

March 4, 2014; Issue No. 78

# GIS and NEPA: Partners in Environmental Analysis

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

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

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

#### – Melissa Ardis NEPA Document Manager, Golden Field Office

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

First Quarter FY 2014

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

### CEQ Encourages Sharing Best GIS Practices

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







#### Inside Lessons Learned

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

DOE NEPA Practitioners To Test NEPAnode	3
Using GIS Tools for NEPA Analysis	4
Select Past LLQR Articles on GIS and NEPA	4
Using GIS To See the Big Picture and "Zoom In".	5
Online Tool for Endangered Species Consultation.	6
Western Governors' GIS Tool	7
Annual NEPA Planning Summaries	8
Office of Science NEPA Procedures	9
Forest Service Alternative NEPA Arrangements	.10
Tools Can Help Identify Tribal Contacts	.12
Transitions	.13
NAEP 2014 Annual Conference	.13
EAs and EISs Completed This Quarter	.14
Cost and Time Facts	.15
Questionnaire Results	.16

Carol Borgotrom) Director Office of NEPA Policy and Compliance

Printed on recycled paper

### Be Part of Lessons Learned

#### We Welcome Your Contributions to LLQR

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

#### Quarterly Questionnaires Due May 1, 2014

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

#### LLQR Online

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

## Most DOE EISs Involve Cooperating Agencies

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

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

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

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

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

#### **Cooperating Agencies**

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



### DOE NEPA Practitioners Invited To Test NEPAnode

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

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

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

#### **Pilot Test Underway**

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

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



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

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

### Focus on GIS





## Test NEPAnode

#### (continued from previous page)

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

### How It Works

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

A NEPA Document Manager could develop a map with the project team for internal analysis. They could then refine the map and make it available to other agencies for comment or to facilitate a discussion of potential alternatives. The presentation might then be further refined for public review and involvement. "This opens the door to a new way agencies can collaborate with each other and to how NEPA analyses can be communicated to the public not just through text, but through interactive maps," said
Mr. Jediny.

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

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

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

### Using GIS Tools for NEPA Analysis

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

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

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

### Select Past LLQR Articles on GIS and NEPA

Dec 2013, page 3 EIS Mapper Sep 2012, page 9 General discussion of GIS benefits Sep 2012, page 8 GIS Data Inventory Jun 2012, page 8 *Geo.data.gov, NEPAssist, EJView* Dec 2011, page 15 *READ-Database* Dec 2009, page 10 *NEPAssist* 

4 March 2014





### Using GIS To See the Big Picture and "Zoom In"

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

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

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

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

### Map Layers Inform Project Siting

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

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

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

### A Popular Tool with Stakeholders

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

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

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

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



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





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

#### **Current Features of IPaC**

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

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

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

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

### Future IPaC Capabilities

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

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



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

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

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



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

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



### Focus on GIS

## ٢

### Western Governors Launch Crucial Habitat Assessment Tool

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

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

### State-Generated Input Using a Common Framework

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



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

See text box, page 15.) WGA defines crucial habitats as "places that are likely to provide the natural resources important to aquatic and terrestrial wildlife." Crucial habitat is not the same as "critical habitat" under the Endangered Species Act. WGA's Wildlife Council established common definitions of "crucial habitat" and "important



wildlife corridors" and issued guidelines to help each state prioritize habitat within its boundaries to meet its specific conservation objectives. These common definitions "help to achieve compatibility and consistency across state boundaries and address certain discrepancies that may exist in identifying habitat and natural features along state borders," explains WGA on the CHAT website.

