NEPA

National Environmental Policy Act

LESSONS LEARNED

U.S. DEPARTMENT OF ENERGY QUARTERLY REPORT

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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.

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 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

2014 National Environmental Justice Conference & Training Program

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.

NAEP 2014 Annual Conference: April 7–10

NAEP 2014 Annual Conference Changing Tides & Shifting Sands

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.

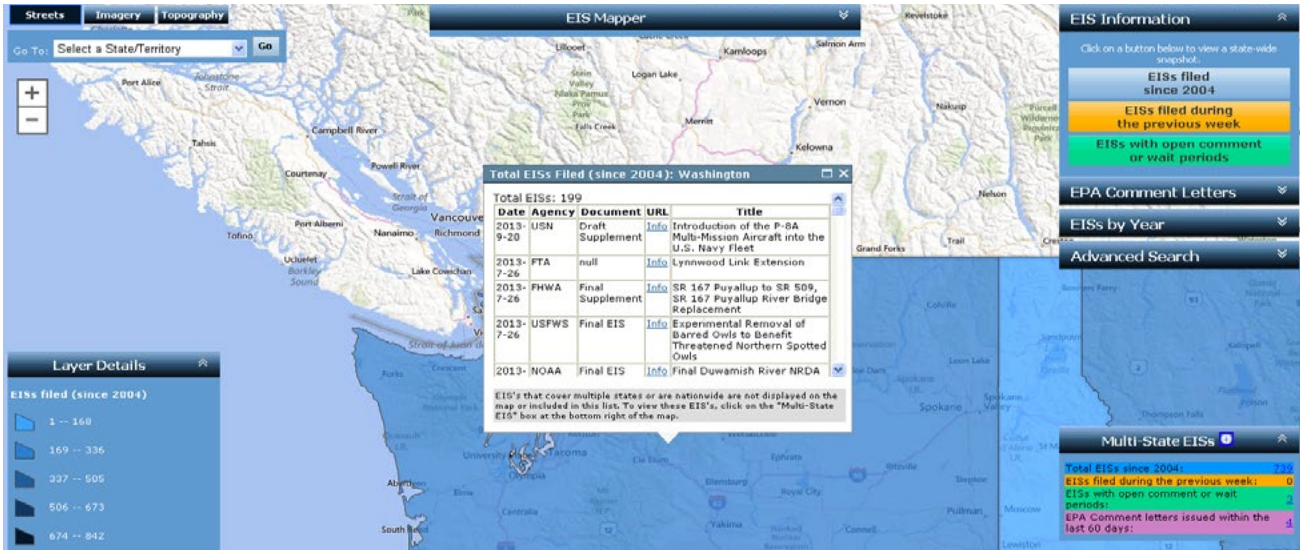
Under the *EIS Mapper's* "EIS Information" tab, users can view a list of EISs filed since 2004, EISs filed during the previous week, or EISs with open public comment or wait periods (for final EISs). By selecting "EPA Comment Letters," a user can see EISs by states and territories which had comment letters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



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

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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-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)

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

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

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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

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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.

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.

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.

About IPCC[4]

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. LL

[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.

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 (CO_2), 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 CO_2, methane, and nitrous oxide have all increased since 1750 due to human activity.
- CO_2 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 CO_2 are stopped. This represents a substantial multi-century climate change commitment created by past, present and future emissions of CO_2.
- 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."

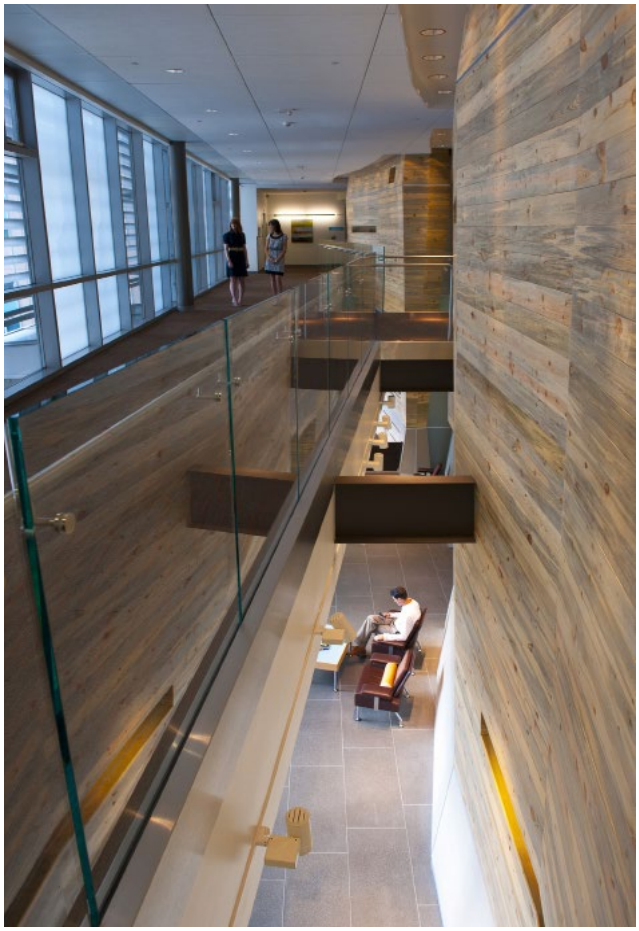
Mitigation To Avoid Traffic Congestion

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 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.



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.

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 −

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Golden Field Office Relocates

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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 FONSIs. They started by researching the Council on Environmental Quality (CEQ) and DOE regulations and guidance, and FONSIs 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 FONSIs 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 FONSIs prepared from the template. (FONSIs 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. LL

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 CO_2 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. LL

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@pnso.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

EAs[1]

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 Facts[2]

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.*

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 that 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)

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.