

DEPARTMENT OF ENERGY

Bonneville Power Administration

Proposed Tenaska Washington II Generation Project  
Record of Decision

AGENCY: Bonneville Power Administration (BPA), DOE

ACTION: Record of Decision for BPA to Purchase Electrical Power from the Proposed Tenaska Washington II Generation Project.

SUMMARY: BPA has decided to purchase electrical power to be generated by a privately-owned gas-fired combustion turbine (CT) plant in the Frederickson Industrial Area, Pierce County, Washington. The proposed Tenaska Washington II Generation Project (Tenaska Project) would produce 240 average megawatts (aMW) of electrical energy and would be developed and operated by Tenaska Washington Partners II, L.P. (Tenaska), a developer of generation resources. BPA expects the Tenaska Project to be in commercial operation by July 1996.

BPA has statutory responsibilities to supply electrical power to its utility, industrial and other customers in the Pacific Northwest. The Tenaska Project is needed to meet electrical power supply obligations of these customers. The Tenaska Project would also meet a number of other system requirements. Included among these is firming otherwise non-firm hydroelectric power so that it can be sold as higher value firm power. The Tenaska Project offers an energy resource which can provide BPA the flexibility to operate an increasingly constrained hydro system. The Tenaska Project would also help alleviate potential power system stability problems in the Puget Sound area (Puget Sound Area Electric Reliability Plan (PSAERP) Final Environmental Impact Statement, DOE/EIS - 0160, April 1992).

BPA's purposes for this action are to: (1) meet contractual obligations to supply requested, cost-effective electric power to BPA customers, having considered potential environmental impacts and mitigation measures in its decision; (2) assure consistency with

BPA's statutory responsibilities, including the 1980 Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), which requires consideration of the Pacific Northwest Power Planning Council's Conservation and Electric Power Plan (Power Plan) and Fish and Wildlife Program, and (3) develop a competitive, long-term resource acquisition program based on experience gained from the pilot acquisition program that led to the Tenaska Project proposal.

To reach the decision to purchase, BPA prepared the Proposed Tenaska Project Final Environmental Impact Statement (FEIS)(DOE/EIS-0194, January 1994). The FEIS was tiered to the Resource Programs Environmental Impact Statement which considered the environmental tradeoffs among the resource types available to meet BPA's need.

The FEIS evaluated all three components of the proposed Tenaska Project: (1) the power plant, (2) the electrical transmission interconnection with BPA's South Tacoma Switching Station, and (3) the modifications to convert the Switching Station to a Substation. In addition to identifying and analyzing the environmental impacts of the proposed project at the proposed project site, the FEIS also evaluated a No Action alternative. By contract, the proposed project is required to meet all Federal, state, and local requirements. The FEIS fulfills the requirements of National Environmental Policy Act (NEPA) and the State of Washington's legislative equivalent, the State Environmental Policy Act (SEPA). In the case of the Tenaska Project, the state lead agency, Pierce County Department of Planning and Land Services, has satisfied the requirements of SEPA in part by reviewing and adopting BPA's EIS effective March 4, 1994. BPA has determined that this acquisition is consistent with the Northwest Power Planning Council's Power Plan. This determination was affirmed by the Northwest Power Planning Council in its determination of July 28, 1993.

Environmentally Preferred Alternative: The Environmentally Preferred Alternative is the No Action alternative. Although pursuit of the No Action alternative would avoid environmental impacts resulting from construction and operation of this proposed project, it would not meet

BPA's needs. It should be noted that this site will likely be developed for industrial use because the proposed site is an industrial park.

Preferred Alternative: The Preferred Alternative is the Proposed Action. Adoption of the Proposed Action will meet BPA's needs.

Mitigation Action Plan: A Mitigation Action Plan (MAP), developed from the FEIS analysis, is attached. It addresses the protection of soils, water quality, air quality, biological resources, historical and cultural resources, and public health and safety. Environmental agreements with local agencies have been made. Other mitigation agreements will be completed prior to construction.

**FOR FURTHER INFORMATION CONTACT:** Ms. Katherine S. Pierce, NEPA Compliance Officer for the Office of Energy Resources - RAE, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208, telephone (503) 230-3962. Copies of the Proposed Tenaska Washington II Generation Project FEIS, the comments we received on this EIS, this Record of Decision and Mitigation Action Plan, the Record of Decision for the 6(c) process, and the 1990 and 1992 Resource Programs, are available from BPA's Public Involvement Office, P.O. Box 12999, Portland, Oregon 97212. Copies of the documents may also be obtained by calling BPA's Public Involvement Office at (503) 230-3478 or BPA's nationwide toll-free document request line, 1-800-622-4520. Information may also be obtained from:

Mr. George Bell, Lower Columbia Area Manager, Suite 243, 1500 NE Irving Street, Portland, Oregon 97232, (503) 230-4552.

Mr. Robert N. Laffel, Eugene District Manager, Alvey Substation, 86000 Franklin, Eugene, Oregon 97405, (503) 465-6952.

Mr. Wayne R. Lee, Upper Columbia Area Manager, Crescent Court Building, Suite 500, 707 West Main, Spokane, Washington 99201, (509) 353-2518.

Ms. Carol Fleischman, Spokane District Manager, Crescent Court Building, Suite 500, 707 West Main, Spokane, Washington 99201, (509) 353-3279.

Mr. George E. Eskridge, Montana District Manager, 800 Kensington, Missoula, Montana 59801, (406) 329-3060.

Mr. Terence G. Esvelt, Puget Sound Area Manager, Suite 400, 201 Queen Anne Avenue North, Seattle, Washington 98109-1030, (206) 553-4130.

Mr. Thomas V. Wagenhoffer, Snake River Area Manager, 1520 Kelly Place, Walla Walla, Washington 99362, (509) 527-6226.

Ms. C. Clark Leone, Idaho Falls District Manager, 1527 Hollipark Drive, Idaho Falls, Idaho 83401, (208) 523-2706.

Mr. James R. Normandeau, Boise District Manager, Room 450, 304 North Eighth Street, Boise, Idaho 83702, (208) 334-9137.

