

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

May 29, 2009

David Young  
NEPA Document Manager  
Western Area Power Administration, Sierra Nevada Region  
114 Parkshore Dr.  
Folsom, CA 95630

Subject: Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the Transmission Agency of Northern California Transmission Project (Project), California

Dear Mr. Young,

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and our NEPA review authority under Section 309 of the Clean Air Act.

An NOI to prepare an EIS was published in the Federal Register on February 23, 2009. The proposed project involves the building and upgrading of about 600 miles of proposed 230-kilovolt (kV) and 500-kV transmission lines, substations, and associated equipment and facilities in northern California.

We are offering the attached scoping comments to inform Western Area Power Administration (Western) of issues that EPA believes should be considered as the EIS for the project is being developed.

EPA appreciates the opportunity to review this Notice of Intent and is available to discuss our comments. Please send one hardcopy and two CD-ROMs of the DEIS to this office (mailcode: CED-2) at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please contact me at (415) 947-4121 or at [johnson.britta@epa.gov](mailto:johnson.britta@epa.gov).

Sincerely,

/s/

Britta Johnson  
Environmental Review Office  
Communities and Ecosystems Division

Enclosure: EPA'S Detailed Comment

### **Statement of Purpose and Need**

The Environmental Impact Statement (EIS) should clearly identify the underlying purpose and need to which the Western Area Power Administration (Western) is responding in proposing the alternatives (40 CFR 1502.13). The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity. The purpose and need should be a clear, objective statement of the rationale for the proposed project, as it provides the framework for identifying project alternatives.

This section of the EIS should discuss the proposed project in the context of the larger energy market that this project would serve. It should identify the potential purchasers of power delivered by the project and clearly describe how the need for the power has been determined. The EIS should also discuss on-going and planned energy conservation programs undertaken by power distributors and how energy conservation may affect the need for this project.

### **Alternative Analysis**

The EIS should include a range of reasonable alternatives that meet the stated purpose and need for the project and that are responsive to the issues identified during the scoping process. This will ensure that the EIS provides the public and decision-maker with information that sharply defines the issues and identifies a clear basis for choice, as required by NEPA. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives, including no action, should be considered, even if some of them could be outside the capability of the applicant or the jurisdiction for the agency preparing the DEIS for the proposed project. Some ideas to think about when developing a range of alternative actions for the proposed project may include:

- Energy consumers and impacts on rate payers;
- Existence of alternate sources of electric power and regional integration of power supplies;
- Different types of cable and converters;
- Alternate sites for construction of converter stations;
- Implementation approaches that would minimize impacts to human health and the environment.

When discussing potential alternatives it may be helpful to include a discussion of the comparative costs of each alternative. EPA encourages selection of feasible alternatives that will minimize environmental degradation.

## Environmental Effects

The EIS should discuss environmental effects and mitigation measures. This would include a description of the affected environment, an indication of resources that would be impacted, the nature of the impacts, and a description of mitigation measures for the impacts. The proposed transmission lines will cross several land-use types, including wetlands, and go through a wide range of slopes and soil types, resulting in impacts to a variety of resources including water, air, wildlife and their habitat, and land uses.

### Water Resources

Water quality degradation is one of EPA's primary concerns. Section 303(d) of the Clean Water Act (CWA) requires States (and Tribes with approved standards) to identify water bodies that do not meet water quality standards and develop water quality restoration plans to meet established water quality criteria and associated beneficial uses. The EIS must disclose which waters may be impacted by the project, the nature of potential impacts, and specific pollutants likely to impact those waters. It should also report those water bodies potentially affected by the project that are listed on the States and Tribes' most current EPA-approved 303(d) list. The EIS document should describe existing restoration and enhancement efforts for those waters, how the proposed project will coordinate with on-going protection efforts, and any mitigation measures that will be implemented to avoid further degradation of impaired waters.

Public drinking water supplies and/or their source areas exist in many watersheds. Source water areas may exist within watersheds in which the proposed project facilities would be located. Source water is water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are delineated and mapped by the states for each federally-regulated public water system. The 1996 amendments to the Safe Drinking Water Act (SDWA) require federal agencies to protect sources of drinking water for communities. As a result, the California Department of Public Health (CDPH) has been delegated responsibility to conduct source water assessments and provide a database of information about the watersheds and aquifers that supply public water systems.

