

# Examples of Benefits from the NEPA Process for ARRA Funded Activities

May 2011

In addition to reporting results, this report explores benefits resulting from the NEPA process for ARRA funded activities. Managers who use the NEPA process to holistically consider environmental issues and requirements find that the NEPA process helps them with program and project delivery in addition to improving environmental performance.

Managers are in a better position to determine how best to implement their programs and projects by considering alternatives for meeting program needs, policy objectives, and environmental requirements. They use the NEPA process to compare the relative benefits and tradeoffs associated with the alternative ways in which they can implement the projects and activities. The NEPA process was designed to allow Federal agencies to do more than “check the box” showing that they had complied with the law. The CEQ regulations set out the principle enshrined in NEPA over 40 years ago:

...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. (40 C.F.R. § 1500.1).

The following examples show how managers improved project performance, operationally and environmentally, and reached better outcomes. They provide an illustrative sampling of agency environmental reviews that have resulted in taxpayer dollars and energy saved, resources better protected, and the fostering of community agreements. Several agencies reported that a well run NEPA process improved working relationships with regulatory agencies and thereby contributed to better cooperation, which facilitated project delivery and implementation. These benefits were gained while expeditiously completing NEPA reviews for the ARRA funded projects.

a. Department of Agriculture:

While completing the Environmental Assessment for the NRCS’s Calaveras Creek Watershed Rehabilitation Project to repair structural components of a dam in Texas, a prehistoric bedrock mortar cultural feature was identified. If the site had not been properly surveyed and analyzed during the NEPA process, the cultural feature may not have been discovered and documented. The feature is unique in that no other bedrock mortars are known in this area of Texas. Design measures are planned to avoid adverse effects to the feature by covering it with appropriate protective fill material.

The NRCS’s Gering Valley Watershed Operations Project in Nebraska is a watershed operations project which is installing a drain system for an existing dam. The original dam was built before NEPA became law; therefore, not all of the environmental

resource concerns were identified. Based on the analysis completed for NEPA, NRCS opted not to select the original planned alternative that had design features that would have affected natural prairie resources in the project area and potentially impacted the visual aesthetics for the adjacent Scott's Bluff National Monument viewshed. Instead, another alternative analyzed in the EA that avoids those specific natural prairie resources and addresses the landscape/viewshed concerns will be selected. Thus, this project has benefited from the NEPA process by identifying the need to protect native prairie areas as well as protecting scenic beauty and visual aesthetics for the Scott's Bluff National Monument.

During the NEPA review of the Carolina Mountain Land Conservancy ARRA-Floodplain Easement project in Henderson County, North Carolina, NRCS consultation with the U.S. Fish and Wildlife Service (FWS) resulted in a collaborative partnership with FWS and other funders to restore, enhance and protect recovery habitat for federally listed endangered Bunched Arrowhead (*Sagittaria fasciculata*), a small plant that inhabits early succession saturated wetlands. A restoration design is being produced to provide appropriate hydrologic regimes and light levels to restore and expand habitat for the rare plant. An existing colony of Bunched Arrowhead has been temporarily removed from the site for conservation while the floodplain and wetland are restored. When restoration is completed, the Bunched Arrowhead will be re-introduced to the site.

The Forest Service Butler II/Slide Post-Fire Fuels Reduction Project in the San Bernardino Forest, California, is a vegetation management project designed to protect adjacent communities from the risk of future high-intensity wildfire and provide a safe environment for work crews. Two organizations objected to the project as designed. During the EA process, the forest met with the groups and found resolution. Both groups were also brought into the implementation monitoring to ensure their concerns were addressed.

The Environmental Impact Statement prepared by the Forest Service for the Lakeview-Reeder Roads project in Idaho, analyzed road maintenance reconstruction and new road construction in an area where the endangered boreal toad species exists. The project was intended to improve fish passage and reduce sedimentation in the area. Through public review of the draft EIS, a public comment identified a discrepancy regarding a buffer zone for the protection of the boreal toad. The road was redesigned to provide an adequate buffer to protect the species.

The Forest Service Babione Vegetation Management Project in Bighorn National Forest, Wyoming, was designed to conduct various vegetation treatments to reduce hazardous fuels and restore forest health. Through the public involvement process the agency worked with adjacent landowners to address concerns that on-the-ground activities could lead to increased trespass on their private land. In order to alleviate this concern and still meet the project's purpose several design elements were incorporated to address the landowners concerns.

The analysis of access and travel management in the Tongass National Forest, Sitka Ranger District assisted the Forest Service in determining how the road system on the Sitka Ranger District will be managed. The NEPA process revealed that many local residents favored leaving all or nearly all roads open, while a number of residents favored closing roads to protect water quality, fish habitat, and old-growth forest reserves. In considering the competing positions, the responsible official determined that hard choices had to be made. The Ranger closed roads where use would have unacceptable impacts on resources and left open roads where use would have no or limited impacts. The ranger district will pursue partnerships to facilitate improved access, including adopt-a-road agreements to maintain roads.

