supplemented with detailed local information and experience.

For more information, see EPA’s EJSCREEN [Contact Us](#) webpage. [LL](#)



A screenshot illustrates the distribution of population below the poverty level in the Washington, DC, area.

Migratory Bird Training *(continued from page 3)*

affects birds and/or their resources, and is expressed in plain language that needs little or no interpretation, such as “vegetation removal” or “noise.”

This approach uses a detailed effects pathway analysis to link activities associated with a proposed project to demographic impacts on receptor species of migratory birds. For example, a construction project’s activities (e.g., clearing vegetation, grading, establishing access roads, and excavating holes) may create stressors (e.g., reduced habitat, dust, noise, runoff, and vibration) that affect the resources essential for breeding, feeding, or sheltering. Species-specific responses may include vulnerability to predators, area avoidance, and barriers to migration. Potential resulting effects are reduced reproductive success, injury, and death.

Mitigation: FWS staff recommended that NEPA reviews identify the specific conservation measures that could be used to mitigate potential project-related impacts to migratory birds. A mitigation measure may:

- Avoid the production of a stressor/impact to birds altogether by not taking a certain action
- Minimize the exposure of birds and their resources to project-related stressors by limiting the degree or magnitude of the action and its implementation
- Rectify the effects of an impact by repairing, rehabilitating, or restoring the affected environment
- Reduce or eliminate the stressor/impact over time
- Compensate for the impact by replacing or providing substitute resources or environments

The FWS [Conservation Measures webpage](#) provides a reference on nationwide conservation measures, 11 sets

of mitigation measures specific to an activity or type of structure, and species-specific measures for eagles and sage-grouse.

The FWS MBTA training supports fulfillment of the 2013 Memorandum of Understanding (MOU) between DOE and FWS pursuant to the MBTA and Executive Order 13186. In that MOU, DOE committed to coordinate closely with the FWS during NEPA review of DOE proposals to identify and analyze potential impacts, and develop strategies to protect migratory birds and their habitats. (See *LLQR*, [December 2013](#), page 13.)

The FWS looks forward to collaborating with DOE to build a strong partnership on behalf of migratory birds.

*— Dr. Eric Kershner, Ornithologist
FWS Division of Migratory Bird Management*

The Office of the Associate Under Secretary for Environment, Health, Safety and Security (AU) is the lead for implementing the DOE Migratory Bird Protection Program. For additional information, contact Beverly Whitehead, Office of Sustainable Environmental Stewardship (AU-21), at beverly.whitehead@hq.doe.gov. In addition, DOE’s Powerpedia [page](#) (accessible to DOE staff) on the Migratory Bird Protection Program provides links to resources and references. For questions regarding migratory bird issues in NEPA reviews, contact Brad Mehaffy at bradley.mehaffy@hq.doe.gov or 202-586-7785. 

The FWS training helped us understand the MBTA and related avian protection laws. Using the Avian Power Line Interaction Committee guidance, reference materials from the training, and networking with individuals we met, Southwestern was able to draft its Avian Protection Plan. We are excited about moving it forward.

*— Mistie Pilcher, Contract Environmental Specialist
Southwestern Power Administration*



(Photo: U.S. Fish and Wildlife Service)

NEPA Office Issues 2016 Stakeholders Directory

Approximately 45 percent of listings in the 2016 *Directory of Potential Stakeholders for DOE Actions under NEPA* changed in the past year. The Office of NEPA Policy and Compliance issued the 33rd edition of the directory in July after verifying contact information with federal agencies; states, territories, and state government associations; and nongovernmental organizations. The directory also lists updated DOE points of contact for tribal issues and NEPA document websites and public reading rooms.

“Check your distribution lists,” encouraged Juliet Bochicchio, who conducted the update for the NEPA Office. NCOs and NEPA Document Managers should ensure that they are using the most current contact information. “While updating the directory, we received feedback from one organization that an EIS of high interest to them was sent to an outdated address,” she said.

When planning to distribute an EA or EIS, or initiate other NEPA public involvement and consultation activities, use the directory to help identify potential recipients and confirm their mail and email addresses. The NEPA Office updates the entire directory each July and may issue updates throughout the year as new contact information is received. The most current directory is available on the DOE NEPA Website. Send updates and questions to askNEPA@hq.doe.gov. 

Coordinating with the Department of the Interior

The Department of the Interior (DOI) has updated its [procedures](#) for the review of other agencies’ environmental documents.

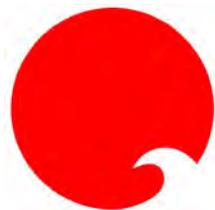
- Send requests for review of a draft or final EIS to the DOI Office of Environmental Policy and Compliance, which will provide it to DOI bureaus and regional offices. The Office of Environmental Policy and Compliance requests a web address to download the documents or to receive the files on a CD, DVD, or thumb drive, rather than paper copies. The contact for DOE issues is Lisa Treichel (lisa.treichel@ios.doi.gov or 202-208-7116).
- Consult with DOI Regional Environmental Officers and Bureau contacts on other environmental matters, including early coordination and scoping, EAs and FONSI, preliminary or working draft EISs, and matters of a regional nature. Regional offices and contacts are listed in the DOE Stakeholders Directory and on the DOI [website](#).

NAEP 2017 Conference Abstracts – Due September 15 Environmental Awards Nominations – Due October 14

The National Association of Environmental Professionals (NAEP) seeks abstracts for speakers, panels, and posters to be presented at its 42nd annual conference, which will be held March 27–30, 2017, in Durham, North Carolina. With the theme of *An Environmental Crossroads: Navigating our Ever Changing Regulatory Landscape*, the [conference](#) will cover NEPA and related subjects and is open to environmental professionals in all levels of government, academia, and the private sector. Abstracts for the 2017 conference are due by September 15, 2016. Questions may be directed to Lynn McLeod at naep2017@battelle.org or 781-681-5510.

NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. Award [nominations](#) are due by October 14, 2016. Questions may be directed to Abby Murray at 856-470-4521. 

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.



Transitions: NEPA Compliance Officers

Carlsbad Field Office

George Basabilvazo and **Anthony Stone** have been designated as temporary NEPA Compliance Officers (NCOs) for the Carlsbad Field Office. Mr. Basabilvazo, Director of the Environmental Protection Division, can be reached at george.basabilvazo@cbfo.doe.gov or 575-234-7488. Mr. Stone, Resource Conservation and Recovery Act Program Manager, can be reached at anthony.stone@cbfo.doe.gov or 575-234-7475.

Susan McCauslin, who served as the Carlsbad Field Office NCO since 2008, now supports environmental, contracting, and procurement activities in the Office of Technical Support and Asset Management at the Environmental Management Consolidated Business Center in Cincinnati.

NNSA, Los Alamos Field Office

Jane Summerson, Ph.D., the National Nuclear Security Administration's (NNSA's) lead NCO, is now also the NCO for the NNSA's Los Alamos Field Office. Dr. Summerson is a longtime DOE NCO and NEPA Document Manager. Past issues of *LLQR* reflect her many contributions. See, for example, her article on "Early Detailed Planning and Integrated Teamwork: Keys to Yucca NEPA Success" (December 2008, page 4) and her advice on "How to Manage an EIS Schedule Successfully" (June 2012, page 1). Dr. Summerson can be reached at jane.summerson01@nnsa.doe.gov or 505-845-4091.



Oak Ridge Office of Environmental Management

Michael Rigas is the new NCO for the Oak Ridge Office of Environmental Management (OREM). He also serves as the Facilities Information Management System coordinator. He previously worked as a project manager at OREM for several groundwater projects and as the nuclear maintenance program manager. Before joining DOE, Mr. Rigas worked as an engineering intern for a nongovernmental organization that designed facilities in the developing world. He earned a Bachelor of Science in Civil Engineering and a Master of Engineering in Environmental Engineering Sciences from the University of Florida, and is a licensed professional engineer in environmental engineering. He can be reached at michael.rigas@orem.doe.gov or 865-576-7070.



Southwestern Power Administration

Danny Johnson has been designated the new NCO for Southwestern Power Administration (SWPA), where he serves as Director, Division of Environment, Security, Safety and Health. He joined SWPA over 30 years ago as an electrical engineer and recently moved to his current position after serving as the Director of Maintenance of Electric Power Transmission Facilities. Mr. Johnson can be reached at danny.johnson@swpa.gov or 417-891-2625.

Aiden Smith, Vice President for Power Marketing and Transmission Strategy and SWPA's previous NCO, will continue to have a NEPA role in managing the newly created Section 1222 Project Management Field Element, which is responsible for large electric power transmission infrastructure projects evaluated or selected by the Secretary of Energy for participation under Section 1222 of the Energy Policy Act of 2005.



NEPA Summer Interns Look Ahead

The Office of NEPA Policy and Compliance was fortunate to have two outstanding interns assisting the staff this summer. We asked them to share their thoughts on their experiences in the NEPA Office and their future plans.

Julianna Hitchins is a rising senior at Pomona College majoring in Environmental Analysis.

In June, I transplanted myself from the humid, green, Amazonian jungle of Ecuador, where I spent the spring semester studying ecology and conservation, to the only slightly less humid, gray, concrete jungle of Washington, DC, to begin my internship with the NEPA Office. I hoped to apply and build on what I learned in the diverse ecosystems of Ecuador and in the classroom at Pomona College. I arrived in DC eager to gain exposure to federal environmental and energy policymaking and implementation. I'm confident I've achieved those goals and so much more.

During my time at the NEPA Office, I contributed to a diverse range of projects that gave me the opportunity to understand NEPA from three different perspectives. First, I saw how NEPA can inform the development of projects early in the planning process through the Office of Nuclear Energy's Consent-Based Siting Initiative for interim storage and disposal of spent nuclear fuel and high-level radioactive waste. Second, I had the opportunity to apply NEPA to projects and national policy issues currently underway by contributing to DOE's Environmental Justice strategy. Third, I learned about NEPA's progression over time, as I studied DOE's NEPA compliance over the past 20 years by analyzing NEPA document completion time and cost metrics.

My internship at the NEPA Office undoubtedly contributed to both my professional and personal development. I formed a new appreciation of and a clearer perspective on DOE's day-to-day functions and how these functions play a critical role in the nation's development. This experience complemented my academic and field-based experiences and provided a broader understanding of environmental work at the federal level. I also gained new perspective on my career goals. I began this internship feeling uncertain about my future professional and academic interests, desperately searching for a clear path. While working in the NEPA Office, I had the opportunity to work with professionals with a wide array of backgrounds and experiences. Now, as I begin my final year at Pomona College, I feel more confident about my professional goals knowing that there is no such thing as a clear-cut path. I leave the NEPA Office with an armory of experiences, great advice, new connections, and the principles of NEPA forever etched in my mind, all of which will help me adapt to other new environments as I move forward in my career.

Morgan Gray graduated with a BA in Political Science from Texas A&M in May 2016, and will pursue a Master of Public Service and Administration there this fall.

Freshly graduated with a BA and a desire to return to Washington, DC, for my second summer, I applied to the Washington Internships for Native Students program in hopes that an internship within the federal government would help guide me in my search for a career path. As a citizen of the Chickasaw Nation, it is of the utmost importance to me that a portion of my professional efforts be dedicated towards promoting an effective government-to-government relationship between the federal and tribal governments. The Office of NEPA Policy and Compliance gave me the opportunity to hone in on this objective through an in-depth exploration of tribal consultation within the NEPA environmental review process.

During my 8 weeks in DC, I studied the intersection of NEPA and Section 106 of the National Historic Preservation Act, which requires federal agencies, in consultation with tribal governments, to take into account the effects of their actions on historic properties. My research focused on identifying ways to increase participation of tribal communities in the NEPA process. I also provided suggestions for improving the DOE NEPA Website to better facilitate meaningful engagement in the NEPA process. In addition, I conducted research on programmatic NEPA documents and assisted in updating the *Stakeholders Directory* (page 8).

As I transition into pursuing a master's degree this fall, I hope to tailor my graduate-level studies to include coursework in environmental and energy policy. Without the experiences and guidance provided to me by mentors within the NEPA Office, I may not have discovered my interest in statutes, policies, and other federal requirements mandating environmental review. I am now

(continued on next page)



Julianna Hitchins (left) and Morgan Gray made valuable contributions to the NEPA Office this summer.

A Successful Training Tool for Working Effectively with Tribal Governments

By Morgan Gray, Intern, Office of NEPA Policy and Compliance

During my summer internship with the NEPA Office, I explored the role that tribal governments play in the NEPA process. As part of this effort, I took online training, [Working Effectively with Tribal Governments](#), which provides an in-depth guide to understanding the requirements¹ for, and the benefits of, meaningful, efficient, and respectful tribal consultation. The training was created by an interagency working group in 2008 and updated in 2013 (*LLQR*, [December 2013](#), page 7).

The training focuses on the history of the relationship between the U.S. Government and federally recognized tribal governments, and describes this relationship as “a political one, based on this historic and evolving relationship between sovereign governments....” Its description of seven eras of U.S.-tribal relations, beginning in 1778, provides critical context that can inform consultation efforts in the present. The training emphasizes that while this relationship began with instances of conflict and removal, both parties continue to work towards a positive and effectual relationship that recognizes tribal sovereignty and self-determination.

Many of the shared beliefs and practices within Native American culture, the training explains, involve religious

and cultural connections to the environment. The training states that “one important theme within many Native American cultures is a strong connection to all aspects of the natural world. It is important for federal employees to understand that the vitality of Native American cultures and religions is often inextricably linked to the environment. In fact, there are culturally important or sensitive resources.” For such reasons, it is crucial that federal agencies engage tribal governments when actions may impact the environment, and make an effort to understand their unique perspectives.

The training concludes with tips for successful tribal consultation, including the use of mutually agreed upon protocols, taking time to learn about each respective tribe’s culture and history prior to consultation, and respecting traditional customs and laws while visiting with tribes. As the relationship between the federal and tribal governments continues to evolve, communication remains an imperative aspect of maintaining a true government-to-government relationship. Overall, this training provides an effective and thorough guide for tribal consultation built upon mutual understanding and respect for culture and history. [LL](#)

¹ For example, the Council on Environmental Quality NEPA regulations require federal agencies to engage tribes in the NEPA process (40 CFR 1501.7(a)(1), 1503.1(a)(2)(ii), and 1508.5).

Summer Interns *(continued from previous page)*

confident in my ability to effectively serve the Chickasaw Nation as a proponent of self-determination, mutual respect, and understanding within tribal consultation practices.

With a new lens, I find myself moving forward towards a career path where I can incorporate both my passion for

championing self-governance within Tribal Nations, and my newfound appreciation for NEPA. In the future, I hope to follow the example of statutes like NEPA by working to provide a voice for tribal governments within the federal environmental review process. [LL](#)

EAs and EISs Completed April 1 to June 30, 2016

EAs¹

Bonneville Power Administration

DOE/EA-1952 (4/19/16)

Lane-Wendson No. 1 Transmission Line Rebuild Project, Lane County, Oregon

Cost: \$200,000

Time: 40 months

Brookhaven Site Office/Office of Science

DOE/EA-2010 (6/24/16)

Alternating Gradient Synchrotron Complex, Upgrades for Continued Operation, Upton, New York

Cost: \$60,000

Time: 14 months

Pacific Northwest Site Office/Office of Science

DOE/EA-2026 (4/4/16)

Biomedical Research at Existing Biosafety Level 3 Laboratories with Registered Select Agent Programs, Richland, Washington

Cost: \$70,000

Time: 6 months

EISs

No EISs were completed during this quarter.

NEPA Document Cost and Time Facts²

EA Cost and Completion Times

- For this quarter, the median cost for 3 EAs for which cost data were applicable was \$70,000; the average was \$110,000.
- For this quarter, the median completion time for 3 EAs for which time data were applicable was 14 months; the average was 20 months.
- Cumulatively, for the 12 months that ended June 30, 2016, the median cost for the preparation of 15 EAs for which cost data were applicable was \$200,000; the average was \$406,000.
- Cumulatively, for the 12 months that ended June 30, 2016, the median completion time for 21 EAs for which time data were applicable was 20 months; the average was 23 months.

EIS Cost and Completion Times

- There were no EISs completed during this quarter.
- Cumulatively, for the 12 months that ended June 30, 2016, the median cost for the preparation of 5 EISs for which cost data were applicable was \$1,930,000; the average was \$5,070,000.
- Cumulatively, for the 12 months that ended June 30, 2016, the median completion time for 10 EISs for which time data were applicable was 43 months; the average was 47 months.

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Internal meeting.* An internal project scoping meeting was held at the start of the project that included DOE and EA contractor staff to establish clear expectations regarding EA scope and schedule.

Data Collection/Analysis

What Worked

- *Use of previous data.* Use of data from several previous NEPA assessments for similar actions helped expedite the EA process.

What Didn't Work

- *Inaccurate GIS data.* GIS data on road locations was inaccurate and led to difficulties in analyzing impacts. Because this data inaccuracy problem was not corrected early enough in the permitting process, this also led to some permitting delays.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Concurrent reviews.* Having concurrent reviews of draft sections of the EA helped facilitate timely completion of the document.
- *Establishing realistic EA milestones.* Establishing realistic interim milestones and adhering to them facilitated timely completion of the EA.
- *Ensuring adequate staff availability.* Ensuring staff resources were available and committed to the specific EA schedule was important.
- *Use of Web-based document management.* Efficient EA document management was facilitated through shared access to project files.

- *Good EA contractor support.* The support of several good environmental contractors working throughout the EA process helped facilitate timely completion of the EA.
- *Management commitment.* Commitment by management to provide timely document reviews facilitated timely completion of the EA.
- *Knowledgeable contractors.* The EA contractors were very knowledgeable about projects similar to the EA proposed action.
- *Comment resolution meeting.* An all-day meeting on the draft EA was held for the NEPA team to resolve comments and to ensure that the final document met management expectations.

Factors that Inhibited Timely Completion of Documents

- *Coordination with cooperating agencies.* Coordination with cooperating agencies over land rights proved to be difficult and time consuming and caused a one-year delay in the completion of the EA.
- *Several reviews.* The project had a relatively short time period for completion. Due to the sensitive nature of the work, there were several rounds of management reviews and comments, which inhibited timely completion of the EA.

Teamwork

Factors that Facilitated Effective Teamwork

- *Monthly team meetings.* Monthly team meetings, and weekly (or more) conversations between the NEPA Document Manager and DOE Project Manager ensured that most problems were resolved quickly.
- *Open communication.* Open communication between the DOE NEPA Document Manager and EA contractor manager facilitated effective teamwork.

(continued on next page)

Questionnaire Results

What Worked and Didn't Work *(continued from previous page)*

- *Cooperating agency plan.* The plan that worked for coordination with the cooperating agency was to start early, define specifically what the NEPA team expected of the cooperating agency, and work diligently to resolve disagreements.
- *Efficient and experienced team.* An efficient and experienced NEPA production team, consisting of DOE and contractor staff, facilitated effective teamwork.
- *Flexible team.* The flexible strength of the NEPA team to act on each other's individual behalf was important in quickly addressing issues when some team members had schedule conflicts.

Process

Successful Aspects of the Public Participation Process

- *Courtesy clarification calls.* Brief phone calls were made directly to a few commenters to ensure clear understanding of their comments before addressing/incorporating DOE responses into the EA.
- *Public interest.* The public was very interested in the scientific aspect of the project. This resulted in requests for additional presentations and interaction with the public.

Unsuccessful Aspects of the Public Participation Process

- *Low public agency attendance at public meetings.* The public meetings were not well attended by public agencies.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Informed decision.* The EA process informed the decisionmakers that the public had been educated about the project and was okay with the project moving forward.

Enhancement/Protection of the Environment

- *Mitigation of air emissions impacts.* The NEPA process identified potential radiological air emissions impacts that could be mitigated.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to its influence on decisionmaking.

For the past quarter, in which 3 EA questionnaire responses were received, 2 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "4" stated that the NEPA process facilitated continued NEPA coverage for a facility that will operate into the foreseeable future.
- A respondent who rated the process as "3" stated that the environment for this project was as protected or enhanced as it would have been regardless of the NEPA process.
- A respondent who rated the process as "1" stated that the NEPA process did not add much, if anything, to the decision point.

LESSONS LEARNED

December 2, 2016; Issue No. 89

Fourth Quarter FY 2016

2016 NEPA Compliance Officers Meeting Promotes “Making NEPA Connections”



DOE’s NEPA Compliance Officers (NCOs) gathered in Washington, DC, on October 18–19 for a meeting with the theme of “Making NEPA Connections.” Recognized NEPA experts – including Ted Boling, Associate Director for NEPA, Council on Environmental Quality, and Rob Tomiak, Director, Office of Federal Activities, Environmental Protection Agency – were featured speakers, along with DOE’s General Counsel, Steve Croley.

General Counsel Steve Croley: Ensure Science-based Decisions

Steve Croley, DOE’s General Counsel, greeted the NCOs with his perspectives on the importance of NEPA to governmental decisionmaking. He reflected that, as the Obama Administration nears its close, it can claim a legacy of science-based, risk-based analysis in support of decisionmaking. He reflected on climate breakthroughs of the past year: the Paris Agreement, recent amendments to the Montreal Protocol on hydrofluorocarbons, and the greenhouse gas (GHG) rules for airlines. Mr. Croley urged the NCOs to pay special attention to CEQ’s new GHG and climate change guidance. NEPA will play an important role in future discussions on climate change, he noted, as it “increases our moral currency.”



Mr. Croley observed that, during his tenure as DOE’s General Counsel, he has come to more fully appreciate the value of NEPA as “democracy in action” in the executive branch. “Through the vehicle of NEPA, we solicit reactions and alternatives to government proposals ... in real time,” he said, calling this “an underappreciated aspect of NEPA.” NEPA’s public involvement provisions

are a strong counterargument to the claim that federal agencies are unaccountable, he added.



“I am struck by the utter professionalism and thoughtful contributions of you and your colleagues. You are a catalyst for a lot of the Department’s work,” Mr. Croley told the meeting participants.

Deputy General Counsel Kedric Payne: Promote Productive, Enjoyable Harmony

In welcoming the NCOs, Kedric Payne, Deputy General Counsel for Environment and Compliance, noted that the meeting at DOE Headquarters was the first in-person NCO gathering since 2009. “My favorite part of NEPA is its statement of purpose – to ‘encourage the productive and enjoyable harmony between man and his environment,’” he said. “What we are going to focus on the next two days is encouraging the productive and enjoyable harmony among NCOs.” He expressed appreciation for NEPA’s focus on anticipating the potential impacts of proposed DOE actions, exploring alternatives that can help protect the environment, and reaching out to potentially affected

(continued on page 3)

More on the 2016 NCO Meeting inside – pages 3–16

Inside Lessons Learned

Welcome to the 89th quarterly report on lessons learned in the NEPA process. This issue highlights “Making NEPA Connections,” the October 2016 meeting of the DOE NCOs. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

More on “Making NEPA Connections”

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Carol Sorenstrom

Director
Office of NEPA Policy and Compliance

Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles, especially case studies on successful NEPA practices, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Quarterly Questionnaires Due February 1, 2017

For NEPA documents completed October 1 through December 31, 2016, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than February 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact askNEPA@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue is available, send your email address to yarden.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Training Opportunities

National Environmental Justice Conference & Training Program Washington, DC; March 8–10



2017 National Environmental Justice Conference
& Training Program

Enhancing Communities through Capacity Building and Technical Assistance is the theme of the 2017 National Environmental Justice Conference and Training Program, which will be held on March 8–10 in Washington, DC. The annual conference, sponsored jointly by DOE and other federal agencies with academic and private sector partners, is free to government employees, community organizations, students, and faculty. The agenda will include consideration of environmental justice in NEPA reviews. Additional information is available on the conference [website](#).

National Association of Environmental Professionals (NAEP) Annual Conference Durham, North Carolina; March 27–30



NAEP will hold its 42nd annual conference under the theme of *An Environmental Crossroads: Navigating Our Ever-Changing Regulatory Landscape*. Planned NEPA-related sessions include: incorporating ecosystem services into NEPA, case law updates, Council on Environmental Quality developments, case studies and best practices, adaptive management, and tribal affairs. Training is offered (at separate fee) on March 27 on NEPA basics, air quality regulations, calculating climate change impacts, incorporating ecosystem services into decisionmaking, and incorporating wildlife habitat conservation in local government land use planning and ordinances. Attendance is open to environmental professionals in all levels of government, academia, and the private sector. Early registration rates are available, and discounts are offered to speakers and government employees. The agenda and registration information are available on the NAEP conference [website](#).

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Making NEPA Connections *(continued from page 1)*

communities, including people too often overlooked when important decisions are being made. Especially valuable, he noted, is how NEPA encourages teamwork.

The NCO position was established in 1990 by then Secretary of Energy Admiral James Watkins to create a center of NEPA expertise within each organization with NEPA activities, as well as a Department-wide community of NEPA expertise to promote consistency and collaboration. DOE currently claims 58 NCOs formally designated to represent 65 organizations; some organizations have more than one NCO, and some NCOs serve more than one organization.

Mr. Payne cited the meeting theme, “Making NEPA Connections,” to pose three challenges:

- Make connections by sharing our wisdom, especially between more seasoned NCOs and the more recently designated ones.
- Make connections among DOE organizations: with program and field organizations, and with the headquarters Office of the General Counsel and Office of NEPA Policy and Compliance (NEPA Office).
- Make connections with DOE’s mission, by supporting good decisionmaking.

In closing, he noted that “we are all one family ... if we can help in any way and make this meeting better for next year ... let us know.”

Responsibilities of the NCO

Carol Borgstrom, NEPA Office Director, welcomed the NCOs and cited her favorite part of the DOE NEPA regulations: “It is DOE’s policy to follow the letter and spirit of NEPA; comply fully with the [CEQ regulations](#); and apply the NEPA review process early in the planning stages for DOE proposals” (10 CFR 1021.101). “I hope the spirit of NEPA spreads during these two days,” she said.

Ms. Borgstrom provided an overview of the NCO responsibilities under the NEPA Order, [DOE O 451.1B](#), paragraph 5.d. These responsibilities may be grouped into four categories:

Organize their office’s NEPA activities

- Develop office NEPA procedures
- Coordinate office NEPA compliance strategies
- Advise on NEPA-related matters

Support NEPA document preparation

- Recommend whether an environmental assessment (EA) or environmental impact statement (EIS) is appropriate or required
- Assist with the NEPA process and document preparation
- Advise on the adequacy of NEPA documents

Make categorical exclusion (CX) determinations and issue associated floodplain and wetland documents

- Document Appendix B determinations
- Post determinations online, generally within 2 weeks

Coordinate with the DOE NEPA Office

- Report on lessons learned from each EA and EIS
- Participate in NEPA meetings and workshops
- Provide NEPA training and disseminate guidance
- Promptly notify the DOE NEPA Office of: NEPA Document Manager designation, EA or EIS determination, and issuance of a draft EA for review
- Promptly provide issued documents to the NEPA Office

Ms. Borgstrom also presented highlights of responses to a questionnaire distributed to NCOs before the meeting. The respondents reported an average of 10 years as NCO and 18 years of NEPA-related professional experience. Almost half have served as a NEPA Document Manager, and almost 90 percent have responsibilities in addition to serving as NCO. They identified NEPA guidance and training as their highest priorities for improving DOE’s NEPA compliance program.



Coordinating with NEPA Document Managers

The meeting featured an NCO panel representing three DOE organizations with the largest number of active NEPA reviews: David Kennedy, Executive Manager for Environmental Planning and Analysis, and Stacy Mason, NCO, Bonneville Power Administration (BPA); Matt Blevins, NCO and Natural Resources Manager, Western Area Power Administration; and Lori Gray, NCO and NEPA Division Director, Office of Energy Efficiency and Renewable Energy.

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Council on Environmental Quality Updates

The 2016 NEPA Compliance Officers meeting was honored to include Ted Boling, the Council on Environmental Quality (CEQ) Associate Director for NEPA, as a featured speaker. He opened by recognizing the legacy of his predecessor, Horst Greczmiel, who retired in December 2015 (*LLQR*, March 2016, page 3). Mr. Boling then provided an overview of recent activities at CEQ with a focus on CEQ’s *Final Guidance on Consideration of Greenhouse Gas [GHG] Emissions and the Effects of Climate Change* (the guidance) (August 1, 2016) and reforms contained in Title 41 of the Fixing America’s Surface Transportation Act (FAST-41).

GHG Emissions and Climate Change Effects

“Over the years, my discussions about climate change have become more detailed and more dire, and include stronger scientific support,” he said. Using the mapping capability of the *U.S. Climate Resilience Toolkit*, Mr. Boling showed how almost every coastal area of the southeastern United States is vulnerable to sea level rise. “Climate change is real and requires a national undertaking,” he said.

Mr. Boling explained that the CEQ guidance advises agencies “to get back to the fundamentals – applying the rule of reason, proportionality, and scoping” to determine to what extent to consider climate change impacts under NEPA. He added that the guidance is premised on agencies using available information to quantify GHG emissions and identify potential impacts of climate change. In those circumstances where data, tools, and methodologies are not readily available, Mr. Boling said, a qualitative analysis of GHG emissions should be provided.