For information on DOE NEPA activities, contact Carol M. Borgstrom, Director, Office of NEPA Oversight, E-H 25, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington D.C., 20585, telephone (202) 586-4000 or 1-800-472-2756.

#### SUPPLEMENTAL INFORMATION:

##### I. Background

BPA is a self-financing Federal power marketing agency with statutory responsibilities to supply electrical power to utility, industrial, and other customers in the Pacific Northwest. Consistent with the 1991 Northwest Conservation and Electric Power Plan (Power Plan) and the Northwest Power Act, under Sections 6(a)(1) and 6(a)(2), BPA has initiated a dynamic resource acquisition program to acquire new conservation and generating resources. BPA is using four approaches: billing credits, competitive acquisition, contingency options, and unsolicited proposals to acquire energy for the region. The acquisition of electrical energy from the proposed Tenaska Project represents a portion of a larger plan to meet BPA's customers' current and future needs for electricity.

BPA periodically prepares a Resource Program that explains how BPA proposes to meet its expected load obligations. Within each Resource Program, alternatives are examined which are composed of different combinations of resource types from BPA's resource stack. BPA's planning model relies on this resource stack in simulating resource acquisitions and

serves as a basis for BPA's resource planning decisions.

In developing a Resource Program, BPA prepares load forecasts jointly with the Northwest Power Planning Council. A range of forecasts is prepared to reflect uncertainties about future load growth. A range of load/resource balances is prepared by comparing the capability of the existing Federal system resources to the range of projected Federal system loads over the next 20 years. In a parallel process, BPA and the Northwest Power Planning Council develop new resource supply forecasts to plan acquisition of cost-effective resources as needed to meet load growth.

The 1990 Resource Program identified actions BPA would take to develop new resources to meet the power requirements of its customers. The types of actions to acquire new resources included billing credit acquisition, conservation acquisition, competitive bid from "all sources," hydro efficiency improvements, geothermal pilot project, and a Resource Contingency Plan. As outlined in the 1990 Resource Program, the primary reasons BPA selected this combination of resource actions are to: manage risk appropriately; provide flexibility and diversity; reflect existing and potential capability to develop new resources; and maintain budget and rate impacts within bounds. In October 1992, BPA issued the 1992 Resource Program. This program recommended the development of new resources in addition to those outlined in the 1990 Resource Program.

Guided by the recommendations in BPA's 1990 Resource Program, BPA commenced a pilot resource acquisition process to test various approaches for acquiring a diverse portfolio of cost-effective, reliable, and environmentally sound resources. The Competitive Resource Acquisition Pilot Program was one of several methods that BPA tested to acquire energy resources. The primary objective of the pilot program was to provide BPA with the ability to systematically solicit, evaluate, and select cost-effective resource proposals that are offered for purchase. A secondary objective was for BPA to assess the benefits and costs of using a competitive process for developing cost-effective new energy supplies. BPA issued a Request

for Proposals in 1991 for 300 aMW of firm energy. In response to this solicitation, BPA received 102 resource proposals totaling 5,209 aMW of generation and 116 aMW of conservation. BPA evaluated the proposals based on system cost, project feasibility (including location) and environmental criteria. Based on the evaluation, BPA selected three generation projects and all cost-effective conservation projects for further consideration and review towards satisfying this 300 aMW target. The Project is one of the generation projects chosen in this process.

On September 11, 1992, a Notice of Intent to Prepare an Environmental Impact Statement was published in the FEDERAL REGISTER. Announcement letters were mailed out, newspaper advertisements printed, and newsletters circulated for the September 29, 1992, public scoping meeting. Issues raised during the public scoping process were addressed in the EIS. An EIS Implementation Plan was developed from comments and questions submitted during the scoping period. The Implementation Plan was approved by the DOE for preparation of the Draft EIS. Copies of the DEIS were mailed out for review, and a Notice of Availability was published by the Environmental Protection Agency (EPA) in the FEDERAL REGISTER on August 20, 1993. In addition to written comments, a public meeting was held on September 8, 1993, to receive oral and written comments from the interested public. These comments were also considered in the development of the FEIS. The FEIS was published and distributed in February 1994. The EPA's Notice of Availability was printed in the FEDERAL REGISTER on February 25, 1994.

Notice of this Record of Decision will be distributed to the known interested and affected public, and the Record of Decision will be published in a subsequent FEDERAL REGISTER Notice.

## II. Alternatives

### A. No Action

Under the No Action alternative, BPA would not proceed with the conversion of the

South Tacoma Switching Station nor acquire the energy output from the proposed Tenaska Project, thereby foregoing the opportunity to reduce BPA's projected energy deficit and additional benefits with this particular project. In that event, it is unlikely that the proposed project would be implemented without a commitment from another party to acquire the energy output.

**B. The Proposed Action**

The proposed action is the purchase by BPA of electrical power which will be generated at a privately-owned gas-fired combustion turbine plant in the Frederickson Industrial Area, Pierce County, Washington. The proposed Tenaska Project would generate 240 aMW of electrical energy and would be built and operated by Tenaska. The proposed action also includes transmission (underground) by Tenaska and conversion of a switching station to a substation by BPA. Electricity generated at the proposed power plant would be supplied to BPA's South Tacoma Substation facility for distribution through the regional power grid.

**C. Other Actions**

Because the proposed action will not satisfy BPA's total need for electrical energy, implementing the proposed action will not foreclose consideration of other potential BPA resource actions.

Resource types potentially available to meet future load growth include:

- Conservation (commercial, residential, and industrial sectors);
- Renewables (hydropower, geothermal, biomass, wind, and solar power);
- Cogeneration;
- Combustion turbines;
- Nuclear power; and
- Coal and clean coal

These resource types were competitively evaluated in BPA's Resource Programs Final Environmental Impact Statement.