The Forest Service funded a Roan Mountain, North Carolina Facilities Maintenance project to repave existing trails, a parking area, and an access road. During the scoping process individuals requested the use of porous pavement be considered to reduce rain runoff. The use of porous pavement requires a 47 inch minimum clearance from the bottom of the paved surface to bedrock and in response to the scoping comments studies found the bedrock at the site is 6-12 inches below the surface. The NEPA process allowed the public to better understand why an alternative action that appeared to be environmentally friendly was not pursued.

The Forest Service funded Vegetation Management Project on Crooked River, Idaho was designed to conduct various vegetation treatments to reduce hazardous fuels and restore forest health. The Agency identified the State of Idaho's Department of Fish and Game as a cooperating agency. The state brought forward new information on flammulated owl habitat, which modified the acres treated and protected the habitat.

The Rural Development Rural Community Facilities Program included the proposed construction of the Eastern Shore Rural Health Medical Center in Olney, Virginia. This project involved construction of a new medical building, parking, and infrastructure, which required the installation of on-site groundwater sources and septic system. This site is located within the Columbia and Yorktown-Eastover Multiaquifer System which is a Sole Source Aquifer supplying more than 50 percent of the water needs for the communities within the service area boundaries. As a result of the NEPA process, the EPA reviewed the proposal in the planning stages and suggested modifications to the proposal to address the potential adverse risk to ground water from contamination. Also, due to the concerns of the public and agencies involved in permitting this project, to protect this sole source aquifer, the local Soil and Water Conservation District is using the facility grounds and surrounding area to plant native vegetation for a native and healing planted garden. Planting of native vegetation in this way will help to treat runoff from the proposed facility and contribute to protection of adjacent wetland and waterways, which recharge the aquifer.

The Rural Development Community Facilities Program also funded the adaptive reuse of the Milton Public Library in Milton, Pennsylvania, an existing structure eligible for listing on the National Register of Historic Places and located within an historic district. The reuse of this significant structure involved the purchase, relocation, and

renovation (including construction of an addition) on an existing two-story single family residence, the Rose Hill House, within the Milton Historic District. The dwelling was originally constructed in the late 1800s, was destroyed by fire in the mid-1900s and then subsequently rehabilitated, along with the carriage house also located on the property. Through the NEPA process and consultation with the State Historic Preservation Officer and interested parties, Rural Development was able to make a ‘no adverse affect’ determination for the adaptive reuse plan for this National Register of Historic Places eligible structure.

The Rural Development Community Facilities Program funded a proposal to renovate dorms and construct apartments for student housing at Bridgewater College, in Bridgewater, Virginia. The college is located next to the Town of Bridgewater’s historic district. The college, founded in 1880, has a number of historic buildings on campus, many dating to the late 1800s. Pursuant to Section 106 of the National Historic Preservation Act, the college’s architect, in close consultation with the Virginia Department of Historic Resources, provided a design that would appropriately blend the new construction and renovations with the existing historic character of the area. The new apartment buildings are Victorian in appearance and are consistent with the adjoining historic district. The renovations of the dorms blend in with the existing buildings on the campus. As a result of the application of NEPA and the related Section 106 consultation process, the college was able to provide modern student housing with a historic character that is an asset to the college and the historic flavor of the Town of Bridgewater.

Rural Development funded the installation of a 12 million gallon per day water intake and pump station, along with a transmission line to the Middle Holstein South Fork Water Treatment Plant in Washington County, VA. In addition, the Water Treatment Plant will be upgraded to handle the additional flow. Through implementation of the NEPA process in the planning stages, this project identified mitigation actions to protect the archaeological remains of two prehistoric Native American camps and minimize floodplain impacts. In addition, mitigation was included to protect the scenic beauty and visual aesthetics of the Virginia Creeper Trail, a “rails-to-trails” project in the National Recreation Trail inventory.

Rural Development’s Rural Water & Waste Disposal Program funded a water distribution project, the Millwood-Bloomington Water System Improvement Project, that will provide for the installation of approximately 140 miles of pipeline in Williamsburg County, South Carolina. This will provide water service to residences currently served by individual private, unregulated wells. Through implementation of the NEPA process in the planning stages, this project identified potential species and habitat impacts on the American chaffseed (*Schwalbea americana*) and red-cockaded woodpecker (*Picoides borealis*), species protected under Section 7 of the Endangered Species Act. The mitigation resulted in adjusting the pipeline route as well as the location of construction equipment. In addition, mitigation was developed to protect the scenic beauty and visual aesthetics of the Black River, a river segment included in the Nationwide Rivers Inventory.

b. Department of Commerce:

The Department of Commerce NOAA Operations, Research and Facilities actions include effective standard and special award conditions placed on the use of ARRA funds. Those conditions will ensure adequate protection for federally administered areas of coastal or marine habitat, and/or biological resources such as anadromous fisheries, federally listed endangered or threatened species and marine mammals. These conditions also ensure protection for historic structures and cultural resources that are listed, or eligible for listing, on the National Register of Historic Places.

The National Telecommunications and Information Administration's Broadband Technology Opportunities Program (BTOP) employed an iterative process with applicants to make them aware of the environmental review implications of the proposed projects for which they sought grants. In one case, the fiber optic cable project required trenching and excavating of wetlands. Through the environmental review process, the applicant became aware of the critical issues associated with wetlands and is working to avoid some impacts and fully mitigate those caused by their project.