Mr. Boling affirmed that the NEPA analysis should not only describe the current and expected future state of the affected environment, but also how climate change may impact the proposed action. He stressed that climate change adaptation and resilience are important considerations for actions with effects that will occur both at the time of implementation and into the future. NEPA presents an opportunity to identify potential impacts in early planning, and adjust alternatives and mitigation options to develop more resilient alternatives, he said. For more on the guidance, see *LLQR*, September 2016, page 1, and “Analyzing Climate Change in DOE NEPA Reviews” (page 18 of this issue).

Are there opportunities to reduce a project’s emissions? Small opportunities replicated across the landscape, action by action, may add up to an important reduction.

— Ted Boling

FAST-41

Mr. Boling also described the Obama Administration’s effort to modernize the federal infrastructure permitting process, culminating in passage of FAST-41 in December 2015. He explained that FAST-41 serves to better utilize NEPA processes by focusing efforts on early involvement of permitting agencies and stakeholders to tackle the complex issues involved in infrastructure projects.



FAST-41 illustrates how NEPA serves as the basket in which so many other decisionmaking processes are carried, so many other authorities really come to bear, and the number of other actors [who become involved] ... in the decisionmaking process. If you didn’t have that basket, you would be trying to invent it.

— Ted Boling

He described three main phases of the Administration’s effort: establishment of the *Federal Infrastructure Permitting Dashboard* (2011–2013); systemic reform efforts to reduce aggregate timelines for federal review of infrastructure projects (2013–2014); and building capacity to deliver on several key objectives, including expanding the collection of timeframe metrics on the Dashboard (2014–2015).

Mr. Boling explained that FAST-41 applies to any activity that requires authorization or environmental review by a federal agency involving construction of infrastructure in a designated sector that is subject to NEPA, and (a) does not qualify for an abbreviated permitting process and is likely to cost more than \$200 million or (b) is of a size and complexity likely, in the opinion of the Federal Infrastructure Permitting Improvement Steering Council, to benefit from enhanced oversight or coordination. The designated sectors are renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, or any other sector as determined by a majority vote of the Council.

Sponsors of projects within these sectors may request that federal agencies make use of the FAST-41 process. Mr. Boling explained that this would open doors to early consultation with federal agencies, inclusion on the Dashboard, earlier designation of the roles of various federal agencies in the environmental review process, participation by state, local, and

(continued, next page)



CEQ Updates *(continued from previous page)*

tribal governments, and other steps to improve coordination and efficiency.

Mr. Boling clarified that Dashboard projects will still go through the normal NEPA process, but more rapidly, particularly during the early part of the process because participating agencies have been designated earlier.

Mr. Boling stated that NEPA reviews that occur in coordination with FAST-41 can have a more detailed development of the preferred alternative to facilitate analysis of potential mitigation. He noted that FAST-41 does not amend NEPA or agency NEPA implementing authorities. Mr. Boling said that he is hopeful that the implementation of FAST-41 will improve not only the infrastructure permitting and review processes, but also environmental and community outcomes.

Other CEQ Activities

Mr. Boling also described other projects that CEQ has worked on during the past year. CEQ helped lead the effort to update *Synchronizing Environmental Review for Transportation and Other Infrastructure Projects*. Also known as the “Red Book,” this how-to guide assists federal agencies in coordinating NEPA and other regulatory reviews and permit applications for major infrastructure projects.

He summarized the 2015 *Presidential Memorandum on Incorporating Ecosystem Services into Federal Decision Making*. This memorandum encourages federal agencies, in both NEPA and non-NEPA decisionmaking activities, to consider the value of ecosystems services such as clean water, clean air, biodiversity, and toxin filtration in planning, investments, and regulatory contexts. (See *LLQR*, December 2015, page 5, and June 2016, page 1.)

Mr. Boling also highlighted efforts by CEQ to improve the mitigation of potential adverse environmental impacts.

The Presidential *Memorandum on Mitigating Impacts on Natural Resources From Development and Encouraging Related Private Investment* (November 3, 2015) addresses the need for certain agencies (Department of Defense, Department of the Interior, U.S. Department of Agriculture, Environmental Protection Agency, and National Oceanic and Atmospheric Administration) to incorporate a thorough analysis of irreplaceable resources, ensure compensatory actions are durable, and include advance compensation. Mr. Boling emphasized that the memorandum establishes a net benefit goal, or at a minimum, a no net loss goal for natural resources that are important, scarce, or sensitive.

Tying the memorandum to NEPA, Mr. Boling stated, “Inevitably, if you’re working on an environmental assessment, a finding of no significant impact is going to depend on mitigation measures included with the project. If you’re working on an environmental impact statement, ultimately your record of decision is going to need to address not only the choice of alternatives, which may be a form of mitigation, but also the mitigation measures adopted as part of addressing the significant or reduced environmental impacts.”

Mr. Boling stated that the memorandum is designed to help inform an ongoing effort to improve the Federal Government’s approach to infrastructure development. He provided an example of a proposed mine expansion on Bureau of Land Management land in greater sage-grouse habitat. Recognizing the importance of the species, the project sponsor not only mitigated potential impacts, but provided additional restoration on surrounding lands, creating a net benefit to sage-grouse habitat. “We need mitigation approaches that recognize that there are those instances where you have applicants that are good stewards of the land who want to find a win-win for broader conservation purposes,” he concluded. 



Document Quality Begins and Ends with DOE

“Although contractors may assist in the Department’s NEPA implementation, the legal obligation to comply with NEPA belongs to DOE,” said John Weckerle, NCO, National Nuclear Security Administration (NNSA), quoting a key provision of DOE Order 451.1B, *NEPA Compliance Program*. In a presentation on *Managing the NEPA Process: Document Quality and the Role of the Contractor*, prepared with Jane Summerson, NNSA NCO and Director, Division of FOIA, Privacy Act, and NEPA, Mr. Weckerle reminded NCOs that the NEPA Document Manager, with support from the NCO, is responsible for document quality. “The role of the contractor is not to run the [NEPA] project, it’s not to scope it for you,” he said. “Letting [the contractor] know what the expectations are in terms of quality is extremely important.”

Start Early To Ensure Quality

When does quality begin? Early in the process, Mr. Weckerle stated. “Quality begins as soon as the proposal can be defined and always before initiating a procurement for contract services,” he said. Starting early is also key to managing contractor performance, he said. Mr. Weckerle encouraged NCOs to start managing contractor performance before preparing the solicitation. Before bringing the contractor on board, conduct early internal (federal only) scoping – including the NCO, NEPA Document Manager, project personnel, counsel, and other involved parties, he said. In addition, prior to the start of the contract, the document team should undertake the following tasks:

- Develop the purpose and need and a list of reasonable alternatives
- Develop an initial list of key environmental parameters likely to be affected
- Identify appropriate methodologies for analysis
- Create a preliminary list of connected actions
- Create an annotated outline for the NEPA document

Starting NEPA early in the planning process helps take NEPA off the critical path. Addressing quality early in the NEPA process helps keep NEPA off the critical path.

– John Weckerle

Mr. Weckerle recounted a situation where, before DOE had conducted internal scoping for the NEPA document, a contractor had already put together an annotated outline and started to draft the document. “It’s our responsibility to manage the NEPA process. Allowing contractors to do that, at best, is allowing someone unfamiliar with our needs to decide what we need. Do your internal scoping first, before you start writing contract documents,” he advised.

Build Quality into Your Performance Work Statement or Statement of Work

“Our relationship with the contractor begins with the solicitation. We have to put together a Performance Work Statement (PWS) or Statement of Work (SOW),”¹ said Mr. Weckerle. He highlighted the role of the PWS or SOW in managing contractor performance. Mr. Weckerle described key elements of the PWS or SOW and advised NCOs to ensure that the PWS or SOW:

- Requires the contractor to submit its Quality Assurance Plan
- Includes document quality requirements (e.g., is free of errors, omissions, and inconsistencies)
- Requires the contractor to provide qualifications of key personnel, including quality assurance (QA) and technical editing personnel
- Requires thorough QA (technical and editorial) for all deliverables
- Requires including all calculation packages, modeling outputs/results, etc., with preliminary draft deliverables
- Includes penalties (take-backs) for nonperformance
- Requires no-cost rework associated with inadequate quality
- Provides for incentives, as appropriate
- Includes “contract remedies” language for multiple instances of nonperformance (e.g., rework, even termination of the contract, if appropriate)

Without these elements, DOE is likely to pay for a lot of rework and encounter schedule delays, cautioned Mr. Weckerle.

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¹ In simplest terms, a conventional SOW establishes what is to be done and how it is to be done; a PWS establishes outcomes or results, along with a method of assessing contractor performance with respect to measurable standards.



NEPA Document Quality *(continued from previous page)*

Monitor and Report Contractor Performance

Once the PWS or the SOW is in place, Mr. Weckerle asked, “Now what do we have to do?” He recommended developing a Quality Assurance Surveillance Plan to describe how DOE is going to monitor and report the contractor’s performance. “You should be watching this on a regular basis. ... Enforce all provisions of the SOW/PWS and do it right away. ... Don’t wait until problems have stacked up,” he said. “You want to encourage positive performance. If you ignore the problems, if you don’t enforce these provisions, the contractor is not going to pay attention to them.”

Mr. Weckerle highlighted steps that NEPA Document Managers should take to “lay the groundwork for any [contract] remedies” that may need to be put in place. He encouraged NEPA Document Managers to work closely with the Contracting Officer (CO) and Contracting Officer’s Representative (COR) and engage with them as soon as performance issues arise. Further, “ensure that contractor performance is documented in CPARS [DOE’s Contractor Performance Assessment Reporting System],” he said. Mr. Weckerle recommended that NEPA Document Managers and NCOs take COR training. “It’s helpful to know what your options are in terms of making sure that the contract moves smoothly along,” he explained.

Jane Summerson reminded NCOs that “It’s the NEPA Document Manager’s name on the [NEPA] document, not the contractor; if we get litigated, it is the NEPA Document Manager that will sign the administrative record. ... The NEPA Document Manager should know everything that’s in [the administrative record], be sure it is complete and be able to respond to questions.” Mr. Weckerle identified the elements of document quality (below). NEPA Document Managers should “thoroughly review all deliverables, even ‘minor’ revisions,” Mr. Weckerle said. Even seemingly trivial changes, if not implemented correctly and consistently, can result in big problems, he said.

Every single version, every time you get a draft from your contractor, it’s important to go through it with a fine tooth comb.

– John Weckerle

“Sometimes when I get a document for approval review, I ask, ‘Am I the first person to have read this?’ I strongly encourage you to carefully read the document that you send forward for approval. It’s an essential component of the quality that John has been talking about today,” added Carol Borgstrom, Director, Office of NEPA Policy and Compliance. 

What constitutes document quality?

- Document is internally consistent – consistent use of values among figures, tables, and text; consistency between chapters
- Document speaks with ONE voice
- Document is free of technical/editorial errors and inconsistencies
- Content and level of detail are appropriate
- Calculations and modeling results are supported
- Document is written to be understood by the public
- Graphics are of professional quality and contain appropriate information
- Document is Section 508 compliant ²

² Section 508 of the Rehabilitation Act of 1973 was amended by Congress in 1998 to require federal agencies to make their electronic and information technology accessible to federal employees and members of the public with disabilities. For additional information, see LLQR, [December 2006](#), page 13.



NCOs are Integral to Successful Project Management

The principles of project management and NEPA “are very critical components” in achieving success in all that we do, explained Rob Seifert, Acting Director, Office of Regulatory, Intergovernmental and Stakeholder Engagement, Office of Environmental Management, during his presentation on *Integrating the NEPA Process into Project Management*. “It is important to continue to think of NEPA as we go through” the project planning process, he said. “I see it as our role as NEPA experts to ensure that our project managers and portfolio managers are well in tune with what the requirements are and how NEPA is part of that continuous process.”

Mr. Seifert focused on the role of NCOs in the integration of project management and NEPA, primarily from the perspective of those engaged in project planning for capital assets in accordance with DOE Order 413.3B.¹ However, his recommendations regarding NCO participation in project planning are applicable to both capital asset and operations projects to ensure to the extent practicable that NEPA is not on the project’s critical path.

NEPA is not just a box to check. It is not an obstacle to success. It is truly something that has to be fully integrated to ensure the success of the project.

– Rob Seifert

DOE’s Critical Decision Process and NEPA

Mr. Seifert walked through DOE’s critical decision (CD) process as outlined in DOE Order 413.3B – from CD-0 (approving mission need) through CD-4 (approving the start of operations or project completion). All along the way, “you, as NCOs, are asking questions – What’s my role? How do I factor into that? What do I need to be communicating?” said Mr. Seifert. He emphasized the key role of the NCO in integrating NEPA into project planning and execution.

Participation in the Integrated Project Team

Prior to CD-0, the Federal Project Director, the individual certified under the Department’s Project Management Career Development Program as responsible and accountable for project execution for projects subject to DOE Order 413.3B, establishes the Integrated Project Team (IPT).² An important

Critical Decision Process Steps

- CD-0:** Approve Mission Need
- CD-1:** Approve Alternative Selection and Cost Range
- CD-2:** Approve Performance Baseline
- CD-3:** Approve Start of Construction/Execution
- CD-4:** Approve Start of Operations or Project Completion

first step is the participation of the NCO on the IPT, the group that helps to define what the requirements are for a project. For example, the IPT evaluates what has to happen in order to get the mission need approved, Mr. Seifert explained.

Prior to CD-0, the project manager should notify the NCO that a potential project is being contemplated and provide a general overview of the concept. At that time, NCOs should ask “Does my project management understand my role as an NCO in the program? Am I integrated enough to provide input?” stated Mr. Seifert. The NCO should be involved in pre-conceptual planning and review of the draft Mission Need Statement (also prior to CD-0), he explained.

Development of the NEPA Strategy and Completing the NEPA Review

Development of the NEPA Strategy and an Environmental Compliance Strategy that includes a schedule for obtaining permits and licenses are a required part of the CD-1 package that is submitted for approval, explained Mr. Seifert. “The NCO’s role is to inform the development of the NEPA Strategy. Ensure there is a definitive role for the NCO in that process – it’s a critical part of CD-1 approval,” he said. Prior to CD-2, Mr. Seifert emphasized that it is critical to “lock in accountability.” By this point in the process, the NCO should have a well-defined understanding of what needs to be done, resources needed, and alternatives being pursued, he explained. DOE Order 413.3B requires issuance of the final EIS or EA and finding of no significant impact prior to CD-2 approval; for the EIS, the appropriate authority shall issue the record of decision after CD-2 approval is granted, but prior to CD-3 approval, Mr. Seifert explained.

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¹ DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, applies to capital asset projects having a Total Project Cost greater than or equal to \$10 million. DOE Order 413.3B requires completion of the NEPA review as a prerequisite for Critical Decision-2. (See Appendix A, Table 2.2, CD-2 Requirements, in DOE Order 413.3B.)

² *Integrated Project Team: A cross-functional group of individuals organized for the specific purpose of delivering a project to an external or internal customer. It is led by a Federal Project Director. (See DOE Order 413.3B, Attachment 2, Definitions, #62.)*



Project Management *(continued from previous page)*

Best Practices for NCOs

Mr. Seifert highlighted several best practices for NCOs involved with integrating project management and NEPA:

- Be part of each IPT and be actively engaged in the planning process
- Be familiar with alternatives
- Help determine the appropriate NEPA actions
- Ensure that a DOE-owned risk related to NEPA is incorporated into the project risk register³

At a minimum each IPT should have an NCO presence, said Mr. Seifert. Even if the project is quite simple, there should at least be a “touch point” with the NCO, he said. NCOs should be familiar with all of the alternatives that are being vetted through the process and should coordinate with the Federal Project Director and other relevant IPT members to ensure the same understanding of those alternatives, he said. Mr. Seifert stated that NCOs need to understand exactly what is going on so that they can provide the best counsel to the IPT to make sure they are going down the right path for NEPA.

Regarding risk management, Mr. Seifert explained that risks associated with the NEPA process are typically DOE-owned risks, not contractor-owned risks. NCOs need to appropriately categorize and quantify the potential risks and define them in the project risk register to avoid impacts to the project. For example, the project team may document the potential impacts

to the project cost and schedule associated with developing and implementing a mitigation action plan. The project team might also identify a risk relative to the possibility of delayed approval of a record of decision or NEPA litigation.

Mr. Seifert advised that NCOs account for NEPA cost and schedule ranges in the project risk register so if a risk is encountered, DOE can continue work on the project.

Mr. Seifert emphasized that it is better to be in a proactive mode with respect to risk accounting, rather than a reactive mode, to avoid an uncomfortable situation where the Federal Project Director is having to explain to the Deputy Secretary that an unaccounted for risk will cause a 6-month or more delay and cost additional millions of dollars.

Pete Yerace, NCO for the EM Consolidated Business Center, reminded the NCOs that even though the NEPA review is completed prior to CD-2 approval, NEPA can resurface later. “Sometimes there is a need to go back and look at issues under NEPA during the implementation phase, for example, due to new circumstances or information,” explained Mr. Yerace. “This potential situation can also be accounted for in the risk register,” noted Mr. Seifert. In closing, Mr. Seifert encouraged NCOs to “be a voice – ensure you are part of the IPT and try to inform and educate the project team on the NEPA process.” 



³ The project risk register is an information repository for each identified project risk presented in a uniform format. Initial development of the project risk register occurs after CD-0. After CD-1 approval, the risk register is evaluated at least quarterly throughout the project lifecycle (DOE Guide 413.3-7A, Risk Management Guide).

Project Management Courses for NCOs and NDMs

The [Project Management Career Development Program \(PMCDP\)](#) in the Office of Project Management Oversight and Assessments provides training to ensure that DOE has well qualified and experienced Federal Project Directors to oversee the agency’s diverse portfolio of highly-technical construction, experimental equipment, and environmental cleanup projects. Two courses are recommended to help NCOs and NEPA Document Managers understand where the NEPA process fits within project management requirements under DOE Order 413.3B.

Project Management Systems and Practices in DOE

Participants learn how to manage the critical decision process under DOE Order 413.3B for capital asset projects, as well as other requirements for a Federal Project Director at DOE, including the federal budget process; NEPA and other environmental, safety and health laws; and understanding of DOE HQ field relations and Lead Program Secretarial Officers. This course is delivered via Adobe Connect in 11 two-hour webinars, held twice weekly over 7 weeks. See the PMCDP Training Schedule and register in CHRIS using code: 001024.

Project Management Essentials

Participants learn about primary concepts of project management and best practices from federal agencies and the private sector. This introductory course focuses on: the discipline of project management, project planning, teambuilding and effective leadership, and project execution. The course is available through the DOE On-Line Learning Center.

Understanding Environmental Justice in the NEPA Process

Federal agencies should strive to understand the interests and concerns of minority and low-income communities and address them throughout the NEPA process. This is a theme of [Promising Practices for EJ Methodologies in NEPA Reviews](#) (“Promising Practices report”), which the NEPA Committee of the Federal Interagency Working Group on Environmental Justice (EJ IWG) issued in March 2016. (See LLQR, [March 2016](#), page 1.) DOE staff and members of the EJ IWG discussed the nexus of EJ and NEPA at the October 2016 NCO meeting and, two weeks later, at a training for DOE NEPA staff and contractors. This article presents EJ highlights from the NCO meeting and the subsequent EJ training.

Kedric Payne, DOE Deputy General Counsel for Environment and Compliance, kicked off the EJ discussion at the NCO meeting by urging NCOs to take EJ into consideration early and often – by considering the Promising Practices report prior to public outreach efforts and during preparation of NEPA documents. “You can’t have the most informed decision if you don’t have the people who are going to be living with that decision as part of the discussion, and they need to be brought in early and frequently throughout the process,” he said.

EJ Promising Practices Report

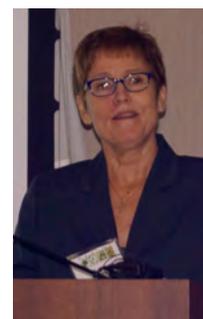
“A NEPA document’s EJ analysis is often one of the smallest sections – and not typically a controversial section,” Mr. Payne noted. He summarized the Promising Practices report’s general principles and recommendations. For example, he cited the report’s recommendation that “Throughout each step of the NEPA process (as appropriate) consider choosing meeting locations, meeting times, and facilities that are local, convenient, and accessible to potentially affected minority populations and low-income populations, and other interested individuals, communities, and organizations, which includes holding some meetings outside of traditional work hours and locations.” Mr. Payne encouraged NCOs to advise their NEPA document teams on conducting an EJ analysis and engaging with the EJ community.

EJ Activities at DOE

Melinda Downing, DOE’s Environmental Justice Program Manager, provided an update on current and future DOE EJ activities. After DOE issues its new EJ strategy (in preparation), she said that DOE will prepare its second 5-Year Implementation Plan. Ms. Downing also previewed the new Environmental Justice Institute, cosponsored with Allen University in Columbia, South Carolina, as a resource for communities around the DOE Savannah River Site, and the upcoming 10th annual National Environmental Justice Conference and Training Program (information, page 2).

Relationship between NEPA and EJ

Suzi Ruhl, Senior Attorney Advisor, Office of Environmental Justice, Environmental Protection Agency (EPA) described the “fundamental relationship between EJ and NEPA” as based on shared themes. “Both promote healthy and sustainable communities and equitable distribution of benefits,” she said, and added that “federal agencies must ensure that everyone is treated fairly as they develop and implement actions, laws, regulations, and policies.”



Steve Miller, DOE Deputy Assistant General Counsel for Environment, provided legal perspectives. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, can be construed as bringing EJ under the purview of NEPA; however, the Executive Order doesn’t explicitly mention NEPA, he noted. If an agency identifies a potential EJ issue, Mr. Miller explained that the EIS should evaluate the extent to which it could result in a disproportionately high and adverse human health or environmental impact to low-income or minority populations. He added that if an agency includes EJ in an EA or EIS, it needs to do the analysis well. Further, Mr. Miller noted that EJ case law demonstrates that for an EJ analysis to be valid, the analyzing agency must use the most current and consistent data available to it.

“We Are Not Done”

“The Promising Practices report is a living document,” Ms. Ruhl stated. Regarding EJ IWG efforts for cross-agency engagement, she surveyed recent and planned training efforts and described supporting materials that are available or under development:

- A [compendium](#) of publicly available NEPA- and EJ-related documents from federal agencies

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EJ and the NEPA Process *(continued from previous page)*

- A *NEPA and EJ Lexicon* (described below)
- The “National Training Product” (expected in 2017), a compilation of examples to serve as a companion document to the Promising Practices report
- The NEPA Committee’s Fiscal Year 2017 Committee Goals and Fiscal Year 2016 Accomplishments Reports (being prepared as part of annual reporting to demonstrate progress in meeting the goals outlined in the *EJ IWG Framework for Collaboration, Fiscal Years 2016–2018*)

Denise Freeman, on detail from the DOE NEPA Office to EPA’s Office of Environmental Justice, currently serves as an interagency liaison to promote consideration of EJ in the NEPA process. Ms. Freeman spoke of plans to review DOE NEPA documents to identify opportunities to better involve low income and minority communities in the NEPA process and to develop DOE guidance on incorporating the principles of the Promising Practices report.

“We are not done with promising practices,” Ms. Ruhl said. She thanked DOE for the leadership it will provide as the next co-chair, beginning in 2017, of the NEPA Committee for the EJ IWG. “We have an incredible community of practice. We’d very much like to have many of you involved going forward,” Ms. Ruhl said to NCOs, “especially because DOE is going to be the leader.” (Denise Freeman will represent DOE as a co-chair of the EJ IWG NEPA Committee in 2017.)

Follow-up EJ Training

On November 1, the EJ IWG and DOE conducted a training session with webinar access. The training provided a platform for sharing tools and resources, research methods, and plans for future training and outreach.

Carrie Abravanel and Juliet Bochicchio, NEPA Office, described DOE’s effective use of EJ promising practices

in recent NEPA documents. Their review found that the EJ analyses used appropriate methodologies to identify minority and low-income populations and clearly explained the rationale for choosing those methodologies and associated parameters. The DOE NEPA documents reviewed incorporated feedback from EJ communities through meaningful engagement during the scoping process. Specific engagement steps included development of a tribal working group to receive tribal input over the course of the project and incorporation of tribal concerns directly into the NEPA document through the use of NEPA document sections authored by tribal members. Some of the DOE NEPA documents analyzed special exposure pathways for tribal communities in the EJ impact analyses through consideration of subsistence practices (such as fishing and hunting).

Maryann Mennano, Senior Law Clerk, EPA, described the forthcoming *NEPA and EJ Lexicon* that is being prepared as a companion document to the Promising Practices report. The lexicon will provide definitions and context for applying key terms (e.g., reference community, poverty thresholds, equitable distribution of beneficial impacts), she said. Ms. Mennano also summarized existing data tools that will be included. Cynthia Huber, Senior Counsel, Environmental and Natural Resources Division, U.S. Department of Justice, summarized recent case law; the decisions aligned with observations provided by Steve Miller (above).

As part of the training, Ms. Ruhl moderated a panel of NEPA practitioners from DOE and other federal agencies, to discuss existing EJ training resources and future plans. For example, Elizabeth Poole, NEPA Reviewer, EPA, Region 5, highlighted use of EPA’s EJSCREEN, a web-based tool that facilitates consideration of EJ in NEPA reviews (*LLQR*, September 2015, page 12; September 2016, page 6).

For further information about DOE’s consideration of EJ in NEPA reviews or EJ training, contact Denise Freeman at denise.freeman@hq.doe.gov.



Denise Freeman, at the lectern, introduced panel members Steve Miller (left), Suzi Ruhl, Melinda Downing, and Kedric Payne.



Making NEPA Connections through Tribal Relationships

While members of the DOE NEPA community met in Washington, DC, in October for the 2016 NCO meeting, thousands of people participated with the Standing Rock Sioux in North Dakota and throughout the country in the largest and most diverse [tribal protest](#) in U.S. history. The protest, which has continued through November, is in response to the proposed 1,200-mile Dakota Access Pipeline for which the U.S. Army Corps of Engineers issued an EA and Finding of No Significant Impact. The U.S. District Court for the District of Columbia had upheld both the NEPA and National Historic Preservation Act (NHPA) reviews on September 9, 2016. Yet, the protest continued, illustrating that fulfilling regulatory requirements does not always resolve project controversy.

In recognition of the important role tribes play in the NEPA process, the NEPA Office convened a panel to discuss how NCOs can help ensure that tribes have the opportunity for meaningful engagement. The panel included David Conrad, Deputy Director, DOE Office of Indian Energy; Jill Conrad, Tribal Program Manager, Richland Operations Office; Ken Johnston, Tribal Program Manager, Bonneville Power Administration; Jaime Loichinger, Program Analyst, Advisory Council on Historic Preservation (ACHP); and Rachel Rosenthal, Attorney Advisor, DOE Office of the Assistant General Counsel for Environment. Throughout the hour-long conversation, panelists' remarks echoed the 2016 meeting's theme of "Making NEPA Connections" by emphasizing the importance of building relationships with tribes and many other best practices.

More than Meeting the Requirements



The panel began with a discussion on why DOE should engage tribes, including both the legal requirements and the broader benefits. Mr. Conrad reminded NCOs of the tribal consultation requirements established through Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (2000), *Presidential Memorandum on Tribal Consultation* (2009), and DOE Order 144.1, *Department of Energy American Indian Tribal Government Interactions and Policy* (2009).

Ms. Rosenthal and Ms. Loichinger then provided an overview of the federal responsibility to involve tribes established in the Council on Environmental Quality (CEQ) and ACHP regulations implementing NEPA and the Section 106 of the NHPA, respectively. They encouraged panelists to review *NEPA and NHPA: A Handbook for Integrating NEPA and*

Section 106 (2013) to better understand the integration of those requirements.

Beyond the regulatory requirements, Mr. Conrad shared that tribes have "specific longstanding knowledge" that should be part of the NEPA analysis. Mr. Johnston echoed the importance of tribes' knowledge, stating that we should view tribes as our "partners" because "without them, we cannot get the substantive work done that needs to be done under NEPA." Mr. Johnston described tribes as the "co-managers of the resources" that have environmental and cultural knowledge as valuable as that of any other technical expert, and without which there may be "an incomplete NEPA record." Mr. Johnston also emphasized that the NEPA record should reflect "not only the tribes' interests, but their aspirational goals" for the environment and their communities.

In order to fulfill these requirements and get the full benefit of tribes' involvement in the NEPA process, the panelists each emphasized that practitioners should focus on building relationships with tribes based on trust. Mr. Conrad explained that DOE must often request sensitive information from the tribes to complete the NEPA review, including, for example, locations of sacred sites or ceremonies. Tribes therefore need to be comfortable knowing that DOE will respect and protect that information. He also noted that trust is critical so that tribes can "be confident that you are sharing information with them" in return. Mr. Johnston emphasized that relationships require more than an occasional letter or meeting invitation, they require "continuous conversation, continuous dialogue, and continuous sharing of information."

Laying Foundations for Meaningful Engagement

The first critical step described by the panel in relationship-based consultation in the NEPA process is developing a detailed plan. Ms. Conrad recommended drafting a detailed consultation plan early in the planning phases that describes "when, where, and how" consultation should unfold

Mr. Conrad encouraged NCOs to help identify DOE's limitations as part of this planning process, particularly those associated with time and costs, and communicate those limitations to tribes from the start through framing papers. DOE should also "be clear about what it is and what it is not that you're consulting on" so tribes understand which issues are relevant to the proposed action.