Since construction and operation of the project may impact sources of drinking water, EPA recommends that Western contact CDPH to help identify source water protection areas within the project area. The EIS document should:

- (a) Identify all source water protection areas within the project area;
- (b) Identify all activities that could potentially affect those source water areas;
- (c) Identify all potential contaminants that may result from the proposed project;
- (d) Identify all measures that would be taken to protect the source water protection areas.

The proposed project would require infrastructure, including machinery to transport materials, and construction of new access roads and structures. Roads often contribute sediment to streams, and interrupt the subsurface flow of water. Roads and their use also contribute to habitat fragmentation, wildlife disturbance and the introduction or exacerbation of noxious weeds. The EIS should, therefore, include data about existing road networks, evaluate the change in road miles and density that will occur as a result of the project and predict the impacts

to water quality by roads. The EIS should note that, under the federal Clean Water Act (CWA), any construction project disturbing a land area of one or more acres requires a construction storm water discharge permit for discharges into waters of the U.S. The EIS should document the project's consistency with applicable storm water permitting requirements and should discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality.

Construction of the project facilities, such as access roads and substations may also compact the soil, thus changing hydrology, runoff characteristics, and ecological function of the area, affecting flows and delivery of pollutants to water bodies. Therefore, the EIS should include a detailed discussion of the cumulative effects from this and other projects on the hydrologic conditions of the proposed project corridor. The document should clearly depict reasonably foreseeable direct, indirect, and cumulative impacts to groundwater and surface water resources. For groundwater, the potentially affected groundwater basin should be identified and any potential for subsidence and impacts to springs or other open water bodies and biologic resources should be analyzed.

#### Wetlands and Riparian Areas

The EIS should identify aquatic resources, including vernal pools, that would be potentially impacted by construction and operation of the proposed project. Western should coordinate with the U.S. Army Corps of Engineers to determine if the project would require a Section 404 permit under the Clean Water Act. Section 404 regulates the discharge of dredged or fill material into waters of the U.S., including wetlands and other special aquatic sites. The EIS should describe all waters of the U.S. that could be affected by the project, and include maps that clearly identify all waters within the project area. The discussion should include acreages and channel lengths, habitat types, values, and functions of these waters. EPA strongly encourages early coordination with the U.S. Army Corps of Engineers.

If a permit is required, EPA will review the project for compliance with *Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials* (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA ("404(b)(1) Guidelines"). Pursuant to 40 CFR 230, any permitted discharge into waters of the U.S. must be the least environmentally damaging practicable alternative (LEDPA) available to achieve the project purpose. The EIS should include an evaluation of the project alternatives in this context in order to demonstrate the project's compliance with the 404(b)(1) Guidelines. If under the proposed project, dredged or fill material would be discharged into waters of the U.S., the EIS should discuss alternatives to avoid those discharges. If a discharge to waters of the U.S. becomes necessary, the EIS should discuss how potential impacts would be minimized and mitigated. This discussion should include:

- (a) Acreage and habitat types of waters of the U.S. that would be created or restored;
- (b) Water sources to maintain the mitigation area;
- (c) Re-vegetation plans, including the numbers and age of each species to be planted, as well as special techniques that may be necessary for planting;

- (d) Maintenance and monitoring plans, including performance standards to determine mitigation success;
- (e) Size and location of mitigation zones;
- (f) Parties that would be ultimately responsible for the plan's success;
- (g) Contingency plans that would be enacted if the original plan fails;

Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation.

### Habitat, Vegetation, and Wildlife

During construction of the proposed project, vegetation would be cleared and soils moved during construction of roads, substations, and other facilities. The EIS should describe the current quality and capacity of habitat, and its use by wildlife, especially avian populations, in the proposed project area. Power transmission projects have the potential to disrupt important wildlife species habitat, resulting in mortality of migratory species such as birds and bats due to electrocution on power lines and collisions with towers, power lines, or with other related structures. A proposed mitigation plan with detailed mitigation steps that will be taken to minimize or eliminate adverse impacts should be presented. For example, we recommend replacement trees be planted to offset any unavoidable tree loss. Replacement trees should be planted close to where the loss occurred. Native saplings should be used, if practicable, at a minimum ratio of 1:1. Mitigation might also include assisting county, state, or federal agencies with ongoing or planned forest or tree reclamation projects in watersheds affected.

Equipment and materials should not be placed or stored in any environmentally sensitive areas. Where possible, excavation should be done from non-sensitive areas. Site activities should be timed to avoid disturbing plants and animals during critical periods in their lifecycles. The specific Best Management Practices (BMPs) that would be used for the project should also be identified in the EIS.