In another Broadband Technology Opportunities Program project, the NoaNet was developed to serve the State of Washington by allowing the state to upgrade and expand broadband infrastructure to combat the social and economic issues facing local and rural communities and to enhance broadband connectivity to six Indian tribes in the State. The NEPA process was the key procedural step in identifying and protecting critical habitat and protected lands in the State of Washington, while still allowing the grantee to use ARRA funds to add fiber backbone capacity to existing networks and specifically target and develop broadband infrastructure in areas that were underserved.

As a result of the NEPA process, the Economic Development Administration protected a 26.5 acre forested wetland to the southwest of the Flagship Enterprise Center, a 80,000 square-foot multi-tenant business/industrial facility on an 8.4 acre site. The wetlands are important habitat because of the permanent aquatic habitat that might be used by migratory waterfowl. Conditions on the \$2.7 million in Recovery Act funding for the construction project will protect the wetland by (1) precluding impacts on the hydrology of the wetland through any changes of slope or drainage features; (2) preventing runoff from storm events from being directed to the wetland; and (3) providing retention facilities to contain storm water within the current footprint of the project site.

The programmatic environmental assessment process allowed the National Institute of Standards and Technology to evaluate the environmental effects of several construction projects in Gaithersburg, Maryland at the same time. By analyzing all ARRA projects and a few additional non-ARRA projects at once, a holistic approach to the campus was taken and environmental impact boundaries were outlined in the Finding of No Significant Impact for all present and future projects. Projects must fall within the boundaries or they will require additional environmental analysis.

c. Department of Defense:

The U.S. Army Corps of Engineers' NEPA process for the Lorain Harbor, Ohio dredging allowed a reiteration and reconsideration of dredged material management alternatives and provided the opportunity for public interest review. Analysis conducted in conjunction with the NEPA action verified that a greater volume of dredged material was suitable for unconfined open-lake placement thereby obviating the need to provide additional confined disposal capacity than was previously planned through the Lorain Harbor Dredged Material Management Plan (DMMP).

The NEPA process for the Norfolk District, U.S. Army Corps of Engineers (USACE) Winter Harbor, Virginia Federal Navigation Project alerted the District to the potential impacts of depositing channel sediments upon an eroding beach shoreline inhabited by the federally endangered Northeastern Beach Tiger Beetle. The District, during development of the Environmental Assessment and consultation with the FWS, developed conservation and mitigation measures designed to protect the beetle. These measures resulted in maintenance dredging that avoided work during seasons that would impact the beetle, created additional habitat, and completed the maintenance dredging to facilitate navigation.

The Tres Rios project connects Rio Salado and Rio Oeste environmental projects in Phoenix, Arizona, and continues the restoration of the Salt River west to the Agua Fria River. Tres Rios provides a net environmental benefit by maintaining the effluent thereby enhancing the riparian area in addition to protecting 600 structures from flooding this project maintains habitat for many species of birds, reptiles and mammals to live, nest and raise young. The NEPA process alerted the agency of the potential impact of placing dredged material in sensitive areas that would have impacted the wildlife and resulted in realigning the dredged material placement areas to maintain the habitat areas.

While reviewing the proposal to create a 200-acre Bolivar Beneficial Use Marsh in Galveston Bay, Texas, the U.S. Army Corps of Engineers worked with other agencies to form the Beneficial Use Group to devise a plan to eliminate open bay placement of dredged material and to use dredged material to create environmental features that provide a net benefit to the Bay ecosystem. Historically, deep-draft channel construction and maintenance material had been deposited into unconfined, open bay placement areas in Galveston Bay, which resulted in adverse impacts to bay bottom habitat now designated as essential fish habitat. Further, the loss of intertidal marsh has been identified as one of the critical problems of the Galveston Bay estuary by the Galveston Bay National Estuary Program. As a result of the environmental review for projects including the Bolivar Beneficial Use Marsh, the Group prepared a plan to create intertidal marsh and nesting islands for colonial water birds. The project also provides benefits to important recreationally and commercially valuable fish species.

Over the years, frequent flooding impacted large numbers of Des Moines, Iowa residential, commercial, and industrial properties. In cooperation with Des Moines, The

Rock Island District (District) conducted a flood reduction feasibility study with an integrated environmental assessment. The project's study team evaluated many alternatives involving levee operation and maintenance, improvements, and new alignments that would reduce operation and maintenance costs and improve safety during flood events. Due to the importance and value to the City of Des Moines, the District expedited their report preparation with emphasis on adaptive management. The NEPA process established mitigation requirements and agency coordination pivot points based on the desired final plans. The close project coordination between the District and City of Des Moines resulted with the feasibility report/EA including wetland mitigation based on a series of levee alignment scenarios within the preferred alternative. All the scenarios resulted in no significant impacts.

The District COE proposed a project to construct emergency streambank and erosion protection for a major city thoroughfare in Iowa City, IA, along the Iowa River. The original plan and environmental assessment included bank protection encroaching approximately 15 feet into the river. During the NEPA process, the Iowa Department of Natural Resources (IDNR) indicated there was a possibility the project may impact two state threatened mussel species. The District completed the mussel survey, which found 11 native mussel species, including the state endangered Pistolgrip. Based on the mussel survey findings, the District and IDNR worked together to relocate all the recovered mussels to a nearby mussel sanctuary and the District reduced the project footprint in the river to avoid impacts on the mussels.