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

- Western Governors' Association

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

### CHAT Provides A Bird's Eye View

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

(continued on page 15)

## Annual NEPA Planning Summaries Benefit DOE Offices

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

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

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

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

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

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

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

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

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

#### What's an APS?

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

## Office of Science Updates Corporate NEPA Procedures

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

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

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

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

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

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

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



Office of Science

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

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

- Processes for NEPA document preparation and consultations: Six procedures address the steps for preparing, reviewing, approving, and issuing a categorical exclusion determination, EA, EIS, and floodplain and wetland review; complying with the Endangered Species Act; and managing historic and cultural resources under the National Historic Preservation Act (including integration of other regulatory obligations with the NEPA process).
- **Planning and tracking NEPA reviews:** This procedure covers preparation of the annual NEPA planning summary (related article, page 8) and monthly tracking of the progress of each EA and EIS.

The other NEPA procedures cover public participation, preparing QA plans, obtaining a NEPA document preparer, and maintaining administrative records.

The NEPA procedures in SCMS establish a single uniform way of doing business, reports Gary Hartman, which helps the two Integrated Support Center NCOs to serve the smaller site offices effectively and efficiently. "SCMS helps eliminate redundancy, facilitates our ability to advise across sites, and promotes the ability to reassign NEPA staff resources when needed," he added.

The NEPA module was updated in February 2014. The October 2014 update is planned to include new procedures for the "environmental critique and environmental synopsis" (i.e., a potential NEPA approach for procurement, financial assistance, and joint ventures (10 CFR 1021.216)) and supplement analysis processes. For additional information, contact me at peter.siebach@ch.doe.gov or 630-252-2007.

The Office of NEPA Policy and Compliance encourages DOE NCOs to consider whether a website of internal NEPA procedures would improve efficiency in their office's NEPA activities.

## Forest Service Applies Alternative NEPA Arrangements To Accelerate Rim Fire Recovery Activities

The Council on Environmental Quality (CEQ) approved alternative arrangements in December 2013 to allow the U.S. Forest Service to reduce the time normally required to complete an EIS for a proposed fire recovery project in California while ensuring adequate opportunity for public involvement. In its request to CEQ, the Forest Service described projects to address immediate hazards and explained that its request was for emergency actions "needed to move towards long term recovery."

"Emergency actions needed to remove hazard and dead trees and provide for future restoration treatments do not afford us time to conduct the regular planning process to comply with [NEPA]," explained Forest Service Chief Thomas Tidwell.

Alternative arrangements to address emergency circumstances are provided for in CEQ's NEPA regulations. Alternative arrangements do not waive NEPA requirements, but establish an alternative means for compliance for actions necessary to control the immediate impacts of the emergency. The arrangements only apply to federal actions that may have significant environmental impacts.

In its December 9, 2013, letter authorizing alternative arrangements, CEQ commended the Forest Service for ensuring that the arrangements comply with NEPA and "maximize opportunities to engage interested and knowledgeable stakeholders on all sides of the issues."

The need for emergency actions arose from the Rim Fire, the third largest wildfire in California history, which burned more than 257,000 acres in August 2013, including 154,000 acres of the Stanislaus National Forest. The proposed Rim Fire Recovery Project would entail removal of hazard trees and dead trees within the affected area of the

Stanislaus National Forest, the Forest Service explained in its notice of intent (NOI) to prepare an EIS (78 FR 73498; December 6, 2013). ("Hazard trees have the potential to cause property damage, personal injury, or fatality in the event of a failure.")

### Shortened Timeframes Planned

The alternative arrangements requested by the Forest Service and subsequently approved by CEQ for the proposed Rim Fire Recovery Project:

- Shorten the comment period for the draft EIS from 45 to 30 days;
- Eliminate the minimum 90-day requirement between the notice of availability for the draft EIS and publication of the record of decision (ROD); and
- Eliminate the 30-day waiting period between publication of the final EIS and the ROD.

### Continued Public Engagement Emphasized

In requesting alternative arrangements, the Forest Service pointed to front-end public involvement, including the Yosemite Stanislaus Solutions (an ongoing collaborative group), and planned public workshops that would allow the Forest Service to expedite the draft EIS. CEQ added several public involvement measures, including to:

• Continue to enhance public engagement during scoping initiated by the December 2013 NOI;

(continued on next page)

### CEQ Regulations and Guidance on Emergency Actions

"Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements. Agencies and the Council will limit such arrangements to actions necessary to control the immediate impacts of the emergency. Other actions remain subject to NEPA review."