In determining who should participate, Ms. Loichinger emphasized that DOE can't decide whether a tribe will want to participate in the process; tribes are the "only ones that have that ability." DOE should accordingly invite any tribe that may have an interest. Ms. Rosenthal echoed that sentiment

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Tribal Relationships *(continued from previous page)*

in regard to determining what content to share with tribes. She shared that NCOs should not “presuppose what they’re interested in – ask!” But not making assumptions doesn’t mean that we shouldn’t be prepared. Mr. Johnston reflected on his work supporting the [Columbia River System Operation Project EIS](#), through which DOE anticipates consulting with 19 tribes. He emphasized that effective communication requires a lot of “pre-work” to “identify the issues correctly” before DOE steps into the first formal meeting.

Panelists’ Best Practices

Throughout the discussion, the panelists offered best practices to guide NCOs in understanding how to meaningfully engage tribes within the framework of the NEPA process, including:

- *Host tribal-specific meetings:* Ms. Rosenthal shared that having separate meetings at the critical phases of the NEPA process (i.e., scoping and review of the draft document) “can be critical” in ensuring that tribes feel comfortable sharing information.
- *Recognize tribes’ limitations:* The panelists emphasized the resource constraints that tribes face in participating in these processes. As Mr. Conrad stated, “Many tribes don’t have any funding mechanisms to participate in NEPA.” To overcome this obstacle, Ms. Loichinger recommended identifying their timing limitations resulting from staff constraints and their own bureaucratic processes (e.g., religious observances, changes in tribal council leadership, council meetings) early in the process. She shared that this conversation will help practitioners establish an attainable NEPA schedule and become “a little more culturally sensitive.” If resource constraints prohibit tribes from submitting comments within the regulation-established timeframes, Ms. Conrad recommended practitioners communicate to tribes that though DOE schedule requirements may prohibit inclusion of their comments in the published document, DOE generally will be open to future dialogue about the proposed action.



Rachel Rosenthal (left) and Jill Conrad shared recommendations.

- *Facilitate, don’t dictate:* Ms. Conrad recommended that practitioners consider creating a more active role for tribes in the drafting of the EIS text whereby DOE facilitates the sharing of tribes’ expertise. Ms. Conrad acknowledged, for example, the narrative workshops for the Greater-than-Class C EIS (see [Appendix G](#)), in which DOE worked with tribes to help them communicate within the framework of the NEPA process so that DOE and the public could better understand their concerns.
- *Work with tribal staff:* Ms. Conrad also recommended working closely with tribal staff to “give them the information they need to properly advise their council.” Ms. Conrad cautioned against going straight to the tribal council, as they will likely turn to their staff for indications of support. In recognition of their resource constraints, Ms. Conrad recommended creating tools for staff that “help them through their own process.”
- *Use contractors carefully:* In creating plans for consultation, Ms. Rosenthal advised that practitioners should be careful in assigning tasks to contractors, noting that “feds should do the outreach and build relationships.” Ms. Rosenthal recommended that the NCOs clearly communicate their desired role for contractors early in the process so tribes have an opportunity to respond and collaboratively create a process with which both federal employees and tribes are comfortable.

Looking Ahead

The panelists each agreed that NCOs should view the goal of tribal consultation to be improving both relationships with tribes and ultimate project decisions. DOE and other federal agencies are working on a number of initiatives to ensure that the proper policies are in place to facilitate meaningful engagement, including:

- *Treaty Rights Memorandum of Understanding (MOU):* Mr. Conrad shared that EPA and other federal agencies recently signed an MOU intended to “advance protection of tribal treaty and similar rights related to natural resources affected by federal decisions.”
- *Interagency Listening Sessions on Infrastructure Permitting:* Mr. Conrad shared that DOE is participating in listening sessions led by the Department of the Interior Bureau of Indian Affairs (BIA), the Department of Justice, and the Department of the Army in response to the Dakota Access Pipeline. These listening sessions build on those Departments’ joint [response](#) to the September 9 district court decision. The invitation to participate, the framing paper, and the schedule and transcripts of listening sessions can be found on BIA’s [website](#).



Making NEPA Connections *(continued from page 3)*

These NEPA programs differ in their mix of EISs, EAs, and CX determinations, the amount of NEPA document development performed “in-house” by federal employees and by contractors, and other characteristics of their NEPA workload, but they all agree on one point. It is critically important, they stated, to have efficient internal NEPA procedures and to effectively manage the NEPA Document Managers assigned to coordinate the development of each EIS and EA.

The panelists described the division of responsibilities and working relationships among the manager of the organization’s NEPA program, the NCOs, and the NEPA Document Managers. In addition to hiring and mentoring the NEPA staff, the manager joins the NCOs in guiding staff on complicated projects and issues. The NCOs typically develop NEPA strategies for projects, provide day-to-day guidance to NEPA Document Managers, and review draft documents to ensure compliance with NEPA and other environmental requirements and to promote consistency.

BPA has designated one staff member as a “NEPA Document Processor” who is responsible for distributing document and correspondence templates to NEPA Document Managers, developing public involvement materials such as document distribution letters and mailing lists, preparing website updates for NEPA reviews, guiding documents through their approval processes, and providing status updates to the headquarters NEPA Office.

This panel offered many recommendations to participants at the NCO meeting:

- Identify a lead counsel for each NEPA review for consistency in legal review comments, and establish a working relationship early to streamline the review process.
- Adopt methods for effective communication and schedule management with geographically separated team members.
- Encourage NCOs and NEPA Document Managers to take Contracting Officer’s Representative training, even if they do not officially serve in this position.
- Look for good writing skills when hiring NEPA staff, as this helps all aspects of NEPA compliance.
- Assign in-house staff (not outside contractors) to draft the statement of purpose and need, and the description of the proposed action and alternatives. Review these sections of a NEPA document early, including legal review.

- Use, as a model, a recent NEPA document that addresses similar issues. If using an EIS or EA template, recognize the unique aspects of the project.

Interacting with Decisionmakers

One of the purposes of NEPA is to inform decisionmakers of the potential environmental consequences of the proposed action and alternatives before a decision is made. Jack Depperschmidt, NCO for the Idaho Operations Office since 2004, discussed what he has learned from the experience of briefing managers regarding NEPA reviews.

It is helpful, he said, to tailor the communication to the personality type of the decisionmaker. Some are most comfortable being told directly what the best choice is and why. Others prefer to hear options and a recommendation. The NCO must tailor communications to the manager’s level of NEPA understanding and be prepared to explain the applicable requirements – for example, that an environmentally preferred alternative must be identified and analyzed, but is not required to be selected.

Pete Siebach, an NCO for the Office of Science since 2002 and Acting Director of Communications for the Chicago Office, provided perspectives on additional decisionmakers and parties who consider themselves to have a decisionmaking role. He described how communications can inadvertently lead to misunderstandings, such as when a group (state, local, or tribal governmental entity or a permitting, licensing, or cooperating agency) is called “a partner in the decision.” “Collaborate” is a better term, he suggested, because it is less likely to be understood as a sharing of responsibility for decisionmaking.

Confusion over decisionmaking authority can arise in the area of financial assistance and grant administration. A grant recipient, for example, recently asked why DOE was doing a NEPA review when “our Senator got us this grant.” The NCO must explain that DOE must still meet its NEPA responsibilities before dispersing the grant. Mr. Siebach recommended working with the Contracting Officer to develop a clear description of any required NEPA review for inclusion in a financial assistance request for proposals or other announcements.

Public misunderstanding of the NEPA process can be another source of confusion regarding decisionmaking. During the scoping and review periods for an EIS, for example, individuals may misinterpret the comment opportunity as a chance to “vote” on the proposal. This can result in campaigns of thousands of comments that

(continued, next page)

Making NEPA Connections *(continued from previous page)*

do not provide information useful to the EIS (e.g., on scope, alternatives, impacts, or mitigation). Mr. Siebach emphasized that NEPA is not a public approval process, and that public involvement is not a substitute for a public relations campaign.

One participant observed that it is helpful, for both the public and decisionmakers, to explain that although an EA or EIS may analyze the potential environmental impacts of all actions connected to a proposal, the scope of DOE's decision may be limited (e.g., permitting an interconnection instead of approving a generating source, or permitting an international border crossing instead of approving infrastructure in a neighboring country). The participant recommended consistently articulating the scope of agency decisionmaking in communications with the public and decisionmakers.

EPA's Role in the NEPA Process

Rob Tomiak, the new Director of the Office of Federal Activities, Environmental Protection Agency, was a featured speaker at the NCO meeting. He summarized EPA's authority, under Section 309 of the Clean Air Act, to review draft EISs prepared by federal agencies; the EPA rating system; and the importance of EPA comments. EPA's Office of Inspector General's 2013 evaluation of the impact of EPA's EIS commenting program found that "federal agencies are making changes to their EISs to mitigate or eliminate potential environmental risks based on the EPA's comments" and "EPA's comments directly resulted in positive changes to final EISs."



Mr. Tomiak emphasized that in reviewing EISs, EPA is paying special attention to the treatment of greenhouse gas emissions and climate change, and recommended that DOE continue to implement guidance issued by CEQ (related articles, page 4 and 18). EPA Headquarters is coordinating with its regional offices to review the climate change and greenhouse gas sections of EISs to ensure consistency.

Mr. Tomiak listed EPA's most common deficiencies regarding greenhouse gas and climate change analyses.

- Argument that there will be no difference among alternatives for demand for/use of coal/oil/gas with the result that the no action alternative has the same impact as the preferred alternative

- Statements that calculations of greenhouse gas emissions are not required or are meaningless to the decisionmaking process
- Inaccurate statements regarding a lack of tools to quantify impacts
- Statements that because the project's greenhouse gas emissions are small compared to a global scale, no further evaluation is required
- Lack of quantification of indirect effects
- Limited, if any, discussion of future climate scenarios to inform adaptation/exacerbation of project impacts discussion
- Limited, if any, discussion of climate adaptation
- No consideration of mitigation measures that could reduce GHG emissions

Interacting with Counsel

Matt Urie, Assistant General Counsel for Environment, provided an attorney's perspective on the NEPA process. He stated that early discussions of NEPA document schedules are helpful, especially for managing expectations, and that early coordination between field and headquarters offices is essential to maintaining the schedule.

Mr. Urie recommended selecting experienced contractors with good technical skills and positive working relationships with DOE staff. He urged early and thorough field reviews of a draft NEPA document to identify and resolve technical issues before headquarters review.

He emphasized that legal counsel can be most effective when involved early in the process to help avoid major flaws in the analytical process. For complex projects, Mr. Urie recommended establishing a headquarters review team to work with the field team well before the draft EIS is issued.

For particularly contentious projects, Mr. Urie advised that NCOs and NEPA Document Managers discuss potential issues with field and headquarters counsel. In concluding, Mr. Urie noted that NCOs and attorneys should remember that "We're all in the same boat together." He reaffirmed the value of NEPA, stating that a "good NEPA document produces a well-informed project decision."

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Making NEPA Connections *(continued from previous page)*

Programmatic Reviews and Tiering Strategy

BPA's two NCOs, Stacy Mason (top) and Sarah Biegel, described BPA's use of programmatic EISs and tiered NEPA reviews. Under this strategy, programmatic NEPA documents establish priorities and principles to govern the review of specific decisions and generically analyze the potential environmental impacts of activities, including mitigation measures. Project- or action-specific reviews can then incorporate information from the programmatic review by reference, summarize issues, and specifically address only the site-specific details. This approach is encouraged in the CEQ regulations (40 CFR 1502.20) and the 2014 guidance on *Effective Use of Programmatic Reviews*.



- BPA's *Business Plan EIS* (DOE/EIS-0183, 1995) established policy to guide BPA decisions, such as setting power rates, acquiring power or interconnecting power generators, promoting energy conservation, and supporting fish and wildlife mitigation and recovery efforts. The EIS was used to support later CX determinations, EAs, EISs, tiered records of decision, and supplement analyses.
- The *Fish and Wildlife Implementation Plan EIS* (DOE/EIS-0312, 2003), which was tiered from the *Business Plan EIS*, analyzed the potential environmental impacts of typical actions under BPA's fish and wildlife program. BPA's tiering strategies consist of a validation process to ensure compliance with other laws and public involvement, and a process for identifying actions that require additional NEPA review (beyond validation).
- BPA's *Transmission System Vegetation Management Program EIS* (DOE/EIS-0285, 2000) analyzed the

potential environmental and socioeconomic impacts of a program for managing vegetation on 84,000 acres of rights-of-way and at 357 substations and other facilities through a seven-state service area. Tiering strategies include identifying the planning steps for site-specific project implementation and using DOE's supplement analysis process to assess whether a new or supplemental EIS is required.

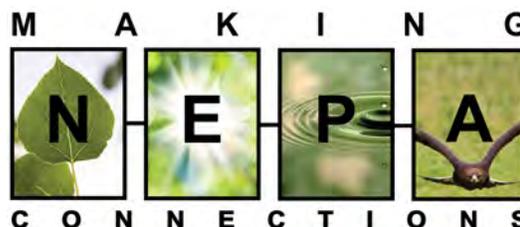
- The *Columbia Estuary Ecosystem Restoration Program EA* (DOE/EA-2006, 2016) was prepared to efficiently review site-specific projects for the conservation and restoration of riparian areas, off-channel habitat, wetlands, and floodplains through levee modification and breaching, tidal channel creation, tide gate and culvert removal or modification, and invasive species control. The EA describes the environmental impacts of projects to be implemented under this program and lists associated mitigation measures. BPA has already completed a supplement analysis for a site-specific project under this EA. Although a supplement analysis process does not require public involvement, BPA conducted a public meeting and addressed concerns expressed in public comments, while fulfilling its NEPA obligations in less time than a typical EA process.

BPA, jointly with the U.S. Army Corps of Engineers and the Bureau of Reclamation, will soon be initiating a new programmatic EIS for operation and maintenance of the system of 14 hydroelectric generation dams on the Columbia River. The programmatic EIS is intended to meet requirements under NEPA, the Endangered Species Act, and the National Historic Preservation Act for ongoing operations of the Columbia River system.

Ms. Biegel and Ms. Mason described the challenges involved in a tiered approach, including ensuring that other regulations are being addressed, considering whether additional public outreach is appropriate, and ensuring that a programmatic review remains valid over time (as technology, terminology, and applicable regulatory provisions change). LL

Looking Forward: Making More Connections

Participants at the October 2016 "Making NEPA Connections" meeting identified opportunities for strengthening the resources available to NCOs. The NEPA Office is working with the NCOs to establish priorities for guidance, web resources, and training.



EPA's EJ 2020 Action Agenda Emphasizes Strengthening Consideration of EJ in NEPA Reviews

EPA, on October 27, released its *EJ 2020 Action Agenda*, (EJ 2020) a strategic plan for advancing its consideration of environmental justice (EJ) in 2016 through 2020. EPA Administrator Gina McCarthy writes in the document that, “EJ 2020 will strengthen our relationships with key partners – from federal, state, tribal and local governments to community-based organizations and industry – to promote the integration of environmental justice across our nation’s larger environmental enterprise.” NEPA is a central component of EJ 2020’s implementation strategy.

EPA Commitments in EJ 2020

EJ 2020 outlines three goals:

1. Deepen EJ practice within EPA programs to improve the health and environment of overburdened communities,
2. Work with partners to expand EPA’s positive impact within overburdened communities, and
3. Demonstrate progress on significant national EJ challenges.

Under EJ 2020, EPA commits to advance EJ within federal agencies through the Federal Interagency Working Group on Environmental Justice (EJ IWG), with emphasis on strengthening the consideration of EJ in the NEPA process (related article, page 10). EPA states that it will strengthen its “ability to take action on environmental justice concerns and cumulative impacts” and will build a stronger scientific basis for these steps “by developing and using assessment, screening and decision tools.”

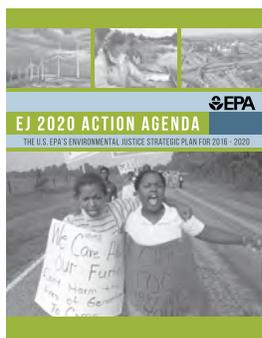
The tools EPA identifies include [EJSCREEN](#), Community-Focused Environmental Risk Screening Tool ([C-FERST](#)), Tribal-Focused Environmental Risk and Sustainability Tool, ([T-FERST](#)) and analytic methodologies for considering EJ during NEPA reviews.

Work with EJ IWG To Promote Collaboration and Strengthen Community Engagement

With respect to advancing consideration of EJ in the NEPA review process, EJ 2020 references the work of the EJ IWG and cites the March 2016 *Promising Practices for EJ Methodologies for NEPA Review* as an “important advance for considering environmental justice throughout the federal family” (*LLQR*, March 2016, page 1). In EJ 2020, EPA commits to:

- Promote cross-agency collaboration and training on NEPA by sharing EJ IWG’s NEPA Training Products with other federal agencies and governmental partners;
- Produce documents to promote better understanding of EJ analytical methodologies for NEPA reviews (e.g., supplemental material such as lexicon, crosswalk with CEQ regulations, repository of examples);
- Strengthen community and stakeholder engagement and understanding of environmental justice and NEPA by working with the EJ IWG NEPA Committee (e.g., outreach, training, technical assistance, citizens’ guide);
- Develop case studies on how EJ analytic methodologies for NEPA reviews have proven to be useful, particularly in areas of concern to communities;
- Conduct applied research to evaluate the effectiveness of the promising practices for EJ analytic methodologies for NEPA review; and
- Provide training on the promising practices to all EPA NEPA review staff and EJ Coordinators.

EPA also commits to “work with tribal governments to build tribal capacity and promote tribal action on environmental justice, and promote coordination with other tribes, as well as federal agencies and states, to address environmental justice concerns in areas of interest to tribes and indigenous peoples.”



By 2020, we envision an EPA that integrates environmental justice into everything we do, cultivates strong partnerships to improve on-the-ground results, and charts a path forward for achieving better environmental outcomes and reducing disparities in the nation’s most overburdened communities. Achieving this vision will help to make our vulnerable, environmentally burdened, and economically disadvantaged communities healthier, cleaner and more sustainable places in which to live, work, play and learn.

— EPA EJ 2020 Action Agenda

Analyzing Climate Change in DOE NEPA Reviews

By: Bill Ostrum, Office of NEPA Policy and Compliance

DOE's analysis of climate change in NEPA documents has continued to evolve with developments in science, public awareness, case law, and, recently, the release of the CEQ's *Final Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews* (the guidance). September's *LLQR* (page 1) discussed a number of important concepts from the guidance, including: analysis of how climate change affects the project (the proposed action and alternatives) and how the project affects climate change; use of existing NEPA tools and principles; quantification of GHG emissions; and comparison of alternatives as they affect emissions, mitigation, resilience, and adaptation. In this article, we explore how the guidance might be applied in DOE NEPA reviews.

- **Adaptation:** Adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.
- **Mitigation:** Technological change and substitutions that reduce resource inputs and emissions per unit of output.
- **Resilience:** A capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.

Definitions from the *National Climate Assessment*, 2014.

NEPA analysis of climate change generally includes the following steps:

1. Describe global climate change.
2. Identify the impacts of climate change on the affected environment.
3. Quantify emissions as a proxy for impacts on climate change.
4. Use the information to identify and compare alternatives (including mitigation, resilience, and adaptation).

Step 1: Describe Global Climate Change

"It is now well established that rising global atmospheric GHG emission concentrations are significantly affecting the Earth's climate," states the guidance. NEPA documents should succinctly describe greenhouse gases and the greenhouse effect, in addition to the global impacts of climate change. Common examples of climate change impacts include sea level rise, heat waves, degraded air quality, increased wildfire risk, and regional drought. These impacts are often described in the "affected environment" section of a NEPA document.

The following resources are available to help identify national and local climate change impacts.

- Climate Resilience [Toolkit](#)
- Intergovernmental Panel on Climate Change (IPCC) *Fifth Assessment Report*
- U.S. Global Change Research Program (USGCRP)'s *National Climate Assessment*
- DOE Site Vulnerability Assessments

Other regional, state, and local resources may also be available.

Step 2: Identify the Impacts

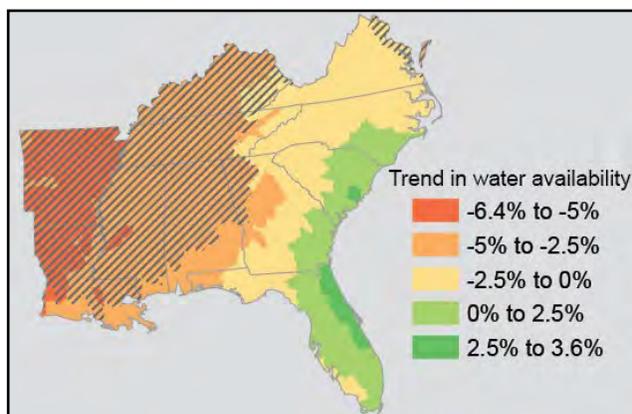
It may not be reasonable to assume that the current environment will remain unchanged over the project lifetime. If changes are reasonably foreseeable, it may aid decisionmaking to include, as appropriate, a discussion of how climate change is expected to affect that environment. However, the guidance states that "agencies need not undertake new research or analysis of potential climate change impacts in the proposed action area." Instead, practitioners may find it helpful to stay abreast of developments in climate science in regions where they work and to summarize relevant scientific literature in NEPA documents.

Many of the same resources listed above also contain regional projections that may be useful in NEPA analysis. In addition, some states and localities also have even finer-scale reports and data that may be helpful. California's *Climate Change Assessments*, for example, include detailed projections for climate change impacts in the state.

It is important to consider how these risks could impact the project and the environment through the project's entire lifetime. For example, according to the USGCRP, some areas already at moderate water supply sustainability risk are expected to have high or extreme risk by 2060 (map, next page). A nuclear power plant project that expects to use a significant amount of water as part of normal operations may need to consider both the impacts of and to the project under these projections. Will the required quantity of water still be reliably available late in the project's life? If the water will be available, will a reduced quantity of water change the impact of water discharges on the environment (e.g., temperature of receiving waterbody)? How will the project impact the water supply not just under today's conditions, but under the projected conditions in over the project lifetime?

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Climate Change in DOE NEPA Reviews *(continued from previous page)*



Trends in Water Availability (2010-2060):¹ Water availability is expected to decline across most of the Southeast away from the coasts (comparing decadal trends between 2010 and 2060, relative to 2010). The hatched areas indicate where projections are most certain.

Step 3: Quantify Emissions

According to the guidance, GHG emissions can serve as a “proxy” for the project’s potential impacts on climate change, and together with a summary of the impacts of GHG emissions (described in steps 1 and 2), “provides sufficient information to make a reasoned choice between ... alternatives.” Quantification should include short- and long-term emissions, along with direct and indirect emissions. The guidance provides an example of a federal lease sale of coal for energy production. Direct emissions include those emitted during exploration and extraction. Indirect emissions would be the “reasonably foreseeable combustion of that coal.”

Agencies should quantify greenhouse gas emissions unless “tools, methodologies, or data inputs are not reasonably available.” Generally, emissions of different GHGs are consolidated into a single measurement of metric tons of CO₂-equivalent (CO₂-e). As with the potential impacts of climate change on the project, the quantification of emissions can rely on existing tools. CEQ has updated its list of *Greenhouse Gas Accounting Tools* to help practitioners identify ways to quantify project emissions. If quantification is not feasible, the guidance recommends that agencies still provide a qualitative discussion of anticipated emissions and describe why a quantitative analysis was not warranted.

Whether quantitative or qualitative, this analysis, combined with the earlier discussion of global and local impacts, serve as the cumulative effects analysis and the basis for comparison of alternatives, mitigation, and resilience. The guidance also notes that for most federal agency actions, it is not expected

that an EIS would be required based solely on the global significance of cumulative impacts of GHG emissions.

Step 4: Identify and Compare Alternatives

It is important, according to the guidance, not to “limit” the analysis to comparing projected emissions from the project to sector, national, or global emissions. Instead, a comparison of alternatives, including “emissions . . . , trade-offs with other environmental values, and the risk from – and resilience to – climate change,” aids agency decisionmaking and is “fundamental to the NEPA process.”

The guidance notes that it also may be helpful to incorporate by reference applicable state, local, tribal, or agency emissions targets and “make it clear whether the emissions being discussed are consistent with such goals.” Emissions quantities and consistency with emissions goals should be included with the discussion of other potential impacts, as appropriate, to allow for comparison of alternatives.

Alternatives should generally incorporate measures to adapt to the impacts of climate change on the project (identified in step 2) and to mitigate CO₂-e emissions (identified in step 3). Even a project with minimal projected emissions may benefit from such measures because the proposed action and alternatives may be impacted by climate change. A project with few anticipated impacts from climate change may still reduce its emissions through mitigation measures. In the nuclear power plant example discussed above, the project may be expected to result in a net decrease in emissions by replacing fossil fuel plants, but the NEPA analysis should still consider how climate change impacts like reduced water availability may impact the project. The project may include sustainability measures to reduce water consumption and other measures to prepare for a time with low water availability.

Looking Toward the Future

DOE will continue to adapt this approach to particular projects and situations as the science of climate change and the practice of analyzing climate change impacts in NEPA reviews develops. For example, some DOE projects (e.g., nuclear waste disposal) evaluate alternatives thousands of years into the future, while many climate change models project out 100 years or less. Managing this uncertainty of how long-term climate change may impact the project and the affected environment will be the subject of further discussion within DOE and across the Federal Government.

For additional information, contact Bill Ostrum at william.ostrum@hq.doe.gov or 202-586-4149. 

¹ Source: Carter, L. M. et al., 2014: *Ch. 17: Southeast and the Caribbean. Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 396-417. doi:10.7930/J0NP22CB.

“RAPID”: A Toolkit for Bulk Transmission and Certain Renewable Energy Projects

The RAPID (Regulatory and Permitting Information Desktop) Toolkit can assist NEPA practitioners with environmental compliance for bulk transmission and certain renewable energy (solar, geothermal, or hydropower) projects. The [RAPID Toolkit](#) “makes regulatory and permitting information rapidly accessible from one location by providing links to permit applications, regulations, manuals, and related information. Its goal is to facilitate communication between project developers and permitting agency personnel ... and among all project stakeholders – including the public,” explains DOE’s National Renewable Energy Laboratory (NREL), developer of the RAPID Toolkit.

Key Features

The user can select the project type and location (state or states); the Toolkit then provides flowcharts and narratives for applicable regulatory and permitting requirements (e.g., Land Use Planning, Environmental Process). The flowcharts identify the required federal and, in some cases, state consultations and approvals, with their respective timelines. If a state has delegated its authority to local jurisdictions, basic information about these requirements may be provided, as well. The narratives provide additional detail about what is required for each step in the flowchart.

For example, information on “Environmental Review” is listed under “Environmental Process” in the “Project Development Timeline.” By clicking on “Environmental Review,” the user can find information on the “State Environmental Process.” If applicable, the narrative will notify the user that the selected state has an environmental review process that is separate from NEPA and link to a flowchart for the state process, such as the [California Environmental Quality Act \(CEQA\)](#). In addition, the “Environmental Process” topic in the Toolkit prompts the user to consider various environmental resources. Each module asks questions to identify regulatory and permitting requirements that may need to be included in a NEPA review – for example, “Is there potential for activities to cause effects to historic properties?” and “Will the Project require use of an underground storage tank?”

The “NEPA Database” feature, listed under “Tools,” is a collection of completed NEPA documents and related information that can be used to inform future NEPA analyses. For example, DOE and NREL used the database to identify NEPA timelines for geothermal projects. (See “NEPA Timelines” under “Best Practices.”) NEPA practitioners can use the Toolkit’s NEPA Database to perform basic searches of those NEPA documents.

The “Best Practices” feature, also listed under “Tools,” contains other information useful to NEPA practitioners. For example, the “NEPA Timelines” section provides information on the types of NEPA reviews that may be required for each phase of development and a timeline for development of a geothermal location. The “NEPA Timelines” section also highlights potential obstacles (e.g., untrained agency personnel, lack of inter-agency coordination) that can lengthen the NEPA process. Understanding these obstacles might improve and reduce timelines for NEPA reviews.

There are two other tools available in the Toolkit. The “Regulatory Flowchart Library” contains all the flowcharts from within the Toolkit but includes various filters (e.g., technology, jurisdiction, federal agency, and topic) to help users find the most appropriate flowchart(s) for their situation. The “Reference Library” includes a collection of links to regulatory and permitting resources—including permit applications, guidance, manuals, tools, regulations, and rules—that are available on other websites.

The RAPID Toolkit provides transparency and helps project developers and regulatory agencies break down the barriers to permitting renewable energy and bulk transmission facilities.

— Aaron Levine, NREL

Development and Maintenance of RAPID

DOE’s NREL developed the RAPID Toolkit in 2012 with initial funding from DOE’s Office of Energy Efficiency and Renewable Energy and the Western Governors’ Association. Currently, the Toolkit’s infrastructure is being funded by several different DOE program offices.

When developed in 2012, the Toolkit provided only the geothermal regulatory roadmap. NREL has since expanded it to include bulk transmission, solar, and hydropower, and is expanding the hydropower and bulk transmission portions to include additional state regulations. NREL maintains the accuracy of information found in the Toolkit with feedback and contributions from developers; federal and state agencies; policymakers; and other stakeholders.