### III Decision Factors and Issues

Both the Proposed Action and the No Action Alternatives were evaluated against the purpose of and need for action for the Tenaska EIS (see the Summary of this Record of Decision). The other actions which could be taken to meet BPA's need will be evaluated independently (see page 6 of this Record of Decision). Only the Proposed Action would satisfy BPA's need for electrical power. The No Action Alternative would not meet this need.

Environmentally Preferred Alternative: The Environmentally Preferred Alternative is the No Action alternative. Although pursuit of the No Action alternative would avoid environmental impacts resulting from construction and operation of this proposed project, it would not meet BPA's needs. It should be noted that this site will likely be developed for industrial use because the proposed site is an industrial park.

Preferred Alternative: The Preferred Alternative is the Proposed Action. Adoption of the Proposed Action will meet BPA's needs.

Meeting BPA's Contractual Obligations: The Proposed Action would help assure BPA can meet its contractual obligations to supply requested, cost-effective electric power to its customers, having considered potential environmental impacts and mitigation measures. The No Action Alternative would not reduce potential energy deficits.

Consistency With BPA's Statutory Responsibilities: The Proposed Action is consistent with BPA's statutory responsibilities, including the Northwest Power Act (which requires consideration of the Northwest Power Planning Council's Plan and its Fish and Wildlife Program). BPA determined that this acquisition is consistent with the priorities established in the Council's Plan and the Northwest Power Planning Council supported this determination.

Developing a Competitive Long-Term Acquisition Program: The development of a competitive, long-term acquisition program will be based partly on the experience gained from the pilot acquisition program that led to the proposed Tenaska Project. Pursuing the Proposed Action is consistent with the objectives of the Competitive Resource Acquisition



Pilot Program. It will provide BPA the ability to systematically evaluate and select resource proposals and to assess using a competitive process to develop new cost-effective energy supplies.

In addition, the Proposed Action is consistent with the preferred alternative identified in BPA's April 1993 Record of Decision on the Resource Programs EIS. Under the preferred alternative, BPA would rely heavily on combustion turbines for meeting future power needs. The Resource Programs Environmental Impact Statement discussed operating characteristics of combustion turbines, including their ability to firm non-firm hydropower and to provide added flexibility to the BPA system operating in conjunction with the hydro system. The Proposed Action is consistent with these abilities. The Proposed Action would also help alleviate power system stability problems in the Puget Sound Area which were discussed in BPA's PSAERP EIS. The PSAERP assumed that a minimum of 400 MW of new resources would be built in Puget Sound Area by 2003. The Tenaska Project would be part of this 400 MW.

As BPA embarked on its competitive acquisition process for additional conservation and generation resources, the underlying need for acquisition of new resources was the avoidance of electricity deficits caused by growing customer loads. In the time period since the DEIS was issued for comment, BPA has become involved in a major effort (Competitiveness Project) to reassess its role, and therefore, its need for resources. That process is still very much in development. However, preliminary indications suggest that BPA's load growth may not be as great as was predicted in the 1990 and 1992 Resource Programs. BPA has examined the Tenaska Project in light of these tentative conclusions and finds that even if preliminary projections become reality, the Tenaska Project would still be needed and justified to meet load.

#### IV. Environmental Consultations, Review, and Permit Requirements

BPA reviewed the status of all Tenaska Project permits and licenses; engaged in

consultations with Tenaska and appropriate federal, state and local agencies and interested parties to ensure the Project satisfies federal, state, and local environmental plans and programs and environmental mitigation plans; and ensured that all environmental consultations and review requirements were addressed. Development of the Tenaska Project would be consistent with environmental policies established by NEPA and by the Washington SEPA (SCL 1980).

The following is a discussion of the findings by environmental topic:

1. Threatened and Endangered Species and Critical Habitat

A response letter from the U.S. Fish and Wildlife Service to a request for information on state or Federally-listed rare, threatened, or endangered species indicated that there are none in the vicinity of the proposed power plant. No protected species were observed during the field surveys.

Five sensitive species: the western bluebird, western gray squirrel, mountain quail, Tacoma western pocket gopher, and the white-top aster (*Aster curtus*) could be potentially impacted by the proposed project; however, only the white-top aster was observed during the field surveys. Anticipated impact to these species is determined to be minor. Specific measures to address the propagation of the white-top aster are contained within the MAP.

2. Fish and Wildlife Conservation

The proposed Tenaska Project is consistent with the Power Plan, including its fish and wildlife components. The site is located in an upland area with disturbed wildlife habitat. Water resources that promote fish and wildlife habitat have not been identified at the proposed Tenaska Project site. Industrial facilities, scattered residential units and undeveloped areas surround the site. Upland weedy fields make up 85 percent of the site and are rated as moderate habitat for wildlife but rated as low habitat value for vegetation. Wooded areas, which comprise 15 percent of the site, are rated as moderate habit for wildlife and vegetation.

### 3. Heritage Conservation

No cultural resources were identified or discovered by the archival search or the field survey. A copy of the cultural resources survey report has been sent to the Washington State Historic Preservation Office.

### 4. State, Area-Wide, and Local Plan and Program Consistency

#### a. Land Use

The proposed Tenaska Project would alter land use at the site from vacant to industrial use. The site is located within the Frederickson Industrial Area, which is zoned for heavy industrial use, and the Project is consistent with land use designations.

#### b. Pacific Northwest Electric Power Planning and Conservation Act

The Northwest Power Planning Council was established by the Northwest Power Act. The goal of the Council's 1991 Power Plan is to "assure the Pacific Northwest of an adequate, efficient, economical and reliable power supply" (Council, 1991). One of the Council's authorities is a review of the Administrator's determination under Section 6(c) review, as directed in the Northwest Power Act. 16 U.S.C. §§ 839d(c)(1)-839d(c)(5). Section 6(c) requires both the BPA Administrator and the Council to determine that a project of at least 50 aMW and five years duration is consistent with the Power Plan. BPA has conducted a formal review pursuant to Section 6(c). The BPA Administrator determined on May 28, 1993 that the proposal to acquire up to 240 aMW of firm energy from the Tenaska Project is consistent with the Power Plan. The Council found on July 28, 1993 by unanimous vote that the proposal is consistent with the Power Plan.