The Department of Defense reports that the NEPA reviews for the Energy Conservation Investment Program benefited the Department. This program is designated for ARRA projects that reduce energy and water usage and include proposed construction of high efficiency energy systems. The NEPA process required a separate look at the project planning stage to identify impacts and alternatives in support of sustainability and energy conservation that have led to a reduction of energy and water needs and costs.

The formation of a Beneficial Use Group (BUG) during the NEPA process for the Army Corps of Engineers, Galveston, TX District's Houston-Galveston Navigation Channels (HGNC) Project led to a plan to eliminate open bay placement of dredged material and to use dredged material to create environmental features that provide a net benefit to the Galveston Bay ecosystem. As a result of the NEPA process, the BUG came up with a plan to create intertidal marsh and restore and create colonial water bird nesting islands with HGNC dredge material. This project will result in a net benefit to the Galveston Bay ecosystem by creating 88 acres of intertidal marsh for mitigation of impacts, that will provide benefits to important recreationally and commercially valuable fish species.

d. Department of Energy:

DOE used the NEPA process for the loan guarantee for construction and operation of a flywheel-based frequency regulation facility at an undeveloped seven acre site in Stephentown, New York. This Environmental Assessment provided a forum to

document and explain the benefits of the project to the public and decision makers, specifically, the greenhouse gas savings that could be achieved by using the proposed flywheel-based frequency regulation technology as opposed to the fossil fuels-based frequency regulation technology.

An Environmental Assessment was used to consider a loan guarantee for construction and startup of the proposed Neal Hot Springs Geothermal Facility in Vale, Oregon. The NEPA process helped DOE to identify and address potential low level induced seismicity associated with enhanced geothermal systems where injection is used to improve reservoir permeability and sustainability. The identification of these issues occurred early in the process, which allowed for efficient inclusion of practicable environmental control measures to ensure that the project was not a potential source of seismic activity.

An Environmental Assessment was also used by DOE to integrate project planning and environmental concerns for demolition of Building 330, which housed the former Chicago Pile-5 research reactor at Argonne National Laboratory in Illinois. The scoping phase of the process brought operational and environmental expertise together and facilitated development of demolition and transportation approaches to better protect workers and the public.

DOE used the Environmental Assessment process to take a more comprehensive look into future planning at the Savannah River Site in South Carolina. The Environmental Assessment analyzed the waste streams of both low-level and mixed low-level radioactive wastes, for the past, current, and anticipated scope of work, and all potential government and commercial waste facility destinations. This resulted in solutions that were much more cost and time efficient, and limited the expected transportation impacts over the long term in the surrounding communities. This comprehensive approach was achieved due to input received during agency and public scoping.

The Bonneville Power Administration used the Environmental Impact Statement process for the construction and operation of a new 500-kilovolt transmission line along the Columbia River in Oregon and Washington. The NEPA process helped refine the transmission line route to avoid conflicts with local community and private property land use. The route refinement would not have been apparent without public participation in the NEPA review. The process facilitated public understanding of the project and identified appropriate mitigation measures relative to cultural sites, sensitive plants, wildlife, wetlands, and land use.

A DOE Environmental Assessment analyzed the then-proposed molecular foundry, a nanoscience research facility at the Lawrence Berkeley National Laboratory in Berkeley, California. The DOE Environmental Assessment influenced the design, construction, and operation decisions and identified mitigation measures to avoid impacts to the Alameda whipsnake, a species listed as threatened under the Endangered Species Act. As a result of the NEPA process, DOE sited the facility outside of critical habitat,

restricted construction activities to daylight hours, disposed of soils in a manner to reduce the potential for encountering and injuring whipsnakes, and implemented landscape design and maintenance during and after construction so as to reduce potential impacts to the whipsnakes.

NEPA analysis was conducted for construction of a vehicle battery and hybrid components manufacturing facility, sited in Midland, Michigan. The NEPA process increased the project team's awareness of issues related to preexisting dioxin-contaminated soil, including the potential for impacts in the vicinity of the project site. The applicant incorporated measures to minimize the risk of exposure to dioxin-contaminated soils during construction, including notifying the affected facilities (including a day care) of the construction activities and potential exposures, more rigorous management and monitoring of fugitive dust when direct fugitive dust emissions would impact nearby facilities, providing for temporary relocation during days of exposure, scheduling around day care operation, and providing temporary enhanced air filtration during construction.

DOE proposed to issue a grant for the development and production of electric drive vehicle systems in Detroit, Michigan. The project initially involved construction of more than 2 million square feet of manufacturing space on multiple undeveloped sites. Environmental implications identified during the NEPA scoping process led to an iterative process between the applicant and DOE staff to reshape the proposal into one that involved retooling and retrofitting existing manufacturing facilities, with only minor new construction on a previously disturbed site. Potential environmental impacts were greatly reduced through this process.

