

Environmental Assessment

Multi-Species Candidate Conservation Agreement with Assurances

***Washington Ground Squirrel
Ferruginous Hawk
Loggerhead Shrike
Sage Sparrow***

August 2003

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1 INTRODUCTION

This Environmental Assessment (EA) has been prepared to address the impacts of issuing Endangered Species Act (ESA) assurances through a Multi-Species Candidate Conservation Agreement with Assurances (MSCCAA or Agreement) for the Washington ground squirrel (*Spermophilus washingtoni*), ferruginous hawk (*Buteo regalis*), loggerhead shrike (*Lanius ludovicianus gambeli*), and sage sparrow (*Amphispiza belli*) on the Covered Area near Boardman, Oregon (**Figure 2** of the MSCCAA). This EA has been prepared to comply with the National Environmental Policy Act (NEPA, 42, U.S.C. §4321 et. seq.). NEPA compliance is required for the MSCCAA because the U.S. Fish and Wildlife Service (USFWS) will be a co-signer of the Agreement. USFWS will also be the lead Federal agency for NEPA compliance. The U.S. Department of Interior “Departmental Manual for NEPA Compliance” has been used for overall guidance and format for this EA (516 DM 3.1). This EA is intended as an Appendix to the MSCCAA (**Appendix C**).

The MSCCAA has been prepared by Threemile Canyon Farms (the Farm), with assistance from The Nature Conservancy (TNC) and Portland General Electric (PGE), and in close coordination with USFWS and the Oregon Department of Fish and Wildlife (ODFW). The Signatories to the MSCCAA are the Farm, TNC, PGE, USFWS, and ODFW. The Permittees, or those that will receive assurances under the ESA, are the Farm, TNC, PGE, and ODFW.

1.1 PURPOSE AND NEED

The first purpose of the proposed MSCCAA is to bring together into a cohesive management plan a variety of conservation measures (Conservation Commitments) within a Covered Area of 93,880 acres of the Columbia Basin Ecoregion for conservation of the Washington ground squirrel, ferruginous hawk, loggerhead shrike, and sage sparrow (Covered Species). The second purpose of the proposed MSCCAA is to provide regulatory assurances to the Permittees, should any of the Covered Species be subsequently listed under the ESA. The third purpose is to set forth proposed plans and procedures for implementing certain key aspects of a settlement agreement among the Farm and a number of environmental organizations, completed in 2000. As more fully discussed in Section 1.3, below, the comprehensive 2000 Settlement Agreement was the result of extensive discussions between the Farm and conservation groups regarding how the Farm could operate in a more sustainable manner while providing for the conservation of imperiled terrestrial and aquatic species and their habitats within and adjacent to the Farm. The Settlement Agreement included the proposed framework, guidance, and commitments to support developing and implementing portions of the MSCCAA. At the time of finalizing the Settlement Agreement, however, a variety of uncertainties existed relating to timing, species status, and future land transfers. Accordingly, the Settlement Agreement resulted in early implementation of several conservation measures and commitments included within the proposed MSCCAA.

The need for the project exists because of the extensive loss of habitat from land use activities throughout the Columbia Basin Ecoregion. Habitat loss has caused populations of the Covered Species to decline severely. The project area is located within the Columbia Basin Ecoregion, which in the state of Oregon is second only to the Willamette Valley in the percentage of landscape converted to non-native habitats and human uses (Defenders of Wildlife 1998). Native dry grasslands in the Columbia Basin have declined by more than half from historic levels, and plant and animal species associated with these habitats have declined as much as, or more than, any other group of species in the region (Quigley and Arbelbide 1997). Threats to key native habitats can be managed through implementation of the proposed MSCCAA, thus substantively helping to avoid future listing under the ESA. The proposed MSCCAA effectively addresses the Covered Species' needs for protection of and improvements to their habitats.

1.2 DECISIONS TO BE MADE BY THE RESPONSIBLE OFFICIAL

The USFWS decision is whether to approve the MSCCAA and issue the permit, in accordance with section 10 of the ESA, based on the MSCCAA as proposed, or on the MSCCAA as further conditioned, or not to approve the MSCCAA. To approve the MSCCAA, USFWS must find that: 1) take of Washington ground squirrel, ferruginous hawk, loggerhead shrike, and sage sparrow will be incidental to otherwise lawful activities, and will be in accordance with terms of the MSCCAA; 2) the MSCCAA complies with the requirements of the Candidate Conservation Agreement with Assurances final policy (USFWS and National Marine Fisheries Service 1999); 3) the probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of survival and recovery in the wild of any species; 4) implementation of the terms of the MSCCAA is consistent with applicable Federal, state, and tribal laws and regulations; 5) implementation of the terms of the MSCCAA will not be in conflict with any ongoing conservation programs for species covered by the MSCCAA; and 6) the Signatories have shown capability for and commitment to implementing all of the terms of the MSCCAA.

1.3 PROJECT DESCRIPTION

1.3.1 Conservation on Threemile Canyon Farms and PGE Lands

Consistent with the USFWS Candidate Conservation Agreements with Assurances Final Policy (USFWS and National Marine Fisheries Service 1999), the conservation goals of the proposed MSCCAA are to restore and protect suitable habitat for the Covered Species on the Covered Area to support the recovery of the Covered Species. The conservation goals will be met by: 1) the Conservation Commitments undertaken by the Signatories and the concomitant conservation benefits, and 2) providing the private Permittees with regulatory certainty concerning present and future activities in the Covered Area, as well as with incentives and guidance for the implementation of conservation measures.

Under the proposed MSCCAA, its Signatories would implement habitat management, operational modifications, and Conservation Commitments with the intent of increasing the populations and improving habitat conditions for the Covered Species within the Covered Area (see Section 7 of the MSCCAA). The Conservation Commitments for these species are important, as the Washington ground squirrel is currently listed as a candidate species under the Federal ESA and as an endangered species under the Oregon ESA. The ferruginous hawk is a species of concern and an Oregon state-sensitive species. The loggerhead shrike and sage sparrow are Oregon state-sensitive species and may be listed under the Federal ESA in the future. All Conservation Commitments outlined in the proposed MSCCAA attempt to meet the long-term conservation needs of the Covered Species. Additional wildlife species of ecoregional importance that utilize the habitats of the Covered Species would also benefit from implementation of the MSCCAA. The conservation management and mitigation measures that are proposed for implementation for the Covered Species would also provide conservation benefits for a suite of imperiled native plant communities.

Another intent of the proposed MSCCAA is to provide the Permittees with assurances that no further land, water, or resource use restrictions would be imposed upon them should any of the Covered Species be listed under the ESA. If any of the Covered Species becomes federally listed, the proposed MSCCAA allows the Permittees, through enhancement of survival permits, to incidentally take individuals of the Covered Species consistent with the terms and conditions of the permits and the MSCCAA. Included with this, the proposed MSCCAA will authorize permits for TNC, PGE, and ODFW to cover incidental take associated with Covered Activities such as research, management, and monitoring of the Covered Species within the Covered Area.

1.3.2 Background on Conservation Agreements

On July 2, 1963, the State of Oregon entered into an agreement with The Boeing Company to lease an approximately 93,000-acre tract of land, identified on **Figures 1 and 2** of the MSCCAA, in north-central Oregon for a term of 77 years. On January 1, 1974, The Boeing Company, with the consent of the State of Oregon, assigned all its rights and duties under the lease to the Boeing Agri-Industrial Company (“BAIC”). In the spring of 2000, Threemile Canyon Farms obtained BAIC and renamed the company BAIC, Inc. BAIC, Inc. purchased the leased property from the State of Oregon in late 2002. Consequently, Threemile Canyon Farms, by and through its wholly-owned subsidiary BAIC, Inc., is the present owner of the property and continues to lease portions of the property to various entities. As part of the efforts to further develop the property, several Federal and state permits relating to water development and use were applied for and received by various entities, including The Boeing Company, BAIC, and various subtenants, between the 1970s and the late 1990s. In the course of developing the property and planning for its future use, BAIC and others sought various additional water right transfers, permits, licenses, and extensions.