#### c. Notice to the Federal Aviation Administration

No structures exceeding 30 meters (100 feet) above ground are planned at the Tenaska Project. No notice to the Federal Aviation Administration is required as no structures to be constructed at the Project are equal to or greater than 61 meters (200 feet) in height. Two airports are in proximity (one 4.8 kilometers (3 miles) due east and the other 5.1

kilometers (3.2 miles) due west) of the proposed facility. A small private airstrip is located approximately 1,219 meters (4,000 feet) south of the proposed plant site. Aircraft approaching for landing or takeoff would be sufficiently above ground over the proposed facility site to be unaffected by hot gas emission from the power plant stack. Aircraft approaching and taking off from McChord Air Base (approximately 9.6 kilometers (six miles) northwest) would not be affected by the proposed power plant's facilities and no regulation would apply.

d. Construction-Related Permits

The Pierce County Department of Permits and Land Services regulates development activities via Ordinance No. 90-132, Site Development Regulations. The application for Site Development Permit for the proposed Tenaska Project was submitted to the Department of Permits and Land Services for review on January 11, 1994.

5. Coastal Zone Management Program Consistency

The proposed Tenaska Project is not located in the coastal zone, nor will it affect the coastal zone.

6. Floodplains

The Tenaska Project site is not within a floodplain or area which is susceptible to flooding.

7. Wetlands

Wetlands do not occur at the project site and therefore, construction activities do not require permits for alteration of wetlands under Section 404 of the Clean Water Act nor under the Washington Shoreland Management Act.

8. Farmlands

The Farmlands Protection Policy Act directs Federal Agencies to identify and quantify adverse impacts of Federal programs on farmlands. The Tenaska Project site is currently vacant and zoned for heavy industrial use. The Soil Conservation Service indicated that no

prime or unique farmland exists at the site.

#### 9. Recreation Resources

No public recreation occurs at the proposed Tenaska Project site as it is privately owned and zoned for heavy industrial use. It is unlikely that the proposed Project would interfere with the present use of any recreation resource in the vicinity:

Separate from the EIS process, the National Park Service recently provided comments to the Puget Sound Air Pollution Control Agency (PSAPCA) addressing the Park Service's concerns about impacts on Mount Rainier National Park resources from existing levels of ozone and nitrogen deposition. The Park Service noted the potential emissions from the Tenaska Project could add to the nitrogen oxides deposition. These concerns were considered by PSAPCA with respect to the issuance of the amendment to Tenaska Project's air quality permit and were adequately addressed in their permitting process.

The U. S. Forest Service recently provided comments to PSAPCA addressing the Forest Service's concerns about the potential acidification and loss of water clarity in an alpine lake (Summit Lake) within the Class II Clearwater Wilderness (located on the northwest corner of Mount Rainier). The Forest Service noted the potential emissions from the Tenaska Project could add to the SO<sub>2</sub> and NO<sub>x</sub> deposition. These concerns were considered by PSAPCA with respect to the issuance of the amendment to Tenaska Project's air quality permit and were adequately addressed in their permitting process.

#### 10. Global Warming

Several greenhouse gases would be emitted by the proposed Tenaska Project. These may include Federally regulated criteria air pollutants such as nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>), carbon monoxide (CO), and volatile organic compounds (VOCs). Emission levels of these gases by the proposed Tenaska Project would be below the Puget Sound Air Pollution Control Agency's threshold standards for both emissions and ambient air quality.

11. Permit for Structures in Navigable Waters

The proposed Tenaska Project does not include work or structures that are in, on, or over any navigable waters of the United States as defined in the Rivers and Harbors Act of 1899. 33 U.S.C. 403.

12. Permit for Discharges into Waters of the United States

The proposed Tenaska Project is located in an upland area and there is no proposed discharge of dredged or fill materials into waters of the United States.

13. Permit for Right-Of-Way on Public Lands

The proposed Tenaska Project would be located on private land.

14. Energy Conservation at Federal Facilities

The proposed Tenaska Project does not include the operation, maintenance, or retrofit of an existing Federal building, or the construction or lease of a new Federal building.

15. Pollution Control

Tenaska has identified procedures to be used during the project construction and operation to achieve compliance with Federal, state, and local regulations and ordinances. These regulations and ordinances concern the following: procurement of goods and services from the EPA listed facilities, clean air standards, water quality standards, solid waste disposal, hazardous waste handling and disposal, drinking water standards, noise abatement, pesticide control, asbestos, Toxic Substance Control Act, Comprehensive Environmental Response Compensation and Liability Act, and radon.

The Tenaska Project would lie in an area that is designated as a nonattainment area with respect to ambient air quality standards for carbon monoxide and ozone. The PSAPCA has established significant impact threshold criteria for new pollutant sources in areas that are out-of-compliance with ambient air quality standards. The proposed Tenaska Project would be in compliance for emissions of carbon monoxide and volatile organic compounds, as well as in compliance with all other applicable air pollutant emission and ambient air quality standards.

Operation of the proposed Project would produce noise. The predicted noise level at the nearest residence would be 46 decibels (dBA) compared to an applicable standard of 50 dBA. The maximum predicted noise level at the neighboring property line in an industrial area would be 66 dBA compared to an applicable standard of 70 dBA. Noise levels would be in compliance with local, state and federal requirements.

Process, sanitary, and cooling system wastewaters would be routed to the Pierce County sewage system. The wastewater stream from the proposed Tenaska Project would be lightly polluted from cooling tower blowdown, which contains salts and possible traces of chemicals used to control algal growth in the cooling towers. This discharge would not affect Pierce County's ability to meet its wastewater discharge standards.

Water supply needs would be met with the existing available resources from Tacoma Public Utilities. Water supply to the area would likely be expanded, as industrial growth occurs, with the construction of an additional trunk line from a local reservoir and possibly from local wells.

The Clover-Chamber Creek Basin aquifer system was recently designated as a sole-source aquifer by the EPA. The water quality of the aquifer will be preserved by the implementation of the Preparedness and Prevention Measures, a Contingency Plan, and a Spill Prevention Control Countermeasure Plan in compliance with Tacoma-Pierce County Health Department regulatory requirements.