In accelerating clean-up work at the Transuranic Waste Processing Center located within the Oak Ridge Reservation in Oak Ridge, TN, DOE implemented mitigation measures for a small wetland that was identified during the NEPA review. Early consideration of environmental information during the review of proposals for the project helped DOE avoid costly analysis of alternatives that may not have been viable. The NEPA process facilitated communication with other agencies regarding the alternatives and their associated impacts. It also provided an educational tool for the public, showing that various alternatives were considered and that DOE was moving forward with the alternative that would least impact the environment in the short-term and improve the environment in the long-term.

DOE funded the construction of a light source facility at Brookhaven National Laboratory in Upton, NY. The light source will deliver x-rays with unprecedented intensity and brightness for research to find solutions to important energy challenges. During the EA scoping process, DOE learned that a state mining permit would be required to acquire sand from outside the immediate project area, which would delay the start of construction. Input to the design process identified a sufficient volume of sand from the immediate project area, and the delay was avoided. The NEPA process also identified the potential for project storm water discharge to affect recharge basins considered designated habitat for the tiger salamander, a state threatened species. This

triggered changes to the project design to adjust discharge location points and maintain flows to ensure the area continues to be suitable salamander habitat.

An environmental assessment was produced for a proposed Advanced Vehicle Battery and Hybrid Components Manufacturing project in Sanborn, New York. The program, listed under Energy Efficiency and Renewable Energy, is a grant program to accelerate the development and production of electric drive vehicle systems to substantially reduce petroleum consumption in the United States. In response to comment during the NEPA process, the project will use landscaping techniques, including replacement vegetation native to the area and free of invasive plant species, to reduce the need for water to maintain landscapes and to benefit native plant communities and wildlife.

Idaho National Laboratory, located in southeast Idaho, is accelerating disposition of remote-handled transuranic (radioactive) waste. Information received from external technical experts during the comment period on the draft environmental assessment facilitated the selection of a transportation route that minimized the risk of potential impacts to cultural and biological resources.

e. Department of Health and Human Services:

In considering an important Brownfield redevelopment project in South Providence, Rhode Island, the NEPA process for the Providence Community Health Center helped to uncover the existence of potential residual contaminants from lithography chemicals and underground tanks at the historic site. Working with EPA Region I and the Rhode Island Department of Environmental Quality, HHS ensured that the necessary measures were incorporated as part of redevelopment of the site to protect human health and minimize the potential for future liability. Upon receiving the appropriate findings that remediation standards have been met to ensure that the future health of workers and patients is protected, HRSA moved forward with funding the project.

f. Department of Homeland Security:

The Environmental Assessment for the U.S. Coast Guard Cutter Sycamore housing project in Cordova, Alaska, identified potential wetlands impacts which resulted in considering additional alternatives for site locations and housing configurations. An Environmental Assessment published in 2002 identified a requirement for additional site hydrology studies of wetlands within the building location. The environmental field studies discovered extensive on-site wetlands, the impact to which could not be totally avoided. The supplemental Environmental Assessment process provided the opportunity to consider additional alternatives for configuration of the housing as well as an opportunity for public input on those alternatives. The supplemental Environmental Assessment and Finding of No Significant Impact provided recommendations that preserve and maintain much of these wetlands and minimize down slope storm water runoff.

The NEPA process allowed the Coast Guard proposed alteration of the Burlington Northern Santa Fe Railroad Bridge between Iowa and Illinois to determine and address the potential impacts the bridge construction would have on the Spectaclecase mussels located on the existing bridge piers. The mussels are a species of conservation concern in Iowa and endangered in Illinois. As part of the NEPA process, a Biological Assessment concluded the mussels would be relocated prior to construction in order to avoid an adverse effect on the mussels and construction processes were modified to mitigate impacts to these species.

In a similar example, the NEPA process allowed the Coast Guard to determine the potential impacts of the alteration of the Galveston Causeway Bridge in Texas on species of concern and construction processes were modified to mitigate impacts to affected meiofauna and microfauna species.

The Federal Emergency Management Agency (FEMA) is using the NEPA process for ARRA grants to engage grantees early in the process so that environmental issues can be addressed to avoid or minimize potential impacts to the environment. FEMA's grant awards are intended to help strengthen the resiliency of communities in their overall homeland security preparedness, and the grant award documents are written to help ensure that grant funded projects are accomplished with little to no impact to the environment. Grant award terms and conditions prevent the release of grant funding until FEMA has determined that a project is eligible for a categorical exclusion, a finding of no significant impact or the grantee has agreed to implement mitigation activities. Grantees are taking into account ways to minimize impacts to sensitive resources, including historic structures, endangered species, wetlands, and floodplains. This encourages grantees to identify ways to minimize the impacts of the projects that they are proposing, but it also helps to raise the grantees' awareness and improve their planning for future grant-funded projects so that they can proactively begin data gathering and will know what resources to avoid as they move forward. In addition, as more projects progress through the NEPA process, mitigation measures will be identified and implemented in order to protect valuable resources. This process is most evident in the types of projects implemented by the ARRA Fire Fighter Assistance and Fire Station Construction Grants, where the award making decisions consider potential impacts to sensitive resources.

g. Department of Housing and Urban Development:

The Housing and Urban Development NEPA process for the Palestine Commons Senior Living Facility project, which involves the construction of 69-units of elderly housing in a three-story structure in Kansas City, Missouri, helped ensure that soil and groundwater contamination will be remediated to state cleanup levels and that all units will be constructed to the Energy Star performance standard. This will likely be one of the largest multi-family buildings in the Kansas City metropolitan area to meet Energy Star requirements.