-40 CFR 1506.11

CEQ provided guidance soon after Hurricane Katrina to assist federal agencies in responding to emergency situations. CEQ's September 2005 memorandum, *Emergency Actions and NEPA*, provided information on how to comply with NEPA during emergencies, reviewed the relevant CEQ NEPA regulatory provision (above), and advised on how to determine whether NEPA is triggered. CEQ issued a follow-up memorandum on emergencies and NEPA in May 2010. See *LLQR*, June 2010, page 15; June 2007, page 11; and December 2005, page 30.

CEQ has approved alternative arrangements 43 times. A list of the 41 alternative arrangements approved by CEQ through September 2008 is available on CEQ's website. Since then, CEQ has approved alternative arrangements in the aftermath of the Deepwater Horizon accident in 2010 and the 2013 Rim Fire.



## **Alternative Arrangements**

(continued from previous page)

- Continue active engagement of interested parties throughout the preparation of the EIS;
- Continue communication with the Yosemite Stanislaus Solutions collaborative group;
- Attend and continue communication with the Sierra Nevada Conservancy and parties participating in the December 2013 Rim Fire Landscape Restoration Technical Workshop; and
- Post the final EIS and proposed ROD on the Forest Service website for public review for 5–10 business days prior to publishing the notice of availability for the final EIS in the *Federal Register*.

Under the alternative arrangements, the Forest Service expects to make a decision in early August 2014, which would allow for recovery work before winter weather closes access to the area, explained Regional Forester Randy Moore in a December 4, 2013, memo to Forest Service Chief Tidwell. Mr. Moore noted that without alternative arrangements a decision would be expected in October 2014 and operations would likely begin later – in May 2015 – due to winter weather.

"The need to take action and begin operations prior to winter weather seeks to avoid the threat to human health



Alternative NEPA arrangements will speed the Forest Service's response to a 2013 fire that killed thousands of trees in the Stanislaus National Forest. (Source: USFS)

and safety and the forest ecosystem," said Mr. Moore. In addition, the alternative arrangements "maximize the value of rapidly deteriorating burned timber in order to capture the economic value of those trees which pays for their removal... and other future restoration treatments." The approved alternative arrangements and related background documents are available on the Forest Service's website. (See the link to "CEQ Rim Fire Alternative Arrangements" under Project Documents, then Supporting.)

### DOE's Use of Alternative NEPA Arrangements

DOE has used emergency NEPA provisions five times.<sup>1</sup> None of these involved alternative arrangements to shorten the preparation time for an EIS. Instead, on four occasions, DOE consulted with CEQ while planning to respond to an emergency, undertook the response, and then prepared a special environmental analysis to document the actions taken and the resulting environmental impacts, as well as related information such as mitigation. DOE prepared a special environmental analysis in 1991 for a Bonneville Power Administration action to save the endangered sockeye salmon on the Snake River and in 1992 for the threatened failure of the Par Pond dam at the Savannah River Site in South Carolina. DOE prepared another special environmental analysis in 2000 to address actions taken in response to the Cerro Grande wildfire, which burned almost 43,000 acres near and on the Los Alamos National Laboratory in New Mexico (*LLQR*, September 2001, page 4; September 2000, page 1; and June 2000, page 1). Most recently, DOE prepared a special environmental analysis in 2006 for the Secretary of Energy's Emergency Order to operate a coal-fired power plant in Alexandria, Virginia, under certain limited conditions to address electricity reliability concerns (*LLQR*, March 2006, page 1; December 2006, page 8).In the fifth situation, DOE consulted with CEQ in 2004 on a classified action to transport nuclear material from Libya. DOE relied primarily on pre-existing NEPA analyses for similar actions (*LLQR*, June 2004, page 8).