#### V. Mitigation

The proposed Tenaska Project already includes many features designed to reduce environmental impacts. By incorporating environmental protection features into the Project design and operation plan, some impacts would be prevented. The discussion of these design features can be found in the Tenaska FEIS under Section 5.14, "Project Design Features for Reducing Environmental Impacts" and summarized in Table 4.7-1 of the attached MAP.

All practicable means to avoid, minimize, or mitigate environmental impacts have been

adopted. Please see the attached MAP for details.

In addition to the requirements of the state and local reviewing agencies which are based on existing regulations other than SEPA, the Pierce County Environmental Official has determined that other mitigating measures will be necessary to ensure that the proposal will not have a significant impact on the environment. These mitigating measures are required under the Substantive Authority of SEPA in accordance with the guidelines contained in section 17.08.170 of the Pierce County Code and are enumerated below.

#### Ground Water Mitigation Measures

1. Hazardous materials tank containment structures shall meet all local, state, and federal (if applicable) standards for construction.
2. The applicants shall submit and comply with a Spill Prevention Control and Countermeasure Plan and a Hazardous Materials Management Plan.
3. The storm water system design must meet the water quality standards, requirements, and best management policies specified in the Washington State Department of Ecology's Storm Water Management Manual for the Puget Sound Basin.
4. Prior to the arrival of hazardous materials on-site, a ground water monitoring well is to be installed down-gradient of the facility (as the site allows) and a sampling program will be developed to include annual sampling of the monitoring well for hazardous materials present on the site. The sampling program and its results shall be submitted to the Tacoma-Pierce County Health Department.

#### VI. Monitoring and Enforcement

The MAP for the Tenaska Project states the mitigation measures necessary to reduce the environmental impacts identified in the FEIS.

Tenaska will provide a monthly report to BPA during the pre-construction and construction phases, on the progress made on mitigation actions which have been identified, as plans and agreements are put in place and fully implemented. Tenaska will provide a

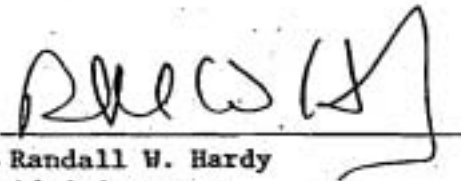


report, on a frequency and schedule to be mutually agreed to by Tenaska and BPA, on the progress made on mitigation actions to be addressed during the Tenaska Project operations phase.

VII. Decision

Upon consideration of the entire record, BPA has decided to purchase electrical power from the proposed Tenaska Project.

Issued in Portland, Oregon on March 29, 1994.

A handwritten signature in black ink, appearing to read "R. W. Hardy", is written over a horizontal line. The signature is stylized and cursive.

Randall W. Hardy  
Administrator

**TENASKA WASHINGTON II  
GENERATION PROJECT**

**TENASKA WASHINGTON PARTNERS II, L.P.**

**MITIGATION ACTION PLAN**

Prepared by:

Bonneville Power Administration  
U.S. Department of Energy  
P.O. Box 3621  
Portland, OR 97208-3621

In consultation with:

Woodward-Clyde Consultants  
Portland, OR

and

Tenaska Inc.  
Omaha, NE

October 1993  
Revised:  
March 26, 1994

## 1.0 INTRODUCTION

This Mitigation Action Plan (MAP) addresses identified environmental issues requiring additional planning/action necessary to avoid, minimize, and compensate for the potential environmental impacts resulting from the execution of an agreement by BPA to purchase electrical power from the Tenaska Washington II Generation Project (Project). Such an agreement will result in the completion of the Project which includes the construction of the electrical generation plant, modification of a switching station to a substation, and the construction of an electrical transmission line connecting the plant and the substation. Mitigation measures of the potential environmental impacts of these construction activities and the subsequent operations are addressed in this MAP.

The Project, located in the Frederickson Industrial Area, Pierce County, Washington, will be privately owned and operated by Tenaska Washington Partners II, L.P. The natural gas-fired combustion turbine electrical generation plant will produce 240 aMW of electrical energy which will be supplied to BPA's South Tacoma facility for distribution through the regional grid.

This MAP is consistent with the U.S. Department of Energy's (DOE's) "Implementing Procedures and Guidelines Revocation; Final Rule and Notice, Federal Register, April 24, 1992, from volume 10 CFR, to be codified at Section 1021.331," and DOE Order 5440.ID, Section 23. Bonneville Power Administration wants to ensure compliance with all regulations and mitigation measures recommended by or developed in concert with appropriate government agencies regarding this Project.

## 2.0 BACKGROUND

The potential environmental impacts and the mitigation measures addressed herein are the result of an environmental review process in compliance with the National Environmental Policy Act (NEPA), the State/county approval and permitting processes, and the DOE/BPA's new acquisition review procedures. This MAP is the resulting compilation of the evaluation of identified potential environmental impacts and the recommended mitigation measures from numerous sources. Section 5.0, Reference Documents, lists sources used in preparing this MAP.

## 3.0 METHODOLOGY

The method used in this MAP to compile the potential environmental impacts and mitigation measures is described by the following:

- (a) Identify the specific environmental feature affected by the proposed project;
- (b) Identify and analyze the potential environmental impacts associated with each environmental feature;

- (c) Identify/develop practicable mitigation to provide appropriate and necessary action to minimize impacts or to reduce impacts to a level that is "not significant;"
- (d) Identify the party or parties responsible for implementing the mitigation actions;
- (e) Identify the Project phase(s) where each mitigation action applies;
- (f) Identify the government agencies to be consulted to ensure compliance with applicable regulations; and
- (g) Identify any required bonding or monetary commitments.

#### **4.0 RESULTS AND IMPLEMENTATION**

Table 4.0-1 summarizes the mitigation measures identified/developed in the process of preparing the Final Environmental Impact Statement (FEIS) and the resulting Record of Decision (ROD). Further discussion of specific environmental features, potential impacts and prescribed mitigation measures can be found in the source documents.