To arrange for more complex analysis of NEPA documents in the database, contact Aaron Levine, Legal and Regulatory Analyst at NREL’s Strategic Energy Analysis Center, at aaron.levine@nrel.gov or 303-275-3855. For general information, contact Brad Mehaffy, Office of NEPA Policy and Compliance, at bradley.mehaffy@hq.doe.gov or 202-586-7785. 

DOE Updates EIS and EA Distribution Guidance

Updated guidance on *EIS and EA Distribution*, prepared by the NEPA Office in consultation with the Department's NEPA Compliance Officers, the Office of the Assistant General Counsel for Environment, and the Office of Congressional and Intergovernmental Affairs (CI), was issued in October.

In conjunction with the guidance, DOE General Counsel Steve Croley issued two variances to the DOE NEPA Order to ensure consistency with current practices for providing documents to the NEPA Office and filing EISs with the Environmental Protection Agency (EPA). The guidance presents recommendations on the EIS distribution process, including creating and maintaining a distribution list, distributing an EIS, and filing an EIS with EPA.

The guidance updates the 2006 edition to promote efficient and effective distribution of EAs and EISs, including:

- A new, reader-friendly organization that follows the EIS development process,
- Updated EPA EIS filing procedures and DOE interoffice coordination procedures,
- Revised procedures for electronic distribution,
- A new section on EA distribution, and
- Updated, easier-to-use templates for related communications (also provided as editable files on the guidance webpage listed above).

Who, What, Where, When and How

The guidance begins with recommendations on initiating a new distribution list, using resources like DOE's [Stakeholders Directory](#), site stakeholder lists, and interested federal, state, and local agencies. It then provides advice on building and maintaining the list throughout the NEPA process and preparing the list for publication in a draft and final EIS, including protection of personally identifiable information.

A distribution list is the list of individuals and organizations that will receive a copy of the EIS and related documents or notification of its availability. Per the Council on Environmental Quality's [NEPA regulations](#)

(40 CFR 1502.10(i)), it is published in the EIS, usually in an appendix.

The guidance advises document preparers to consult with CI and the Office of Public Affairs early when preparing a communication plan for the EIS. This plan includes the "who, what, where, when and how" of communication with congressional, state, and tribal officials; news media; stakeholders, including organizations; and the general public. The guidance also provides updated templates and recommendations for the distribution letters that announce that a document is available, and instructions for the distribution of the document.

Filing an EIS

Filing an EIS with EPA, which can occur only after distribution of the EIS has been completed, results in the EIS being included in EPA's Notice of Availability (NOA) published weekly in the *Federal Register*. The NOA officially starts the clock on a comment period for a draft EIS or a waiting period after a final EIS before a record of decision may be issued. In 2012, EPA launched its online EIS filing system, [e-NEPA](#). The guidance discusses how this new system affects EIS approval, coordination, and timing.

Mr. Croley approved two variances to DOE O 451.1B, [NEPA Compliance Program](#), to reflect current DOE practice.

1. Only one printed copy and one electronic file of NEPA documents need be provided to the NEPA Office. (Paragraph 5.d(12) of the Order specifies two printed copies.)
2. DOE Program and Field Offices may choose, in coordination with the NEPA Office, to use EPA's e-NEPA system to file an EIS directly or have the NEPA Office file the EIS. (Paragraph 5.g(7) of the Order states that the NEPA Office will file the EIS.)

The guidance serves as an important reference of the relevant requirements and guidance associated with EIS distribution, along with best practices identified by DOE. For additional information, contact Bill Ostrum at william.ostrum@hq.doe.gov, or 202-586-4149. 

Contracting Update: DOE-wide NEPA Support Services

DOE, through the National Nuclear Security Administration (NNSA) Office of Acquisition Management, is in the process of awarding multiple blanket purchase agreements (BPAs) for DOE-wide NEPA support services. These BPAs under the General Services Administration (GSA) Schedules are designed to provide high-quality and timely NEPA document support that can be accessed quickly to meet DOE needs. The contractor teams include a full range of expertise in disciplines required for DOE NEPA documents. All DOE program and field offices, as well as the Federal Energy Regulatory Commission, may use the BPAs to acquire support for NEPA documents and related activities and environmental reviews. Task orders under these BPAs will be administered by the NNSA Office of Acquisition Management. Additional information will be provided on the [DOE NEPA Website](#) as it becomes available. 

Transitions: “Welcome” to Three NEPA Compliance Officers ...

Environmental Management: Cathy Bohan

Cathy Bohan has been designated as the NCO for the Office of Environmental Management. Ms. Bohan has worked for DOE for 16 years, most recently at the West Valley Demonstration Project as a project manager responsible for the decontamination and demolition of nuclear, hazardous, and industrial facilities; maintenance and operation of site infrastructure; treatment of contaminated groundwater; and conduct of site environmental characterization activities.

She has served as the site’s NCO, NEPA Document Manager for the site’s [decommissioning and long-term stewardship EIS](#), and Tribal Liaison to the Seneca Nation of Indians. She is a Certified DOE Federal Project Director and Nuclear Quality Assurance (NQA-1) Lead Auditor.

Ms. Bohan holds a Master of Science in Agronomy from West Virginia University and a Bachelor of Natural Science in Soil Science from the University of Wisconsin-Madison. In her free time, Cathy enjoys exploring national parks and historical sites, canning and preserving local produce, and singing/acting in community theater. She can be reached at catherine.bohan@em.doe.gov or 301-903-9546.



Energy Efficiency and Renewable Energy: Casey Strickland

Casey Strickland has been designated as an NCO for the Office of Energy Efficiency and Renewable Energy (EERE) at the Golden Field Office, where he has worked for the past 7 years. Most recently he served as the NEPA Coordinator for EERE’s Advanced Manufacturing, Building Technologies, Fuel Cell Technologies, and Geothermal Technologies Offices and also for DOE’s Office of Indian Energy Policy and Programs. His earlier professional experience includes surveying on Alaska’s North Slope near Prudhoe Bay, underground storage tank remediation in Louisiana, and regulatory permitting and compliance for locatable and fluid minerals (gold/silver/copper mining and geothermal) in Nevada with the Bureau of Land Management. Mr. Strickland holds a Master of Science in Geosciences from the University of Louisiana at Monroe with specializations in geo-archaeology and paleontology. In his free time, if it isn’t snowing or icy, you may glimpse him riding by on his Moto Guzzi. He can be reached at casey.strickland@ee.doe.gov or 720-356-1575. *Mr. Strickland joins the EERE NCO team of Robin Sweeney, Lisa Jorgensen, Lori Gray, and Kristin Kerwin.*



Livermore Field Office: Dan Culver

Having served from 2011 to 2014 as NCO for the National Nuclear Security Administration’s Livermore Field Office, **Dan Culver** now resumes the NCO role and reports that he is glad to be back in the DOE NCO community. He joined DOE as an attorney in 2010, after retiring from service in the U.S. Army as a judge advocate. For over 20 years, he advised environmental specialists and represented the Army in NEPA and other environmental matters in several states and the Pacific Territories. He can be reached at daniel.culver@nnsa.doe.gov or 925-422-3126. *Former NCO Karin King continues to support the Office’s NEPA activities and remains the Sustainability Lead and Federal Energy Manager.*

... and One “Farewell”

Strategic Petroleum Reserve: Katherine Batiste

Katherine Batiste retired from the Strategic Petroleum Reserve (SPR) Project Office in October, closing a 32-year career with DOE, half of that time as NCO. As the Office’s Waste Management Program Manager, Ms. Batiste was responsible for evaluating data and programs at the four SPR sites in Louisiana and Texas for compliance with federal and state regulations. As NCO, she led the preparation of several EAs and supported the Office of Fossil Energy in the preparation of EISs for SPR facilities. In 2004, the National Association of Environmental Professionals recognized the SPR and its management and operating contractor, with the National Environmental Excellence Award for Environmental Management. The award was for SPR’s Environmental Management System, developed under Ms. Batiste’s leadership, which fully integrates with its NEPA process to identify opportunities for environmental improvement throughout the project lifecycle. *On behalf of the DOE NEPA Community, the Office of NEPA Policy and Compliance offers Katherine best wishes on her retirement. The acting NCO, Will Woods, can be reached at will.woods@spr.doe.gov or 504-734-4329.*

EAs and EISs Completed July 1 to September 30, 2016

EAs¹

Bonneville Power Administration

[DOE/EA-2006](#) (7/7/16)

Columbia Estuary Ecosystem Restoration Program, Clatsop, Columbia, and Multnomah Counties, Oregon, and Pacific, Wahkiakum, Cowlitz, Clark, and Skamania Counties, Washington

EA was prepared in-house; therefore, there were no contractor costs.

Time: 17 months

Office of Fossil Energy

[DOE/EA-2041](#) (7/15/16)

Cameron LNG Expansion Project,

Cameron and Calcasieu Parishes, Louisiana

EA was adopted; therefore, contractor cost and time data are not applicable to DOE. [Federal Energy Regulatory Commission (FERC) was the lead agency; DOE was a cooperating agency.]

Western Area Power Administration

[DOE/EA-2018](#) (9/21/16)

Front Range-Midway Solar LLC Interconnection Project, El Paso County, Colorado

EA preparation cost was paid by the applicant; therefore, contractor cost is not applicable to DOE.

Time: 14 months

EISs

Office of Fossil Energy

[DOE/EIS-0491](#) (7/15/16) 81 FR 46077

(Draft EIS EPA Rating: EC-2)

Lake Charles Liquefaction Project,

Calcasieu Parish, Louisiana

EIS was adopted; therefore, contractor cost and time data are not applicable to DOE. [FERC was the lead agency; DOE was a cooperating agency.]

[DOE/EIS-0498](#) (9/30/16) 81 FR 67348

(Draft EIS EPA Rating: EC-2)

Magnolia LNG and Lake Charles Expansion Projects, Calcasieu Parish, Louisiana

EIS was adopted; therefore, contractor cost and time data are not applicable to DOE. [FERC was the lead agency; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For an explanation of these definitions, see the EPA [website](#).)

NEPA Document Cost and Time Facts²

EA Cost and Completion Times

- There were no EAs completed during this quarter for which cost data were applicable.
- For this quarter, the median and average completion times for 2 EAs for which time data were applicable was 16 months.
- Cumulatively, for the 12 months that ended September 30, 2016, the median cost for the preparation of 10 EAs for which cost data were applicable was \$205,000; the average was \$324,000.
- Cumulatively, for the 12 months that ended September 30, 2016, the median completion time for 17 EAs for which time data were applicable was 17 months; the average was 21 months.

EIS Cost and Completion Times

- There were no EISs completed during this quarter for which cost or time data were applicable.
- Cumulatively, for the 12 months that ended September 30, 2016, the median cost for the preparation of 4 EISs for which cost data were applicable was \$5,410,000; the average was \$6,060,000.
- Cumulatively, for the 12 months that ended September 30, 2016, the median completion time for 8 EISs for which time data were applicable was 39 months; the average was 46 months.

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Didn't Work

- *Establishing a realistic EA schedule.* The initial EA schedule was not based on realistic timelines that considered potential impacts to staffing and funding needs.

Data Collection/Analysis

What Worked

- *Clarifying impacts.* The document manager provided guidance to the EA preparation contractor to clarify the impact analyses and methodologies.

Schedule

Factor that Facilitated Timely Completion of Documents

- *Management commitment.* Commitment by management to provide timely document reviews facilitated timely completion of the EA.

Factors that Inhibited Timely Completion of Documents

- *Untimely review process.* Delays in the preparation of the EA resulted from untimely regional staff reviews of the draft EA.
- *Ineffective internal review procedures.* Ineffective internal review procedures inhibited timely completion of the EA.
- *Lack of staff availability.* The EA preparation process could not adhere to its initial schedule due to a lack of staff availability. This was mostly due to unforeseen position vacancies, routine time lost in refilling positions, and reassignment of project responsibilities.
- *Cooperating agencies did not prioritize their participation.* The cooperating agencies did not prioritize their participation in the EA preparation process, which inhibited the timely completion of the document.
- *Ambitious schedule.* The initial schedule for the preparation of the EA was too ambitious.

Teamwork

Factors that Facilitated Effective Teamwork

- *Project proponent interest.* The project proponent was eager to complete this EA and participated in the EA preparation process to keep the document on schedule.
- *Committed DOE team members.* DOE staff were committed to the timely completion of the EA. Timely consultation and review of draft documents facilitated completing the EA on schedule.

Process

Successful Aspects of the Public Participation Process

- *Addressed public comments.* All public comments were easily addressed in the final EA.

Unsuccessful Aspects of the Public Participation Process

- *No comments received from public.* No comments were received during the public comment period on the draft EA.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Informed decision.* The EA process informed decisionmakers and assisted DOE in arriving at a decision regarding a project proponent's application.
- *Programmatic EA.* The programmatic EA provided an analysis from which future site-specific project NEPA documents could tier, making those efforts more timely and cost-effective.

(continued on next page)

What Worked and Didn't Work (continued from previous page)

Enhancement/Protection of the Environment

- *Protection of the environment.* The environment was protected through measures outlined in the EA.
- *Environmental enhancement.* The programmatic EA enhances the environment by allowing future restoration projects to be implemented quickly and more effectively.

Effectiveness of the NEPA Process

For the purposes of this section, “effective” means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning “not effective at all” and 5 meaning “highly effective” with respect to its influence on decisionmaking.

For the past quarter, in which 2 EA questionnaire responses were received, 2 respondents rated the NEPA process as “effective.”

- A respondent who rated the process as “4” stated that the NEPA process was an effective tool for considering and analyzing a project proponent’s application.
- A respondent who rated the process as “3” stated that this was a programmatic analysis only, with no project-specific decision being made.

LESSONS LEARNED

March 1, 2017; Issue No. 90

First Quarter FY 2017

To Prepare NEPA Documents Efficiently, Focus on What Is Important

NEPA regulations and guidance emphasize clear, concise writing that presents the reader with useful information. “Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail,” state the CEQ [NEPA regulations](#) (40 CFR 1500.1(b)). “Impacts shall be discussed in proportion to their significance. There shall be only brief discussion of other than significant issues” (40 CFR 1502.2(b)). EISs “shall be kept concise” (40 CFR 1502.2(c)).

DOE guidance elaborates that an EA or EIS should discuss the issues and potential impacts “with the amount of detail commensurate with their importance.” This concept is sometimes referred to as “proportionality.”¹ “Proposals with clearly small environmental impacts usually will require less depth and breadth of analysis either in identifying alternatives or analyzing their [potential] impacts (though the analysis still must satisfy all NEPA requirements). Conversely, as proposals fall increasingly closer to the high end of the continuum of potential environmental impacts, the depth and breadth of analysis will increase,” explains DOE’s *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (December 2004).

Start with Scoping

The scoping process provides the best opportunity to determine the appropriate level of detail for each topic that will be addressed in a NEPA document. Simply put, the process should be more efficient the earlier such decisions are made. However, it is also important to consider new information as it becomes available throughout the NEPA review and adapt the approach as needed to best inform decisionmaking.

Applying good professional judgment in deciding what issues and potential impacts to analyze in detail is essential when preparing an EA or EIS. A NEPA Document Manager, assisted by the NEPA Compliance Officer, should manage the scope of the EA or EIS to focus the analysis and eliminate the potential for encyclopedic descriptions of issues and impacts that are minor or negligible. Use the concept of proportionality to efficiently prepare EAs and EISs by minimizing inclusion of unimportant details and focusing the analysis on potential impacts that are important to the decision.

Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review ... narrowing the discussion of these issues in the [EIS] to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.

– CEQ NEPA regulations, 40 CFR 1501.7(a)(3)

Examples from DOE Practice

Data collection and analysis should be prioritized based on the significance of potential environmental impacts on a resource area. When it is clear from the project’s context that impacts would be absent (e.g., a resource is not present), the EA or EIS may include a brief negative declaration, such as, “There are no wetlands in the study area, therefore wetlands are not further discussed in this NEPA analysis.” Provide appropriate references, consultation letters, or explanation to support

(continued on page 6)

¹ DOE has at times referred to this concept as the sliding-scale principle. The meaning has not changed, but proportionality has become a more commonly used term. The same concept also is sometimes referred to as a graded or tailored approach.

Inside Lessons Learned

Welcome to the 90th quarterly report on lessons learned in the NEPA process. This issue highlights approaches DOE uses to attain an efficient and effective NEPA process. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Brian Costner
Acting Director
Office of NEPA Policy and Compliance

Be Part of Lessons Learned

We Welcome Your Contributions to LLQR

Send suggestions, comments, and draft articles, especially case studies on successful NEPA practices, to Yardená Mansoor at yardená.mansoor@hq.doe.gov.

Quarterly Questionnaires Due May 1, 2017

For NEPA documents completed January 1 through March 31, 2017, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than May 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact askNEPA@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa under Guidance & Requirements, then Lessons Learned. To be notified via email when a new issue is available, send your email address to yardená.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

National Environmental Justice Conference & Training Program Washington, DC; March 8–10



2017 National Environmental Justice Conference
& Training Program

Enhancing Communities through Capacity Building and Technical Assistance is the theme of the 2017 National Environmental Justice Conference and Training Program, which will be held on March 8–10 in Washington, DC. The annual conference, sponsored jointly by DOE and other federal agencies with academic and private sector partners, is free to government employees, community organizations, students, and faculty. On the second day of the conference, Denise Freeman, Office of NEPA Policy and Compliance and co-chair of the NEPA Committee of the Federal Interagency Working Group on Environmental Justice, will present a workshop entitled “NEPA & EJ: Leveraging Federal Resources to Advance Community Environmental, Economic and Health Vitality.” The workshop will focus on using *Promising Practices for EJ Methodologies in NEPA Reviews* (*LLQR*, March 2016, page 1) to leverage federal resources to benefit overburdened and underserved populations. Additional information and online registration are available through the conference [website](#).

National Association of Environmental Professionals (NAEP) Annual Conference Durham, North Carolina; March 27–30

NAEP will hold its 42nd annual conference under the theme of *An Environmental Crossroads: Navigating Our Ever-Changing Regulatory Landscape*. Planned NEPA-related sessions include: incorporating ecosystem services into NEPA, case law updates, case studies and best practices, adaptive management, and tribal affairs. Ted Boling, the Council on Environmental Quality (CEQ) Associate Director for NEPA, will lead a presentation on developments at CEQ. The agenda and registration information are available on the NAEP conference [website](#). Attendance is open to environmental professionals in all levels of government, academia, and the private sector.



The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

NEPA's Workhorse: CX Determinations

A “categorical exclusion” (CX) is a category of actions that do not individually or cumulatively have a significant effect on the human environment, and for which, therefore, neither an environmental assessment (EA) nor environmental impact statement (EIS) is required. A CX does not apply to an otherwise normally excluded action if there are extraordinary circumstances such that the action may have a significant environmental effect (40 CFR 1508.4).

CXs have proven to be the appropriate level of NEPA review for the very large majority of DOE's activities. Roughly 98 percent of DOE's proposed actions are addressed through CX determinations, as compared to approximately 1.5 percent through EAs and 0.5 percent through EISs.

Development and Implementation

DOE CXs are developed through a public rulemaking, and they are applied by the Department's NEPA Compliance Officers (NCOs). DOE last updated its CXs in 2011 by expanding coverage to many small-scale renewable energy projects and research and development activities, among other changes (*LLQR*, December 2011, page 1). CXs are based on DOE's experience, including past environmental reviews; the experience of other federal agencies; technical literature; public input; and consultation with the Council on Environmental Quality.

DOE has 121 individual CXs, which fall into eight major groups: (1) general agency actions, (2) facility operations, (3) safety and health, (4) site characterization, monitoring, and general research, (5) electrical power and transmission, (6) conservation, fossil, and renewable energy activities, (7) environmental restoration and waste management activities, and (8) international activities. These CXs are listed in appendices A and B of DOE's [NEPA regulations](#).

The individual CXs in these groups help support DOE through careful, but not overly detailed, analysis of the proposed action. That analysis is conducted by NCOs at program, site, and field offices. They review individual proposed actions to ensure that the criteria for applicable CXs are met and then, as appropriate, make a CX determination, which completes NEPA review. Depending on the complexity of the proposed

action, that CX determination may be documented on a simple form or supported by technical documents. When a CX is not appropriate, the NCO can recommend preparation of an EA or EIS.

Broad Coverage and Benefits

The most frequently applied CXs¹, which are included in approximately two-thirds of all CX determinations, are:

B1.3 - Routine maintenance

B2.5 - Facility safety and environmental improvements

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

B5.1 - Actions to conserve energy or water

These four CXs support a broad array of activities associated with the operation of DOE facilities, energy research and development, and energy efficiency projects. Routine activities to maintain or improve existing facilities (such as replacing safety systems or upgrading equipment), often rely on B1.3 and B2.5 CX determinations. For example, the Western Area Power Administration and Bonneville Power Administration issue CX determinations for activities that help maintain major transmission lines such as vegetation management, repairs to transmission line towers, and installation of generators.

Also, CXs B3.6 and B5.1 address a wide variety of research and energy efficiency projects that occur at DOE facilities, or at non-DOE facilities through financial assistance programs administered by DOE. For example, the Office of Energy Efficiency and Renewable Energy administers programs for renewable power; energy-saving homes, buildings, and manufacturing; and sustainable transportation. These programs rely on CX determinations to provide billions of dollars for research and development projects across the United States.

A variety of other actions that occur less frequently, but are also analyzed through CX determinations, include demolishing and disposing of buildings, performing site characterization and monitoring for environmental management activities, repairing or replacing pipelines, and installing electric vehicle charging stations. 

¹ Refers to the most frequently applied CXs that are listed in appendix B of the DOE NEPA regulations.

DOE NEPA “Success Stories” Updated

The Office of NEPA Policy and Compliance recently updated *NEPA Success Stories from Lessons Learned Quarterly Reports*, a compilation of articles featured in *LLQR* over the past 20 years. Several articles in this collection describe how the NEPA process provided an organized structure for making some of the Department's most complex decisions. Some articles feature NEPA reviews that resulted in significant

project cost savings through informed decisionmaking. Others articles highlight ways in which the NEPA process improved environmental outcomes, such as by identifying better alternatives or more effective mitigation. Still other articles put the spotlight on procedural success, such as effective public involvement, enhanced tribal consultation, and efficient analysis. 

A Programmatic NEPA Strategy Yields Efficiency Benefits

DOE's Western Area Power Administration (WAPA) embraced a strategy of tiering EAs from a programmatic EIS to make the environmental reviews of similar specific projects more efficient. WAPA's NEPA team reports that the payoff – cost and time savings – began as soon as the programmatic EIS was completed.

Western Area Power Administration (WAPA) and the U.S. Fish and Wildlife Service (USFWS) designed a programmatic approach to streamline the NEPA review process and implement cost-effective mitigation strategies for certain wind energy projects. “The intent is to guide wind energy developers in their siting decisions towards landscapes that are more readily amenable to minimizing risks to threatened and endangered species, bald and golden eagles, migratory birds, and other important resources,” said Kevin Shelley, USFWS. “In addition to environmental benefits, use of the programmatic approach can help us achieve more predictable outcomes and schedules for all stakeholders,” he observed.

As joint lead agencies, WAPA and USFWS issued the *Upper Great Plains Wind Energy Programmatic EIS (DOE/EIS-0408)* in 2015. The programmatic EIS (PEIS) assessed the potential environmental impacts associated with wind energy projects that may interconnect to WAPA's transmission system within the Upper Great Plains Region. The PEIS also provided recommended best management practices (BMPs) and mitigation measures for project developers to implement (*LLQR, September 2015*, page 1).

In connection with the PEIS, WAPA completed a programmatic biological assessment, and USFWS issued a programmatic concurrence for Section 7 consultation under the Endangered Species Act (ESA). To tier from the programmatic concurrence using a streamlined format, project developers must complete “Project Consistency Evaluation” and “Species Consistency Evaluation” forms for any of the 28 listed, candidate, or proposed species that may be located within the project area. Project developers must also identify



The Interior least tern (Sternula antillarum), the smallest North American tern, is one of the species evaluated in the PEIS and programmatic biological assessment. (Photo: Robert Etzel, U.S. Army Corps of Engineers)

which BMPs and mitigation measures from the PEIS will be incorporated into their project.

The project becomes included within the programmatic concurrence after the project developer, WAPA, and the local USFWS office verify that all necessary BMPs, avoidance, and minimization measures necessary for the USFWS programmatic concurrence are or will be implemented by the developer. To assist project developers, WAPA created *Guidance for Completion of Programmatic Biological Assessment Project and Species Consistency Evaluation Forms, Upper Great Plains Region Wind Energy Development Program*.

WAPA's *Willow Creek Wind Energy Facility EA (DOE/EA-2016)* (Willow Creek) was the first NEPA document tiered from the PEIS. Issued in November 2016, it incorporates by reference the PEIS resource impacts analysis and the programmatic biological assessment. The EA primarily addresses site-specific resource impacts, such as wetlands, cultural resources, and threatened and endangered species. WAPA staff plan to use the Willow Creek EA as a model for future tiered EAs.

Section 7 ESA consultation for the Willow Creek project was completed using the framework outlined in the programmatic biological assessment. The project developers completed the consistency evaluation forms and adopted all species-appropriate conservation measures. As a result, USFWS issued its “concurrence” in 5 days – far shorter than their standard formal consultation period of 145 days.

The Upper Great Plains Region has several wind farm projects in the early stages of NEPA analysis. We expect tiered EAs and streamlined programmatic Section 7 consultation to provide continued cost and time savings.

— Christina Gomer
Upper Great Plains NEPA Coordinator, WAPA

WAPA Environmental Protection Specialist and Biologist Lou Hanebury, the NEPA Document Manager, stated that experienced contractors, paid for by the developer but under the direction of the WAPA NEPA staff, helped in creating the EA tiering template and writing the site-specific analysis. For information on this programmatic strategy, contact Lou Hanebury at hanebury@wapa.gov or 406-255-2812. 

Best Practices for Infrastructure Reviews May Be Applied to Other Reviews

The Federal Permitting Improvement Steering Council¹ issued a report, *Recommended Best Practices for Environmental Reviews and Authorizations for Infrastructure Projects*, in January 2017. The report identified best practices in eight categories for environmental reviews and permitting of infrastructure projects:

- Enhancing early stakeholder engagement
- Ensuring timely decisions
- Improving coordination between Federal and non-Federal entities
- Increasing transparency
- Reducing information collection requirements and other administrative burdens
- Using Geographic Information Systems and other tools
- Training
- Best practices for other aspects of infrastructure permitting

For infrastructure projects to be subject to FAST-41 requirements, they must generally involve construction of infrastructure for renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, and be either (1) subject to review under NEPA, likely to require a total investment of more than \$200 million, and ineligible for abbreviated authorization or environmental review processes, or (2) subject to NEPA and have the size and complexity that cause the

Council to determine that the project would likely benefit from enhanced oversight and coordination.²

Practices included in the report also may be beneficial in NEPA reviews for other types of proposed projects. For example, under the “Using Geographic Information Systems and other tools” best practice category, the report highlights the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation (IPaC) tool, noting that it was designed to “quickly and easily identify USFWS managed resources and suggest conservation measures.” The IPaC tool is relevant for all types of projects, not just infrastructure projects. (See *LLQR*, March 2014, page 6.)

Another best practice category from the report, “Ensuring timely decisions,” recommends conducting a broad review of a program or grouping of activities with similarities for which narrow project-specific NEPA reviews would otherwise be prepared. The report states, “Once established, programmatic approaches may expedite the permitting and review process and facilitate efficient use of agency resources.” DOE has used programmatic NEPA approaches for many of its undertakings. (See related article, page 4, for a current example from Western Area Power Administration.)

The report and related information, including guidance for carrying out agency responsibilities under FAST-41, are available on the [Federal Infrastructure Permitting Dashboard](#). 

¹ An interagency council to oversee implementation of Title 41 of the Fixing America’s Surface Transportation Act (FAST-41). DOE is represented on the Council. (See *LLQR*, December 2016, page 4.)

² 42 U.S.C. §4370m-6(A). A new infrastructure project may become a “covered project” under FAST-41 after the project sponsor submits an initiation notice for inclusion, as described in 42 U.S.C. § 4370m-2(a). Also, some infrastructure projects are excluded, such as those covered by the Water Resources Development Act and transportation projects subject to 23 U.S.C. § 139. See 42 U.S.C. § 4370m(6) and note for details.

Focus on What is Important *(continued from page 1)*

the conclusion. A conclusory statement by itself may be interpreted as an assertion rather than as a conclusion based on reason and evidence.

When impacts are expected but would not be significant, the NEPA document need only contain enough information to explain why further analysis is not warranted (40 CFR 1502.2(b)). In some instances, this could be a brief explanation, with supporting data, for the conclusion. For example, for a proposed action with a small number of short-term construction personnel, DOE may explain that the temporary influx of construction workers would not substantially increase demands on public services (e.g., schools, hospitals, fire and police protection services). If the increase could be accommodated by existing services, potential impacts in this area would not be further evaluated.

For a proposed action involving use of existing facilities, DOE may explain that the descriptions of land resources, geology and soils, and archaeological and historic resources contain less detail because there would be little or no potential for new impacts in light of impacts that had already occurred due to the presence of those existing facilities and their past operations.