The current provision in DOE's NEPA regulations for taking emergency actions (10 CFR 1021.343(a)), which has been in effect since 1992, states:

*Emergency actions.* DOE may take an action without observing all provisions of this part or the CEQ Regulations, in accordance with 40 CFR 1506.11, in emergency situations that demand immediate action. DOE shall consult with CEQ as soon as possible regarding alternative arrangements for emergency actions having significant environmental impacts. DOE shall document, including publishing a notice in the *Federal Register*, emergency actions covered by this paragraph within 30 days after such action occurs; this documentation shall identify any adverse impacts from the actions taken, further mitigation necessary, and any NEPA documents that may be required.

<sup>1</sup> CEQ approved DOE's request for alternative arrangements on one other occasion, but the proposed emergency action was not implemented.

## Tools Can Help Identify Tribal Contacts

Several tools are available to help NEPA practitioners identify tribes and Native Hawaiian organizations that may have an interest in a proposed federal action. Depending on the circumstances, DOE may need to work with these entities on a government-to-government basis, by engaging in formal consultation, as cooperating agencies, or in less formal ways throughout the NEPA and National Historic Preservation Act (NHPA) Section 106 processes. The scope of the tools listed below varies, but may include federally recognized tribes (which includes Alaska Native villages), Native Hawaiian organizations (which are treated similarly to tribes in the Section 106 process), and groups such as state-recognized or acknowledged tribes.

### Native American Consultation Database

This database, developed by the National Park Service under its Native American Graves Protection and Repatriation Act Program, provides users several search options, including: tribal name, state, county, contact name, and reservation. For each tribe or Native Hawaiian organization, search results may include: tribal leaders and other contacts; type of entity (e.g., federally recognized tribe, constituent band, federally recognized Alaska Native village, tribally preferred name) and authority for this status; states and counties inhabited; land claim areas; and related tribes and villages.

### Tribal Directory Assessment Tool

The U.S. Department of Housing and Urban Development, Office of Environment and Energy, developed this database. It may be searched by state, county, or tribe to provide contact information for the tribal leader and Tribal Historic Preservation Officer, if one has been designated. (See *LLQR*, December 2008, page 30.) (A Tribal Historic Preservation Officer is designated by a federally recognized tribe to assume all or part of the functions of a State Historic Preservation Officer on tribal lands (NHPA Section 101(d)(2)).)

### National Association of Tribal Historic Preservation Officers Directory

This directory provides contact information for the 142 Tribal Historic Preservation Officers (as of June 30, 2013) recognized by the National Park Service. Listings are organized by state. The association also provides

recommendations, such as in its 2005 publication, *Tribal Consultation: Best Practices In Historic Preservation*.

### Bureau of Indian Affairs Tribal Directory

The *Tribal Leaders Directory*, issued semi-annually by the Department of the Interior, Bureau of Indian Affairs (BIA), provides contact information for the leader of each of the 566 federally recognized tribes. Tribes are listed by the BIA region that provides services to them, alphabetically, and by state.

Helpful Tips: When using these search tools, it is important to bear in mind that a tribe may have historical interests in sites far from its current location. Check whether such historical information (e.g., land claim areas) is included in search results. Also, remember that these search tools may not produce definitive results for all purposes. Take note of references to tribes with a historic or other interest in a project area during consultation processes and when working with the State Historic Preservation Office, State Indian Commission, Tribal Historic Preservation Office, and others.

### **Other Sources**

State and local government agencies may provide additional resources. The South Carolina State Historic Preservation Office, for example, maintains a website that lists federally and state-recognized tribes and includes a map showing each tribe's traditional territory in the state. The website also lists state-recognized Native American Indian groups and special interest organizations.

The California Native American Heritage Commission provides a map showing approximate boundaries of tribal cultural areas and world languages. The Commission also provides a form to request information on California Native American tribes (including Native American contacts) or a search of files about sacred lands.