The mitigation actions summarized in Table 4.0-1 will be implemented prior to, during, and following construction of the Project by the Project proponent, Tenaska Washington Partners II, L.P. The MAP shall be the controlling instrument in the event of any conflict between Table 4.0-1 and this MAP.

A discussion of necessary mitigation measures for each of the Project phases is found in Section 4.1 Preconstruction, Section 4.2 Construction, Section 4.3 Postconstruction/Operations, and Section 4.4 Decommissioning. Section 4.5 addresses the mitigation fund for minimizing the environmental effects of carbon emissions. Section 4.6 discusses other mitigation issues. Section 4.7 addresses the design features incorporated in the Project which reduce environmental impacts. Section 4.8 discusses reporting requirements for the mitigation actions being monitored during preconstruction, construction, and postconstruction/operations.

##### **4.1 Preconstruction Phase**

Mitigation measures for the preconstruction phase are as follows:

- (a) Minimize the impacts on wildlife habitat and visual quality by careful planning to restrict the size of the disturbed area;
- (b) Reduce the impacts on wildlife habitat and visual quality by routing the transmission line around large trees, where practical;

- (c) Monitor the Federal and State listing status for the five sensitive species (identified in the FEIS) potentially present in the area, for status changes that may occur prior to construction;
- (d) Salvage smaller oak trees (those less than five (5) feet in height) in the areas to be disturbed by construction for relocation to an undisturbed portion of the site or replanted as part of the landscaping. Acorns will be collected and planted on site as part of the landscaping plan; and
- (e) Seeds of the white-top aster (*Aster curtus*) will be collected and given to a recognized seed bank. Where practical, the plant arrangement will be configured to minimize the impact on the largest population of *Aster curtus*.

#### 4.2 Construction Phase

The majority of the mitigation measures listed in Table 4.0-1 are construction related and are summarized as follows:

- (a) Implement erosion and sedimentation control measures to protect exposed areas during construction to minimize erosion;
- (b) Protect any discovered historical and/or cultural resources by immediately ceasing operation in the affected area and consulting with the appropriate agencies to develop an action plan. If archaeological materials or human burials are uncovered, work in the vicinity would be halted until the significance of the find can be evaluated by a qualified archaeologist or, in the case of human remains, until the County Coroner and the appropriate Native American tribe has had an opportunity to make their findings and recommendations for the burials disposition;
- (c) Take appropriate measures to ensure that hazardous materials such as fuel and oil are not released to the environment. If a spill does occur, contaminants should be contained and removed immediately according to pollution prevention control plans;
- (d) Decrease traffic congestion by encouraging: construction worker carpools, non-peak hour travel for deliveries, using routes consistent with State and county plans and/or regulations, and maximizing use of the railroad for material handling;
- (e) Minimize impacts on air quality by: covering dust source materials in storage or transport (as required), wet down exposed soil surfaces as necessary for dust control, limiting vehicle speeds, and turning off engines not in use;

- (f) Minimize impact on vegetation and habitat by restricting trench width and the size of transmission structure bases, where reasonable;
- (g) Minimize noise impacts by restricting construction noise between the hours of 6:00 p.m. to 7:00 a.m. to 50 dBA measured at the property line of the nearest residential house, and ensuring the proper muffling of combustion engines;
- (h) Improve visual quality by grading and contouring excavated soils to conform with natural terrain and landscape features; and
- (i) Coloring of the facilities should be consistent with other buildings/structures located in the Frederickson Industrial Area.

#### **4.3 Postconstruction/Operations Phase**

Postconstruction/Operation Phase mitigation measures are as follows:

- (a) Install and maintain landscaping while maximizing the use of salvaged plants;
- (b) Minimize the potential for the release of hazardous substances to the environment by implementing a Spill Prevention Control and Containment (SPCC) Plan including appropriate training for personnel;
- (c) Minimize traffic congestion in the community by encouraging plant worker carpooling and scheduling shift changes to non-peakhour times;
- (d) Enhance the visual appearance through appropriate landscaping, using simplified structures and coverings, and using exterior night lighting which will minimize glare;
- (e) Any accidental spills or leaks of dielectric fluid from the underground transmission cable should be handled according to instructions provided in the manufacturer's Material Data Safety Sheet. Any state and local handling practices and regulations for this material should be observed; and
- (f) Implement carbon sequestration efforts to offset a portion of the carbon to be emitted by the project.

#### **4.4 Decommissioning Phase**

The Project power plant will have a life expectancy of 20 to 40 years. If the Project were to reach the end of its useful life, it would be renovated or decommissioned. If the Project were to be decommissioned, all structures and equipment at the Project site would be dismantled and

removed. The site will be restored as required to acceptably reduce the hazards to persons, property and the environment. Transmission interconnection lines and structures would also be dismantled and removed, and restoration performed to acceptably reduce the hazards to persons, property and the environment. Bonneville's South Tacoma substation will most likely not be decommissioned at the same time and will continue to serve the area.

#### **4.5 Mitigation Fund**

Tenaska shall on the Financial Closing Date establish a mitigation fund of one million dollars (\$1,000,000) in an interest bearing account to fund the costs of any mitigation activities for Project impacts to the environment, including carbon sequestration, as may be agreed upon by the Parties. These activities are above and beyond the mitigation activities required by any permitting or regulatory agency. At the end of the Initial Operating Period any amount (including interest) then remaining in the mitigation fund shall be paid to Bonneville.

#### **4.6 Other Issues for Mitigation**

In addition to the requirements of the state and local reviewing agencies which are based on existing regulations other than the State Environmental Policy Act (SEPA), the Pierce County Environmental Official has determined that other mitigating measures will be necessary to ensure that the proposal will not have a significant impact on the environment. These mitigating measures are required under the Substantive Authority of SEPA in accordance with the guidelines contained in Section 17.08.170 of the Pierce County Code and are enumerated below.