Agencies are encouraged to concentrate on relevant environmental analysis in their EAs and EISs, not to produce an encyclopedia of all applicable information. Environmental analysis should focus on significant issues, discussing insignificant issues only briefly. Impacts should be discussed in proportion to their significance, and if the impacts are not deemed significant there should be only enough discussion to show why more study is not warranted.

– Improving the Process for Preparing Efficient and Timely Environmental Reviews under [NEPA] (2012)³

“It is important to keep your environmental analysis concise and focused on the resources that would be impacted. Recently, when analyzing the potential impacts of a solar facility interconnection request², prime or unique farmlands, floodplains, wetland and riparian areas, recreation, rangeland, and proximity to state and national parks were all resources eliminated from further consideration during our EA review as they were not present in the project study area. Having the ability to

identify and yet remove these types of resources from further study allows the NEPA practitioner to focus on the real issues associated with the proposed project,” said Andrew Montañó, NEPA Document Manager, Western Area Power Administration.

From 2013–2016, DOE EAs typically ran 150–200 pages and DOE EISs were typically 1,500–1,800 pages. DOE NEPA practitioners should strive to focus the analysis and present information based on the potential for impacts. Depending on the proposed action, such further efforts may result in shorter NEPA documents.

Consider the Presentation

It is helpful to explain the use of proportionality at the beginning of the affected environment and potential environmental impacts chapter(s). For example, the introduction to the affected environment chapter could explain that the level of detail included for each resource area depends on the potential for impacts resulting from the proposed action and alternatives. Similarly, the chapter on potential impacts could explain that the level of analysis provided for each resource area varies based on the potential for significant impacts. It may be helpful to note that this approach is consistent with CEQ NEPA regulations (cite 40 CFR 1502.2(b)) and CEQ and DOE NEPA guidance.

Several DOE NEPA documents have addressed the resource areas not analyzed in detail in a separate section early in the appropriate chapter. For example, DOE may include a section titled “Resources Considered but Not Evaluated in Detail” with an explanation that based on internal and external scoping there were certain resource areas that were not further evaluated because they were not present in the study area or no measurable impacts would potentially occur. Another option is to include a table identifying each resource that was considered but not analyzed with the corresponding rationale for exclusion from the analysis. For any resource areas that are “screened out,” be sure to provide the corresponding explanation as to why they were eliminated. It is not appropriate to just state that no significant impacts are expected and therefore the topic was eliminated from analysis. 

² See Table 3.1 of the *Final Environmental Assessment for the Front Range-Midway Solar LLC Interconnection Project (DOE/EA-2018)*.

³ This excerpt refers to provisions in the CEQ NEPA regulations. See 40 CFR 1500.4(b), 1502.2(a), 1502.2(b), and 1502.2(c).

Tips to Avoid NEPA Document “Bloat”

by Diori Kreske, NEPA Compliance Officer, Richland Operations and Office Office of River Protection

If a great deal of text is given to a subject it may make the subject appear more important than it actually might be. If the subject is not important, don’t make it appear important by talking about it to excess. Uncertainty about the proposed action and the potential for impacts often results in a tendency by document preparation teams to overcompensate (“throw in the kitchen sink”) and provide unnecessary information. This can be avoided or minimized by implementing the following practices:

- As early as possible, clearly define the proposed action and associated activities to be able to show the “cause” and “effect” on the environment.
- Ensure that the geographic scope of the analysis or study area (region of influence) is defined by DOE during internal scoping and make sure it is appropriately sized. Analysis of a larger area than is necessary will add to length of the NEPA document.
- Prior to engaging a contractor team, the NEPA Document Manager, with assistance from the NEPA Compliance Officer and DOE project staff, should conduct internal scoping to identify and evaluate details related to the proposed action such as geographic study area, timing, key assumptions, and methods of construction.
- Based on internal scoping, provide the contractor with a preliminary annotated outline that identifies, for example, resource areas to be evaluated in detail. Avoid leaving the document preparation team to “fill in the blanks” of a generic NEPA document outline; subject matter experts may not understand what issues are important and which topics need only brief explanation because detailed analysis is not warranted.



A recent EIS makes a statement.

- Focus the analysis on the decision to be made. Imagine being the decisionmaker and having to read the NEPA document. Having reams of background data buries important facts and potential impacts, and makes it hard for the decisionmaker and the public to discern what’s important. Keep the audience(s) in mind and meet their needs.
- The NEPA Document Manager should review all comments received through both internal and external review and make sure they are relevant. In addition, the NEPA Document Manager should review requests for additional information (e.g., requests to expand the analysis or scope) to ensure they are necessary and that associated changes are accurate.

DOE staff (e.g., NEPA Document Manager), not the contractor, should make decisions regarding what information to add, or other changes to make – as DOE is directing the development of the NEPA document. [LL](#)

Litigation Update: District Court Upholds DOE's SAs for Return of Highly Enriched Uranium



The United States District Court for the District of Columbia upheld DOE's NEPA compliance for the transport and processing of highly enriched uranium (HEU) in liquid form from a Canadian research reactor. Seven environmental advocacy organizations challenged DOE's decisions not to prepare a supplemental EIS (SEIS) or new EIS based on two supplemental analyses (SAs).

The case involved a proposed action under the National Nuclear Security Administration's (NNSA's) policy to return U.S.-origin HEU to the U.S. from foreign research reactors (FRRs) (i.e., the Acceptance Program). DOE analyzed the Acceptance Program in three EISs between 1995 and 2000 that considered shipments of target materials from that facility in an oxide or calcine powder (i.e., solid) form.

To evaluate whether transporting and processing liquid, rather than solid, material required preparation of a supplemental or new EIS, DOE prepared an SA in 2013. DOE subsequently issued another SA in 2015 that, among other things, considered the information included in cask certifications from the U.S. Nuclear Regulatory Commission, U.S. Department of Transportation, and the Canadian Nuclear Security Commission. In both SAs, DOE determined that neither an SEIS nor a new EIS was required.

The court concluded that the "key—and really only—question" for the proposed action was whether the "transportation of target material in liquid rather than solid form results in

environmental impacts that are significantly different than those already evaluated." The court emphasized that an agency's decisions are entitled to deference provided "its decision is reasoned and rational." The court explained that it "will only overturn DOE's decision not to prepare an [SEIS] if the record shows a clear error of judgment or that DOE did not give the relevant evidence and factors a 'hard look.'"

Based on its review of the 2013 and 2015 SAs, the court found that DOE "did, in fact, give a hard look to a wide range of factors, evidence, and statistical analyses regarding environmental impacts in numerous different scenarios." In the 2013 SA, the court found that DOE had "concluded that there was not a substantial or significant difference between the environmental impacts here and those already considered by the earlier EISs to warrant a supplemental or new EIS for the planned shipment." In the 2015 SA, the court found that "risks of harm from the transportation [in liquid form] were extremely low and not significantly different from the impacts already evaluated and reported in the [FRR EIS]." The court ultimately concluded that DOE did not act "arbitrarily or capriciously" or make a "clear error in judgment," and therefore upheld DOE's decision not to prepare an SEIS or a new EIS.

The plaintiffs have 60 days to appeal from the date of the District Court's decision. (*Beyond Nuclear v. U.S. Dep't of Energy*, Case No. 16-CV-1641 (TSC); February 2, 2017).

DOE EJ Strategy Includes NEPA Goal

DOE has updated its *Environmental Justice Strategy*, the integrated approach by which the Department manages its environmental justice (EJ) responsibilities and commitments. DOE's EJ strategy seeks to demonstrate the Department's commitment to, and further efforts to comply with, Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994). The strategy includes a goal to integrate environmental justice into the NEPA process.

DOE's EJ Strategy encourages new approaches to occupational and environmental science research for high-risk communities and workers, embraces interagency coordination to facilitate EJ, and heightens the sensitivity of managers and staff to EJ within DOE.

— *Environmental Justice Strategy*

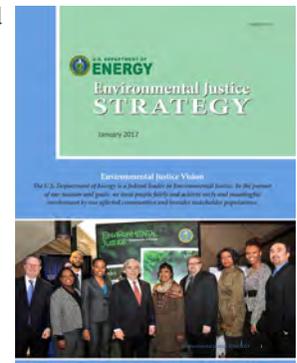
Integrate EJ and NEPA

The strategy encourages continuing improvement in DOE practices. Under the NEPA goal, the strategy describes two objectives: (1) continue to update NEPA guidance to enhance relevant environmental justice guidance and principles, as appropriate, and (2) strengthen federal efforts to integrate environmental justice and NEPA.

"The Department will continue to leverage its experience addressing EJ by applying lessons learned to its NEPA reviews," the strategy states. "DOE will highlight ways to

better involve potentially affected communities in the NEPA process, conduct a meaningful analysis of potential impacts related to EJ, and develop mitigation options that address EJ concerns."

In addition, the strategy highlights *Promising Practices for EJ Methodologies in NEPA Reviews*, the 2016 report issued by the Federal Interagency Working Group on Environmental Justice and its NEPA Committee, explaining that "DOE will continue to work with other agencies to use the report, implement [NEPA] training, and share lessons learned" (*LLQR*, March 2016, page 1).

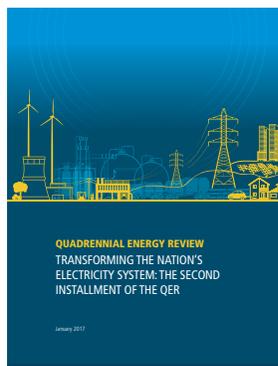


Other Goals and Next Steps

In addition to integrating environmental justice and NEPA, DOE's EJ strategy includes three other goals: fully implement Executive Order 12898 on environmental justice, minimize climate change impacts on vulnerable populations, and comply with Title VI of the Civil Rights Act of 1964.

In 2017, DOE plans to prepare a Five-Year Implementation Plan for its environmental justice activities. For additional information, contact Melinda Downing, Environmental Justice Program Manager, Office of Legacy Management, at melinda.downing@hq.doe.gov or 202-586-7703. 

Second Quadrennial Energy Review Addresses EJ



The second installment of DOE's Quadrennial Energy Review, *Transforming the Nation's Electricity System* (QER 1.2), issued January 2017, describes trends and challenges facing the electricity sector through 2040. QER 1.2 examines the electricity system from generation to end use, in the context of three national goals: improving the economy, protecting the environment, and increasing national security.

QER 1.2 includes a section titled "Electricity and Environmental Justice," which states that environmental justice communities "are more vulnerable to the air- and water-quality impacts of the electricity system." It further mentions that regulatory actions have been undertaken to help reduce disparities in human health impacts to minority and low-income communities from power plant emissions, wastewater discharges, and onsite solid waste impoundments. In addition, the *Promising Practices* report is cited as a resource for addressing EJ in the NEPA process. 

Contracting Updates: Blanket Purchase Agreements Established for DOE-wide NEPA Support Services

DOE has established nine blanket purchase agreements (BPAs) with six contracting teams to provide NEPA support services under the General Services Administration (GSA) Environmental Services Schedule 899 contracts. All DOE program and field offices, as well as the Federal Energy Regulatory Commission, may use the BPAs to acquire support for NEPA activities and related environmental reviews.

The BPAs will be administered by the National Nuclear Security Administration (NNSA) Office of Acquisition Management. For assistance in establishing a task order, contact Tracy CDeBaca, Contract Specialist, at tracy.cdebaca@nnsa.doe.gov or 505-845-4711. Individual task orders under the BPAs will be managed by the ordering office's Contracting Officer and Contracting Officer's Representative.

Resources are available on the [GSA webpage](#) for BPAs and, for NNSA staff, on the [NNSA portal](#). The Office of NEPA Policy and Compliance is updating a contracting page on the DOE NEPA Website and can assist in developing

a performance based work statement and related matters. Questions may be addressed to askNEPA@hq.doe.gov. 

What is a BPA under a GSA Schedule contract?

“A GSA Schedule BPA is an agreement established by a customer with a GSA Schedule contractor to fill repetitive needs for supplies or services (FAR 8.405-3). ...

“[A BPA] can use streamlined ordering procedures that allow for quicker turnarounds ... which ... reduces administrative costs and time.

“The strongly preferred approach is to competitively establish multiple BPAs and compete specific requirements among those BPA holders to award each order. ... [This] allows a simplified competitive procedure in which only the BPA holders (rather than all Schedule contractors) are considered.”

From [GSA Schedules, Frequently Asked Questions](#)

Company Name	BPA AWARD #
Small Business Teams	
Potomac Hudson Engineering	DE-NA0002902
S.S. Papadopoulos Associates, Inc.	DE-NA0002938
Trinity Engineering Associates, Inc.	DE-NA0002940
SC&A, Inc. <i>Subcontractors:</i> ICF Jones & Stokes, Inc.; Rivers Consulting, Inc.; Tetra Tech, Inc.	DE-NA0002941
SOLV LLC	DE-NA0002942
Alliant Corporation <i>Subcontractors:</i> CDM Federal Programs Corporation (CDM Smith); Ecology & Environment Inc. (E&E); ERM-West, Inc.; Navarro Research & Engineering Inc.	DE-NA0002965
Toeroek Associates, Inc. <i>Subcontractors:</i> JAD Environmental, LLC; New West Technologies, LLC; Rivers Consulting, Inc.	DE-NA0003003
Large Business Teams	
Leidos, Inc. <i>Subcontractors:</i> Los Alamos Technical Associates, Inc.; Potomac Hudson Engineering	DE-NA0002564
Tetra Tech, Inc. <i>Subcontractors:</i> Rivers Consulting, Inc.; SC&A, Inc.; TechSource Inc.; Van Citters: Historic Preservation, LLC	DE-NA0002994

Cooperating Agencies Contribute to Most DOE EISs

During fiscal year 2016, cooperating agencies participated in the preparation of 21 of the 23 ongoing EISs for which DOE was the lead or co-lead agency. In addition, 7 of the 17 EAs that DOE completed during the year were prepared with cooperating agencies. These are among the findings in DOE's latest Cooperating Agency Report to the Council on Environmental Quality (CEQ), submitted in January.

CEQ [guidance](#) identifies the benefits of involving cooperating agencies, including disclosure of relevant information early in the analytical process, access to technical expertise and staff support, avoidance of duplicative reviews, and facilitating the resolution of inter- and intra-governmental issues.

This annual report is part of CEQ's continuing effort to encourage federal agencies to involve cooperating agencies – at the federal, state, local, and tribal levels – in NEPA reviews. (A federally recognized tribe may engage through

government-to-government consultation, in addition to or in place of participating as a cooperating agency.)

CEQ asks agencies to identify, in their annual reports, the reasons for not establishing a cooperating agency relationship or terminating one before completing an EIS. In DOE's 2016 report, for one supplemental EIS, no agencies were identified with jurisdiction (such as permitting or licensing authority) over an aspect of the proposal or special expertise with respect to environmental issues. In other cases, a governmental entity declined a cooperating agency invitation because it preferred a consulting or commenting role, or lacked resources to join in the preparation of the EIS.

For a copy of DOE's report or additional information, contact Yarden Mansoor, Office of NEPA Policy and Compliance, at yarden.mansoor@hq.doe.gov. 

CEQ Compiles 4 Years of Cooperating Agency Data

The *Fourth Report on Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act* (October 2016) is posted on the CEQ website. It reports that 64 percent of DOE lead or co-lead EISs initiated during fiscal year 2012 through fiscal year 2015 were (or are being) prepared with cooperating agencies, compared to 52 percent for all federal agencies. Also, 24 percent of DOE EAs completed during this period were prepared with cooperating agencies,

compared to 7 percent for all agencies. The CEQ report notes that some agencies have no cooperating agencies in their EISs, while others have 100 percent participation and explains this broad range as follows: "The fluctuations that we see in use of formal cooperating agreements may be due to variations in project type, rather than agency choice not to formalize cooperating agency agreements. With projects that are narrow in scope there are fewer opportunities to utilize cooperating agencies."

Transitions: Welcome to a New NCO

Strategic Petroleum Reserve Project Management Office: Steve Reese

Stephen (Steve) Reese joined DOE in January as the new NCO for the Strategic Petroleum Reserve Project Management Office, which oversees four Texas and Louisiana sites with underground caverns for storing emergency supplies of crude oil owned by the U.S. Government. His duties include oversight of the office's Pollution Prevention/Waste Management Program. Mr. Reese previously served for 8 years as Safety Health & Environmental Manager with the U.S. Environmental Protection Agency's Region 6 Environmental Services Branch. Prior civil service included program management for NEPA, cultural resources, historic properties, solid waste, pollution prevention, and spill prevention, control, and countermeasure at Red River Army Depot in Texarkana, Texas. In addition, he performed industrial hygiene duties at the 926th Fighter Wing, Air Force Reserve Command in New Orleans. Mr. Reese maintains his Certified Hazardous Materials Manager credentials and received an undergraduate degree from Southeastern Louisiana University and a graduate degree from Tulane School of Public Health and Tropical Medicine. He can be reached at stephen.reese@spr.doe.gov or 504-734-4404.



Farewell to Carol: DOE's "Spirit of NEPA" Endures

After serving as Director of DOE's Office of NEPA Policy and Compliance for almost 30 years, Carol Borgstrom retired on February 3, concluding a distinguished federal career. Fondly referred to by many as DOE's "spirit of NEPA," she leaves a legacy of commitment to NEPA excellence, transparency, collaboration, and public involvement.

A Legacy of Achievement

Ms. Borgstrom began her career preparing EISs for two engineering consulting firms before joining, in 1976, the Federal Energy Administration, which became part of DOE when it was created in 1977. In 1988, she joined the Senior Executive Service and became Director of the then-named Office of NEPA Policy and Assistance. In 1995, Ms. Borgstrom received the Presidential Rank Award of Distinguished Executive, the nation's highest civil service award.

During her tenure as Director of the NEPA Office, Ms. Borgstrom advised and assisted staff and managers throughout the DOE Complex in complying with NEPA requirements effectively and efficiently. She led a staff of environmental protection specialists in reviewing more than 100 EISs. Ms. Borgstrom oversaw the development of the Department's NEPA regulations (10 CFR Part 1021), more than 30 guidance documents, and 90 issues of *LLQR*.

As part of her commitment to transparency, Ms. Borgstrom advocated for DOE to post its categorical exclusion (CX) determinations online, setting a new standard for openness in NEPA. In addition, under her leadership, DOE created a comprehensive database of its CX determinations and made it publicly available on the DOE NEPA Website.

Ms. Borgstrom's impact on the NEPA process extends well beyond DOE; she is a recognized expert in the federal NEPA community. In 2010, Ms. Borgstrom participated in the NEPA

40th Anniversary Symposium as the only current federal employee on the panel. She spoke of the Department's efforts to foster public participation in the NEPA process.

Recognition

Under Ms. Borgstrom's leadership, the NEPA Office received awards, including a Federal Environmental Quality Award from the Council on Environmental Quality (CEQ) in 1995 for integrating environmental values in environmental decisionmaking, and reducing the cost and increasing the usefulness of environmental impact analysis. In 2000, the National Association of Environmental Professionals (NAEP) President's Award for Environmental Excellence, recognized DOE's in-depth NEPA lessons learned program to promote continuous improvement.

(continued, next page)



At her January 27th retirement celebration, Carol Borgstrom received a Secretary of Energy Exceptional Service Departure Award. Acting General Counsel John Lucas (right) and Deputy General Counsel Eric Fygi presented the award.

Secretary of Energy Exceptional Service Departure Award

Carol M. Borgstrom is hereby awarded the Secretary of Energy Exceptional Service Departure Award in recognition of 42 years of outstanding Federal service at the U.S. Department of Energy and its predecessor, the Federal Energy Administration. Leading the Department's Office of NEPA Policy and Compliance since 1988, Ms. Borgstrom has been a zealous champion of the National Environmental Policy Act (NEPA) process as a means to protect the environment and human health, promote transparency, and improve Department decisionmaking.

Her leadership has facilitated the successful completion of the Department's most complex projects. She has led a community of Department NEPA practitioners, overseen the development of the Department's NEPA regulations and related guidance, and contributed to innumerable interagency initiatives to improve the NEPA process. Under Ms. Borgstrom's leadership, the Office of NEPA Policy and Compliance has received awards for its contributions to NEPA. She is recognized as an expert in the Federal NEPA community. Throughout four decades of service, Ms. Borgstrom has maintained the highest level of integrity and demonstrated unwavering commitment to the "Spirit of NEPA."

Because of her outstanding leadership, sound advice, intelligence, strength of character, and dedication to the public interest, Carol M. Borgstrom embodies the highest traditions and ideals of public service.

Farewell *(continued from previous page)*

NAEP recognized the NEPA Office again in 2006 with a Special Achievement Award for *NEPA 35: Spotlight on Environmental Excellence*, a conference developed in partnership with CEQ in 2005. The conference included more than 260 NEPA practitioners from over 50 agencies and organizations; high-level officials from federal, state, and tribal organizations, and Members of Congress to commemorate the 35th anniversary of NEPA.

Fortunately, her sound advice and enthusiasm will live on in DOE's extensive *LLQR* archive. Excerpts to encourage and guide the DOE NEPA Community are captured below:

Carol's thoughts

...on DOE's NEPA Compliance Officers

"NCOs are the heart and soul of the Department's NEPA compliance program and the agency's conscience. NCOs are also the brains behind effective NEPA compliance, and are a valuable resource for the Department."

"NCOs are leaders in helping DOE achieve timely and excellent NEPA compliance in support of program missions. ... DOE is well served by this cadre of NCOs."

...on the benefits of NEPA

"Thoughtful consideration of comments may result in a better decision and improved DOE credibility with its stakeholders, increasing the likelihood of successful project implementation. Good responses help the public know its voices were heard and can enhance public understanding of DOE activities."

"Good decisionmaking is why NEPA matters."

...on how to improve going forward

"Can we make the NEPA process even cheaper, faster, and more useful? Going forward it will be important to think about how DOE can streamline project approvals while safeguarding the environmental values at the core of NEPA review, and without diminishing the public's role or increasing litigation risks."

"Expediting schedules and improving quality is applicable to all projects... We must do more, better, faster, and cheaper. How do we do this? My answer is to do it smarter, through more concerted work effort, vigorous oversight, and timely support from many offices."

"Improving NEPA is a continuous process, and we're always interested in both new ideas and reassessing older ones."

"Continue to communicate needs and ideas for additional guidance. Remember to take advantage of the flexibility inherent in NEPA and its implementing regulations. Stretch NEPA, but don't break it."

"We in the DOE NEPA Community will be called on to support DOE decisionmaking processes with high quality analysis delivered in a timely fashion. We need to apply NEPA lessons learned to meet this challenge."

Ms. Borgstrom will continue to live in Alexandria and hopes to spend more time at Black Dog Farm (property she and her husband, Howard, own on the Shenandoah River) hiking and kayaking, and working in the garden and orchard. They also plan to travel and spend more time with their children and grandchildren in Dallas and Philadelphia.

On behalf of DOE's NEPA Community, the Office of NEPA Policy and Compliance thanks Carol for her leadership, service, and outstanding contributions to the Department's NEPA program. We have all benefited from her high standard of quality, her commitment to NEPA excellence, and her dedication to the letter and spirit of NEPA. We wish her a long and fulfilling retirement.

Tributes to Carol upon Her Retirement

Friends, colleagues, and associates of Carol Borgstrom gathered on January 27th at the Forrestal Building to celebrate her long and distinguished career. In a heartfelt tribute, many colleagues (at the gathering or writing in) recognized Carol's contributions and leadership.

Ted Boling, Acting Chairman, Council on Environmental Quality (CEQ): “You have been an invaluable leader in the community of Federal NEPA Contacts, serving as an expert in the profession of environmental impact assessment and a moral compass for the Federal family of NEPA professionals. . . . You have shown a deep commitment to better decisions, based on better documents, that has made NEPA count at the Department of Energy.”

Horst Greczmiel, former CEQ Associate Director for NEPA Oversight: “Your career is a shining example of what it means to be a dedicated public servant. In addition to training and filling the ranks of the NEPA ninjas you demonstrated the value of empowering others. . . . You have my enduring respect and thanks for those many calls when you gave your time, shared lessons learned, and provided insights on how we could be better public servants and defenders of NEPA.”

Dinah Bear, former General Counsel, CEQ: She “has been a bedrock of devotion to NEPA, to the public good, and to common sense and good leadership.”

Cathy Bohan, NCO, Office of Environmental Management: Carol’s “approval is hard-earned and valued.”

Ellen Smith, Oak Ridge National Laboratory: “Your hard work and your idealistic commitment to ‘doing the right thing’ have had a tremendous impact in the Department of Energy.”

Sarah Biegel, NCO, Bonneville Power Administration: “You embody the true spirit of NEPA by exhibiting the hope that its authors intended; a hope for a better environment in which we all thrive.”

Anne Norton Miller, former Director, Office of Federal Activities, Environmental Protection Agency: “You are also

to be commended for your strong support for the interagency efforts with NEPA and especially for your NEPA conferences, which were excellent, your support of the NEPA task forces, and the DOE NEPA *Lessons Learned Quarterly Report*. Your efforts and those of your staff have been invaluable to the NEPA community and to the environment nation-wide.”

Jim Sanderson, NEPA Office, led a toast: “Carol, you are leaving DOE a better place than when you found it, and your legacy will endure for years to come. We will miss you as our colleague and friend, a wise counselor and leader, and indeed a great lady. Remember us fondly, and may the years that lie ahead be filled with even more dreams achieved.”

Andy Lawrence, a long-time colleague and Deputy Associate Under Secretary for Environment, Health and Safety, read a poem he wrote at Carol’s retirement celebration.

From “Onward Carol Borgstrom”

...
*For she's been the pillar of DOE's NEPA success
And how we'll keep up our record is anyone's guess
For she could take draft EISs as they came in on the fly
And turn them into sonnets that would make Shakespeare cry*
...
*Yet despite her accomplishments from A to Z
And the lasting effects of her legacy
She wonders what we're all making such a fuss for
Even though she's a shoo-in for NEPA's Mount Rushmore*
...
*We will try to carry on the very best we can
To find that elusive harmony between environment and man
But the NEPA world will miss you as you can plainly see
And you'll always remain in our hearts here at DOE.*

Carol through the Years

Carol Borgstrom led the DOE NEPA Program for almost 30 years. Some memorable moments captured throughout her tenure as Director of the NEPA Office include speaking to DOE's NCOs (on many occasions), an onsite visit to the Waste Isolation Pilot Plant, a tour of the site for the (then proposed) Yucca Mountain geologic repository, and receiving an award for the NEPA Office from the National Association of Environmental Professionals.



NEPA Office Transitions: Farewell to Vivian Bowie

In December, Vivian Bowie retired after a 25-year federal career with the Department of Energy. She joined the Office of Environmental Compliance in 1991 and served as a Division Director from 1995-1998 before transferring to the Office of NEPA Policy and Compliance.

Ms. Bowie made substantial contributions as the NEPA Office reviewer for a number of DOE's major EISs, primarily for the Office of Environmental Management and the former Office of Civilian Radioactive Waste Management. She helped bring long-running EISs to completion, including notably: the EISs for the Yucca Mountain geologic repository and rail alignment; the EIS for disposal of greater-than-Class C low-level radioactive waste; and most recently, the Uranium Leasing Program programmatic EIS. She also developed the metrics section for each issue of *LLQR*. Through her work on these and many other NEPA-related matters, she leaves a legacy of singular professional excellence.

She received a Distinguished Career Service Award upon her retirement, which stated, in part: "Finally, as both a manager and NEPA specialist, she earned the genuine affection of her associates. Because of her pragmatic, analytically-sound advice, her intelligence, her strength of character, her no-nonsense approach, and her dedication to the public interest, Vivian Bowie embodies the highest traditions and ideals of public service."

Vivian earned the respect and admiration of her colleagues through her dedication to the spirit of NEPA. In a poem titled How Can We Live without Viv, Andy Lawrence (Vivian's supervisor during her years in the Office of Environmental Compliance) paid tribute to the many additional reasons we will miss her, including her good humor and hard work. The NEPA Office, on behalf of the DOE NEPA Community, appreciates Vivian's many contributions to sound NEPA compliance and offers best wishes for her future.



Kedric Payne, former Deputy General Counsel for Environment and Compliance, presented the Distinguished Career Service Award to Vivian Bowie.

Words of Wisdom from a "NEPA Ninja"

I would like to share five basic principles that have always served me well as a "NEPA ninja."

1. **Start planning for projects early.** It is important to define your project, when you need to complete it, and who you need to be involved in the decisionmaking process.
2. **Consider all input.** It is possible to gain insight from a variety of resources. For those who interact with very young children, it's phenomenal how many times a toddler can provide a question or alternative to a situation that has the potential to resolve an issue.
3. **Stay open to the need for change.** Being flexible allows for making things fit as projects progress.
4. **Play a role of coordinator, not dictator.** Listen to input provided by your experts and other persons knowledgeable about the project and its environment.
5. **Stay positive.** A positive attitude conveys positivity to those around you. This position has always worked for me and seems to defuse stress.

I have found my life in the NEPA Office to be challenging, fulfilling, and tiring. Life as a NEPA ninja allowed me to experience complex situations, grow, and get better at processing information. I've learned that one size does not fit all situations. Even though environments may be similar, stakeholders are usually different and time and changes in policies can also impact the direction of projects. I will miss working with my NEPA community family and wish all the best for future DOE NEPA projects.