The *Directory of Potential Stakeholders for DOE Actions under NEPA* lists points of contact at DOE headquarters and site offices for American Indian tribal issues.

## Transitions NEPA Office: Brad Mehaffy

Bradley (Brad) Mehaffy joined the Office of NEPA Policy and Compliance as an Environmental Protection Specialist in December 2013. He brings diverse skills developed over the last 12 years working both as a government employee and in the private sector. Most recently, Mr. Mehaffy was a contractor for the Federal Aviation Administration (FAA) Flight Standards Office, where he provided support for overall NEPA compliance with emphasis on aviation noise analysis and mitigation, air quality, endangered species, and historic preservation. In that capacity, he developed a guide for analyzing and documenting potential environmental impacts from the use of aerobatic practice areas. Earlier, he was an Environmental Protection Specialist for the FAA's Washington Airports District Office, where he oversaw NEPA document preparation for airport development projects throughout Northern Virginia and Maryland.

Mr. Mehaffy earned a Masters Studies of Environmental Law and a Juris Doctor from Vermont Law School in 2001. He then spent two years managing the environmental program (including NEPA compliance) for the U.S. Naval facilities on the island of Guam. He later joined the National Indian Gaming Commission where he was responsible for the Commission's compliance with NEPA for tribal gaming development throughout the country.



Mr. Mehaffy will be assisting the NEPA Office with its review of EISs for proposed transmission lines and in the development of NEPA guidance. "I am planning to build on my NEPA experiences with other agencies to bring new perspectives to the DOE NEPA Office," said Mr. Mehaffy. He can be reached at bradley.mehaffy@hq.doe.gov or 202-586-7785.

The NEPA Office welcomes Brad to its staff.

# NAEP 2014 Annual Conference

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's NEPA presentations will include an update on the past year's developments in policy and case law, compliance in emergency situations, best practices, and analysis of noise impacts, wind energy projects, and night sky resources.

On April 7, NAEP will offer three training classes – Best Practice Principles for Environmental Assessments, Digital Visualization Simulation, and the Interrelation between Listed Species and Invasive Species – and a free career development workshop.

Further information is available on the NAEP conference website.

## EAs and EISs Completed October 1 to December 31, 2013

### EAs<sup>1</sup>

## Golden Field Office/Office of Energy Efficiency and Renewable Energy

DOE/EA-1965 (11/13/13)

Lease Issuance for Marine Hydrokinetic Technology Testing on the Outer Continental Shelf Offshore Florida, Broward County, Florida EA was adopted; therefore, cost and time data are not applicable to DOE metrics. [Bureau of Ocean Energy Management was the lead agency; DOE was a cooperating agency.]

#### Western Area Power Administration

DOE/EA-1960 (10/28/13) *Townsite Solar Project Transmission Line*, Clark County, Nevada EA was adopted; therefore, cost and time data are not applicable to DOE metrics. [Bureau of Land Management was the lead agency; DOE was a cooperating agency.]

### EISs

#### Office of Environmental Management

DOE/EIS-0423-S1 (78 FR 61844, 10/4/13) (Draft EIS Rating: EC-2) Long-Term Management and Storage of Elemental Mercury Supplemental Environmental Impact Statement Cost: \$290,000 Time: 16 months

#### Office of Fossil Energy/National Energy Technology Laboratory

DOE/EIS-0460\* (78 FR 65643, 11/1/13) (Draft EIS Rating: LO) *FutureGen 2.0 Project*, Morgan County, Illinois Cost: \$2,800,000 Time: 30 months

DOE/EIS-0464\* (78 FR 70041, 11/22/13)

(Draft EIS Rating: EC-2) Lake Charles Carbon Capture and Sequestration Project, Calcasieu Parish, Louisiana Cost was paid by applicant; therefore, cost data are not applicable to DOE metrics. Time: 31 months

#### ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

#### **Environmental Impact of the Action**

LO – Lack of Objections EC – Environmental Concerns EO – Environmental Objections EU – Environmentally Unsatisfactory **Adequacy of the EIS** Category 1 – Adequate Category 2 – Insufficient Information Category 3 – Inadequate (For a full explanation of these definitions, see the EPA website at www.epa.gov/compliance/nepa/comments/ratings.html.)