##### Ground Water Mitigation Measures

1. Hazardous materials tank containment structures shall meet all local, State, and Federal (if applicable) standards for construction.
2. The applicants shall submit and comply with a Spill Prevention Control and Countermeasure Plan and a Hazardous Materials Management Plan.
3. The storm water system design must meet the water quality standards, requirements, and best management policies specified in the Washington State Department of Ecology's Storm Water Management Manual for the Puget Sound Basin.
4. Prior to the arrival of hazardous materials onsite, a ground water monitoring well is to be installed down-gradient of the facility (as the site allows) and a sampling program be installed to include annual sampling of the monitoring well for hazardous materials present on the site. The sampling program and its results shall be submitted to the Tacoma-Pierce County Health Department.

#### **4.7 Project Design Features**

Several design features have already been incorporated into the Tenaska Project design which benefit the environment through reduction of impacts as noted in Section 5.14 of the FEIS. These design features are summarized in the attached Table 4.7-1.

#### **4.8 Monitoring/Reporting**

Tenaska Washington Partners II, L.P., the project developer, shall provide a monthly report to BPA on the progress made during the preconstruction and construction phases, on implementation of mitigation actions summarized in Table 4.0-1 and this MAP. Tenaska Washington Partners II, L.P. shall provide a progress report to BPA, for the Post Construction/Operations Phase, on implementation of mitigation actions summarized in Table 4.0-1 and this MAP. The frequency of this progress report to be mutually agreed on by the parties.



## 5.0 REFERENCE DOCUMENTS

Boeing Commercial Airplane Company (Boeing). October, 1991. *1991 Supplemental Final Environmental Impact Statement*, 2 vols.

Bonneville Power Administration. February, 1993. "Final Environmental Impact Statement Resource Programs."

Bonneville Power Administration. January, 1994. "Final Environmental Impact Statement, Tenaska Washington II Generation Project"

Brown and Caldwell, Sweet, Edwards and Associates, and Robinson and Noble, Inc. 1985. "Clover/Chambers Creek Geohydrologic Study: Final Report." Submitted to the Tacoma-Pierce County Health Department.

Earth Consultants, Inc. March 28, 1989. "Preliminary Assessment of Potential Impacts to Groundwater and Surface Water Resources, Frederickson Industrial Property, Pierce County, Washington." Letter report to AHR Engineers, Inc.

Pierce County. March 5, 1991. Memorandum describing implications of Frederickson Area-wide Rezone. 7 pp.

Pierce County. 1992. Comprehensive Plan Draft Policies. December. 83 pp.

Pierce County Department of Planning and Natural Resource Management. October, 1990. "Supplemental Draft Environmental Impact Statement for Boeing-Pierce County, Frederickson Site."

Science Applications International Corporation. February, 1992. "Topical Outline: Frederickson Generation Project."

Tenaska. January, 1993. "Tenaska Frederickson Project Description." 20 pp.

Tenaska Power Partners, Inc. 1992. "Notice to Construct Application, Tenaska Washington II Generation Project, Frederickson, Washington."

Woodward-Clyde Consultants (WCC). May, 1991. "Frederickson Power Production Facility Siting Study."

Woodward-Clyde Consultants (WCC). September, 1992. "Tenaska Siting Report."

## LIST OF ACRONYMS

### Federal Agencies

ACHP	Advisory Council on Historic Preservation
BPA	Bonneville Power Administration
DOE	United States Department of Energy
EPA	Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

### Washington State Agencies

PSAPCA	Puget Sound Air Pollution Control Agency
WDE	Washington Department of Ecology
WDF	Washington Department of Fisheries
WDNR	Washington Department of Natural Resources
WDOT	Washington Department of Transportation
WDW	Washington Department of Wildlife
WUTC	Washington Utilities and Transportation Commission

### Acts, Regulations, and Documents

DEIS	Draft Environmental Impact Statement
FEIS	Final Environmental Impact Statement
MAP	Mitigation Action Plan
NESC	National Electric Safety Code
OSHA	Occupational Safety & Health Administration
NEPA	National Environmental Policy Act
SEPA	State Environmental Policy Act

**TABLE 4.0-1  
MITIGATION ACTION PLAN SUMMARY**

Affected Environmental Feature	Potential Impact to be Mitigated	Mitigation Action to be Taken	Project Phase Where Action Occurs	Agency Consultation as Appropriate	Reference Documents
Geology Soils	Erosion of topsoil during and following ground-disturbing activities	<ul style="list-style-type: none"> <li>Control measures applied to exposed areas</li> <li>Landscape following construction</li> </ul>	Construction, postconstruction	WDW WDNR	Erosion and Sedimentation Control Plan
Water Quality	Increased discharge of water pollutants	<ul style="list-style-type: none"> <li>Limit erosion with storm water runoff controls</li> <li>Fuel and oil stored in aboveground tanks over impermeable surfaces</li> </ul>	Construction	EPA, Washington Dept. of Ecology, Tacoma-Pierce County Health Dept.	FEIS
Air Quality	Air quality adversely affected during ground-disturbing activities	<ul style="list-style-type: none"> <li>Water exposed soil surfaces as needed to reduce dust</li> <li>Turn off engines when not in direct use</li> <li>Mitigate dust by limiting vehicle speeds</li> <li>Cover truck beds when transporting dirt/soil offsite, as required</li> </ul>	Construction	PSAPCA WDE	FEIS
	Release of carbon into the atmosphere	Implement carbon sequestration measures	Operation		FEIS
Biological Resources Vegetation	Vegetation altered	<ul style="list-style-type: none"> <li>Minimize number of trees removed</li> <li>Salvage and replant smaller species</li> <li>Landscape with native plants</li> <li>Collect and seed bank <i>Aster curtus</i> seeds</li> </ul>	Construction, postconstruction	USFWS WDNR WDW WDF	FEIS
Biological Resources Wildlife Habitat	Elimination of wildlife habitat at and near project site	Minimize the disturbed area	Preconstruction, construction	USFWS WDNR WDW WDF	FEIS
Biological Resources Sensitive Species	Potentially protected species	Monitor Federal and State status changes for sensitive species listed	Preconstruction	USFWS WDNR WDW WDF	Table 4.5-1 (FEIS)
Biological Resources Vegetation Wildlife Habitat	Alter vegetation and wildlife habitat along transmission interconnect lines and natural gas pipeline stub	<ul style="list-style-type: none"> <li>Route transmission line around large trees within right-of-way, if practicable</li> <li>Minimize trench width and transmission structure base size</li> </ul>	Preconstruction, construction	USFWS WDNR WDW WDF	FEIS