— Vivian Bowie

More Transitions: NCO Retirements

Idaho Operations Office: Jack Depperschmidt

Jack Depperschmidt retired from the Idaho Operations Office in December after 25 years with DOE. He was the Deputy NCO for 6 years before becoming the NCO in 2004. For the Idaho Operations Office, he guided major EISs for waste and materials treatment, management, and disposition, as well as many EAs. He also contributed insights and recommendations to NEPA rulemakings, guidance, the lessons learned program, and DOE-wide NEPA contracts. He also was responsible for overseeing the management of natural resources at the Idaho National Laboratory.

In reflecting on Jack's contributions, his supervisor, Richard Kauffman, Environmental Resources Team Lead at the Idaho Operations Office, shared that he "mentored new staff and contractor counterparts, and collaborated on innovative solutions to avoid undesirable outcomes that mutually benefited the environment and operational missions. His willingness and ability to share and guide others without concern for position or status showed great self-confidence and selflessness that afforded those he mentored with greater ability and potential. His successes were the result of an ability to bring people and organizations with diverse viewpoints and expected outcomes to a common understanding." Through his career, Jack created a lasting legacy by having a positive impact on the Sage Brush Steppe environment.

Jack jokingly claimed that "he was a trial for those who worked with him" and that a "collective sigh of relief was exhaled by ID and HQ personnel when he walked out the door." On the contrary, those who had the privilege of working with him will greatly miss his environmental expertise, collegiality, integrity, and lighthearted sarcasm. On behalf of the DOE NEPA Community, the NEPA Office offers Jack best wishes for his future endeavors and adventures.

Jason Sturm (sturmjr@id.doe.gov or 208-526-2493) and Richard Kauffman (kauffmrm@id.doe.gov or 208-526-7177) continue to serve as NCOs for the Idaho Operations Office.

National Nuclear Security Administration: Mary Martin

Mary Martin, NCO for the National Nuclear Security Administration (NNSA), retired in February. Designated as an NCO in 2008, she supported NNSA's NEPA activities, including work on the EIS for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory; the Complex Transformation Supplemental Programmatic EIS; and the site-wide EISs for Los Alamos, Lawrence Livermore, and Sandia National Laboratories; the Y-12 Site-wide EIS; and other highly complex NEPA documents. Ms. Martin was an active contributor to the DOE-wide NEPA contracts acquisition planning, revision of the DOE NEPA regulations, and NEPA guidance efforts. In 2008, then NNSA Administrator Thomas P. D'Agostino acknowledged her NEPA work, particularly her efforts to help develop an approach for terrorist threat analysis in EISs, stating that she was "setting the standard in this new area."

Mary, her husband, and their beloved dogs plan to retire at their farm in Virginia. On behalf of the DOE NEPA Community, the Office of NEPA Policy and Compliance offers congratulations on her retirement, appreciation for her many contributions, and best wishes for her future endeavors.



Jack is already enjoying retirement by skiing in Yellowstone National Park.

EAs and EISs Completed October 1 to December 31, 2016

EAs^{1,2}

Bonneville Power Administration

[DOE/EA-1961](#) (12/30/16)

Kalispell-Kerr Transmission Line Rebuild Project,

Kalispell and Polson Counties, Montana

Cost: \$492,000

Time: 45 months

[DOE/EA-2054](#) (12/29/16)

EA to Analyze Impacts of a NOAA's National Marine Fisheries Service Determination to Issue Section 10 Permits for the Continued Operation of Eight Hatchery Programs within the Tucannon, Grande Ronde, and Imnaha River Basins, Northeast Oregon, Southeast Washington

EA was adopted; therefore, contractor cost and time data are not applicable to DOE. [National Oceanic and Atmospheric Administration (NOAA) was the lead agency.]

Office of Energy Efficiency and Renewable Energy

[DOE/EA-2020](#) (12/22/16)

Final Rule, 10 CFR Part 435, "Energy Efficiency Standards for New Federal Low-Rise Residential Buildings' Baseline Standards Update"

(RIN 1904-AD56)

Cost: \$4,600

Time: 18 months

Office of Fossil Energy

[DOE/EA-1963](#) (12/16/16)

Elba Liquefaction Project, Chatham, Hart, Jefferson and Effingham Counties, Georgia; and Jasper County, South Carolina

EA was adopted; therefore, contractor cost and time data are not applicable to DOE. [Federal Energy Regulatory Commission (FERC) was the lead agency; DOE was a cooperating agency.]

[DOE/EA-2055](#) (12/19/16)

Freeport LNG Capacity Uprate Project,

Brazoria County, Texas

EA was adopted; therefore, contractor cost and time data are not applicable to DOE. [FERC was the lead agency; DOE was a cooperating agency.]

Strategic Petroleum Reserve Project Office/ Office of Fossil Energy

[DOE/EA-2040](#) (12/21/16)

Strategic Petroleum Reserve Repair/Enhancement of Access to Remote Pipeline Valve Stations, West Hackberry, Calcasieu and Cameron Parishes, Louisiana

Cost: \$99,500

Time: 8 months

Western Area Power Administration

[DOE/EA-2016](#) (11/10/16)

Willow Creek Wind Energy Facility,

Butte County, South Dakota

EA preparation cost was paid by the applicant; therefore, contractor cost is not applicable to DOE.

Time: 17 months

EISs

No EISs were completed during this quarter.

¹ EA and finding of no significant impact (FONSI) issuance dates are the same unless otherwise indicated.

² For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Scoping

What Worked

- *Conducting scoping for an EA.* Although not required for an EA, holding two scoping meetings at the beginning of the NEPA process allowed landowners to discuss alternatives with staff early in the facility design process. Through the early interaction, design adjustments were made and included in the draft EA. Based on several dozen comments received and the level of issues raised during scoping, DOE determined that no public meetings were needed when it released the draft EA, which saved time and money.

Data Collection/Analysis

What Worked

- *Multiple uses of data collection.* The collection of preliminary site evaluations, site characterizations, and field studies initiated by an applicant before the NEPA process began allowed for not only the focused analysis of site-specific impacts, but also the development of a Bird and Bat Conservation Strategy Plan.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Close coordination with project proponents and consultants.* Holding biweekly conference calls among the DOE NEPA team, the project proponents, and consultants to ensure communication and progress led to early awareness of upcoming project changes and the requisite adjustments to data collection and analysis that otherwise would have delayed the NEPA process.
- *Working with experienced contractors.* Working with experienced contractors allowed DOE staff to focus their time on larger issues such as obtaining permission to enter property for surveys or tribal consultation rather than spending additional time on document structure and writing style.

- *Review of small sections of the EA.* DOE NEPA staff and contractors concurrently reviewed small sections of the NEPA document as they were completed rather than waiting for a complete draft to be finished. This strategy kept review time to a minimum and spread out the review process, allowing staff to remain on top of their other assigned duties.

Factors that Inhibited Timely Completion of Documents

- *Lack of funding.* Capital funding constraints resulting from construction delays on other projects delayed project planning and design work, which delayed completion of the NEPA process.
- *Turnover of key contractor staff.* High turnover of key contractor personnel led to quality control issues that were eventually worked through but cost additional time and money.

Teamwork

Factors that Facilitated Effective Teamwork

- *Close coordination with realty staff and survey contractors.* Multiple landowner issues – large number of landowners, inaccurate property ownership records, and multiple individuals owning a single property – required NEPA staff to work closely with the Realty Specialists and surveying contractors to prioritize field surveys and maximize the amount of survey area completed per field crew mobilization.
- *Assigning small groups specific tasks.* The NEPA project manager assigned small groups of subject matter experts to address specific issues that arose during planning.

What Worked and Didn't Work (continued from previous page)

Process

Successful Aspects of the Public Participation Process

- *Better outcomes for all through dialogue.* Public participation through scoping and one-on-one interactions with property owners and regulatory agencies led to several changes in the project design to better accommodate landowners' needs, such as relocating structures to reduce conflicts with farming and irrigation operations, and minimize natural resource impacts.

Usefulness

Agency Planning and Decisionmaking: What Worked

- *Application of a programmatic EIS.* The EA was tiered from a programmatic EIS, which allowed NEPA staff and its contractors to incorporate by reference the analysis of non-site-specific resource impacts and focus their efforts for the EA on site-specific resource impact analyses.

Enhancement/Protection of the Environment

- *Protection of biological and archeological resources.* Surveys identified bird migration corridors where bird flight diverters could be installed to minimize bird collisions with the transmission line. Surveys also revealed previously unidentified archeological sites that were avoided through minor design changes.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to protection of the environment.

For the past quarter, in which 4 EA questionnaire responses were received, 3 respondents rated the NEPA process as "effective."

- A respondent who rated the process as "5" stated that the tiered NEPA process was an important planning tool because it allowed the document to focus detailed analysis on site-specific issues, while also referencing the more general analysis in the PEIS.
- A respondent who rated the process as "3" stated that the NEPA process led to the protection of biological and archeological resources.
- A respondent who rated the process as "3" stated that due to the nature of the project and very limited alternatives, the EA was done as part of the process to help coordinate interaction with the various resource agencies with regulatory authority.
- A respondent who rated the process a "1" stated that federal building rulemakings are designed to have no detrimental effects and support a finding of no significant impacts determination, making a full EA unnecessary.

NEPA Document Cost and Time Facts¹

EA Cost and Completion Times

- For this quarter, the median cost for 3 EAs for which cost data were applicable was \$100,000; the average was \$199,000.
- For this quarter, the median completion time for 4 EAs for which time data were applicable was 18 months; the average completion time was 22 months.
- Cumulatively, for the 12 months that ended December 31, 2016, the median cost for the preparation of 9 EAs for which cost data were applicable was \$200,000; the average was \$313,000.
- Cumulatively, for the 12 months that ended December 31, 2016, the median completion time for 14 EAs for which time data were applicable was 17 months; the average was 23 months.

EIS Cost and Completion Times

- There were no EISs completed during this quarter.
- Cumulatively, for the 12 months that ended December 31, 2016, the median cost for the preparation of 4 EISs for which cost data were applicable was \$5,410,000; the average was \$6,060,000.
- Cumulatively, for the 12 months that ended December 31, 2016, the median completion time for 4 EISs for which time data were applicable was 65 months; the average was 65 months.

¹ For EAs, completion time is measured from EA determination to final EA issuance; for EISs, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

LESSONS LEARNED

June 2017; Issue No. 91

Second Quarter FY 2017

To better understand lessons learned during the NEPA process, Office of NEPA Policy and Compliance staff interviewed NEPA Compliance Officers, NEPA Document Managers, and contractors who recently completed environmental assessments (EAs). The two resulting articles below demonstrate how NEPA practitioners adapt to new information and challenges to help support DOE's decisionmaking.

Efforts to Identify Stakeholders and Address their Concerns Builds Trust in NEPA Process

During a 2-year delay after scoping had been completed for the Bonneville Power Administration's (BPA's) *Kalispell-Kerr Transmission Line Rebuild Project Environmental Assessment* (DOE/EA-1961; 2016), BPA staff took the opportunity to continue work with landowners to better accommodate farming and irrigation operations by adjusting the proposed location of access roads and wood pole structures. BPA realty specialists also utilized the extra time to identify the correct landowners for Indian tribal allotment lands. These steps helped save time and cost later in the NEPA process.



The EA cover photo depicts the transmission line corridor.

Project Objectives

BPA owns and operates more than 15,000 circuit miles of high-voltage transmission lines in its service territory (Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah, and Wyoming). The transmission lines move most of the Northwest's

high-voltage power from facilities that generate the power to users throughout the region. The Federal Columbia River Transmission System Act directs BPA to provide safe and reliable power and transmission service to its customers.

(continued on page 3)

Early Outreach to Permitting Agencies Speeds Up an EA

The U.S. Strategic Petroleum Reserve (SPR) is the largest government-owned stockpile of emergency crude oil in the world. Established in the aftermath of the 1973–74 oil embargo, the SPR provides the President with a response option should a disruption in commercial oil supplies threaten the U.S. economy. It is also the critical component for the United States to meet its International Energy Agency obligation to maintain emergency oil stocks.

Management Office (PMO) completed the *SPR Repair/Enhancement of Access to Remote Pipeline Valve Stations - West Hackberry EA* ("Remote Valve Station Access EA," DOE/EA-2040) in December 2016 to analyze proposed access improvements to four remote valve stations for the SPR pipeline in southwestern Louisiana.

Project Objectives

Pipeline leaks and spills are managed through equipment located in valve stations at regular intervals along the pipeline

(continued on page 4)

Inside *Lessons Learned*

Welcome to the 91st quarterly report on lessons learned in the NEPA process. This issue highlights lessons learned shared by a NEPA Document Manager, a NEPA Compliance Officer, and others involved in the completion of two recent EAs. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Brian Costner
Acting Director
Office of NEPA Policy and Compliance

Be Part of Lessons Learned

We Welcome Your Contributions to *LLQR*

Send suggestions, comments, and draft articles, especially case studies on successful NEPA practices, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Quarterly Questionnaires Due August 1, 2017

For NEPA documents completed April 1 through June 30, 2017, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) as soon as possible after document completion, but not later than August 1. Other document preparation team members are encouraged to submit a questionnaire, too. Contact askNEPA@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* and the Lessons Learned Questionnaire are available on the DOE NEPA Website at energy.gov/nepa. To be notified via email when a new issue is available, send your email address to yardena.mansoor@hq.doe.gov. (DOE provides paper copies only on request.)

Email Updates

Subscribe [here](#) to receive emails announcing the availability of DOE NEPA documents and notices on the DOE NEPA Website.

500 Cities Project Provides Local Health Data

Data about local health conditions may be helpful when characterizing the affected environment and potential health impacts in a NEPA review. A common example is the prevalence of asthma, which may be important to understanding potential impacts associated with particulate emissions, such as from a construction project. One source for this type of data is the [500 Cities Project: Local Data for Better Health](#).

The 500 Cities Project includes an interactive public website that provides city- and census tract-level estimates for 27 chronic disease measures for 500 cities in the United States. This project provides the “first-of-its kind data analysis to release information on a large scale for cities and for small areas within cities,” explains the Centers for Disease Control and Prevention (CDC) on the [project website](#).

The project includes data for the 497 largest U.S. cities and, to ensure that cities from all 50 states are included, also provides data from the largest cities in Vermont, West Virginia, and Wyoming. The data includes [27 chronic disease measures](#) grouped into three categories: health outcomes, prevention,

and unhealthy behaviors. These data can be used to identify the health issues facing a city or neighborhood, identify emerging

health problems, establish health objectives, and develop and implement targeted prevention activities, CDC explains.

There are a few limitations to the data produced by the 500 Cities Project. CDC explains on the project website that the data can only compute estimates for adults 18 years old and over, and the initial release of the 500 Cities Project does not include any stratifications by race and ethnicity. Therefore, results from the 500 Cities Project may need to be supplemented with detailed local information, experience, and other resources.

The 500 Cities Project is a collaboration of CDC, the Robert Wood Johnson Foundation, and the CDC Foundation. 



Builds Trust in NEPA Process *(continued from page 1)*

The 41-mile-long Kalispell-Kerr transmission line in rural Montana was constructed in 1947. To ensure system reliability and meet current industry standards, replacement of the transmission line was necessary. In addition, access roads were in poor condition; water controls such as culverts needed replacing; and overgrown vegetation needed clearing to ensure safe access to each transmission structure for ongoing maintenance and emergency repairs.

NEPA Strategy in Action

BPA NEPA Document Manager Justin Moffett was actively involved in the Kalispell-Kerr Transmission Line Rebuild Project from the beginning: forming the NEPA team, serving as the environmental compliance lead in larger meetings with management and the transmission line design team, drafting an initial schedule, and discussing strategy and next steps with BPA NEPA Compliance Officer Stacy Mason and the Public Affairs staff.

Even though public scoping is not required for EAs, Mr. Moffett recommended that BPA conduct two scoping meetings to ensure affected landowners and other interested members of the public were informed of and could provide comments on the proposed project. Landowners were generally supportive, he recalled, and they asked BPA staff to consider relocating transmission line pole structures to improve views and accommodate farming and irrigation practices, and relocate access roads farther from their houses to lessen noise and protect privacy.

The BPA design team honored requests when possible within the technical design constraints. To alleviate landowner concerns that all-terrain vehicle riders used access roads to trespass on private property, BPA incorporated additional gates along the access roads. Mr. Moffett noted that based on the outcome of the scoping process, BPA determined that no public hearings were needed for the draft EA – a decision that saved BPA time and money.

Work Continued with Funding Restrictions

BPA normally initiates the NEPA process for a transmission line project when design is 30–50 percent complete. Due to capital funding constraints resulting from construction delays on other transmission projects, BPA postponed planning and construction for the Kalispell-Kerr project for one year. The project was delayed a second year due to the process to implement Section 106 of the National Historic Preservation Act. While the lack of funding necessitated that the design and survey work temporarily stop, the realty, tribal consultation, and environmental review processes continued.

Realty specialists were responsible for contacting hundreds of landowners to secure permission to enter property to complete environmental surveys. Old and inaccurate records delayed the identification of the correct landowners, particularly on tribal lands. About 14 miles of the project, affecting approximately 155 acres, passes through the Confederated Salish and Kootenai Tribes' Flathead Indian Reservation. Realty specialists worked with the Department of the Interior's Bureau of Indian Affairs to identify the tribal landowners necessary to secure permission to enter the property to complete survey work.

BPA's transmission lines need to stay compatible with the public, private, and tribal lands they cross. So when it comes to issues such as changing land use, which is not addressed in a formal regulatory process, the NEPA review provides a way for the public to make known their issues of concern. BPA can then document in the EA how this information influenced the decisionmaking process, which ultimately builds trust between BPA and its stakeholders.

— Justin Moffett, NEPA Document Manager, BPA

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Tribal Land Ownership

Identifying landowners on tribal lands can be particularly complicated due to the legacy of the General Allotment Act of 1887. The Act's purpose was to reduce collective land ownership on tribal lands by authorizing the survey and division of certain tribal lands into 40 to 160 acre parcels (or allotments) for individual Indians. Initially, federal law did not provide a mechanism for allottees to transfer their ownership upon death (i.e., through will), and even when this changed in 1910, few did so because of unfamiliarity with property law. Therefore, when the allottee died, default state intestate succession rules applied, which provided that each of their heirs inherited an equal, undivided share of ownership, meaning each heir had an equal right to use of the entire property. According to the Department of the Interior, this resulted in smaller and smaller undivided interests descending to successive generations. Many allotments now have hundreds and even thousands of individual owners. In order to make decisions regarding the use of a given tract of fractionated land, a required percentage of individual owners must consent to the decision. [See: <https://www.doioig.gov/sites/doioig.gov/files/WR-EV-BIA-0002-2010Public.pdf> and <https://www.doi.gov/buybackprogram/FAQ>]

Lessons Learned from Recent NEPA Reviews

Builds Trust in NEPA Process *(continued from previous page)*

Another process that benefited from the additional time was the tribal consultation. The Tribes initially suggested that they undertake the cultural resources surveys themselves. However, after discussions regarding tribal staff capacity to conduct the work, BPA hired a private consultant that tribal staff accompanied during the surveys.

BPA staff also used the additional time to resolve the substantive issues prior to completing the draft EA. Changes in response to comments on the draft EA were minor, and BPA was able to issue an abbreviated final EA consistent with an approach described in Council on Environmental Quality NEPA regulations (40 CFR 1503.4(c)).

“BPA considers whether an abbreviated final [EA] is appropriate on a case-by-case basis,” explained Ms. Mason. An abbreviated final EA saves time and money, she said, and often can be easier for both the decisionmaker and the public

to review as “it is straight to the point on what minor changes were made.” However, even if changes from the draft are minor, she continued, “there are some documents in which a full final [EA] works better.” She offered as an example that a complete document incorporating all changes can be an easier reference to use during a project with a long construction timeframe.

Mr. Moffett explained that retaining key NEPA contractor staff over the course of the project proved difficult not only because of the lengthy timeframe, but also because the initial contractor merged with another firm. Mr. Moffett noted that by the time the NEPA process was finished, there had been four different contractor project managers. While working with new contractor staff to orient them to the project takes additional time for BPA staff, Mr. Moffett stated that such situations are unavoidable and are handled as best as one can. **LL**

Remote Valve Station Access EA *(continued from page 1)*

route. Valve stations contain block valves, which can isolate a section of the pipeline for maintenance; devices that collect information about valve function, line pressure, and rate of flow; automatic leak-detection systems; and alarms that communicate the information to a central location in real time. Safe and unobstructed access to the valve stations is necessary for DOE personnel to conduct field inspections, regular maintenance, and emergency repairs.

The four remote valve stations evaluated in the EA are located adjacent to, and are only accessible from, the Gulf Intracoastal Waterway and walking paths overgrown with vegetation. The valve stations are located on elevated spoil banks created by the construction of the waterway, where access was difficult



The Office of Fossil Energy prepared an EA to evaluate the potential environmental impacts of proposed access improvements to four remote valve stations of the SPR pipeline that are only accessible from the Gulf Intracoastal Waterway.

and potentially hazardous for DOE personnel. Shallow water during low-water seasons, along with siltation and submerged rocks, presented navigational hazards. Due to continuing land loss and shoreline erosion, water often inundated walking paths to the valve stations located in the tidally influenced marshlands, resulting in uncertain footing.

The Remote Valve Station Access EA evaluated proposed actions to improve access to the valve stations by constructing elevated, galvanized steel boat landings and walkways connecting to walking paths that would be cleared of overgrown vegetation and resurfaced with gravel. The goals of the project were to improve safety for personnel and property, reduce costs and increase the efficiency of maintenance operations at the valve stations, and ensure future access to the valve stations.

NEPA Strategy and Processes Working Together

For then Acting NEPA Compliance Officer Will Woods, NEPA strategy and processes worked hand-in-hand. The strategy to complete the EA required close coordination between two distinctly different teams: the design engineers who determined the necessary infrastructure to meet the project’s goals and the NEPA contractors who analyzed and reported the potential environmental impacts in the EA.

As originally conceived, the Remote Valve Station Access EA was to analyze two separate projects: enhancing access to the remote valve stations, and repairing and replacing valves and other equipment at the valve stations. However, during internal

(continued, next page)

Remote Valve Station Access EA *(continued from previous page)*

scoping, SPR staff recognized that the repair and replacement work was needed independent of the enhanced access and appropriately fit within categorical exclusion B1.3, routine maintenance.

Mr. Woods explained that, based on field experience from the maintenance work, the design engineers realized that the equipment necessary to safely access the valve stations did not need to be as big as they had originally thought. By becoming more familiar with site conditions, design engineers were able to revise their original plans and reduced the footprint of the access equipment needed. This, in turn, reduced the project's cost and impact on biological resources.

Not having completed an EA on the SPR pipeline since the 2005 *Proposed Site Modifications at the SPR's West Hackberry Raw Water Intake Structure Site (DOE/EA-1523)*, Mr. Woods stated that the Remote Valve Station Access EA provided a good opportunity to review and update SPRPMO's NEPA processes. Work began by providing the NEPA contractor with the most recent *Supplement Analysis of the Site Specific and Programmatic EIS on the SPR: the 2014 Operational and Engineering Modifications and Regulatory Review (EIS-0075-SA-03)*. Using the information on the area's flora and fauna developed for the 2014 document, NEPA contractors were able to conduct biological surveys necessary for the Remote Valve Station Access EA in 2 days.

Coordination and Experience Proved Beneficial

SPRPMO Maintenance and Operations (M&O) contractor Gabriel Adams stated that the NEPA process provided a beneficial platform that DOE staff utilized to coordinate

with federal, state, and local permitting agencies, particularly the Louisiana Department of Natural Resources and the U.S. Army Corps of Engineers, which jointly issue the federal consistency determination for work within Louisiana's coastal zone under the Coastal Zone Management Act. At the beginning of the NEPA process, DOE staff asked agencies with permit authority for their input on the project and their interest in receiving a copy of the draft EA. Mr. Adams stated that because DOE understood and addressed permitting agencies' concerns early in the NEPA process, agencies submitted no substantive comments during the comment period on the draft EA.

Mr. Adams also explained that having an experienced subcontractor knowledgeable of the NEPA process was very helpful. After informing the subcontractor about the aspects of the NEPA process that are unique to DOE, and providing them with background guidance including DOE's NEPA implementing procedures (10 CFR Part 1021), the subcontractor completed all work in a timely and efficient manner. To facilitate teamwork between the NEPA subcontractor, design engineers, and DOE staff, periodic meetings were scheduled to provide the entire team with updates on outstanding issues and the schedule. During the initial scoping meeting with the subcontractor, it was decided that the subcontractor would provide portions of the EA (1 to 2 sections to start, and cumulative drafts after early sections had undergone review and comment) for internal review rather than waiting for the entire EA to be completed. Mr. Adams noted that the NEPA subcontractor would revise reviewed sections while DOE staff reviewed newly completed sections so work on the EA was never at a standstill. **L-L**

What is the Coastal Zone Management Act (CZMA)?

Established in 1972, the CZMA encourages coastal states to develop and implement Coastal Zone Management Plans, with the aim of preserving, protecting, developing, and restoring the coastal zone and coastal resources, while balancing the often competing and occasionally conflicting demands of coastal resource use, economic development, and conservation. Participation by states is voluntary and the Coastal Zone Management Program is administered by the National Oceanic and Atmospheric Administration (NOAA). To date, NOAA has approved the Coastal Zone Management Plans of 34 states.

The CZMA contains a "federal consistency provision," that requires federal agency activities that have reasonably foreseeable effects on state coastal zones to be consistent to the maximum extent practicable with the enforceable policies of a coastal state's federally approved coastal management program. This also applies to federally authorized and funded nonfederal actions.

See NOAA's [webpage](#) about the Coastal Zone Management Program for more information.

Earth Day 2017: “There Is No Planet B!”

DOE Headquarters celebrated the 47th anniversary of Earth Day from April 10 through 21 with the theme “There is no Planet B!” Exhibits showcased Departmental environmental activities, and DOE staff were offered the opportunity to tour environmental projects underway near the Forrestal Building.

DOE NEPA Success Stories

The NEPA Office’s poster (right) highlighted recent environmental success stories from across the Department. The office provided copies of *LLQR* and pointed visitors to the updated *NEPA Success Stories from Lessons Learned Quarterly Reports*, a collection of articles on NEPA’s contribution to the Department’s decisionmaking, including better informed decisionmaking, significant project cost savings, and improved environmental outcomes.



NEPA Success Stories

Long Baseline Neutrino Facility



DOE’s Fermi Site Office prepared an Environmental Assessment (EA) to support research on the role of neutrinos (tiny subatomic particles) in the universe. The EA preparation team received a Special Act Award from the Office of Science for their successful work on this unique project. (DOE/EA-1943, 2015)

Los Alamos National Laboratory



The Los Alamos National Laboratory Trails Management Program earned the National Association of Environmental Professionals’ Environmental Excellence Award for establishing a program (including an EA, Finding of No Significant Impact, and mitigation action plan) to balance recreational trail uses with environmental, cultural, safety, security, and operational concerns. (DOE/EA-1431, 2003)

Upper Great Plains Wind Energy



The Western Area Power Administration and the U.S. Fish and Wildlife Service jointly developed a programmatic Environmental Impact Statement to streamline NEPA review of wind power development in upper Midwestern states. Through the tiered project-level reviews, the lead agencies are already yielding immediate efficiencies. (DOE/EIS-408, 2015)



Tour of National Mall Upgrades

Mike Stachowicz, Turf Management Specialist from the National Park Service, led an hour-long tour on (and under) the National Mall, highlighting recently completed and ongoing work on water storage infrastructure.

Fuel Cell/Electric Car Demonstration

DOE employees and contractors were invited to test drive two fuel cell cars from the DOE fleet. The Fuel Cell Technologies Office also provided an introduction to fuel cell technology.



Tour of the Smithsonian Castle Gardens

Michael Riordan, Head Horticulturist of the Enid A. Haupt Garden from the Smithsonian Institution, led staff through the Moongate Garden during a tour of the Smithsonian gardens across the street from DOE Headquarters. [LL](#)

Transitions: New NCO

Office of Legacy Management: Joyce Chavez

Joyce Chavez was designated as a new NCO for the Office of Legacy Management (LM), where she also serves as the Reuse Asset Manager. Prior to joining DOE, she served as a NEPA program manager for the U.S. Air Force and as an environmental program manager for various programs with the U.S. Army and the U.S. Army Corps of Engineers. Ms. Chavez holds a Bachelor of Science degree in Biochemistry from the University of Colorado at Boulder. She can be reached at joyce.chavez@lm.doe.gov or 720-377-3820.

Joyce Chavez joins Tracy Ribeiro, who continues to serve as an LM NCO.

Richard Bush, who served as NCO since LM was established in 2003, no longer has NEPA responsibilities but will continue to serve as the Uranium Mill Tailings Radiation Control Act Program Manager.