Beginning in 1999, environmental organizations, including WaterWatch and Oregon Trout, initiated a series of administrative protests and judicial challenges to these permits under the ESA, Clean Water Act, and state water laws. On January 15, 1999, environmental organizations, including the Northwest Environmental Defense Center, Defenders of Wildlife, and the Oregon Natural Desert Association, filed a petition for emergency listing of the Washington ground squirrel under the Oregon ESA. On January 21, 2000, the Oregon Fish and Wildlife Commission listed the Washington ground squirrel as endangered and adopted survival guidelines, which only pertain to state lands, effective February 14, 2000. On February 29, 2000, environmental organizations submitted a petition to the USFWS for an emergency listing of the Washington ground squirrel under the Federal ESA. USFWS designated the Washington ground squirrel a candidate species on October 25, 1999.

In late 1999, principal representatives of the Farm joined with several environmental organizations to discuss, negotiate, and construct a comprehensive settlement agreement that would allow development and utilization of portions of the property and associated water resources in a manner that preserves the ecological integrity of areas with high conservation values and specifically protects the Washington ground squirrel and other species and ecological values.

The 2000 Settlement Agreement was a voluntary effort by the Farm and the conservation parties to set aside differences (including litigation) and to structure a “one action approach” to cooperatively balance conservation and sustainable agriculture. As further discussed below, the Settlement Agreement provided for a species and habitat conservation plan that would be consistent with section 10(a) of the ESA. During the preparation of the conservation plan, USFWS and participating parties determined that an MSCCAA would be an appropriate vehicle to achieve a “one action approach” to conservation planning and implementation. In this EA, USFWS has proposed a purpose and need for an MSCCAA using this framework to develop a proposed action and alternatives to the proposed action. Impacts of implementing an MSCCAA for the Covered Activities and Covered Species are described and analyzed in this document. When the Settlement Agreement was finalized, however, a variety of uncertainties existed relating to timing, species status, and future land transfers. Accordingly, the 2000 Settlement Agreement resulted in the implementation of several conservation measures and commitments, which are included within the MSCCAA:

- purchasing the leased property of 93,000 acres from the State of Oregon
- dedicating 22,600 acres as Conservation Areas
- managing the 22,600-acre Conservation Areas under a sublease with TNC to initiate conservation measures and develop baseline inventories
- protecting the 22,600-acre Conservation Areas under conservation easements

- funding for conservation efforts
- immediately implementing fire management measures to complement conservation objectives

1.4 COVERED AREA

The majority of the Covered Area consists of approximately 93,880 acres and is made up of four distinct management areas—the Farm’s agricultural areas, the Farm’s Conservation Areas, the PGE power generation and transmission areas, and the PGE Conservation Area—described in Sections 1.4.1 through 1.4.4. The Covered Area for the MSCCAA includes the entire property of Threemile Canyon Farms, as well as the property owned by PGE, situated within the boundary of the Farm’s property (**Figure 2** of MSCCAA). Carty Reservoir encompasses approximately 1,400 acres of the Covered Area. Under the Proposed Action, two distinct areas within the lease holding are dedicated as Conservation Areas, designated for habitat and wildlife conservation, and managed and/or owned by TNC and PGE. These two areas total approximately 23,480 acres (Farm Conservation Areas are 22,600 acres and the PGE Conservation Area is 880 acres).

1.4.1 Farm Agricultural Activity Areas

A majority of the Covered Area is an approximately 93,000-acre property, currently owned by Threemile Canyon Farms, by and through its wholly-owned subsidiary BAIC, Inc., located near Boardman, Oregon (see **Figure 2** of the MSCCAA). The Farm consists of both Developed and Undeveloped Areas. The Farm has prepared a Memorandum of Understanding (MOU) with ODFW to facilitate voluntary actions and management efforts to further biological conservation within undeveloped portions of the Farm’s Development Areas. The MOU and the associated voluntary conservation measures are included in **Appendix H** of the MSCCAA.

1.4.2 Threemile Farms Conservation Areas

Part of the Farm’s 93,000-acre property includes 22,600 acres dedicated to long-term biological conservation. These lands are currently managed by TNC for conservation purposes, as provided by the 2000 Settlement Agreement.

1.4.3 PGE Power Generation and Transmission Areas

PGE owns and controls 3,520 acres within the Farm’s overall (perimeter) property boundary. Much of the PGE property is land associated with operation of the Boardman Coal Plant and is included in the Covered Area. PGE also has easements for constructing additional transmission lines in the future on lands under the control of the Farm, but those activities are not covered under the proposed action. The PGE lands and easements

are herein collectively referred to as the “PGE Boardman Plant property” or, simply, “Boardman Plant property.”

1.4.4 PGE Conservation Area

Approximately 880 acres of PGE’s 4,300 acres is to be included within the MSCCAA as a Conservation Area. This area will protect and enhance habitat connectivity and conservation of the Covered Species as part of the MSCCAA.

2 DESCRIPTION OF ALTERNATIVES

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, cohesive conservation within the Covered Area of the proposed MSCCAA would not be implemented or achieved for the Columbia Basin Ecoregion. Some of the conservation commitments already underway, that were products of the existing Settlement Agreement, including an easement and some term leases, may continue without the MSCCAA.

TNC would likely continue to manage 22,600 acres of the Farm’s Conservation Areas, but without the additional assurances and commitments in the MSCCAA relating to conservation planning and implementation. PGE would not dedicate 880 acres to long-term conservation, nor would they commit the necessary resources to implement a comprehensive conservation plan for the 880 acres. Cooperative fire control and management, human and equipment resource sharing, and other conservation activities described in the MSCCAA would not occur. The Farm’s agricultural activities and resulting substantial boost to the local economy would be less certain because of potential future ESA restrictions.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative is implementation of an MSCCAA for the Washington ground squirrel, ferruginous hawk, loggerhead shrike, and sage sparrow. The MSCCAA commits the Permittees to conduct certain specified Conservation Commitments over segments of the Covered Area, which includes future agricultural areas, non-productive agricultural areas, Conservation Areas, and the PGE Boardman Plant property (see **Figure 2** of the MSCCAA). Other Conservation Commitments apply throughout the Covered Area.

Table 1 provides a list of the different management areas, along with the Permittees’ various operations and management activities associated with each area, covered in the MSCCAA.