**TABLE 4.0-1  
MITIGATION ACTION PLAN SUMMARY (Continued)**

Affected Environmental Feature	Potential Impact to be Mitigated	Mitigation Action to be Taken	Project Phase Where Action Occurs	Agency Consultation as Appropriate	Reference Documents
Historical and Cultural Resources	Disturb previously undetected historical and cultural resources	Cease construction immediately in the immediate area, if resources are detected, until an evaluation is made	Construction	ACHP, State Historic Preservation Office (SHPO), appropriate Indian tribe, County Coroner	FEIS
Public Health and Safety	Release of hazardous materials to the environment during construction	<ul style="list-style-type: none"> <li>• Limit erosion with storm water runoff controls to minimize release of hazardous materials</li> <li>• Fuel tanks aboveground over curbed concrete pads</li> <li>• Contaminants contained and removed immediately according to pollution prevention control plans if a spill occurs</li> <li>• DCL 500 handled according to manufacturers recommendations and Materials Safety Data Sheet(s), and State and local regulations</li> </ul>	Construction	OSHA WDW Pierce County Washington Dept. of Ecology	FEIS
	Release of hazardous substances to the environment during operation	<ul style="list-style-type: none"> <li>• Spill Prevention Containment &amp; Countermeasure (SPCC) Plan</li> <li>• Personnel training on RCRA procedures</li> </ul>	Operation	OSHA WDW Pierce County	Table 5.9-1 (FEIS)
Traffic and Transportation	Increase in vehicular traffic during construction	<ul style="list-style-type: none"> <li>• Construction workers encouraged to carpool</li> <li>• Minimize truck trips scheduled for peak hours</li> <li>• Use railroad for material handling as much as practicable</li> <li>• Route construction vehicles through low-use areas if consistent with State and county plans/regulations</li> </ul>	Construction	WUTC, WDOT, Pierce County, Local highway (and/or traffic control) agencies	FEIS
	Increase permanent vehicular traffic	<ul style="list-style-type: none"> <li>• Employees encouraged to carpool</li> <li>• Schedule shift changes to non-peak hours</li> </ul>	Operation		FEIS

**TABLE 4.0-1  
MITIGATION ACTION PLAN SUMMARY (Continued)**

Affected Environmental Feature	Potential Impact to be Mitigated	Mitigation Action to be Taken	Project Phase Where Action Occurs	Agency Consultation as Appropriate	Reference Documents
Noise	Temporary increase in ambient noise levels during construction	<ul style="list-style-type: none"> <li>• Restrict construction noise levels between the hours of 6:00 p.m. to 7:00 a.m.</li> <li>• Ensure proper muffling of combustion engines</li> </ul>	Construction	Washington Dept. of Ecology Pierce County	FEIS
Visual Quality	Alter visual quality in Frederickson Industrial area and immediate surroundings	<ul style="list-style-type: none"> <li>• Minimize disturbance of site characteristics</li> <li>• Grade and contour excavated soils to conform with terrain and landscape</li> <li>• Enhance the appearance with landscaping and simplified structures and coverings</li> <li>• Use exterior night lighting to minimize glare</li> </ul>	Preconstruction, construction, postconstruction	Pierce County	Table 5.13-1 (FEIS) FSM 2380 SCS - Technical Release No. 65
	Alter visual quality within the BPA South Tacoma facility	As above	Preconstruction, construction, postconstruction	Pierce County	FEIS

**TABLE 4.7-1  
PROJECT DESIGN FEATURES FOR REDUCING ENVIRONMENTAL IMPACTS**

Geology/Soils	A minimum amount of soil would be disturbed outside of the project footprint; all structures will conform with building standards for seismic risk in the project region.
Air Quality	Implementation of Best Available Control Technology (BACT) - the combustion of natural gas or low-sulphur No. 2 fuel oil (in emergency cases) in combination with various emission reduction equipment, including low-NO <sub>x</sub> and de-NO <sub>x</sub> filters.
Water Quality	Discharge of process and cooling waste water to the municipal sewer for treatment; hazardous materials would be stored according to code and protected from possible spill/leakage. All storm water from storms less than the 100-year return period storm would be stored on the site.
Energy and Utilities	The project would be operated primarily as a baseload resource with flexibility to complement BPA's hydro based generation.
Biology	The footprint of the proposed power plant has been situated to avoid the stand of Douglas fir in the southeastern portion of the site and preserve as much quality habitat as possible. Trees situated throughout the site would be avoided to the extent practicable; portions of the site will be landscaped after construction. Seeds from <i>Aster curtus</i> will be collected and provided to a recognized seed bank.
Land Use	The project has been situated in an area zoned for light and heavy industry and does not interfere with more sensitive land uses (e.g., residential areas or open space).
Public Health and Safety	All transmission lines would be constructed in accordance with the NESC. All underground lines would be clearly marked to avoid cutting into them and would be pressure tested at all times to monitor for leakage. There would be power plant isolation valves which could be closed in the event of an emergency at all gas and liquid inlets. In addition, there would be safety valves throughout the facility that would release high pressure liquids or gases before the possibility of an explosion. All gases and liquids vented in this manner would be distributed to a predetermined safe location for release (Chuck Eliason, Tenaska, pers. comm., 1993).
Noise	Power plant facilities would be housed in structures serving as an acoustical barrier, reducing noise emissions.
Visual Quality	A large portion of trees would be left surrounding the power plant in order to screen as much of the plant as possible from surrounding viewpoints; portions of the power plant perimeter would be landscaped with trees.

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