Because the project may have impacts on native and rare plants, the EIS should include at least the general locations of such plants, and how these sites will be managed to minimize impacts on the plants.

### Endangered Species

The proposed project may impact endangered, threatened, or candidate species listed under the Endangered Species Act (ESA), their habitats, as well as State-listed sensitive species. Evaluation of the proposed electrical transmission project should identify any such species and/or critical habitat within the project corridor and surrounding areas that may be affected by the proposed project. The EIS should describe the habitat for the species; identify any impacts the project would have on the species and/or their habitats; and explain how the proposed project will meet all requirements under ESA, including, if necessary, consultation with the U.S. Fish and Wildlife Service (FWS) and/or National Oceanographic and Atmospheric Administration (NOAA). Western actions should promote the recovery of declining populations and species.

## Invasive Species

Among the greatest threats to biodiversity is the spread of noxious weeds and exotic (non-indigenous) plants. Many noxious weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife. Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem. New roads and utility right-of-ways (ROWs) can become a pathway for the spread of invasive plants. We recommend that, a vegetation management plan be prepared to address control of such plant intrusions. The plan should list the noxious weeds and exotic plants that occur in the project area. In cases where noxious weeds are a threat, EPA recommends the document detail a strategy for prevention and early detection of invasion, and control procedures for each species. Early recognition and control of new infestations is essential to stopping the spread of infestation and avoiding future widespread use of herbicides, which could correspondingly have more adverse impacts on biodiversity and nearby water quality.

A number of prevention measures are available, such as reseeding disturbed areas as soon as possible and cleaning equipment and tires prior to transportation to an un-infested area. Plant seeds can be carried from a source area by the wind, wildlife or pack animals, on equipment tires and tracks, by water, and on the boots of workers, so care should be taken to implement control procedures in all source areas to avoid spread to unaffected areas.

Should an infestation occur or already be present, EPA supports integrated weed management (e.g. effective mix of cultural, education and prevention, and biological, mechanical, chemical management, etc.). We encourage prioritization of management techniques that focus on non-chemical treatments first, with reliance on herbicides being the last resort. We recommend implementing yearly review and planning activity requirements for the above concerns, including evaluation of effectiveness to date.

If any herbicides will be used for vegetation treatment during the proposed project operations, the EIS should address any potential toxic hazards related to the application of the chemicals, and describe what actions will be taken to ensure that impacts by toxic substances released into the environment will be minimized. If vegetation would be burnt, then the EIS should include a smoke management program that would be followed to reduce public health impacts and potential ambient air quality exceedances.

## Air Quality

The protection of air quality should be addressed in the EIS. The types of fuels to be used during construction activities, increased traffic during operations, and related VOC and NOx emissions, should be disclosed and the relative effects on air quality and human health evaluated. Dust particulates from construction activities and ongoing operation for the roadways are important concerns. The EIS should evaluate air quality impacts, and detail mitigation steps that would be taken to minimize associated impacts. This analysis should also address and disclose the project's potential effect on all criteria pollutants under the National Ambient Air Quality Standards (NAAQS), including ozone, visibility impairment, air quality related values (AQRV) in the protection of any affected Class I Areas, any significant concentrations of hazardous air pollutants, and protection of public health.

### Climate Change Effects

There is general scientific consensus that continued increases in greenhouse gas emissions resulting from human activities contribute to climate change. Effects of climate change may include changes in hydrology, sea level, weather patterns, precipitation rates, and chemical reaction rates. The EIS document should consider how resources affected by climate change could potentially influence the project and vice versa, especially within sensitive areas. In addition, the EIS should quantify and disclose greenhouse gas emissions from the project activities and discuss mitigation measures to reduce emissions.

### Road Improvements and Construction Issues

The EIS should evaluate effects of any proposed road improvements, new road construction, and general ROW construction and operation activities in the area. The evaluation should consider increased access, travel management and enforcement aspects, as well as impact to the flora and fauna of the area. Dust particulates from construction and ongoing operations on roadways are important concerns, as discussed previously. Airborne dust may not only be a visual nuisance, but can be potentially dangerous to asthma sufferers. Sedimentation run-off can severely impact the aquatic environment. Construction techniques such as 95 percent base compaction prior to placement of gravel, culverts for water drainage, steep slope constriction measures to prevent erosion, and appropriate dust control methods (such as placement of a non-chlorine based dust abatement chemical treatment), are important dust suppression and sediment reduction techniques. Detailed plans for addressing dust control for the project should be included. The plans should include, but not be limited to: dust suppression methods, inspection schedules, and documentation and accountability processes.