The Housing and Urban Development NEPA process for the Snohomish Multi-family Rental Housing project involved Neighborhood Stabilization Program funds and Public Housing Recovery Act Capitol Funds to construct multi-family housing in Marysville, Washington. Snohomish County Housing Authority, as project sponsor, is responsible for preparing the environmental analysis. The site is directly adjacent to Interstate 5, the main interstate highway on the West Coast. As part of the environmental review, HUD environmental officers worked extensively with Snohomish County to calculate the noise levels and to determine appropriate mitigation measures for the housing and an on-site tot lot. Mitigation for the housing will incorporate the best sound-attenuation construction technologies for windows, walls, and ceilings. Mitigating noise for the tot lot was achieved by altering the site plan and re-arranging building footprints to block sound transmission in the tot lot area. The NEPA process allowed alternative mitigations to be considered and encouraged creatively applying HUD standards in the planning phase of the project in order to minimize noise impacts to future residents.

The Housing and Urban Development NEPA process for the Historic Bastrop High School building in Bastrop, Louisiana involved the ARRA Tax Credit Assistance Program (TCAP) to convert the historic building into 76 units of housing for the elderly. The project converts a public nuisance into a project that supports the Bastrop Main Street downtown redevelopment plan. The historic building had deteriorated in recent years and the NEPA review identified numerous issues with the unsecured building, including structural instability, roof leaks, and, notably, lead-based paint, asbestos, and lead contaminated galvanized water supply pipes. Project design and rehabilitation plans were coordinated with the State Historic Preservation Office to preserve and restore the building's original red brick exterior with expansive new permanent windows. As a result of the project, the structure has now been secured and stabilized with the installation of new roofing and windows.

HUD provided ARRA funding to the Topeka Housing Authority to construct 64 units of new public housing in Topeka, Kansas. The mixed-financing Echo Ridge project will comply with the Enterprise Green Communities Criteria for sustainable development. Owing to HUD's NEPA review process, the project will also be quieter than otherwise would have been the case, because the need for a noise barrier was determined. A 1,700 foot noise barrier will be built to protect the project residents from roadway noise using a combination of earthen berm and masonry wall, which, in conjunction with landscaping, will soften the effects of the noise barrier itself.

h. Department of the Interior

The 56 ARRA Hazardous Fuels Reduction projects implemented by the Department's Office of Wildland Fire Coordination are small but highly visible model projects for public outreach and participation, planning and implementation. Each project showcases within local communities the efforts to reduce hazardous accumulations of vegetation and woody fuel that pose potential wildfire risks to these same communities as well as the potential benefits of utilizing woody materials that would otherwise be disposed of in landfills. Making use of the NEPA public

involvement process, projects were identified either through the development of local, collaborative community wildfire protection plans, or to meet the objectives of land and resource management plans which prioritize the protection of communities from the risk of wildfire as well.

The Lime Kiln Salvage Road project north of Lewistown, Montana, was successful in large part due to the Bureau of Land Management (BLM) NEPA public involvement process. The public involvement process was instrumental in helping to design a road system to access and salvage blow down timber as well as recognize the recreational values of the area. The public emphasized the need for the area to be maintained as a non-motorized use area but also came to recognize the need to address the blow down timber and subsequent forest health issues. Several proposals were presented, discussed and refined during public meetings and ultimately led to the decision to build a road to access salvage logging and then close the road to motorized use. Additionally, portions of the road will be rehabilitated to the extent possible while other portions will be incorporated to expand the existing recreational trails in the existing Limekiln Trail System and provide future recreational opportunities.

The National Park Service (NPS) prepared an EA that analyzed the proposals to reuse the historic Shirley House at Vicksburg National Military Park, Mississippi, in an Environmental Assessment. Shirley House is currently inaccessible to visitors and access is limited to only those park employees performing necessary repairs and inspections. Given its condition, visitors cannot enter the building or fully appreciate its historic significance. The park originally proposed to adaptively re-use the structure for offices or for a visitor contact station. However, as a result of the NEPA Environmental Assessment and comments received during public scoping, the original scope of the project was modified to focus more on preserving, rehabilitating, and restoring the historic fabric of the structure and providing a more historically accurate setting for visitors. The preferred alternative will allow the Shirley House to be opened to the public while at the same time protecting the integrity of the historic structure and the surrounding cultural landscape.

The NEPA process for considering closure of several abandoned mines in four Arizona parks allowed the NPS to consider the actions of abandoned mine closures comprehensively and on a landscape-scale. The environmental assessment evaluated the impacts associated with abandoned mine closures at Coronado and Organ Pipe Cactus National Monuments and Grand Canyon and Saguaro National Parks and identified specific mine closure activities for each feature in the four parks, and indicated specific mitigation measures to protect sensitive cultural and natural resources. Combining the NEPA public involvement processes (public scoping and review) in conjunction with enhanced agency consultation efforts for abandoned mine closures at the parks provided the public with a more thorough understanding of the overall project activities and helped to streamline the review and comment by interested and affected parties.

