

EXHIBIT R

THREATENED AND ENDANGERED SPECIES - OAR 345-21-015(1)(r)

INTRODUCTION

Under OAR 345-22-070, if threatened or endangered species are found to exist within the Impact Areas for the Project, the EFSC must find that design, construction, operation and retirement of the Project will either be consistent with applicable conservation plans for such species or, if no such plans exist, not appreciably reduce the likelihood of survival or recovery of such species.

The Exhibit describes state and federally listed sensitive, threatened, and endangered wildlife and plant species that have been identified from field surveys and a data base search as potentially occurring in the Project area. Characteristics, potential for occurrence within the Project area, potential impacts from the Project, and proposed mitigation measures are presented. Additional information on habitat for these species is found in Exhibit P.

CONCLUSIONS

The Project Order defines the Impact Area for threatened and endangered species as the area within five miles of the energy facility site and within five hundred feet of the proposed right-of-way for the gas pipeline and the transmission line. No threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2), or 16 USC § 1533 are known to occur in the Impact Area and no critical habitat for such species has been identified. Therefore the information requested by OAR-345-21-15(1)(r)(i) and (ii) are not applicable.

STUDY METHODOLOGY

Search lists were developed for listed and sensitive wildlife and plant species. In 1992, the Oregon Natural Heritage Program ("ONHP") identified six wildlife species of concern as occurring within a fifteen mile radius of the proposed plant site. Three additional species known from the general vicinity, which are listed as sensitive in Oregon, were added to this list. Of these species, only the northern bald eagle is listed as a threatened species under ORS 496.172, ORS 564.105(2), or 16 USC § 1533. The nine species from the Project vicinity are listed on Table R-1.

In addition to the threatened and endangered species listed under ORS 496.172, ORS 564.105(2), or 16 USC § 1533, ONHP and ODA maintain watch lists of sensitive species. A search of the ONHP data base for sensitive plant species was also conducted to develop a search list for plant species which might potentially occur within the Project's Impact Area. The search focused on a 15-mile radius of the site. This list was expanded at the EFSEC's request to include a 50-mile radius from the Project site. See Paragraph 19(iii) of the Project Order. The list of species occurring within the fifty mile radius is shown in Table R-2.

In addition to a search of the ONHP data base, field surveys for potentially occurring species were conducted of the proposed energy facility site, along the transmission line right-of-way, and in the area in which the gas pipeline will be located. The surveys included ground coverage by two observers of an area approximately five hundred feet wide along either side of the entire length of the transmission line right-of-way. The site of the energy facility was examined on foot. Surveys were conducted on April 29 and June 1-2, 1992. The surveyed areas are shown in Figure 1 of Appendix P-1. Additional wildlife surveys were also conducted on June 13, 14, 20, 21, and 28 along the transmission line route and within the vicinity of the gas pipeline.

Based on flowering phenology, a survey was conducted in April 1992 for populations of Robinson's onion in the vicinity of the Columbia River near the McNary Substation. In June 1992, surveys for populations of later-flowering plant species were conducted in the Project area. The entire length of the transmission line corridor was walked in June, with special attention given to areas with habitats potentially suitable for any of the species of concern within five hundred feet on either side of the existing line. A general description of the common plant communities occurring in the energy facility site was recorded, as well as descriptions of the three small

wetland areas that occur along the transmission line corridor. A discussion of these plant communities is provided in Exhibit N.

FINDINGS

Of the nine wildlife species listed in Table R-1, only several pairs of long-billed curlews were identified during field surveys of the Impact Area. No other species from the search list was sited. Information about these species characteristics, habitat requirements, and status were derived from Stebbins (1966), Ingles (1965), Nussbaum et al. (1983), National Geographic Society (1987), and ONHP (1991). Information is summarized on Table R-1, with additional details on status and habitat information as follows:

Northern bald eagle (*Haliaeetus leucocephalus*) nests in large older tree, often partially dead, and usually near water. It feeds on waterfowl, fish, and carrion. The species winters in small numbers along the Columbia in the Project vicinity as well as at scattered locations and varying numbers throughout the state.