Table 1: MSCCAA Covered Activities, by Management Area, for Proposed Action Alternative

Management Area	MSCCAA Covered Activities	
Threemile Canyon Farms Agricultural Areas	<ul style="list-style-type: none"> • General Development Activities • Agricultural Activities • Grazing • Fire Control and Suppression • Controlled Burning • Vehicle Access 	<ul style="list-style-type: none"> • Hunting and Recreational Public Access • Dairy Facilities, Feed Lots and Associated Waste Management
Threemile Canyon Farms Conservation Areas	<ul style="list-style-type: none"> • Vehicle and Equipment Access • Discing • Drilling (i.e., for seeds) • Fire Suppression • Prescribed Burning • Fence Removal, Construction and Maintenance • Biological Monitoring and Research 	<ul style="list-style-type: none"> • PGE Access • Grazing • Controlled Hunts • Cleanup of Abandoned Refuse Site • Non-native Species Control • Pedestrian Access within Farm Conservation Areas
PGE Generation and Transmission Areas	<ul style="list-style-type: none"> • Electric Power Generation • Electric Power Transmission • Coal Storage and Handling • By-Product Storage, Handling and Disposal • Operation of Carty Reservoir • Fence Maintenance 	<ul style="list-style-type: none"> • Fire Suppression • Grazing • Environmental Monitoring • Recreation • Vehicle Access • Mammal Control
PGE Conservation Area	<ul style="list-style-type: none"> • Fence Maintenance • Vehicle Access 	<ul style="list-style-type: none"> • Fire Suppression • Grazing • Environmental Monitoring • Recreation • Mammal Control

The Proposed Action Alternative is a cohesive management plan to bring together:

- 1) Preliminary implementation of several conservation measures outlined in the Settlement Agreement, including:
 - Transfer of over 22,600 acres to TNC, or another qualified conservation entity, to ensure the long-term protection of habitat.
 - Conservation management of the 22,600 acres by TNC with the intent of maintaining and improving the native shrub-steppe and grassland habitats.
- 2) The Conservation Commitments within the MSCCAA that are designed to benefit the Covered Species and their habitats, including:
 - Dedication of 880 acres as the PGE Conservation Area for the life of the MSCCAA.

- Provision of a 250-foot buffer around each of the Farm Conservation Areas to further restrict land use activities that otherwise could affect the outer edges of the Conservation Areas.
- Funding for the preservation, management, and improvement of the Conservation Areas, including intensive noxious weed control (see Section 11 of the MSCCAA).
- Funding for conducting extensive monitoring, surveying, notification, and reporting (see Section 11 of the MSCCAA).
- Additional restrictions on grazing, ground-disturbing activities, hunting, and shooting to avoid or minimize harmful impacts to the Covered Species.
- Development and implementation of coordinated fire response plans and detailed conservation management plans for the Conservation Areas.
- Adaptive management within the Conservation Areas to address changing habitat conditions.

As contemplated for the “one action approach” agreed to by the interested parties and supported in the MSCCAA, the conservation commitments already initiated as part of the MSCCAA are thus considered part of the Proposed Action Alternative.

2.3 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS

The following project alternatives were considered but rejected from further analysis because they do not meet the USFWS project purpose and need. These alternatives are not discussed in subsequent sections of this document.

2.3.1 Larger Conservation Area Alternative

The Farm was asked to consider converting more agricultural acres into conservation lands than those proposed by the Settlement Agreement. The Farm determined that the loss of more than one quarter of their agricultural lands would cause unacceptable risks to the Farm’s economic viability. The MSCCAA, as proposed, is committed to sustainable agriculture as well as sustainable conservation, both of which are dependent on sufficient farmland production to generate the required revenues to sustain them. This alternative was eliminated because it did not meet the purpose and need of the proposed project.

2.3.2 MSCCAA with Additional Landowners Alternative

The proposed MSCCAA was originally intended to include the opportunity for other landowners in the general area to participate in the MSCCAA, on a voluntary basis, through Certificates of Inclusion. Landowners would request inclusion in the MSCCAA, undertake the necessary evaluations of their respective properties, and, through mutual

agreement between USFWS and the landowners, would make commitments comparable to those described in the MSCCAA.

The concept of Certificates of Inclusion was dropped from consideration when it was determined that the potential effects of such an action would be difficult to estimate. Neither the Farm, ODFW, nor USFWS were able to estimate what the level of interest and, ultimately, of actual participation might be for other landowners to become a part of the MSCCAA. USFWS determined that the MSCCAA should remain focused on the Farm and PGE lands. In the future, additional lands could be in a CCAA, if appropriate, based on the willingness of landowner(s) and in conjunction with an appropriate NEPA analysis.

2.3.3 MSCCAA without the Participation of PGE

An alternative was considered that would not have included PGE's participation in the MSCCAA.

PGE elected to participate in the proposed MSCCAA for many of the same reasons as the Farm. PGE has a strong interest in the conservation of the Covered Species and their habitats. PGE is also interested in achieving regulatory certainty for its land and many of its Covered Activities related to the coal generation of electricity. Because the Farm's property surrounds PGE's land, inclusion of PGE in the MSCCAA would provide a landscape connectivity beneficial to all the Covered Species.

The exclusion of PGE as a participant from the proposed MSCCAA would result in a reduction of information and education related to the conservation management activities currently applied to 880 acres of PGE lands. The exclusion of PGE lands would also further fragment targeted habitats. This alternative was therefore dropped from consideration.

2.3.4 Proposed MSCCAA to Include Department of Defense and Bureau of Land Management Federal Lands

The Farm and USFWS investigated the opportunity to include Federal lands such as the Naval Weapons Training Facility (Naval Facility) and the Bureau of Land Management (BLM) Horn Butte property in the MSCCAA. USFWS approached the Naval Facility about participation in the MSCCAA but was advised that the Naval Facility should not be included in the MSCCAA at this time. The Horn Butte land was determined to be "not ripe" for inclusion, in part because of recent severe fire damage and subsequent land management decisions requiring more evaluation by the BLM. The MSCCAA is clear that these and other properties have every opportunity to enter into a similar conservation agreement with USFWS in the future.

2.4 ISSUES RAISED DURING PROJECT PLANNING AND PUBLIC SCOPING

Two responses to the public scoping notices (Federal Register, Department of Interior, Fish and Wildlife Services, January 14, 2002, and three local/regional newspapers) were received and are provided in **Appendix A** of this document. The primary issues raised during project planning and public scoping involved the effects of the project on the Covered Species and native habitats. This EA addresses long-term conservation of the Covered Species. Because regulatory assurances would affect operations on the Farm and the PGE Boardman Plant property, both important contributors to the local and regional economy, potential project effects on socioeconomic conditions are addressed in this EA. Impacts to recreation, particularly controlled hunts and public access to the Willow Creek Wildlife Recreation Area, were also identified as issues to be addressed in this EA. Cultural and historic resources were not raised as issues of concern, but nonetheless are addressed in this EA. The concern that the proposed project could prevent construction of a public transportation route through the southern portion of the Covered Area was raised by local residents; however, these concerns were addressed by offering an alternative transportation route through the Farm's Agricultural Activities Area. This is further described in Section 6 (Indirect Effects).

3 AFFECTED ENVIRONMENT

3.1 SITE DESCRIPTION

3.1.1 Covered Area

The Covered Area lies along the south bank of the Columbia River, adjacent to the John Day Reservoir (Lake Umatilla), approximately half-way between the McNary Lock and Dam to the east and the John Day Lock and Dam to the west. The Covered Area is mostly in Morrow County, with western portions in Gilliam County. The town of Boardman is approximately six miles to the northeast, and the city of Heppner is approximately 25 miles to the south. Interstate 84 runs through the north portion of the Covered Area. The region is dominated by agricultural lands with scattered residential areas.

The Covered Area for the MSCCAA includes the entire property of Threemile Canyon Farms, as well as property owned by PGE situated within the boundary of the Farm's property (**Figure 2** of MSCCAA). Carty Reservoir (providing water storage for PGE's coal processing and the Farm's irrigation) encompasses approximately 1,400 acres of the Covered Area. Under the Proposed Action, three distinct areas within the lease holding are dedicated as Conservation Areas, designated for habitat and wildlife conservation, and managed and/or owned by TNC and PGE. The three Conservation Areas total approximately 23,480 acres (the Farm Conservation Areas are 22,600 acres, and the PGE Conservation Area is 880 acres).