Providing a forum and opportunity for public involvement is a primary objective of the NEPA process. The FWS Alaska Region conducted an environmental assessment

(EA) for a project aimed at restoring habitats for nesting seabirds on isolated oceanic islands (entitled Invasive Species Eradication for Habitat Restoration on Tangik, Poa and Sud Islands, Alaska). The public's participation in this NEPA action was positive and highly supportive. When the EA was circulated for public comment, the majority of the responses received were in favor of the project. In one case, a member of the public suggested that the FWS not use lead shot to terminate invasive rabbits and marmots because of the potential threat of ingestion by birds that might prey on or scavenge carcasses that cannot be retrieved. Based on this input, the FWS clarified the project description to make clear that only steel shot or non-toxic lead alternatives will be used, thereby protecting bird species from the adverse impacts associated with ingesting lead shot.

The Environmental Assessment for the Bureau of Reclamation's Sunnyside Conduit project in Washington was developed with input from stakeholders to ensure all aspects of the project were addressed. The public scoping process provided feedback that identified a key storm water issue which needed to be analyzed. A public review of the assessment was conducted to allow another opportunity for the public and stakeholders to comment on the incorporation of the storm water item, as well as other components of the NEPA review. As a result of NEPA process, the project will benefit fish and conserve water by leaving more water in the natural system.

In the course of conducting the necessary research associated with the underground tank removal project at the Steilacoom Warehouse and Storage Facility in Washington, the USGS established a strong working relationship with the State of Washington Department of Ecology, Department of Archeology and Historical Preservation, the Steilacoom Tribe, the Nisqually Tribe, and the Puyallup Tribe. These new relationships allowed USGS to complete the NEPA review for the project and begin implementation expeditiously and efficiently.

A National Park Service project will replace a learning center, intern housing and employee housing that were destroyed by a wildfire in the Santa Monica National Recreation Area, CA. The project will also remove hazards that resulted from the wildfire and make the area safe for visitors. The NEPA process allowed for public and regulatory agency input on the project, as well as input from regional and park experts. As a result of the review, the project will be more protective of park resources. Because of the NEPA review, the final project included 30 mitigation measures designed to protect the dark night sky, viewsheds, vegetation, water quality, archeology, and natural resources.

A National Park Service project will repair damaged culverts and headwalls along the Park Loop Road in Acadia National Park (ME). One of the culverts to be repaired under this project spans Hunters Brook, a high-quality trout fishery and sensitive resource of concern. In this location, paving stones were used to armor the stream bank in the past. Due to stream movement and erosion over the years, the paving stones have fallen into the stream channel, causing additional stream bank erosion and sedimentation into the trout stream. The NEPA scoping process for this project resulted in the development

of an alternative that will restore the health of Hunters Brook while preserving the historic character of the road that passes over the brook. The road and associated culvert and headwalls are part of the Park Loop Road system, which is listed on the National Register of Historic Places. This solution was developed through consultation with a number of agencies, including the Army Corps of Engineers, the Maine Department of Environmental Protection, the Maine Department of Inland Fisheries and Wildlife, and the Maine Historic Preservation Officer. If not for the NEPA and permitting processes, it would likely have been a "band-aid" repair and not the long-term solution that was needed to restore the health of the stream.

i. Department of Labor:

A wind turbine for Treasure Lake Job Corps in Oklahoma was to be located in the Wichita Mountains Wildlife Refuge which is a habitat for Eagles and other soaring birds. Another wind turbine at Boxelder Job Corps, South Dakota was to be located in the Black Hills National Forest, which is also a habitat for soaring birds. Environmental Assessments were prepared for those projects. Based on the results of the Environmental Assessments, Job Corps management decided on September 1, 2009, that placement of the turbines would not be appropriate at these locations because the risk of threatening migratory birds in the areas outweighed the advantages of these renewable energy projects. DOL was able to redirect those funds to two renewable energy projects, the North Texas and Hawaii/Maui Job Corps Centers Wind Turbine projects, that did not have the potential for significant impacts.

j. Department of State:

The Department of State benefited from the Environmental Assessment prepared for improvements to the Arroyo Colorado Floodway in Hidalgo and Cameron Counties in Texas. The International Boundary and Water Commission, U.S. Section, proposed raising the levees to allow for adequate protection of a 100 year flood event and to meet the standards of the Federal Emergency Management Agency. The NEPA process allowed the US Section to involve the surrounding community and stakeholders in an evaluation of potential impacts that may occur to cultural resources in the project area and developed protective measures to preserve the resources.

k. Department of Transportation:

The Federal Highway Administration has processed or is currently processing ARRA-funded projects in many States that demonstrate the benefits provided by the NEPA analysis and documentation. The involvement of stakeholders and collaboration with resource agencies have resulted in projects which incorporate features such as context sensitive solutions and non-motorized facilities into the improvements to highway facilities. For example, on the Yuma Pivot Point Plaza project in Arizona, the NEPA process led to the recognition of the importance of protecting the Swing Span project, a historic feature of the transcontinental railroad system, as well as connecting the Plaza with the adjacent Gateway Park. In the case of the U.S. 33 Nelsonville Bypass in Ohio, the NEPA process led to mitigation measures during and after construction,

including tree and grass planting for erosion control and native plant restoration, provisions for large and small animal crossings, special fencing to prevent animal encroachments into the right-of-way, and special lighting to direct the flight of bats over the roadway.