Training Opportunities

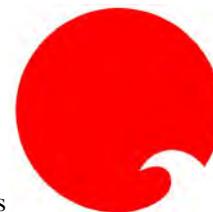
U.S. Institute for Environmental Conflict Resolution Collaboration in NEPA October 18–19; Phoenix, Arizona



The U.S. Institute for Environmental Conflict Resolution – a program of the Udall Foundation, an independent federal agency – is offering a 2-day course entitled “[Collaboration in NEPA](#),” which builds on guidance from the Council on Environmental Quality’s handbook, *Collaboration in NEPA*. The syllabus states that, “Participants will learn how to assess and plan for successful collaboration in NEPA processes using appropriate tools, techniques, and best practices. Participants also will develop a better understanding of the policy goals of NEPA and the benefits of using collaborative approaches to achieve those goals. This interactive and experiential training will include real-world NEPA case studies and skills practice and enable participants to analyze the potential and plan for collaboration in upcoming NEPA activities.”

NAEP Conference Abstracts and Environmental Awards Nominations Due September 15

The National Association of Environmental Professionals (NAEP) seeks abstracts for individual speakers, panels, and posters to be presented at its 43rd annual conference, which will be held March 11–14, 2018, in Tacoma, Washington. With the theme of *Sound Leadership in Environmental Adaptation and Resiliency*, the conference will cover NEPA and related subjects and is open to environmental professionals in all levels of government, academia, and the private sector. Abstracts are due by September 15, 2017, and may be submitted on the 2018 conference [webpage](#). Questions may be directed to Caroline Levenda at caroline.levenda@aecom.com or 312-697-7265.



NAEP also invites nominations for its annual Environmental Excellence Awards, which recognize outstanding NEPA achievements and exceptional performance in environmental management, stewardship, education, and other categories. The nominator and nominee need not be members of NAEP, and nominations may include projects or programs recognized by others. Award nominations are due by September 15 and may be submitted on NAEP’s awards [webpage](#). Questions may be directed to Abby Murray at 856-470-4521.

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

EAs and EISs Completed January 1 to March 31, 2017

For an EA, completion time is measured from EA determination to final EA issuance; the EA date is also the date of a finding of no significant impact (FONSI), unless otherwise indicated. For an EIS, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

EAs

Office of Electricity Delivery and Energy Reliability

DOE/EA-2019 (1/12/17)

Lake Erie Connector Project, Erie County, Pennsylvania

EA preparation cost was paid by the applicant; therefore, contractor costs are not applicable to DOE. Time: 13 months

Richland Operations Office

DOE/EA-2044 (1/6/17)

Energy Northwest WNP-1/4 Lease Renewal, Hanford Site, Washington, Benton County, Washington

EA preparation cost was paid by the applicant; therefore, contractor costs are not applicable to DOE. Time: 7 months

Strategic Petroleum Reserve Project Office/ Office of Fossil Energy

DOE/EA-2039 (2/9/17)

Brine Disposal Pipeline Replacement Project associated with the Strategic Petroleum Reserve, West Hackberry Facility, Cameron Parish, Louisiana

Cost: \$7,000
Time: 9 months

Western Area Power Administration

DOE/EA-2048 (1/13/17)

Olmsted Hydroelectric Power Plant Replacement Project, Utah County, Utah

EA was adopted; therefore, contractor cost and time data are not applicable to DOE. [Department of the Interior and Central Utah Water Conservancy District were lead agencies; DOE was a cooperating agency.]

EIS

Office of Fossil Energy

DOE/EIS-0501 (1/27/17)

(Draft EIS EPA Rating: EC-2)

Golden Pass LNG Export Project, Jefferson and Orange Counties, Texas, and Calcasieu Parish, Louisiana

EIS was adopted; therefore, contractor cost and time data are not applicable to DOE. [Federal Energy Regulatory Commission was the lead agency; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

- LO – Lack of Objections
- EC – Environmental Concerns
- EO – Environmental Objections
- EU – Environmentally Unsatisfactory

Adequacy of the EIS

- Category 1 – Adequate
- Category 2 – Insufficient Information
- Category 3 – Inadequate

(For an explanation of these definitions, see the EPA [website](#).)

NEPA Document Cost and Time Facts

EA Cost and Completion Times

- For this quarter, the cost for the EA for which cost data were applicable was \$7,000.
- For this quarter, the median completion time for 3 EAs for which time data were applicable was 9 months; the average completion time was 10 months.
- Cumulatively, for the 12 months that ended March 31, 2017, the median cost for the preparation of 6 EAs for which cost data were applicable was \$65,000; the average was \$139,000.

- Cumulatively, for the 12 months that ended March 31, 2017, the median completion time for 11 EAs for which time data were applicable was 14 months; the average was 18 months.

EIS Cost and Completion Times

- For this quarter, no EISs were completed for which DOE was the lead agency.
- For the 12 months that ended March 31, 2017, no EISs were completed for which DOE was the lead agency.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Schedule

Factors that Facilitated Timely Completion of Documents

- *Review of sections of the EA.* DOE NEPA staff and contractors concurrently reviewed sections of the EA as they were completed rather than waiting for an entire draft to be finished. This strategy kept review time to a minimum, allowing staff to remain on top of their other assigned duties.

Teamwork

Factors that Facilitated Effective Teamwork

- *Close coordination with project proponents and DOE NEPA team and contractors.* Holding several conference calls with the applicant early in the NEPA process ensured that the DOE NEPA team had an accurate description of the proposed project and that pertinent questions were answered before NEPA analysis moved forward.
- *Regular discussions between DOE NEPA team and NEPA contractors.* Regularly scheduled conference calls and meetings allowed the DOE NEPA team and NEPA contractors to clarify the scope of the proposed project, coordinate project site visits, discuss the approach for NEPA analysis, and review working drafts of EA sections.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to the environment.

- For the past quarter, in which 3 questionnaire responses were received, 2 respondents rated the NEPA process as "effective."
- One respondent who rated the process as "3" stated that due to the nature of the project and very limited alternatives, the EA was done as part of the process to help coordinate interaction with the various resource agencies with regulatory authority.
- The other respondent who rated the process as "3" stated that the NEPA analysis assisted decisionmakers.
- The respondent who rated the process as a "1" stated that the proposed project had low potential to impact resources due to the industrialized nature of the site, which had the majority of its infrastructure already in place.

LESSONS LEARNED

September 2017; Issue No. 92

Third Quarter FY 2017

Measuring DOE's EIS Process

DOE completed 175 EISs from 1994 through 2016 in a median time of 29 months from notice of intent (NOI) to final EIS. As discussed in more detail below, comparing the early and later years of this time period suggests a gradual increase in completion time with a median time of 26 months for EISs completed from 1994 through 1999 and a median time of 40 months for EISs completed from 2012 through 2016. In addition, the variability in the time from draft to final EIS has increased by about 50 percent over this period.

Data suggest one area where DOE tends to complete EISs consistently faster. Sixty of the 175 EISs were prepared in response to applications for approvals, permits, or financial assistance. For these applicant-sponsored projects, DOE completed the EISs in a median time of 21 months, about one third faster than the 115 EISs prepared for DOE-sponsored programs and projects.

influence the schedule for an EIS, such as data collection needs (e.g., required data may be available at the start of one project, while, for a similar project, time for data collection may need to be incorporated into the EIS schedule), consultation requirements (often pursuant to the National Historic Preservation Act and the Endangered Species Act), and time waiting for program direction or project plans. Because of these and similar factors, data derived from a small group of EISs may not reflect typical DOE experience.

Also, it is useful to bear in mind that preparation of an EIS is only one part of DOE's decisionmaking process. The analysis reported here does not account for work completed prior to the NOI, such as project development, site-specific data collection, and public outreach. It does not directly address

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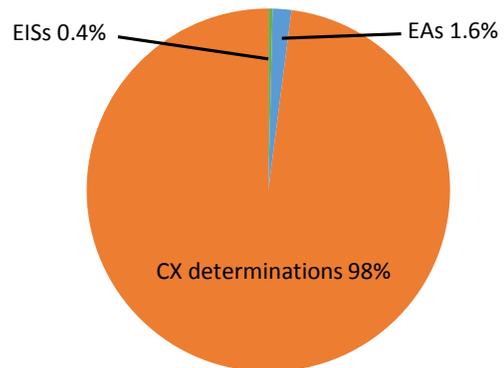
What We Analyzed

This issue of *LLQR* examines long-term trends in EIS schedule data from 1994–2016. The analysis is based on completed and ongoing EISs for which DOE was the lead or co-lead agency.¹ Calculated time periods are based on the *Federal Register* publication dates of the DOE NOI to prepare an EIS and the Environmental Protection Agency notices of availability of the draft EIS and final EIS.

The Office of NEPA Policy and Compliance began tracking DOE EIS schedule data following issuance of the *Secretarial Policy Statement on the National Environmental Policy Act* in 1994. The NEPA Office published its first analysis of this data in *LLQR* in 1996 and updated that analysis most recently in 2013 (text box, page 6).

The analysis of EIS data should be interpreted cautiously. The time to complete an EIS for similar projects can vary substantially. DOE's NEPA Compliance Officers and NEPA Document Managers have identified many factors that

DOE's NEPA Experience Overview



From 2010 through 2016, DOE issued 37 NOIs to prepare an EIS, determined the need for 205 EAs, and completed more than 12,000 categorical exclusion (CX) determinations. (For more information on CX determinations, see *LLQR*, *March 2017*, page 3.)

¹ EISs that DOE adopted or canceled are not included.

Inside Lessons Learned

Welcome to the 92nd quarterly report on lessons learned in the NEPA process. This issue looks for the lessons found in the metrics from years of DOE experience preparing EISs, including factors that lead to shorter EIS completion times. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

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Brian Costner
Acting Director
Office of NEPA Policy and Compliance

Be Part of Lessons Learned

We Welcome Your Contributions

Send suggestions, comments, and draft articles, especially case studies on successful NEPA practices, to Yarden Mansoor at yarden.mansoor@hq.doe.gov.

Questionnaires Due November 8

For NEPA documents completed July 1 through September 30, 2017, NEPA Document Managers and NEPA Compliance Officers should submit a [Lessons Learned Questionnaire](#) by November 8. Other document preparation team members also are encouraged to submit a questionnaire. Contact askNEPA@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* are available on the [DOE NEPA Website](#). To be notified via email when a new issue is available, send your email address to yarden.mansoor@hq.doe.gov.

Email Updates

Subscribe [here](#) to receive emails announcing the availability of DOE NEPA documents and notices on the DOE NEPA Website.

Training Opportunities

U.S. Institute for Environmental Conflict Resolution Collaboration in NEPA

October 18–19; Phoenix, Arizona

The U.S. Institute for Environmental Conflict Resolution – a program of the Udall Foundation, an independent federal agency – is offering a 2-day course entitled “[Collaboration in NEPA](#),” which builds on guidance from the Council on Environmental Quality’s handbook, *Collaboration in NEPA*. The syllabus states that, “Participants will learn how to assess and plan for successful collaboration in NEPA processes using appropriate tools, techniques, and best practices. Participants also will develop a better understanding of the policy goals of NEPA and the benefits of using collaborative approaches to achieve those goals. This interactive and experiential training will include real-world NEPA case studies and skills practice and enable participants to analyze the potential and plan for collaboration in upcoming NEPA activities.”



National Environmental Justice Conference (Abstracts due December 1) April 25–27; Washington, DC



2018 National Environmental Justice Conference
& Training Program

Enhancing Communities through Capacity Building and Technical Assistance is the theme of the 2018 National Environmental Justice Conference and Training Program, to be held on April 25–27 in Washington, DC. The conference, sponsored jointly by DOE and other federal agencies with academic and private sector partners, is free to government employees, community organizations, students, and faculty. Abstracts for panel presentations, workshops, training modules, case studies, best practices and success stories in all environmental justice related areas are due by December 1 and may be submitted to email@thenejc.org. Additional information is available on the conference [website](#).

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Trump Administration Promotes Faster Environmental Reviews for Infrastructure Projects

President Trump, in his first week in office, declared that “it is the policy of the executive branch to streamline and expedite, in a manner consistent with law, environmental reviews and approvals for all infrastructure projects, especially projects that are a high priority for the Nation, such as improving the U.S. electric grid and telecommunications systems and repairing and upgrading critical port facilities, airports, pipelines, bridges, and highways.”

In [Executive Order \(E.O.\) 13766, *Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects*](#) (January 24, 2017), the President emphasized the importance of infrastructure investment to America’s economic competitiveness. He stated that delays caused by agency processes and procedures have increased project costs and “blocked the American people from the full benefits” of these investments. “Federal infrastructure decisions should be accomplished with maximum efficiency and effectiveness, while also respecting property rights and protecting public safety and the environment,” President Trump said.

Goal: Two Years

The President has challenged federal agencies to complete environmental reviews for infrastructure projects within two years. At a [June summit](#) with governors, tribal leaders, mayors, and others, President Trump used highway projects as an example of where the administration is “taking action to dramatically reduce the time it takes to get permits and approvals.” Just getting the approvals to build a highway “can take well over 10 years,” he said. The goal, he continued, is to get that “closer to two years, and maybe even less than that.”

The President subsequently issued [E.O. 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects*](#) (August 15, 2017), which states that “processing of environmental reviews and authorization decisions for new major infrastructure projects should be reduced to not more than an average of approximately 2 years” measured from publication of the notice of intent to prepare an EIS or other benchmark designated by the Director of the Office of Management and Budget.

Energy production and generation (including from fossil, renewable, nuclear, and hydro sources), and electricity transmission are among the types of infrastructure projects addressed by E.O. 13807. A “major infrastructure project” is one for which “multiple authorizations” by federal agencies will be required to proceed with construction, the lead federal agency has determined that it will prepare an EIS, and “the project sponsor has identified the reasonable availability of funds sufficient to complete the project.”

E.O. 13807 establishes an approach called “One Federal Decision” for use with major infrastructure projects. Under this approach, a lead federal agency is responsible for navigating the project through the federal environmental review and authorization process. Involved federal agencies “shall all agree to a permitting timetable” and agencies shall record their individual decisions in a single record of decision, unless certain conditions specified in the E.O. apply.

On September 14, 2017, the Council on Environmental Quality published an initial list of actions it plans to take to further the implementation of the One Federal Decision approach and other elements of E.O. 13807 ([82 FR 43226](#)). 

Recent DOE Experience with EISs for Energy Infrastructure Projects

DOE completed 54 EISs for energy infrastructure projects, predominantly electricity transmission and generation, from 2003 through 2016. The average completion time from notice of intent to final EIS was 30 months; the median was 26 months. Twenty-four EISs (about 44 percent) were completed in less than 2 years; the longest took 77 months.

There is a difference in the median completion time based on whether the project was proposed by DOE or an applicant. The median EIS completion time for the 36 DOE-sponsored energy infrastructure projects was 29 months (average 31 months). The median EIS completion time for the 18 applicant-sponsored energy infrastructure projects was 18 months (average 28 months).

DOE's EIS Process Times *(continued from page 1)*

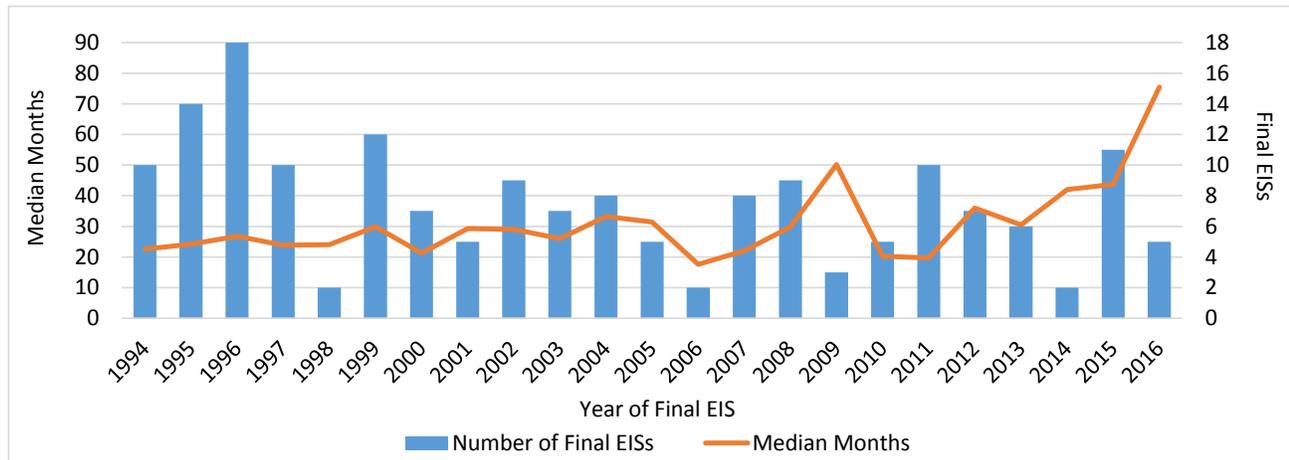


Figure 1. Median completion time for 175 EISs prepared by DOE in 1994–2016, sorted by the year the notice of availability of the final EIS was published.

work that DOE or an applicant conducts in parallel with the EIS process. DOE experience, however, demonstrates that work outside the NEPA process can affect an EIS schedule by, for example, stopping work on an EIS while issues unrelated to potential environmental impacts are resolved. The analysis also does not address work after issuance of the final EIS, such as completion of non-DOE approval processes and preparation by DOE of a record of decision.

EIS Completion Times

DOE tracks the median EIS completion time. The median is the middle number in a set. It is commonly used to describe data sets with outliers, such as in this case, EISs with very long schedules. The calculated mean (or average) for such data sets can be skewed by the outliers.

Past *LLQR* articles have sorted EIS completion times by the year of publication of the notice of availability of the final EIS. This analysis continues that practice and also includes the

same data sorted by the year the NOI was published. The two approaches shed different light on the data.

When data is sorted by the year of the final EIS, DOE's median completion time appears relatively stable through 2011 (with a noted increase in 2009), followed by an increase almost every year during 2012–2016 (Figure 1). This is partially due to the combination of relatively few NOIs in recent years and the increase in EISs initiated during 2009–2011, many of which have recently been completed. Most of those EISs were for projects related to implementation of the American Recovery and Reinvestment Act (ARRA). (See *LLQR*, December 2011, page 10.)

At the end of 2016, the median time for active EISs (EISs that have an NOI but had not issued a final EIS) was 52 months, compared to a median of then-active EISs of 21 months at the end of 2011. EIS completion time for the last few years is heavily influenced by projects started 5 or more years ago and is not representative of projects started in the last few years.

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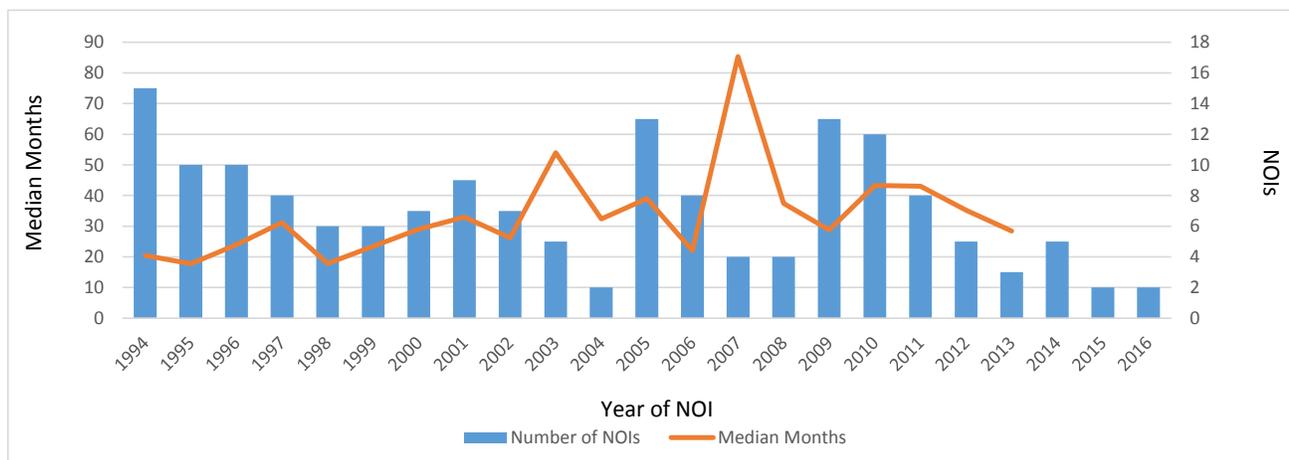


Figure 2. Median completion time for 175 EISs prepared by DOE in 1994–2016, sorted by the year the NOI was published.

DOE's EIS Process Times *(continued from previous page)*

To get a better picture of recent changes in EIS completion time, it is helpful to categorize EISs by the year that the EIS process started (year of NOI). This allows more focused analysis of recent shifts in EIS preparation and completion time and to answer questions about projects started recently. Figure 2 shows a small increase in medium completion times through 2010, followed by a decrease in median completion times for EISs started in 2011–2013. A median cannot be determined for the final EISs after 2013 because not enough of the EISs started in those years have been completed. However, comparing data on draft EISs (not displayed in Figure 2), the median time to issue a draft EIS for documents with an NOI published in 2014 shows a small increase from previous years. This suggests that the median final EIS completion time will show a similar increase when full data are available.

Another perspective on the data comes from sorting EISs by the number of EISs completed in a similar amount of time. Figure 3 uses 5 month increments. DOE has completed 34 EISs in 15–19 months, which is more than for any other increment. This figure also shows that DOE has completed 70 EISs in 24 months or less, and 105 EISs in more than 24 months.

Breaking Down NOI to Draft to Final

Across all DOE EISs completed since 1994, preparing the draft EIS takes about two-thirds of the total time from NOI to final EIS (Figure 4). The median time from NOI to draft EIS is 17 months and the median time from draft EIS to final EIS is 9 months for documents completed from 1994–2016. The ratio of median time from NOI to draft EIS and NOI to final EIS has remained relatively steady (between 1.5:1 and 2:1) since 1994, even as both completion times increased during the most recent period analyzed (2012–2016).

One difference in data for 2012–2016 compared to earlier time periods is that the variability in time from draft to final EIS increased. The standard deviation of time from draft EIS to final EIS was 8 months for final EISs completed from 1994–1999 and 12 months for final EISs completed from 2012–2016.

Faster EISs for Applicant-Sponsored Projects

The NEPA Office also examined completion times for EISs related to applicant-sponsored and DOE-sponsored projects (Figure 5). EISs for both applicant-sponsored and DOE-sponsored projects show fairly steady median completion times for the first three time periods, but a notable increase in the most recent time period.

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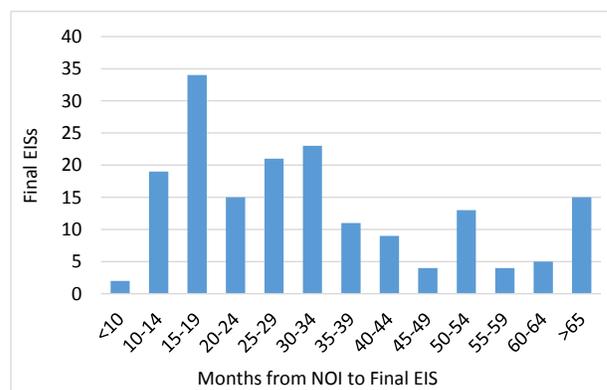


Figure 3. Completion times for 175 EISs prepared by DOE in 1994–2016.

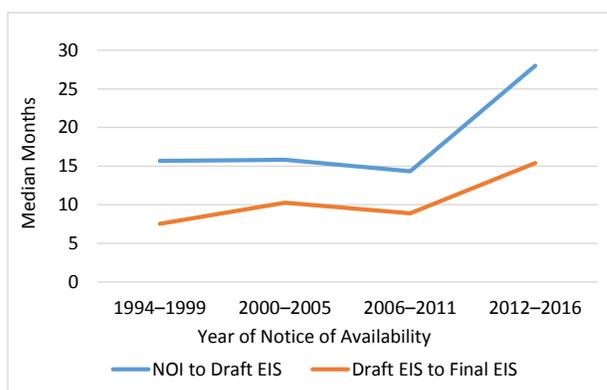


Figure 4. Median time for 175 draft and final EISs prepared by DOE in 1994–2016.

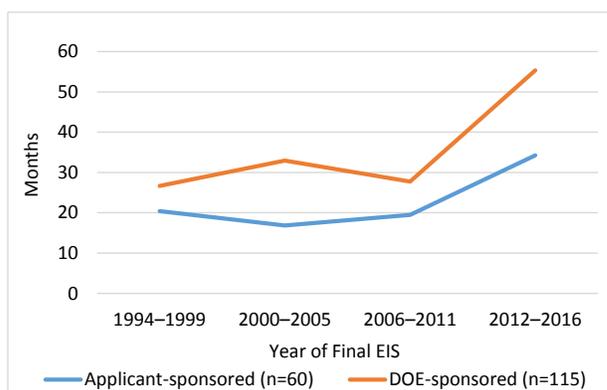


Figure 5. Median completion time (1994–2016) for 60 EISs for applicant-sponsored projects and 115 EISs for DOE-sponsored projects.

DOE's EIS Process Times *(continued from previous page)*

DOE tends to complete EISs for applicant-sponsored projects in less time (mean 26 months, median 21 months) than DOE-sponsored projects (mean 37 months, median 31 months). This is a statistically significant difference ($P=0.0004$).¹ It is not clear, however, whether this difference is due to the type of projects that are applicant driven, external drivers, or something applicants do (e.g., perform more pre-NEPA analysis) that allow for a faster NEPA process. This will be the subject of further analysis by the NEPA Office.

The number of EISs started each year has gradually declined since DOE first started collecting data in 1994,

with the exception of an increase in EIS starts during ARRA implementation (2009–2011). This combination has resulted in a body of older, active EISs (those that have started but not finished), and thus a higher recent median completion time of 40 months (2012–2016). Future NEPA Office analysis will focus on different types of projects and the reasons for the differences discussed in this article with the goal of identifying best practices to improve DOE's NEPA process.

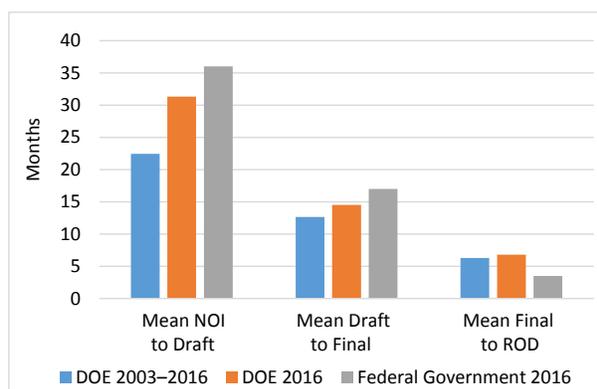
For further information on NEPA process metrics, contact Bill Ostrum, NEPA Office, at william.ostrum@hq.doe.gov. 

¹ The results of the comparison are deemed statistically significant because the *P* value associated with a *t*-test shows that the probability is less than 5 percent that the observed difference (or a more extreme difference) in EIS completion times between applicant-sponsored projects and DOE-sponsored projects is due to random variation in the data.

DOE EIS Completion Times Are Shorter than Government-wide

The Council on Environmental Quality (CEQ) recently analyzed preparation times for 107 EISs completed, including issuance of a record of decision (ROD), by federal agencies in 2016. DOE typically takes less time than federal agencies as a whole to prepare a draft and final EIS, but longer to issue a ROD after the publication of the final EIS. As illustrated below, this is true when comparing DOE's mean completion time for 2016, as well as DOE's mean time over the period 2003–2016, to all federal agencies' mean time for 2016.

The pattern also holds when comparing median completion times. CEQ calculated the government-wide median time from notice of intent (NOI) to ROD as 49 months for RODs issued in 2016. This is longer than the DOE median time from NOI to ROD of 44 months for 2016 and 35 months for the period 2003–2016.



Past DOE NEPA Metrics Analyses

Past analyses of trends in metrics data reported in LLQR include the periods:

- | | |
|---|------------------------------------|
| 1993–1996 (June 1996, page 16) | 1997–2007 (June 2007, page 28) |
| 1994–1997 (March 1998, page 17; June 1999, page 19) | 1998–2007 (December 2008, page 16) |
| 1989–1999 (June 2000, page 23) | 2001–2010 (September 2011, page 1) |
| 1993–2003 (June 2003, page 26) | 2003–2012 (September 2013, page 1) |
| 1994–2003 (September 2003, page 4) | 1993–2012 (September 2013, page 3) |
| 1996–2005 (March 2006, page 32) | |

Shorter EIS Completion Times: A Closer Look

The NEPA Office examined EISs that DOE recently completed in 2 years or less to better understand what factors may have contributed to the shorter schedules relative to DOE's median EIS completion time of 29 months during 1994–2016. NEPA Document Managers attribute the shorter completion times to factors such as DOE senior management attention, external schedule drivers, the availability of data, and engaging a team of experienced DOE and contractor staff to prepare the EIS. NEPA Document Managers point out that they were able to ensure the quality of the EISs while achieving these schedules.

These observations are consistent with past assessments of short EIS completion times conducted by the NEPA Office in 1996 and 2008 (text box). Indeed, they are among the factors that NEPA Document Managers have regularly identified as important to the success of any EIS.

In addition to seeking input from NEPA Document Managers, the NEPA Office analyzed several data points for patterns that might help explain the shorter completion times. This analysis focused on 20 EISs completed by 11 DOE program and field offices in 2003–2016. These EISs had a median completion time of 16 months. They addressed a variety of project types, analyzed from two to more than five alternatives, and had widely varying levels of public interest. These factors do not set the 20 EISs apart from DOE EISs as a whole and do not appear to indicate a reason for the shorter completion times.