3.1.2 Farm Physical Structures and Farm Infrastructure

Threemile Canyon Farms has extensive infrastructure in place throughout the Farm properties. The infrastructure includes roads, irrigation pipes, equipment storage facilities, dairy operations, feedlot operations, offices, farm products storage and processing facilities, employee facilities, fuel storage, irrigation ponds, fencing, waste management facilities, and a methane digester and associated support infrastructure.

3.1.3 PGE Generation and Transmission Structures

PGE properties include a coal-fired electrical generating plant, transmission lines, railroad, bulk handling facilities, storage areas for raw materials and waste products, on-site disposal facilities, roads, sewer and water facilities, fencing, offices, employee facilities, equipment and vehicle storage and parking, and irrigation systems.

3.2 BIOTIC RESOURCES

3.2.1 Vegetation

In conjunction with the adjacent Naval Facility, the proposed Conservation Areas have the best remaining sandy-bunchgrass habitats and open sand dune habitats in the entire Columbia Basin Ecoregion. They also have the highest quality remnants of sagebrush-bluebunch wheatgrass-palouse-bunchgrass steppe, as well as the only high-quality remnant of bitterbrush-bunchgrass steppe habitat within the Ecoregion (Kagan et al. 2000a). The sagebrush and bunchgrass habitats within the proposed South Farm Conservation Area provide a critical connection to the native habitats on the Naval Facility, which lies immediately east of the Covered Area. In addition, the bitterbrush (*Purshia tridentata*), needle-and-thread (*Stipa comata*), and cheatgrass (*Bromus tectorum*) habitats in the proposed North Farm Conservation Area may provide an important connection to the remnant habitats to the north and to the Naval Facility (Kagan et al. 2000b). **Figure 3** of the MSCCAA provides a detailed map of vegetation communities within the Covered Area. **Appendix E** of the MSCCAA provides a report that describes the plant community mapping effort within the Covered Area.

The spread of introduced, exotic species is of particular significance in the arid habitats of eastern Oregon. Two introduced species, cheatgrass and medusa-head (*Taeniatherum caput-medusae*), are widespread and well-established throughout the Columbia River Basin, and attempts to control these species are no longer made, except on a local basis. These species invade disturbed habitats, out-competing native species. Other exotic species that occur within the Covered Area include diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Centaurea repens*), Scotch thistle (*Onopordum acanthium*), yellow starthistle (*Centaurea solstitialis*), rush skeletonweed (*Chondrilla juncea*), spikeweed (*Hemizonia pungens*), perennial pepperweed (*Lepidium latifolium*), jointed goatgrass (*Aegilops cylindrica*), and Russian olive (*Elaeagnus angustifolia*) (Defenders

of Wildlife 1999, TNC 2002). Control of these exotic species is critical to maintaining native shrub-steppe and grassland habitats.

Approximately 9,500 acres of land are interspersed among the Farm's irrigated circles, referred to as the non-productive agricultural areas or "triangles" (**Figure 2** of the MSCCAA). These areas range in size from less than an acre to several hundred acres and average approximately seven acres in size. Most of these areas are characterized by non-native species that provide little value to native wildlife; however, the Farm has replanted approximately 1,000 acres of non-productive agricultural lands with native grasses for purposes of weed control and wildlife use. While the Farm currently manages these areas to control weeds, the Farm may choose to develop and/or irrigate these areas in the future under either alternative.

Cattle are grazed on most of the non-irrigated lands within the Covered Area. Grazing activities are standard for high plateau rangelands. PGE has incorporated habitat conservation measures into their grazing management practices for key habitat areas on their lands. Fire events are not unusual in the general vicinity of the Covered Areas, and by state law landowners are required to suppress range fires to protect adjacent properties. Controlled burns have not been used for range management purposes in the Covered Area.

3.2.2 Wildlife

A wide variety of wildlife species utilize the shrub-steppe and grassland habitats in the Covered Area. These habitats are located primarily within the proposed Conservation Areas. Studies conducted on the adjacent Naval Facility documented 81 species of birds, 22 species of mammals, six reptile species, and one amphibian species (Green and Livezey 1999). The same variety of species is expected to occur in the Covered Area because the habitats are similar. Year-round bird species that may be found within the Covered Area include the northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), golden eagle (*Aquila chrysaetos*), long-eared owl (*Asio otus*), short-eared owl (*Asio flammeus*), horned lark (*Eremophila alpestris*), and western meadowlark (*Sturnella neglecta*). Migratory birds include the common nighthawk (*Chordeiles minor*), ferruginous hawk, loggerhead shrike, long-billed curlew (*Numenius americanus*), burrowing owl (*Athene cunicularia*), rough-legged hawk (*Buteo lagopus*), and sage sparrow. Mammals include the Washington ground squirrel, Ord kangaroo rat (*Dipodomys ordii*), Great Basin pocket mouse (*Perognathus parvus*), deer mouse (*Peromyscus maniculatus*), Nuttall's cottontail (*Sylvilagus nuttallii*), black-tailed jackrabbit (*Lepus californicus*), badger (*Taxidea taxus*), mule deer (*Odocoileus hemionus hemionus*), and coyote (*Canis latrans*). More than a half-dozen amphibians and reptiles are found in the area, including the Great Basin spadefoot (*Spea intermontana*), northern sagebrush lizard (*Sceloporus graciosus*), and the yellow-bellied racer (*Coluber constrictor*) (Defenders of Wildlife 1999). Each year, Carty Reservoir provides habitat for thousands of migrating waterfowl represented by 20 or more species. The reservoir

also supports a wide variety of other aquatic-related bird species, ranging from gulls and terns to grebes and shorebirds, as well as an abundant population of smallmouth bass.

The loss of grassland and shrub-steppe habitats and habitat fragmentation has reduced the quality of habitats and has led to the decline of many species, including the Covered Species.

3.2.3 Covered Species

The MSCCAA would cover the following four wildlife species: Washington ground squirrel, ferruginous hawk, loggerhead shrike, and sage sparrow. Conservation measures for these species are important, as their populations and habitats are in significant decline. The Washington ground squirrel is currently listed as a candidate species under the Federal ESA and is listed as endangered under the Oregon ESA. The ferruginous hawk is a Federal species of concern and an Oregon state-sensitive species. The loggerhead shrike and sage sparrow are Oregon state-sensitive species and may be listed under the Federal ESA in the future. An in-depth discussion of species life history and habitat requirements, as well as management considerations for the conservation of these species, is provided in the MSCCAA.

3.2.4 Threatened and Endangered Species

The bald eagle (*Haliaeetus leucocephalus*, threatened) is the only known federally listed threatened and endangered species that may occur in the Covered Area. Bald eagles are commonly observed around Carty Reservoir on the Covered Area during the winter months; however, there is no suitable nesting habitat in the Covered Area. Bald eagles may also forage along the Columbia River and Willow Creek. Critical habitat has not been designated under the ESA for the bald eagle.

There are no known populations or suitable habitat for federally listed plant species within the Covered Area.

The Covered Area is adjacent to the Columbia River, containing several federally listed aquatic species. These listed fish include the Upper Columbia River spring-run chinook (*Oncorhynchus tshawytscha*, endangered), Snake River fall-run chinook (*O. tshawytscha*, threatened), Snake River spring/summer-run chinook (*O. tshawytscha*, threatened), Upper Columbia River steelhead (*O. mykiss*, endangered), Mid-Columbia River steelhead (*O. mykiss*, threatened), Snake River Basin steelhead (*O. mykiss*, threatened), and Snake River sockeye salmon (*O. nerka*, endangered). These species primarily utilize the Columbia River as a migratory corridor. The Covered Area does not include the Columbia River or Willow Creek; therefore, listed fish are not found within the Covered Area.