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

\* Recovery Act Project

## NEPA Document Cost and Time Facts<sup>1</sup>

### EA Cost and Completion Times

- There were no EAs completed in this quarter for which cost or time data were applicable.
- Cumulatively, for the 12 months that ended December 31, 2013, the median cost for the preparation of 8 EAs for which cost data were applicable was \$73,000; the average was \$301,000.
- Cumulatively, for the 12 months that ended December 31, 2013, the median completion times for 11 EAs for which time data were applicable was 11 months; the average was 12 months.

### **EIS Cost and Completion Times**

- For this quarter, the median and average costs for the preparation of 2 EISs for which cost data were applicable were \$1,550,000.
- For this quarter, the median completion time for 3 EISs for which time data were applicable was 30 months; the average was 26 months.
- Cumulatively, for the 12 months that ended December 31, 2013, the median cost for the preparation of 4 EISs for which cost data were applicable was \$1,740,000; the average was \$2,940,000.
- Cumulatively, for the 12 months that ended December 31, 2013, the median completion time for 6 EISs for which time data were applicable was 31 months; the average was 35 months.

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

## Western Governors' Tool

(continued from page 7)

The WGA CHAT website's FAQ page explains that CHAT is not a regulatory tool and "cannot be used for project-level reviews." Rather, CHAT provides a high-level overview of crucial habitat for pre-planning. For example, CHAT maps crucial habitat for most of the 16 Western states at a resolution of one-square-mile. For the states of California, Idaho, and Wyoming, CHAT uses a three-square-mile resolution and for Alaska a 10-square-mile resolution. CHAT is meant to provide "project planners and the general public access to credible scientific data at the broad scale for use in project assessment, siting, and planning."

### **Moving Forward**

WGA intends for CHAT to be a dynamic web-based information system that will incorporate new datasets and refine priorities as more information becomes available. WGA's Wildlife Council and state technical staff will consider new datasets in future updates to the regional and state-specific CHATs. WGA is soliciting feedback on the CHAT website to help identify enhancements for future updates. For more information, please visit the WGA CHAT website, see the CHAT brochure, or contact Carlee Brown, Policy Advisor, WGA, at cbrown@westgov.org or 303-623-9378.

### State- and Resource-specific CHATs

Currently 7 of the 16 Western states have their own state-specific CHATs. There is also a Southern Great Plains CHAT that designates and prioritizes areas for Lesser Prairie-Chicken conservation activities and industrial development. See http://westgovchat.org/ states.

Arizona: НаbiМар<sup>тм</sup> Arizona

California: Areas of Conservation Emphasis, Phase II (beta site)

Montana: Crucial Areas Planning System

Nevada: Nevada CHAT

New Mexico: New Mexico Crucial Habitat Assessment Tool

Washington: PHS (Priority Habitats and Species) on the Web

Wyoming: Wyoming Interagency Spatial Database and Online Management System

Southern Great Plains Crucial Habitat Assessment Tool

### **Questionnaire Results**

## What Worked and Didn't Work in the NEPA Process

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

### Scoping

### What Worked

• *Prior scoping*. Scoping issues had been identified during the preparation of an earlier EIS for this project.

### What Didn't Work

• *Changes to project scope*. Project changes made during the EIS process required that tasks, not previously identified, had to be completed to support preparation of the document.

### Data Collection/Analysis

### What Worked

- *Integrated team.* Due to the integration of the Project Team and the NEPA EA Team, the data collection was smooth.
- Additional analysis completed in response to public comments. Several public comments questioned the net environmental benefit of the project. With additional analyses, a net environmental benefit for the project was presented in the EIS.