In the case of the Newtown Pike Extension project in Kentucky, as a result of the early coordination of the NEPA and National Historic Preservation Act processes, FHWA introduced measures to record the history of National Register of Historic Places eligible structures, collect local oral histories, and use the results from phase 3 archaeological studies for public education efforts.

The Federal Aviation Administration prepared an Environmental Impact Statement for the construction of a replacement airport at St. George, Utah. The replacement airport at St. George is designed for larger aircraft, contributing to fewer overall operations and a decrease in jet fuel demand and emissions. Through alternatives development in the NEPA process, the EIS allowed for the evaluation of alternatives with environmental benefits for airport noise, air quality and energy efficiency. As a result, under the proposed action, no dwellings fall within the 65 decibel Day-Night Sound Level (DNL) noise contour. In addition, the proposed facilities were designed to be more energy efficient.

The Federal Railroad Administration's NEPA review of ARRA projects has resulted in the early identification and documentation of valuable historic resources. For example, environmental analysis considering the Replacement of the Safe Harbor Transmission Lines in Lancaster County, Pennsylvania has determined that the transmission poles involved are historic resources. A cultural resources assessment for the same project indicated the possible presence of tribal cultural resources within the area of potential effects. FRA efforts resulted in the crafting of a Memorandum of Agreement regarding the use of historic resources signed by all parties.

1. Department of Veterans Affairs:

NEPA reviews conducted by the National Cemetery Administration provide a framework for VA to evaluate proposed energy projects and compare them to other alternatives, thereby optimizing their locations. For example, the Environmental Assessment for the Wind Turbine at Bourne, Massachusetts allowed VA to evaluate a range of potential wind turbine capacities and conclude the optimal turbine capacity for the Massachusetts Military Reservation, taking into account and reducing potential noise and visual impacts.

The EA for a biomass boiler project at White River Junction Medical Center in Vermont, by using a holistic NEPA review, allowed VA to evaluate the installation of additional equipment in combination with the biomass boiler, and to consider different potential storage areas for wood chips.

In another example, the Environmental Assessment for the ground mounted solar photovoltaic system at San Joaquin Valley National Cemetery in California considered and eliminated other locations due to proximity to burial sites, proximity to existing electrical systems, and roof composition. An Environmental Assessment for another photovoltaic array project at the Dublin, Georgia VA Medical Center was helpful in studying issues of aesthetics, hydrology, and noise.

m. Environmental Protection Agency:

The Environmental Protection Agency addressed the Diesel Emission Retrofit (DERA) Program through a programmatic (rather than individual) NEPA review process. As a result of that decision, and the expeditious completion of a comprehensive Environmental Assessment (which was circulated for a 30-day national review), EPA was able to issue a Finding of No Significant Impact for the entire DERA Program. This allowed EPA to expedite the award of over \$290 million in Recovery Act funds.

n. General Services Administration:

The Environmental Assessment process and associated consultation with the Puerto Rico SHPO on the Federal Bureau of Investigation Field Office Consolidation project that proposed a new parking garage adjacent to the existing Hato Rey Federal Building identified a new building eligible for listing on the National Register of Historic Places. The Hato Rey Federal Building was identified as a structure eligible for listing on the National Register, although it had not yet reached the age of 50 years. The NEPA review for the proposed parking garage ensured that the design and of the parking garage did not negatively impact the viewshed of the Hato Rey Federal Building.

During development of the Edith Green/Wendell Wyatt Federal Building in Portland, Oregon, the Environmental Assessment and feasibility study investigated various alternative energy efficient technologies such as the installation of a ground source heat pump for the building. The NEPA process has also ensured that the public is involved with the entire process, by holding scoping meetings to disseminate information regarding the test well for the ground source heat pump and the determination of whether or not it can meet specifications to work in the building.

o. National Aeronautics and Space Administration:

NASA reported that its NEPA program ensures that the agency is proactive in meeting its Federal stewardship responsibilities while ensuring mission success and lowering costs. For example, within the Recovery Act Cross Agency Support (CAS) Program involving hurricane repairs at Johnson Space Center, in Texas, a reduction in energy, operations, and maintenance costs was identified as one of four overarching success criteria and sustainability practices were incorporated into the CAS projects. As a result, Johnson Space Center (JSC) is expected to gain between 20 to 30 percent in energy efficiency on each building where Recovery Act funded roof repairs are being undertaken.

p. National Science Foundation:

As a result of the NEPA process employed by the National Science Foundation (NSF) for the Advanced Technology Solar Telescope (ATST), NSF became aware of concerns about the ATST's potential impacts on cultural resources. In response to those concerns, NSF agreed to implement many forms of mitigation, including the formation of the ATST Native Hawaiian Working Group, a novel approach designed to help ensure continued consultation throughout the construction and operation phases of the ATST. This mitigation measure became part of both the NEPA and the National Historic Preservation Act Section 106 mitigation measures. In addition, the NEPA process led to a mitigation measure designed to address the intersection between Native Hawaiian traditional cultural practices and science by funding an educational initiative with Maui Community College.