For these listed fish species, critical habitat is currently designated within the Columbia River only for the Snake River fall-run chinook, Snake River spring/summer-run

chinook, and Snake River sockeye salmon. Critical habitat consists of the water, river bottom, and adjacent riparian zone of accessible riverine reaches and, with the exception of the steelhead trout evolutionarily significant unit (ESU), off-channel habitats. The adjacent riparian zone is defined as the area that provides shade, sediment transport, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter. The immediate riverbanks of the Columbia River and Willow Creek are also considered critical habitat for the three listed Snake River fish species.

As previously mentioned, the Washington ground squirrel is currently listed as a candidate species under the Federal ESA and is listed as endangered under the state ESA. An in-depth discussion of this species life history and habitat requirements, as well as management considerations for the conservation of this species, is provided in the MSCCAA.

3.3 AIR QUALITY

The Boardman Coal Plant is the largest power plant owned and operated by PGE. It began commercial generation of electricity in August 1980. The plant has a maximum dependable capacity of 585 megawatts and burns low-sulfur, sub-bituminous, western states coal. The design capacity of the plant is 350 tons per hour; however, the plant typically burns 300 to 320 tons per hour under current operations. Air emissions from operation of the Plant, coal handling, and by-product (ash) disposal have been minimized to below a level of significance by the best practical design and utilization of high-efficiency pollution control systems. The plant and all associated activities are fully permitted under the Clean Air Act and state regulations.

There are no other point sources of air pollution that would require state or Federal permitting within the Covered Area. The Covered Area and the surrounding areas do not experience periods of non-compliance for air quality under the provisions of the Clean Air Act. Air quality conditions are typical for the general Columbia Plateau environment.

3.4 WATER QUALITY

Water supplies for power generation and farm irrigation are drawn from the Columbia River, and a portion of that water is stored in Carty Reservoir. There are no discharges from the Farm or PGE into the Columbia River. The Farm utilizes a precision irrigation system, with water applications to crops managed by soil moisture probes and computer-controlled, center-pivot, irrigation systems. Irrigation drainage water is either captured for recycling back to crops or left in natural drainages for eventual evapotranspiration or nominal groundwater recharge. As documented in the existing PGE permits, Covered Activities of by-product storage, handling, and disposal at PGE's power plant will not negatively affect the current level of water quality or quantity.

3.5 SOCIOECONOMIC CONDITIONS

3.5.1 Local and Regional Economy

In 1998 in Gilliam County, farm work accounted for 34 percent of all civilian employment (**Table 2**) and in Morrow County, farm work accounted for 28 percent of all civilian employment (**Table 3**) (Oregon Employment Department [OED] 1999). Food and kindred products manufacturing accounted for another 680 jobs (or 16 percent). The categories together accounted for 44 percent of all civilian employment in the two counties, while farm labor and food products represented 41 percent of all employment in the two counties.

Table 2: Gilliam County Civilian Employment

Industry	1990 Employment	1998 Employment	% change
Farm	365	390	6.9%
Manufacturing	5	10	100.0%
Construction, Mining	20	10	-50.0%
Transportation, Communications, Utilities	100	275	175.0%
Trade	105	145	38.1%
Finance, Insurance, Real Estate	15	20	33.3%
Services	75	75	0.0%
Government	185	225	21.6%
Total Employed Civilian Labor Force	870	1,150	32.2%

Source: OED 1999

Table 3: Morrow County Civilian Employment

Industry	1990 Employment	1998 Employment	% change
Farm	1,480	1,200	-18.9%
Lumber & Wood Products Manufacturing	240	200	-16.7%
Food & Kindred Products Manufacturing	700	680	-2.9%
Other Manufacturing	10	30	200.0%
Construction, Mining	30	80	166.7%
Transportation, Communications, Utilities	170	250	47.1%
Trade	280	430	53.6%
Finance, Insurance, Real Estate	50	80	60.0%
Services	150	470	213.3%
Government	740	840	13.5%
Total Employed Civilian Labor Force	3,850	4,260	10.7%

Source: OED 1999

3.5.2 Threemile Canyon Farms – Agricultural Operations

The Farm is an important contributor to both local and regional economies by providing employment opportunities and producing agricultural goods and value-added products. The Farm annually grows approximately 7,000 acres each of alfalfa and corn, 9,000 acres of potatoes, 5,000 acres of winter wheat, 5,000 acres of mint, and 1,500 acres of onions, on 34,856 irrigated acres. Crops are rotated regularly in order to break pest cycles and reduce the need for chemical applications. Alfalfa, corn, and winter wheat are grown specifically to feed cows in the three dairy operations.

The Farm employs approximately 250 year-round and 470 seasonally, equal to approximately \$15 million in wages. Year-round jobs represent approximately 7.5 percent of the total employed civilian labor force for both Morrow and Gilliam Counties. The Farm represents close to 26 percent of the farm employment for these two counties. These percentages are based on 1998 employment data shown in **Table 2** and **Table 3** above. The Farm's dairies presently produce approximately 190,000 gallons of milk per day. The Farm is the principal source of raw material (milk) for the Tillamook Creamery Association Plant in Boardman, which employs approximately 50 people.

Solid waste from the dairy operations is processed in a methane digester for the production of green power. The power is then sold to PGE for distribution into the regional power system.

3.5.3 Portland General Electric/Boardman Coal Plant

The Boardman Coal Plant currently generates yearly power-sales revenues of \$450 million. Tax revenues from the plant generate approximately one-quarter of Morrow County's tax base. The plant employs approximately 100 full-time employees, or roughly two percent of the 1998 civilian labor force for Morrow and Gilliam Counties.

3.6 RECREATION

ODFW holds an easement across the Farm that provides public motor vehicle access along a dirt road to the Willow Creek Wildlife Area on the Willow Creek Arm of the Columbia River. However, ODFW does not operate a boat ramp there, which means only very small boats, such as canoes, can access Willow Creek Arm and the Columbia River via this route. The Farm provides access to two boat ramps along the Columbia River through the Covered Area. Generally, these three areas are used by a small number of local residents for fishing and hunting purposes.

In the past, controlled hunts of big and small game, waterfowl, and game birds consistent with state regulations have been allowed on certain areas of the Farm property and on PGE lands. These activities have been coordinated by ODFW with permission from the Farm and PGE. Public access is restricted for the majority of the Covered Area due to safety issues and potential land use conflicts. The Farm and PGE do not allow

recreational hunting or shooting in the undeveloped areas during the ferruginous hawk nesting season (March 1 to July 15).

3.7 CULTURAL AND HISTORIC RESOURCES

A literature search for cultural resources was conducted at the Oregon State Historic Preservation Office (SHPO) on April 5, 2001. Based upon previous archaeological surveys of the general vicinity of the Covered Area, several cultural resource sites have been located. Sites are associated with the Columbia River and its tributaries as well as higher elevation tributary canyons (i.e., the proposed South Farm Conservation Area). Most of the sites along the Columbia River have been inundated by the John Day Pool (behind the John Day Dam). The SHPO records support the general movements and life patterns as described by Hunn in *The First Oregonians*, in which he characterized the lifestyle of the indigenous peoples of the Columbia Plateau as one that followed a highly mobile “seasonal round” (Oregon Council for the Humanities 1991). Families migrated with the seasons, starting from low elevations in the winter and moving gradually to higher elevations as spring and summer approached. Winter villages were typically established near the Columbia River or on the lower reaches of its major tributaries. People gathered near The Dalles on the Columbia River each winter for the salmon harvest. In spring, women migrated several miles from the Columbia River and set up camps in tributary canyons. Families generally tended to move south to higher elevations with the onset of summer. By early fall, gathering groups went to high mountain meadows to collect huckleberries (Aikens 1993). Families then returned to the river as winter approached.