### What Didn't Work

- *Funding disagreement*. DOE had a hard time getting additional information and analyses due to a funding disagreement among the EIS contractor, applicant, and DOE.
- *Lengthy Section 7 consultation*. Mostly due to the technology associated with the project being new and impacts not being well documented, the Section 7 consultation was difficult and the biological opinion took over a year to obtain.

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

### Schedule

# Factor that Facilitated Timely Completion of Documents

• *Frequent communication*. Frequent communication between the EIS document manager and the NEPA contractor facilitated effective teamwork.

# Factors that Inhibited Timely Completion of Documents

- *Changes in project partners*. Changes in project partners/participants made timely completion of the EIS difficult.
- *Limited staff*. The applicant's limited number of employees for the project could not respond to requests for information from DOE or the NEPA contractor in a timely manner. This negatively impacted the EIS completion time.
- *No consensus on terminology*. Terminology was not addressed early in the EIS process. Editing cycles were lengthy to address the high sensitivity of some NEPA team members to word choices.

### Teamwork

### Factors that Facilitated Effective Teamwork

- *Team flexibility*. The flexibility of team members, including the EIS contractor, facilitated timely completion of the document.
- *Good communication*. Good communication among all team members was effective in managing the flow of information, expectations, and potential obstacles.
- *Cooperation*. Cooperation among the NEPA team members (including project and headquarters participants) was effective in the preparation of a quality EIS.

(continued on next page)

Lessons Learned **NEPA** 

### **Questionnaire Results**

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

### Factor that Inhibited Effective Teamwork

• *Late inclusion as a cooperating agency*. DOE became a cooperating agency after issuance of the Draft EA. DOE did not have the same working relationship as team members who were involved earlier.

### Process

# Successful Aspects of the Public Participation Process

- *Public meetings*. Nearly all EIS public meetings had good attendance and served as a great opportunity to inform the public and hear their issues.
- *Good public feedback*. Positive feedback was received from several citizens regarding opportunities to participate in the EIS process and the availability of project information.

# Unsuccessful Aspect of the Public Participation Process

• *Misallocation of time at public meetings*. The length of the informal discussion before the formal comment periods at the scoping meetings and public hearings exceeded what was needed. A 2-hour period of informal question and answer was provided before the formal comment period; 1 hour would have been more than sufficient.

### Usefulness

# Agency Planning and Decisionmaking: What Worked

- *Informed decisionmaking.* The EA process allowed the decisionmakers to make an informed decision regarding the proposed action. They understood the need for the proposed action, the positive and negative impacts of the proposed action, and recognized the steps taken to minimize potential impacts to the environment.
- *Supported funding decision*. The final EIS was used to make the funding decision on the project.
- *Lead agency expertise*. The lead agency's expertise provided a thorough EA document that DOE could adopt and use to support a sound decision even though the technology was new.

### Enhancement/Protection of the Environment

- *Enhanced understanding of project issues*. The EIS process led to an enhanced understanding of special environmental issues associated with the project area and supported the development of appropriate mitigation.
- *Mitigation of environmental impacts*. Mitigation was identified for resource areas that had minor to moderate potential environmental impacts.
- *Adaptive management implemented*. Adaptive management was implemented as part of lease provisions since the technology was new and impacts were not well understood.

### Effectiveness of the NEPA Process

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

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

- A respondent who rated the process as "5" stated that the NEPA process facilitated the preparation of an excellent document.
- A respondent who rated the process as "4" stated that the NEPA process ensured that the decision to allow the applicant to proceed with the project was environmentally sound.
- A respondent who rated the process as "4" stated that even though the NEPA process was an important planning tool, other influences such as economics and property acquisition also had to be considered.
- A respondent who rated the process as "4" stated that the NEPA process helped to inform the decisionmaker, but other factors such as budget and the need to demonstrate the technology were also important.
- A respondent who rated the process as "1" stated that marine projects go through so much permitting by many federal agencies that the NEPA review does very little in regard to DOE's role as a funding agency for the project. [DOE adopted this EA.]