Past Assessments of EIS Completion Times

In 2008, based on an analysis of information from Lessons Learned Questionnaire responses, Eric Cohen, former NEPA Office Unit Leader, identified the primary factor associated with short EIS completion times as management attention to scope, schedule, and key issues. Strong preparation teams with dedicated members and appropriate skills, and excellent team communication are among other factors related to short EIS completion times, he noted (*LLQR*, December 2008, page 16).

Similarly, a study of short EIS completion times by the NEPA Office in the mid-1990s noted that the five EISs completed in the shortest amount of time (less than 11 months) all had aggressive preparation and review schedules, preparation teams dedicated to only one EIS, and high-level DOE management support (*LLQR*, December 1996, page 13). For that 1996 analysis, the NEPA Office concluded that “common factors associated with document preparation times include the degree of dedication of the preparation team and the commitment of higher-level management to the NEPA process.”

Factors Supporting Successful Schedules

“One factor that played a major role in our ability to meet our aggressive schedule was having the full buy-in of the Bioenergy Technology Office’s project team and management. DOE’s technical project officer for the biorefinery project was fully engaged in the EIS process from beginning to end. Having a truly integrated team went a long way to eliminate surprises throughout the process, which in turn helped us stay on schedule,” explained Kristin Kerwin, NEPA Compliance Officer for the Golden Field Office and NEPA Document Manager for the Abengoa Biorefinery EIS.

Mark McKoy, NEPA Compliance Officer for the National Energy Technology Laboratory (NETL) and NEPA Document Manager for four integrated gasification combined-cycle (IGCC) and carbon sequestration project EISs among the 20 EISs, reiterated that NETL management and DOE Headquarters management interest in the schedules was a primary driver to completing those EISs faster than normal.

Mr. McKoy explained, “There really was no secret formula to a fast NEPA process: it was the result of working extreme schedules when needed to get the job done as quickly as possible, and it was the result of experience in doing NEPA work. The motivation was that all involved believed in the project’s merits and the need to complete the EIS process as quickly as possible.” Fred Pozzuto, NEPA Compliance Officer for NETL, noted that “a well-experienced NEPA team will be able to wade through obstacles quicker,” but he cautioned that “there are a multitude of factors outside of DOE’s control that can affect the schedule of an EIS or EA.”

Mr. McKoy explained that DOE initially relied upon “environmental information volumes” prepared by the industrial proponent to help support preparation for one of the IGCC EISs, but later abandoned that approach because the proponents preparing such volumes in sequence with the EIS prepared by DOE did not save time. However, “Asking project proponents to submit basic project information documents along with their applications for financial assistance (or other award) can be very helpful,” he said.

In addition, Mr. McKoy highlighted that the EISs were for projects designed to minimize the potential adverse impacts as much as could reasonably be done and that the industrial participants “truly knew how to work with the public and had an environmental stewardship ethic that carried through in all aspects of the project.”

Another possible factor contributing to short completion times is the presence of an external schedule driver (e.g., legislative deadline or schedule requirements for a parallel state siting or planning process). Mr. McKoy noted that the industrial participants for the IGCC projects were “facing significant

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EIS Completion Times *(continued from previous page)*

financial pressures, as well as the pressures associated with changing markets that affected the viability of their projects. Prices were escalating on materials and labor for constructing the power plants or carbon capture systems, making it harder to finance the projects. Every day of delay in completing the NEPA process meant the respective industrial participant would have to borrow more money and pay more interest.”

In another example, under Section 303 of the Energy Policy Act of 2005, DOE had one year to complete a proceeding to select sites for expansion and new storage to accommodate the Strategic Petroleum Reserve’s authorized volume of one billion barrels, up from the design capacity of 727 million barrels. This deadline was a primary driver for DOE’s completion of the EIS for Expansion of the Strategic Petroleum Reserve in 15 months. (See *LLQR*, December 2005, page 30, and March 2007, page 1.) Another EIS (completed in 16 months), for a transmission line project, was jointly prepared with a state agency, and largely driven by schedule requirements associated with an applicable state siting law.

David Levenstein, NEPA Document Manager for both the EIS and Supplemental EIS for Storage of Elemental Mercury, noted that his EIS team was under the proverbial “statutory hammer” to complete the NEPA process quickly due to timing requirements included in the Mercury Export Ban Act of 2008. “At the outset, I prepared an aggressive EIS schedule and assembled an experienced EIS preparation team to support me in preparing the EISs for DOE’s storage of elemental mercury. That, combined with management support from the Office of Environmental Management at DOE Headquarters, ensured success in meeting the schedule,” said Mr. Levenstein.

Diverse Set of EISs Met Short Schedules

The 20 EISs are a varied lot. The ability to complete an EIS in 2 years or less was not associated with particular project characteristics or level of public interest.

The EISs addressed proposed projects for: renewable energy (four EISs, including two for interconnection requests for wind farms), electricity transmission (five EISs), DOE site operations (three EISs), waste management (three EISs), and IGCC and/or carbon sequestration (five EISs). Most of these involved projects proposed for a single location. However, two EISs addressed several locations across the country, and one EIS was related to a national program for nuclear waste disposal.

Six of the 20 EISs analyzed just the no action alternative and the proposed action, while 14 EISs analyzed more than one action alternative (i.e., three or more alternatives total). Five of the 20 EISs analyzed five or more alternatives in detail.

Thirteen (65 percent) of the 20 EISs were proposed by an applicant and submitted to DOE for consideration for financial assistance, a Presidential permit, or an interconnection request to a DOE power marketing administration. Work by the applicant prior to coming to DOE can make completion of the NEPA process more efficient. For example, DOE completed an EIS for a loan guarantee for a proposed solar farm project in 10 months (*LLQR*, March 2012, page 3). The project proponent applied to the local county for a conditional use permit 2 years before DOE initiated preparation of the EIS. The project’s final facility configuration was then approved by the county land use planning body prior to DOE’s issuance of the final EIS. As a result, DOE presented in the final EIS the county-approved project layout including all environmental protection measures and Conditions of Approval contained in the county’s conditional use permit.

There was a substantial range in the level of public interest in the 20 EISs as indicated by the number of public comments and comment documents received.¹ DOE received 20 or fewer comment documents on about one third of the draft EISs.

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¹ A comment document is typically a public hearing transcript, letter, or email that contains one or more comments. A comment is a statement or question regarding the draft EIS content.

Abbreviated Final EISs

In addition to the 20 EISs analyzed here, DOE issued 10 “abbreviated” final EISs in less than 2 years in 2003–2016. These are EISs for which there were few changes from the draft EIS, and the final EIS was comprised of the draft EIS plus pages addressing public comments and any changes needed. This approach is provided for in the Council on Environmental Quality NEPA regulations (40 CFR 1503.4(c)).

The 10 abbreviated final EISs were all related to electricity transmission projects. DOE received less than 10 comment documents on half these EISs, and up to about 60 comment documents on the remainder of the EISs.

The median completion time for the 10 abbreviated final EISs was 18 months. For both sets of documents completed in less than 2 years from 2003–2016, the median time from the notice of intent (NOI) to draft EIS was 10 months. The median time from draft EIS to final EIS was 6 months for the set of 20 documents, and 8 months for the 10 abbreviated final EISs. The median time for all 88 DOE EISs prepared from 2003–2016 was 32 months, with 20 months from NOI to draft EIS and 10 months from draft EIS to final EIS.

EIS Completion Times (continued from previous page)

For several of the EISs, DOE received hundreds of comment documents. For two EISs, DOE received several thousand comment documents each. One transmission line EIS had more than 4,000 comment documents on the draft EIS and was prepared in 11 months. Another EIS – analyzing several proposed missions at multiple DOE sites – received nearly 100,000 comment documents on the draft EIS and was completed in 24 months.

Quality Matters

NEPA Document Managers emphasized that, despite strong pressure to prepare EISs quicker, DOE has a responsibility to prepare quality NEPA documents. “While these EISs were completed quickly, we did not achieve this by taking shortcuts, by omitting field work or analyses, by not trying to provide solid responses to comments from the public and other agencies, et cetera. We simply worked with commitment and determination both to complete the process very well and to do so as quickly as possible,” said Mr. McKoy. LL

Think DOE EISs have Gotten Bulkier? You’re Right

The length of DOE EISs appears to have more than doubled over the past 20 years. Excluding abbreviated final EISs, the median total length for 28 DOE final EISs issued in 1994–1999 was 650 pages; the total length increased to 1,600 pages for 32 final EISs issued in 2011–2016. The mean (average) page counts for these periods were, respectively, 1,100 pages and 2,500 pages.

The longest EISs in each set have a stronger influence on the mean than on the median. Five EISs completed in 1994–1999 ran more than 2,000 pages, with the longest being about 3,600 pages. During 2011–2016, DOE completed 14 EISs that each had more than 2,000 pages; 6 of them were longer than 3,600 pages. The longest of these EISs, the *Final Programmatic EIS for Solar Energy Development in Six Southwestern States (Arizona, California, Colorado, Nevada, New Mexico, and Utah)* (Solar PEIS) (DOE/EIS-0403; 2012), included more than 11,000 pages. DOE was a co-lead with the Bureau of Land Management in preparing this EIS. If the Solar PEIS is excluded from the set, the average length of DOE EISs completed in 2011–2016 decreases from 2,500 pages to 2,200 pages.

Based on a preliminary review, the increase appears in sections throughout the documents, possibly with a disproportionate increase in the page count for appendices. The NEPA Office plans to further examine this increase in EIS document length to better characterize any changes that have occurred over time and identify options for improved NEPA efficiency.

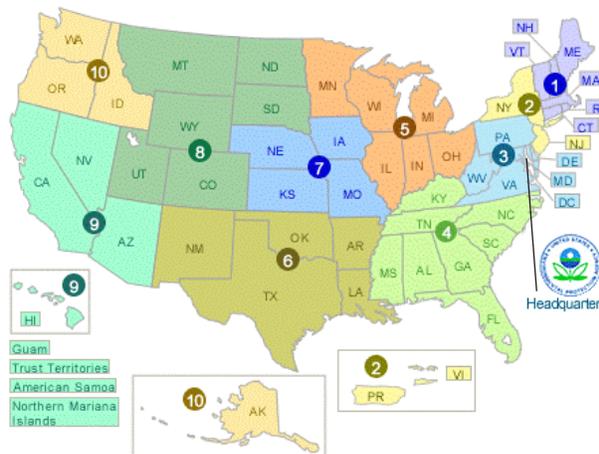
DOE and EPA: Building on Our Working Relationships through the Section 309 Review Process

By: Marthea Rountree, Federal Activity Liaison to DOE, EPA Office of Federal Activities

Building stronger relationships between the Environmental Protection Agency (EPA) and federal agencies is the mission of Robert Tomiak, Director of EPA’s Office of Federal Activities. To support this goal, Kelly Knight joined the office in January as Director of the NEPA Compliance Division. Together with their staff, they have visited their NEPA counterparts in numerous agencies to exchange information that promotes an understanding of respective roles, missions, needs, and processes. Ms. Knight is now leading initiatives across the 10 EPA regions that encourage upfront collaboration and stronger partnering between EPA and federal agencies.

As EPA and DOE enjoy a longstanding positive working relationship, EPA met with the DOE NEPA Office in June to reaffirm its commitment to collaborating throughout the NEPA process. In addition to discussing EPA’s role and authority under Section 309 of the Clean Air Act, the discussion also highlighted EPA’s subject matter expertise – including air quality, water quality, and pollution prevention – available to DOE throughout the NEPA process. EPA suggested that DOE consider them not only as a potential cooperating agency, but also as an extension of “the DOE team.” Ms. Knight and EPA staff (both at headquarters and across the 10 regions) are eager to work with DOE to develop ways to improve the efficiency and effectiveness of the Section 309 process.

Mr. Tomiak and Ms. Knight encourage DOE NEPA team leaders to establish a working relationship with colleagues in the EPA regions. **LL**



For each EPA region (above), the EPA NEPA review manager is listed below, followed by the lead EPA reviewer(s) for DOE EISs. Full contact information is provided in the DOE NEPA [Stakeholders Directory](#).

1. William Walsh-Rogalski, Timothy Timmermann
2. Grace Musumeci, Lingard Knutson
3. Jeffrey Lapp, Barbara Rudnick
4. Chris Militscher, Larry Long
5. Ken Westlake, Elizabeth Poole
6. Robert Houston, Michael Jansky
7. Josh Tapp, Joe Summerlin
8. Philip Strobel, Jennifer Schuller
9. Kathleen Goforth, Thomas Plenys, Scott Sysum
10. Jill Nogi, Theo Mbabaliye, Erik Peterson

Clean Air Act Section 309

§7609. Policy review

(a) The [EPA] Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

(b) In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determinations and the matter shall be referred to the Council on Environmental Quality.

Transitions: Welcome to New NEPA Compliance Officers ...

Richland Operations Office & Office of River Protection

Four new NCOs, all of them attorneys in the Office of Chief Counsel, have recently been designated for the Richland Operations Office and Office of River Protection. They join Diori Kreske, who has served since 2013 as NCO for the two organizations at the Hanford Site.

Paul Detwiler, Chief Counsel, joined the Richland Operations Office this year from the National Energy Technology Laboratory, where he had served since 2009 as Chief Counsel and NCO. Previously, he spent 13 years at DOE Headquarters – in the Office of the Assistant General Counsel for Environment, as a special assistant to two General Counsels, and then as Deputy General Counsel of the National Nuclear Security Administration. In addition to significantly contributing to many major DOE EISs, Dr. Detwiler wrote *The Environmental Style: Writing Environmental Assessments and Impact Statements*, a practical guide to writing readable NEPA documents. It offers brief guidelines on structuring an EA and EIS and additional advice for clear, concise writing. He can be reached at paul.detwiler@rl.doe.gov or 509-376-4603.



Mark Silberstein advises the Office of River Protection on legal and regulatory issues and serves as lead field counsel on several state and federal litigation matters. He has worked extensively on NEPA and National Historic Preservation Act issues. Before joining DOE in 2011, Mr. Silberstein worked as a legal contractor with the United

States Attorney's Office in the District of Columbia, and with the Department of Justice Antitrust Division. Mr. Silberstein holds a B.A. from Franklin & Marshall College, and a J.D. and environmental law certificate from Florida Coastal School of Law. He can be reached at mark.silberstein@rl.doe.gov or 509-376-2380.

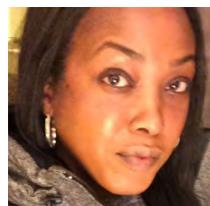
Marla Marvin has worked since 2004 in the Office of Chief Counsel, and for the previous 4 years, she was the Director, Office of Communications, at the Richland Office. Before joining DOE, Ms. Marvin was legislative assistant/staff counsel and then legislative director for U.S. Senator Patty Murray (1995–2000) and a legislative assistant to U.S. Representative Jolene Unsoeld (1988–1992). Between her congressional stints, she worked as a law clerk for the Washington State Court of Appeals, public defender, and assistant attorney general. Ms. Marvin holds a bachelor's degree in political science and psychology from Pacific Lutheran University in Tacoma, Washington, and a law degree from the Washington College of Law at American University. She can be reached at marla.marvin@rl.doe.gov or 509-376-1975.



Pete Serrano has worked on NEPA and state equivalent review projects throughout his career. Prior to joining DOE in 2015, he worked for legal and consulting firms assisting private and government clients in addressing a range of environmental issues. Mr. Serrano earned his J.D. from Florida Coastal School of Law, an environmental law certificate, and a Master of Laws degree (LL.M.) in environmental law from Vermont Law School. He can be reached at simon.serrano@rl.doe.gov or 509-376-8035.



Office of Science



Teralyn Murray is the new NCO for the Ames and Princeton Site Offices. She joined DOE as an environmental engineer in 2015, after working for 6 years as an environmental director for the Department of Defense, including managing environmental issues in five foreign countries, and 9 years in the private sector, where she managed environmental programs and led NEPA and other environmental reviews in several states. Ms. Murray is a Ph.D. candidate in Environmental Engineering at the University of Illinois. She can be reached at teralyn.murray@science.doe.gov or 757-848-7643.

Peter (Pete) Siebach, NCO for the Office of Science (SC) since 2002 and for the Argonne Site Office since 2009, has also been designated NCO for the Berkeley, Oak Ridge National Laboratory, SLAC (Stanford Linear Accelerator Center), and Thomas Jefferson Site Offices. He leads the SC NEPA Community of Practice. Mr. Siebach can be reached at peter.siebach@science.doe.gov or 630-252-2007.

Transitions: ... and a Farewell

John Ganz, DOE's Longest Serving NCO, Retires

The last of the initial corps of NEPA Compliance Officers, John Ganz, retired on July 3 from the National Energy Technology Laboratory (NETL), DOE's center for petroleum, gas, and coal research and technology development. He served as NCO for the Morgantown Energy Technology Center (one of NETL's predecessor agencies) from 1990, when the NCO position was first established, to 1996, and then at NETL from 2005 until his retirement this year. He was the NEPA Document Manager for major EISs for the Clean Coal Program and organized a unique team of NCOs from NETL and other DOE organizations to meet the increased NEPA workload that arose from the 2009 American Recovery and Reinvestment Act (*LLQR*, [September 2009](#), page 1).



Mr. Ganz concluded his diverse career with over 42 years of federal service, beginning with the Soil Conservation Service, followed by the U.S. Army Corps of Engineers (District of Columbia Office), and then DOE's remediation and restoration program for a uranium processing site at Ashtabula, Ohio. "Known to his colleagues as 'the Professor,' he was unfailingly eager to help his fellow NCOs," reports Fred Pozzuto, NCO and Acting Associate Director of the NEPA Compliance Division at NETL. He added that along with John's expertise, they will miss his sense of humor.

On behalf of the DOE NEPA Community, we offer John best wishes on his retirement and appreciation for his many contributions.

NEPA Office Issues 2017 Stakeholders Directory

The Office of NEPA Policy and Compliance issued the 34th edition of *Directory of Potential Stakeholders for DOE Actions under NEPA* in July. Approximately one-third of listings changed in the past year.

To supplement the lists of potentially interested parties that DOE offices compile for individual proposals, the directory provides current contact information in federal agencies (by referring to the list posted on the Council on Environmental Quality website and adding DOE-specific contacts and review information); states, territories, and state government associations; and nongovernmental organizations. Offices are encouraged to be inclusive in providing opportunities to review DOE NEPA documents.

The NEPA Office updates the entire directory each July and may issue updates throughout the year as new contact information is received. Send updates and questions to askNEPA@hq.doe.gov. 

Reflections on a Summer in the NEPA Office

The Office of NEPA Policy and Compliance was fortunate to have three outstanding interns join the staff this summer. We are grateful for their important contributions to several projects, especially the DOE NEPA Community collaboration site. At the end of the summer, we asked them to reflect on their time at DOE, and share how it will influence their future studies and careers.

Jeff Fang is entering his second year at Indiana University's School of Public and Environmental Affairs, seeking a Master of Public Affairs and a Master of Science in Environmental Science.

Putting aside the fact that a personal career goal is to work at DOE, the decision to intern in the NEPA Office was an easy one. In addition to having the opportunity to temporarily leave life in flyover country to live in Washington, DC, for 10 weeks, the internship program would provide a complete professional development package. My internship in the NEPA Office offered an intimate understanding of NEPA, the ability to contribute to projects of my interest, and the opportunity to network with and learn from industry experts.

Throughout the summer, I learned about NEPA's statutory and regulatory requirements, as well as its practical considerations. For instance, one of my earliest tasks was contributing to a training module providing an overview of NEPA. Although its primary purpose will be to educate others that are new to the NEPA process, the act of compiling content for the module also doubled as a means to expand my personal understanding of NEPA. I also participated in conference calls with NEPA Compliance Officers (NCOs) throughout the DOE complex, who conveyed real-world concerns with NEPA implementation familiar only to those with institutional knowledge. While I had some knowledge of NEPA prior to this internship, these experiences offered valuable insight that is not always available in a classroom.

In addition, I was able to contribute to substantive efforts helmed by various staff members in the office. My primary summer project was helping to create an internal website



Left to right: Jeff, Madeline, and Liliane contributed to key projects in the NEPA Office this summer.

where the DOE NEPA Community can post resources, ask questions, and share expertise to facilitate effective and efficient NEPA compliance. While it is certainly possible to continually reinvent the wheel, sharing knowledge is much more efficient and conducive to building relationships. I also researched impact methodologies and regulations related to nuclear waste transportation analyses. Lastly, I analyzed and discovered trends in some fifteen years of public participation data.

Besides daily work tasks, I was given the freedom to take advantage of events offered at DOE and throughout the DC region. With the company of my fellow interns, I attended DOE-sponsored events at DOE Headquarters and major sites, including the U.S. Capitol, U.S. Supreme Court, and the Council on Environmental Quality. Offering background on democracy, federal law, and the need for environmental protection, respectively, these excursions provided valuable networking and professional development opportunities that complemented both my summer work activities and ongoing graduate education.

My time in Washington, DC, has been exciting, fulfilling, and at times overwhelming – just as I anticipated. While in some ways I have missed the small Midwest city of Bloomington, Indiana, with a population of just 85,000 people, I am fortunate to return with a broader perspective of environmental regulation in the energy sector and new qualifications that were specially shaped in our nation's capital.

Madeline Green is a rising senior at the University of California, Berkeley majoring in Sustainable Environmental Design.

Contrary to the popular belief that the Federal Government can be “slow moving,” the DOE NEPA Office provided the most fast-paced internship that I have yet to participate in. Immediately, on the first day, I was asked to research and identify my interest in a multitude of projects on the NEPA Office's agenda so I could hit the ground running. This pace didn't slow down, which meant I had the opportunity to contribute to many projects throughout the summer, including reviewing ongoing EISs, participating in research and data collection, as well as, developing two process improvement projects.

While working on EISs, I was shocked by the amount of public engagement for each project. I was exposed to many valuable and interesting opinions, and gained a better understanding of how different sectors' interests can align or conflict on a particular project.

(continued, next page)

Summer Interns Reflect *(continued from previous page)*

Working on these projects has challenged me to develop a more holistic perspective on the NEPA process, such as considering the distribution of benefits of large-scale projects.

My favorite aspect of the internship was kick starting and contributing to projects intended to improve the NEPA process. The first process improvement project that I worked on involved reviewing and analyzing the length of EISs. During my data collection, I was astounded by the length of some EISs – exceeding well over 1,000 pages! I realize that no EIS is the same because projects and their impacts are unique; however, I was surprised to learn that some of the longest portions of an EIS were summaries and introductions. I now realize that the length of an EIS is not only costly for project developers and time consuming for document managers and contractors, but it potentially provides a barrier to public participation.

The second process improvement project that I participated in was creating an internal website for collaboration among the DOE NEPA Community. My contributions to the website included making, gathering, and developing content for sections of the site focused on GIS mapping resources and environmental justice. I was amazed by the number of government-sponsored free GIS resources there are online, and the many interagency-discussions about the need to better acknowledge environmental justice impacts in NEPA. I strongly believe that the DOE NEPA Community collaboration site can become an extremely useful platform.

Through each these projects, I had the extremely satisfying opportunity to contribute to work that I hope will make a positive impact within DOE. I gained a much broader understanding of the NEPA process, specifically the regulatory and technical requirements. I also became aware of the valuable impact public participation has on shaping the NEPA process. Overall, I felt like a welcomed and valued team member and was inspired by the dedication and drive of the NEPA Office team members.

Liliane Lindsay is a rising senior at Yale, majoring in Environmental Studies with a certificate in Energy Studies.

Gaining applicable hands-on environmental policy experience in an academic setting is nearly impossible, since unlike STEM subjects (science, technology, engineering, and math), the methods and tools of government cannot necessarily be practiced in a classroom. So while my pre-med peers stayed in New Haven to tend to their labs and their theses, I made the trek to DC for an experiment of my own: making the transition from the classroom to the pinnacle of policy work – the Federal Government. As a DOE NEPA Office intern, I had the unique opportunity to directly

influence the implementation of the very environmental statutes that I have dedicated my academic career to studying. Throughout the summer, my work has focused on developing tools and conducting research to more effectively and efficiently complete the NEPA process.

To improve NEPA implementation at DOE, I worked with the other interns to create a new internal website for collaboration in the DOE NEPA Community. Building this site from the ground up required meticulous planning to ensure ease of use and encourage active participation. To achieve these goals, we developed different tools to enhance the user experience – including an online video tutorial and other helpful resources. By facilitating open dialogue across DOE facilities nationwide, we hope to enrich the NEPA process and promote continued collaboration across the entire DOE complex.

I also worked on various efforts to expedite the NEPA process, including researching EIS document length and investigating how NEPA responsibilities and authorities are delegated throughout DOE. Both efforts emphasized the importance of clarity in the NEPA process, be it in the actual language of NEPA documents or the chain of command through which they are created. Through the latter of these projects, I also learned the importance of understanding and utilizing bureaucratic structure in the application of statutes and regulations to ensure an expeditious and effective NEPA process.

My great summer experiment proved fruitful, as all of the lessons from my time here at DOE have had a profound impact on my understanding of environmental policy. My foundational knowledge of the NEPA process prior to this experience was exclusively based on legal texts and case studies, and it wasn't until I tried to actively apply this knowledge that I realized just how much work is required to make the written statute a reality. Although NEPA itself is often considered the foundation of our national environmental policy, it is truly the internal work of the federal agency that serves as the backbone of the entire environmental review process – beyond simply what is written in the statute. My new understanding of NEPA from this experience has lifted the statute right off the paper to become an interactive process, breathing life and nuance into the black and white print that I have so heavily studied in school.

Much like the required lab work for STEM, my work this summer has helped contextualize the abstract concepts of my studies by formulating them into concrete action – a lesson that will certainly add dimension to my understanding of environmental policy as I continue with my studies this fall and into the future. 

EAs and EISs Completed April 1 to June 30, 2017

For an EA, completion time is measured from EA determination to final EA issuance; the EA date is also the date of a finding of no significant impact (FONSI), unless otherwise indicated. For an EIS, completion time is measured from the Federal Register notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.

EAs

Bonneville Power Administration

[DOE/EA-2051](#) (5/31/17)

Kootenai River Lower Meander Project,

Boundary County, Idaho

EA was prepared in-house; therefore, there were no contractor costs.

Time: 8 months

[DOE/EA-2058](#) (5/31/17)

Upper Stillwaters and Stormy A Restoration Project

on the Entiat River, Chelan County, Washington

EA was adopted; therefore cost and time data are not applicable. [U.S. Forest Service (USFS) was the lead agency; DOE was a cooperating agency.]

[DOE/EA-2059](#) (5/31/17)

Chewuch River Restoration River Miles 15.5-20,

Okanogan County, Washington

EA was adopted; therefore cost and time data are not applicable. [USFS was the lead agency; DOE was a cooperating agency.]

Portsmouth/Paducah Project Office/

Office of Environmental Management

[DOE/EA-1856](#) (6/29/17)

Conveyance of Real Property at the Portsmouth

Gaseous Diffusion Plant, Pike County, Ohio

Cost: \$101,000

Time: 78 months¹

¹ Work on the EA was on hold for most of this time; actual EA preparation time was closer to 12 months.

EIS

Office of Fossil Energy

[DOE/EIS-0531](#) (4/28/2017) 81 FR 19715

(Draft EIS EPA Rating: EC-2)

Port Delfin LNG Project Deepwater Port Application,

Cameron Parish, Louisiana

EIS was adopted; therefore cost and time data are not applicable. [U.S. Coast Guard and Department of Transportation's Maritime Administration were the co-lead agencies; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action

LO – Lack of Objections

EC – Environmental Concerns

EO – Environmental Objections

EU – Environmentally Unsatisfactory

Adequacy of the EIS

Category 1 – Adequate

Category 2 – Insufficient Information

Category 3 – Inadequate

(For an explanation of these definitions, see the EPA website.)

NEPA Document Cost and Time Facts

EA Cost and Completion Times

- For this quarter, the cost for the EA for which cost data was applicable was \$101,000.
- For this quarter, the median and average completion time for 2 EAs for which time data were applicable was 43 months.
- Cumulatively, for the 12 months that ended June 30, 2017, the median cost for the preparation of 4 EAs for which cost data were applicable was \$54,000; the average was \$151,000.
- Cumulatively, for the 12 months that ended June 30, 2017, the median completion time for 10 EAs for which time data were applicable was 16 months; the average was 23 months.

EIS Cost and Completion Times

- For this quarter, no EISs were completed for which DOE was the lead agency.
- For the 12 months that ended June 30, 2017, no EISs were completed for which DOE was the lead agency.

Questionnaire Results

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Data Collection/Analysis

What Worked

- *Existing data.* Use of data from several previous NEPA assessments for similar actions helped expedite the EA process.

Process

Unsuccessful Aspects of the Public Participation Process

- *Out-of-scope public comments.* The public commented on issues outside the scope of the EA.

Usefulness

Enhancement/Protection of the Environment

- *Recreational impacts.* The NEPA process helped address possible recreational impacts to people boating on the river.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to the environment.

- For the past quarter, in which 2 questionnaire responses were received, both respondents rated the NEPA process as "effective."
- One respondent who rated the process as "3" stated that management supported the project.
- The other respondent who rated the process as a "3" stated that the NEPA process is a good exercise to determine if a proposed action would have negative impacts and determine better alternatives or solutions.