The Oregon Trail, a historical feature, has been identified within the south portion of the Farm’s property, the proposed South Farm Conservation Area. The portion of the trail that runs through the adjacent Naval Facility is listed in the National Register of Historic Places. However, the section of the trail crossing the Farm’s property is not listed on the National Register. The seven miles of the Oregon Trail on the South Farm Conservation Area and the five miles on the adjacent Naval Facility, when combined, comprise one of seven remaining long-distance segments of the Oregon Trail and are considered a “high potential” segment, “which would afford a high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route” (National Park Service 1981).

3.8 ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton issued the Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898). In accordance with this order, both alternatives under consideration have been reviewed to determine if they would result in “disproportionately

high and adverse human health and environmental effects on minorities and low-income populations.”

The total employee base of the Farm consists of 250 year-round employees and 470 seasonal employees, many of whom are of Hispanic and Asian descent.

4 ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVE ACTIONS

4.1 SUMMARY OF IMPACTS

In this chapter, the positive and negative consequences (effects) of implementing the No Action or the Proposed Action Alternative (see Section 2) are described. **Table 4** summarizes the potential impacts of these alternatives on major resource areas. In the interest of brevity, some of these resources (i.e., air quality, geology and soils, water quantity and quality, and visual resources) are not addressed beyond **Table 4**.

Table 4: Summary of Impacts to Environmental Resources by Alternative

Resources	No Action Alternative	Proposed Action Alternative
Air Quality	Current ongoing plant operations and coal storage and movement result in minor effects. Air quality would meet Clean Air Act standards.	Same as No Action Alternative for the Farm and power plant areas. For Conservation Areas, air quality would receive overall benefit because native vegetation communities would be protected and improved and development would not be allowed.
Geology and Soils	Ongoing soil disturbance associated with current farm operations. Ongoing minor changes to soil pH and texture due to plowing and related activities should not significantly impact any of the resources.	Same as No Action Alternative in the agricultural management areas. Positive effect would occur in the Conservation Areas where Proposed Action Alternative would stabilize soils due to Conservation Commitments.
Water Quality and Quantity	Ongoing use of water from the Columbia River and Carty Reservoir for irrigation and power plant operations would continue. No change to current water quality or quantity conditions is anticipated from proposed project. Water quality would meet Clean Water Act standards.	Same as No Action Alternative for Farm and power plant areas. Dedication of Conservation Areas reduces the likelihood of development of impervious surfaces that may degrade surrounding water quality. Cleanup of abandoned refuse site in the Conservation Area would result in no change to water quality in nearby waters, and refuse would be relocated to avoid any impacts to water resources.
Visual	Agricultural development and support buildings would expand throughout the Development Area. Existing transmission lines do not impact the visual quality of the proposed project site.	The Proposed Action Alternative would protect visual resources of the Conservation Areas. As native vegetation communities are restored, visual attributes of the Columbia Basin Plateau would improve. As in the No Action Alternative, existing transmission lines do not impact the visual quality of the proposed action. Future power lines are not a covered activity under the proposed action.
Biological	Cohesive conservation within the Covered Area would not be implemented. Some of the conservation commitments already underway, that were products of the existing Settlement Agreement may continue without the MSCCAA. Management of the Farm's Conservation Areas would continue but without the additional assurances and commitments relating to conservation planning and implementation. PGE would not dedicate 880 acres to long-term conservation or commit the necessary resources to implement a comprehensive conservation plan. Cooperative fire control and management, human and equipment resource sharing, and other conservation activities described in the MSCCAA would not occur.	Native wildlife and plant communities would be protected and improved through the MSCCAA. The Conservation Areas would be protected from development pressures. A cohesive adaptive management approach would maintain and improve habitat quality. Coordinated fire and non-native species management would prevent decline in habitat conditions with a goal of improving habitat conditions for the Covered Species. Targeted adaptive management for Covered Species would improve populations of Covered Species. As in the No Action Alternative, transmission lines within the proposed project area may impact wildlife, however no evidence suggests that there would be a significant impact from ongoing power generation activities and power transmission.

Resources	No Action Alternative	Proposed Action Alternative
Socioeconomic	The Farm and PGE contributions to local and regional economy could be disrupted if Covered Species are listed under the ESA. A major alteration to Farm or PGE operations would have a significant negative impact on the regional economy.	Socioeconomic contributions of the Farm and PGE would be more certain to continue, given the assurances provided by the MSCCAA, should any of the Covered Species be listed under the ESA. Dedication of the Farm Conservation Area would limit and may eliminate this area from future grazing, which may have a negative, though not significant, impact on the local economy.
Recreation	Controlled legal hunts, with potential motor vehicle use, may occur at discretion of the Farm and PGE. Impacts to recreational opportunities would likely remain unchanged.	Existing public recreation opportunities would continue. Pedestrian-only controlled hunts can occur with ODFW concurrence in the Covered Area, but education about the Covered Species and conservation practices would be provided to decrease the possibility of accidental take of Covered Species. Public access to the Columbia River shoreline would be expanded, and a positive impact on recreational activities would be anticipated because of increased access opportunity.
Cultural and Historic	Potential disturbance to cultural and historic sites due to continued agricultural activities.	Potential disturbance to cultural and historic resources in currently undeveloped areas would be avoided or minimized through measures outlined in Section 4.4.2.
Environmental Justice	No residents or businesses would be directly displaced or relocated. If the Farm faced future restrictions because of ESA listings, farm labor could be negatively affected, though not significantly.	The Proposed Action Alternative would not cause any residences or businesses to be displaced or relocated. This alternative provides certainty for the Farm and PGE, thus providing more employment security for all employees.

4.2 BIOTIC RESOURCES

4.2.1 Vegetation

4.2.1.1 No Action Alternative

Under the No Action Alternative, the Farm Conservation Areas would likely exist, but without the additional assurances and commitments relating to conservation planning and implementation covered in the MSCCAA. The PGE Conservation Area would not exist and would not be protected from development. Under the No Action Alternative, there would be no dedication of the PGE Conservation Area, nor would there be Conservation Commitments designed to benefit native vegetation and the Covered Species. The Conservation Areas would not be managed in a coordinated manner, which would likely result in less effective, comprehensive, and sensitive weed control and fire management. This would result in a decline in habitat value for the Covered Species because of non-native species inundation and wildfires and/or potentially harmful wildfire suppression activities. Increased non-native species could crowd out native vegetation and increase risks from wildfires. Wildfires can have substantial and practically irreversible impacts

on shrub-steppe and native bunchgrass habitats. Weed control and fire suppression activities that are not sensitive to the habitat needs of the Covered Species could reduce habitat quality. If not managed in a controlled manner to specifically benefit the Covered Species, livestock grazing could impact native species, increase non-native species and reduce forage availability for Washington ground squirrels. Vegetation management (i.e., weed abatement) on the Farm and PGE properties would continue, but without a focus on the Covered Species' habitats. The Farm and PGE would follow their own vegetation management programs, which may or may not take into account the needs of the Covered Species. In addition, there would be no MSCCAA and; therefore, no means for resource agency and public input regarding vegetation management within the Covered Area.

4.2.1.2 Proposed Action Alternative

Under the Proposed Action Alternative, approximately 22,600 acres would be permanently dedicated to the protection and improvement of native plant communities, and another 880 acres would be dedicated for the term of the MSCCAA. An MSCCAA would be implemented that includes Conservation Commitments to manage the Conservation Areas for the native plant communities and the Covered Species. Although each Permittee within the Covered Area would manage its own respective land parcels, vegetation management practices would be coordinated among the Permittees as a result of guidelines and principles included in the MSCCAA.