### Hazardous Materials and Hazardous Waste

The EIS should address potential direct, indirect and cumulative impacts of hazardous waste from construction and operation. The document should identify projected hazardous waste types and volume, and expected storage, disposal and management plans. It should address the applicability of state and federal hazardous waste requirements. Appropriate mitigation should address the applicability of state and federal hazardous waste requirements. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization). Alternate industrial processes using less toxic materials should be evaluated as mitigation. This potentially reduces the volume or toxicity of hazardous materials requiring management and disposal as hazardous waste.

### Environmental Justice and Public Participation

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low income populations, allowing those populations a meaningful opportunity to participate in the decision-making process.



The EIS should include an evaluation of the environmental justice populations within the geographic scope of the project. If such populations exist, the EIS should address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the project's impact on minority and low-income populations should reflect coordination with those affected populations.

The EIS should demonstrate that communities bearing disproportionately high and adverse effects have had meaningful input into the decisions being made about the project. Community acceptance for such projects may be easier if there are shared opportunities, such as local employment, education, economic, and other benefits. The EIS needs to include information describing what was done to inform the communities about the project and the potential impacts it will have on their communities, what input was received from the communities, and how that input was utilized in the decisions that were made regarding the project. One tool available to locate Environmental Justice populations is the Environmental Justice Geographic Assessment tool available at: <http://www.epa.gov/enviro/ej>.

#### Coordination with Tribal Governments

The EIS should discuss whether the proposed project might affect historical or traditional cultural places of importance to the area's Native American communities. The document should identify historic and cultural resources, and assure that treaty rights and privileges are addressed appropriately. If the proposed project will have impacts on Native Americans, the development of the EIS document should be conducted in consultation with all affected tribal governments, consistent with Executive Order (EO) 13175 (*Consultation and Coordination with Indian Tribal Governments*).

#### Coordination with Land Use Planning Activities

The EIS should discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the project area. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should be addressed if they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b).

#### Indirect Effects

As an indirect result of providing additional power, it can be anticipated that this project would allow for development and population growth to occur in those areas that receive the electricity. The EIS should describe the reasonably foreseeable future land use and associated impacts that will result from the additional power supply. The document should provide an estimate of the amount of growth, its likely location, and the biological and environmental resources at risk.

#### Cumulative Effects

The proposed project should assess impacts over the entire area of impact. The project evaluation should consider the effects of the proposed project when added to other past, present, and reasonably foreseeable future projects in and outside the project corridor, including those by entities not affiliated with Western. Only by considering all actions together can one conclude what the impacts on environmental resources are likely to be.

EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found on EPA's website at: <http://www.epa.gov/compliance/resources/nepa.html>. The guidance states that in order to assess the adequacy of the cumulative impacts assessment, five key areas should be considered. EPA will assess whether the cumulative effects analysis:

- (a) Identifies resources, if any, that are being cumulatively impacted;
- (b) Determines the appropriate geographic (within natural ecological boundaries) area and the time period over which the effects have occurred and will occur;
- (c) Looks at all past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern;
- (d) Describes a benchmark or baseline; and
- (e) Includes scientifically defensible threshold levels.

#### Mitigation and Pollution Prevention

The EIS should evaluate the feasibility of adopting mitigation to avoid, reduce, or compensate for adverse environmental impacts from construction and operation. NEPA does not require that an impact be "significant" before mitigation can be presented in an EIS. "All relevant, reasonable mitigation measures that could improve the project are to be identified. . . . Mitigation measures must be considered even for impacts that by themselves would not be considered "significant". Once the proposal itself is considered as a whole to have significant effects. . . mitigation measures must be developed where it is feasible to do so" (CEQ's Forty Questions, #19a).

One method for mitigating impacts is corridor sharing. Transmission line ROWs can be shared with town or country roads, highways, railroads, or natural gas pipelines. Corridor sharing with existing facilities can reduce the amount of new ROW and corridors required.

CEQ also issued guidance on integrating pollution prevention measures in NEPA documents. Many strategies can reduce pollution and protect resources, including using fewer toxic inputs, altering manufacturing and facility maintenance processes, and conserving energy. Consistent with CEQ's guidance, we recommend presenting all reasonable mitigation and pollution prevention measures.

#### Monitoring

EPA supports project strategies that include monitoring, which is a necessary and crucial element in identifying and understanding the consequences of actions. The proposed project could be designed to include an effective feedback element, including implementation and effectiveness monitoring.