The Proposed Action Alternative would provide certainty for the long-term conservation management of the Covered Area, including permanent protection of the Farm Conservation Areas and dedication of the PGE Conservation Area for the term of the MSCCAA. The MSCCAA implements active management, as well as long-term funding, for maintaining and improving habitat conditions within the Conservation Areas. Management plans, currently being developed by TNC and PGE, will identify where and how these imperiled native plant communities within the Conservation Areas would be managed. The goals of the management plan are to protect existing conditions for all native-dominated plant community occurrences, improve the condition of lower-condition native-dominated communities, and restore areas that are currently dominated by non-native species. These goals will be implemented based on the following priorities and as dedicated funding allows. Areas currently dominated by native plants and in the highest condition would be the top priority for protection from any negative impacts by fire, fire suppression activities, grazing, and weed invasions. Native-dominated communities identified as being in lower condition may be improved through weed control, active seeding, or planting. Active restoration would occur in areas that are currently dominated by non-native species. In this way, the implementation of the MSCCAA would provide an opportunity to benefit native vegetation throughout the Covered Area and the region.

4.2.2 Wildlife and Covered Species

4.2.2.1 No Action Alternative

Under the No Action Alternative, the Farm Conservation Areas would likely exist, but without the additional assurances and commitments relating to conservation planning and implementation covered in the MSCCAA. This includes the Farm's commitment to cooperative fire control and management, human and equipment resource sharing, and other conservation activities described in the MSCCAA. The PGE Conservation Area would not exist and would not be protected from development, grazing, wildfire and destructive wildfire management, and invasive species. Habitat conditions would likely decline. Vegetation management on the Farm and PGE properties would continue, but without a focus on the Covered Species' habitats. Under the No Action Alternative, there would be no requirement to protect and improve Covered Species habitats, and without the MSCCAA there would be no incentive for weed control and other habitat improvements.

4.2.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, approximately 22,600 acres would be permanently dedicated to the protection and improvement of native plant communities, and another 800 acres would be dedicated for the term of the MSCCAA. In addition, an MSCCAA would be implemented that commits the Permittees to Conservation Commitments on their respective properties. All Conservation Commitments outlined in the MSCCAA were developed to meet the long-term conservation needs of the Covered Species. In addition, all native wildlife species that may use the Conservation Areas would also benefit from implementation of the MSCCAA.

The Proposed Action Alternative would provide certainty for the long-term conservation management of the Covered Area, including transfer of the Farm Conservation Areas and dedication of the PGE Conservation Area for the term of the MSCCAA. The MSCCAA requires active management, as well as funding, for maintaining and improving habitat conditions within the Conservation Areas. In this way, implementation of the MSCCAA would provide an opportunity to benefit native wildlife over the Covered Area.

4.2.3 Threatened and Endangered Species

4.2.3.1 No Action Alternative

The bald eagle would not be affected by the No Action Alternative and would continue to benefit from the operation of Carty Reservoir. The reservoir attracts large numbers of migrating waterfowl and provides significant foraging opportunities for bald eagles.

Listed fish species would continue to use the adjacent Columbia River as a migration corridor. Potential impacts to these species resulting from water withdrawal activities by Permittees within the Covered Area are currently being addressed in a separate formal

section 7 consultation between the U.S. Army Corps of Engineers and National Oceanic and Atmospheric Administration (NOAA) Fisheries.

For the state-listed Washington ground squirrel, under the No Action Alternative the Farm Conservation Areas would likely exist, but without the additional assurances and commitments relating to conservation planning and implementation covered in the MSCCAA. This includes the Farm's commitment to cooperative fire control and management, human and equipment resource sharing, and other conservation activities described in the MSCCAA. Under the No Action Alternative, no surveys are required to document the presence/absence of the Washington ground squirrel, and to provide the USFWS and ODFW the opportunity to translocate individuals prior to take. Should any of the Covered Species be listed under the Federal ESA, under the No Action Alternative, there would be no notification of take requirement.

4.2.3.2 Proposed Action Alternative

Effects of the Proposed Action Alternative on listed species occurring in, or adjacent to, the Covered Area would be the same as in the No Action Alternative for federally listed species. The MSCCAA and associated ESA permits do not cover impacts from the Covered Activities to any currently listed species, including listed salmonids and the bald eagle. Water withdrawal activities are also not included within the Covered Activities, nor are they considered part of the proposed action. Further, there is no critical habitat designated for the bald eagle or listed fish within the Columbia River stretch, including Willow Creek, adjacent to the Covered Area, with the exception of three Snake River species. Any future activities of the Permittees, which require Federal permits or other Federal involvement related to work along the Columbia River or Willow Creek Arm shoreline that may affect listed fish species or their designated critical habitats, would undergo a separate section 7 consultation under the ESA. Accordingly, the Proposed Action Alternative will not impact any listed species or their designated critical habitats.

Under the Proposed Action Alternative, the Washington ground squirrel would receive the following protections and Conservation Commitments:

- Permanent conservation of critical components of the largest remaining tract of suitable habitat within the State of Oregon
- Providing for surveys prior to disturbance
- Providing notification prior to take to allow the opportunity to translocate individuals
- Management of the Conservation Areas through comprehensive adaptive management, that would improve long-term habitat conditions

4.3 SOCIOECONOMIC CONDITIONS

4.3.1 No Action Alternative

Under the No Action Alternative, the Farm and PGE would continue to play a major role in the local and regional economy. Should any of the Covered Species become listed as threatened or endangered, the Permittees would have no assurances that their operations would not be limited as a result of regulatory restrictions. It is difficult to determine what effect the listing of a species would have on Farm and PGE operations. However, given the substantial contribution of the Farm and PGE to local and regional economies, there is potential for significant short- and long-term economic impacts if there were a substantive disruption or alteration of one or both operations. Without the certainty provided by the MSCCAA, especially for the Washington ground squirrel, future investments on the PGE Boardman Plant property and Farm lands for economic growth or stability may have limitations.

4.3.2 Proposed Action Alternative

The Proposed Action Alternative would dedicate 23,480 acres of land to Conservation Areas, to be protected from future development. The removal of this land from agricultural uses (principally rangeland and grazing) may decrease the total farm economic and employment value to the local economy. The decreased value is expected to be nominal when compared to total Farm production and the employment and tax revenues of the Farm and PGE. New permanent and seasonal employment opportunities would be created for the management/restoration activities associated with the Conservation Areas, which could fully offset any employment reductions caused by grazing curtailments on the Farm Conservation Areas.

Under the Proposed Action Alternative, the Farm and PGE would continue to play a major role in the local and regional economy. It is the intent of the MSCCAA to provide habitat protection and improvements significant enough to preclude the need for listing any of the Covered Species. If this goal is achieved, ESA-related regulatory restrictions would not be incurred by entities within the Covered Area nor by other entities in the region that are not party to the MSCCAA. Economic benefits, in the form of reduced regulatory burden, would be extended beyond the Permittees to include the regional community (and economy) as well.

Should listings for Covered Species become necessary, the MSCCAA would provide regulatory assurances to the Permittees. This proactive approach to species conservation would enable these entities to continue operating undisturbed by regulatory restrictions, so long as the operations are covered under the MSCCAA. The Proposed Action Alternative would help prevent, or at least minimize, significant impacts to the local and regional economies should any of the Covered Species become listed. Regulatory certainty provided in the MSCCAA also promotes confidence for the Permittees

regarding future investments in capital and labor, as well as confidence for potential lenders or financial investors.

4.4 RECREATION

4.4.1 No Action Alternative

The No Action Alternative would not limit public access to the Willow Creek Arm of the Columbia River. Hunting and fishing activities would not be affected in this area, if kept within the boundaries of the existing public access.

Controlled legal hunts could occur in the Covered Areas as they have in the past, at the discretion of the Farm and PGE. Motor vehicles could continue to be used during hunting and other recreation activities. Motor vehicle use in the Conservation Areas has the potential to negatively impact native plant and animal communities, including those species that would otherwise be covered in the MSCCAA.

4.4.2 Proposed Action Alternative

The Proposed Action Alternative would not limit public access to the Willow Creek Arm of the Columbia River. Hunting and fishing activities would not be affected in this area. Public access to the Columbia River would be expanded under this alternative because the Farm would commit to providing permanent access along the northern portion of the Covered Area for public recreation purposes.

Hunting would be more clearly managed in the Covered Area under this alternative. Hunting may not be allowed in the Conservation Areas if potential conflicts with conservation and management objectives are identified. If hunting is allowed, it would be by pedestrian access only. A Memorandum of Agreement has been signed between the Farm and ODFW with the primary objective being the implementation of voluntary actions and management efforts to further biological conservation in what would be the Covered Area. The Memorandum of Agreement states that the Farm and ODFW would meet annually to discuss public hunting programs and opportunities within what would be the Covered Areas.

4.5 CULTURAL AND HISTORIC RESOURCES

4.5.1 No Action Alternative

Within the South Farm Conservation Area, future uses for agriculture or roads would have the potential to disturb cultural and historic resources. SHPO records identify several sites within the South Farm Conservation Area, including the Oregon Trail, which runs through a portion of the South Farm Conservation Area.

Should cultural or historic resources be found during the course of farm or other operations within the Covered Area, SHPO will be consulted. Without the MSCCAA, the

private land owner(s) could unknowingly disturb cultural or historical resources without SHPO knowledge or oversight.

4.5.2 Proposed Action Alternative

Potential impacts to cultural and historic resources under the Proposed Action Alternative would be minimized in accordance with the National Historic Preservation Act (NHPA). The management plan for the Conservation Areas would include protection of the Oregon Trail and would recommend vegetation management techniques other than discing for areas along the trail. The location of known archeological sites would be identified, and TNC would coordinate with SHPO regarding methods to avoid or minimize disturbance to these sites.

Prior to any ground disturbance within previously undisturbed portions of the Covered Area, a qualified, USFWS approved, archaeologist would consult with SHPO and the appropriate tribes in the identification and evaluation of any historic or cultural resources that may be located in the Covered Area. The Farm and PGE would work with the archaeologist to design an appropriate inventory strategy for archaeological field investigations. If cultural resources are identified, SHPO would be consulted to evaluate the significance of the resources and to evaluate the potential effects from the proposed activities. If SHPO determines that adverse effects would occur, SHPO, PGE and/or the Farm would attempt to consult and resolve the adverse effects within a 30-day period. In the event that adverse effects cannot be resolved, the consultation may be terminated and further resolution efforts conducted pursuant to pertinent NHPA regulations in effect at the time.

4.6 ENVIRONMENTAL JUSTICE

4.6.1.1 No Action Alternative

No residents or businesses would be directly displaced or relocated as a result of the No Action Alternative. However, if the Farm faced future restrictions of its operations because of ESA listings, farm labor including workers of Hispanic and Asian descent could be adversely affected.

4.6.1.2 Proposed Action Alternative

The Proposed Action Alternative would not cause any residences or businesses to be displaced or relocated. The Proposed Action Alternative provides certainty for the Farm and PGE for ESA clearances for the four Covered Species addressed in the MSCCAA, thus providing more employment security for their employees. In part, because of the added security that the MSCCAA would provide from an operations perspective, the Farm would continue to provide year-round employment for approximately 270 people and seasonal employment for approximately 470.

5 CUMULATIVE EFFECTS

Cumulative effects are defined as those effects that result from incremental impacts of the proposed action when added to other past, present, and future activities that are reasonably certain to occur within the project area. The Federal agency must determine whether impacts of the proposed action, when taken together with other actions, would result in a significant environmental impact.

Ongoing activities of power plant energy generation and transmission may or may not cumulatively impact the air and water quality. However, the proposed action would have no significant additive influence on the potential for ongoing cumulative impacts.

The primary purpose of the proposed action is to implement a variety of conservation measures within the Covered Area that would benefit the long-term needs of the Covered Species. Other similar activities that occur, and are likely to continue to occur within the region, include conservation management activities associated with the Boardman Naval Facility, BLM lands in the Horn Butte area, Willow Creek Wildlife Area, and the TNC-owned Juniper Canyon Preserve. The cumulative effect of conservation activities within these properties, including the Covered Area, would be a net benefit to the conservation of native plant and animal species on a regional scale. If sufficient species conservation is achieved to avoid a future listing of any of the Covered Species, the local and regional economy could benefit by avoiding potential regulatory limitations. No negative cumulative effects are anticipated.

6 INDIRECT EFFECTS

Currently, there is no existing public travel route through the Covered Area; however, during the scoping process, local residents raised the concern that the proposed action could prevent construction of a public transportation route through the south portion of the Covered Area (South Conservation Area). To address this issue, the Farm provided Morrow County with a road easement through the active Farm area specifically to avoid any potential impacts to the Conservation Areas. This easement provides the county with an opportunity to develop a route between Ione and Boardman for use by local residents. There is no funding or schedule for possible construction of this road. Environmental and other reviews would occur prior to any road development approvals. Morrow County would be responsible for road construction and maintenance activities, and acquisition of appropriate permits.

7 REFERENCE LIST

- Aikens, C. M. 1993. *Archaeology of Oregon*. US Department of Interior, Bureau of Land Management.
- Defenders of Wildlife. 1998. *Oregon's living landscape: Strategies and opportunities to conserve biodiversity/Oregon Biodiversity Project*. A Defenders of Wildlife Publication. West Coast Office. Lake Oswego, Oregon.
- Defenders of Wildlife. 1999. *Boardman/Willow Creek Conservation Opportunity Area*. A Defenders of Wildlife Publication. West Coast Office. Lake Oswego, Oregon.
- Green, G.A. and K.B. Livezey. 1999. Integrated natural resources management plan: Naval Weapons Systems Training Facility. Boardman, Oregon.
- Kagan, J.S., R. Morgan, and K. Blakely. 2000a. *Umatilla and Willow Creek basin assessment for shrub steppe, grasslands, and riparian wildlife habitats*. Environmental Protection Agency Regional Geographic Initiative.
- Kagan, J., B. Youtie, and C. Macdonald. 2000b. *Priority habitats, habitat conditions, and management conditions, Boeing State Lease Lands*.
- National Park Service. 1981. U.S. Department of the Interior. Comprehensive Management and Use Plan, Oregon National Historic Trail. Washington D.C.: U.S. Government Printing Office
- Oregon Council for the Humanities. 1991. *The First Oregonians*.
- Oregon Employment Department (OED). 1999. 2000 Regional Economic Profile, Regions 9 and 12.
- Quigley, T. M., and Arbelbide, S. J., Tech. Eds. 1997. *An assessment of ecosystem components in the interior Columbia Basin and portions of the Klamath and Great Basins*. Gen. Tech. Rep. PNW-GRT-405. Portland, OR: US Department of Agriculture, Forest Service, Pacific Northwest Research Station. (Quigley, T. M. tech. Ed.: The Interior Columbia Basin Ecosystem Management Project Scientific Assessment).
- U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). 1999. Candidate Conservation Agreement with Assurances Final Policy.

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ENVIRONMENTAL ASSESSMENT – APPENDIX A
COMMENTS RECEIVED ON PUBLIC SCOPING NOTICE