This species is likely to occur on the Columbia River during the winter or during migration. Black (personal communication, 1992) indicated that a few bald eagles have been observed during the winter on the Columbia, but not along the Umatilla River in the Impact Area. Bald eagles could forage along the lower Umatilla River occasionally during winter. No impacts are expected to the species from the Project. The energy facility site will not be used for nesting or foraging by the bald eagle, the gas pipeline will be underground, and the transmission line will be replacing an existing line. No nests have been found within the vicinity of the Impact Area. Replacement of the existing transmission line with a new line that incorporates a raptor-proof design would actually reduce the existing level of electrocution hazard to large raptors.

Washington ground squirrels (*Spermophilus washingtonii*) occur in grasslands, low sagebrush, wheat fields, and rocky hillsides of southeastern Washington and northern Oregon. The species was not observed during field surveys, which were conducted during a time of estivation (hibernation) when individuals were unlikely to be observed. Research conducted in 1987-89 by Dr. Burr Betts disclosed Washington ground squirrel burrows on the Madison Farm in Section 18, within the vicinity of the gas line (Betts, 1990). Since

that time central pivot irrigation has been installed and the squirrels may have been dislocated as no burrows were observed within any portion of the Impact Area.

If Washington ground squirrels do occur in the area, it is possible that gas pipeline construction could adversely affect them if trenching came close to or excavated a burrow. Field surveys should be conducted at the appropriate time of year, between March and May, to confirm the presence or absence of the species.

Long-billed curlew (*Numenius americanus*) is found in wet meadows, grasslands, and low sagebrush during the nesting season. The species also uses other wetlands, tidal flats, and grain fields during migration. Curlews feed on invertebrates. The long-billed curlew was fairly common throughout the areas surveyed with an estimated 10 to 15 pairs of birds observed in the study area. A more exact count was not possible because of their high mobility. Approximately six pairs of birds appeared to have young, reacting to the surveyors' presence by calling loudly, or were observed mobbing hawks. Dislocation and nest disturbance is possible if construction occurs during the nesting season (late April - June).

American white pelican (*Pelecanus erythrorhynchos*) nests on islands in large lakes in eastern Oregon and at scattered locations throughout western North America, and feeds on fish. The probability of occurrence within the Impact Area is very low. Because of the lack of suitable habitat within the Project area, the Project is not expected to impact this species.

Yellow-billed cuckoo (*Coccyzus americanus*). According to Stern (personal communication, 1992), the yellow-billed cuckoo was recently determined to represent one subspecies, rather than including a western subspecies which was formerly listed as a candidate by the U.S. Fish and Wildlife Service. It occupies dense riparian vegetation, willow or alder thickets near water, and feeds on insects. The probability of occurrence within the Impact Area is considered to be very low. The last known record for the Project vicinity was twenty years ago in the Butter Creek area. This specimen was noted as a black-billed cuckoo. Given the limited potential habitat in the Project area and the low probability of occurrence, the Project is not expected to impact this species.

Painted turtle (*Chrysemys picta*). This turtle occurs in marshy ponds or small lakes, and is also found in slow-moving streams and quiet backwaters of rivers, preferring muddy bottoms with dense aquatic vegetation. It is omnivorous, feeding on most kinds of plants and small animals present in the water. The probability of occurrence within the Impact Area is considered to be very low and none were located during field surveys. There is very limited habitat within the Project area that is suitable for the painted turtle, and the habitat that does occur will not be adversely impacted by the Project.

Three additional species observed within the Project site and the general vicinity are listed as sensitive in Oregon, but do not occur on any federal lists: the Swainson's hawk, grasshopper sparrow, and the bank swallow.

Swainson's hawk (*Buteo swainsonii*) is found on open plains or prairies, where it uses posts, banks, and stones for perching. Nests are built in trees. Swainson's hawks were observed during field surveys, and are likely to nest in the area. No impacts are anticipated. Construction will not affect nesting trees and foraging habitat is so abundant in the area that access to feeding areas is unlikely to be restricted even if construction occurred during the nesting season (April-July).

Grasshopper sparrows (*Ammodramus savannarum*) are found over most of the United States, and are fairly common in pastures, grasslands, palmetto scrub and old fields. Grasshopper sparrows were observed during field surveys within the Project vicinity. Dislocation of this ground-nesting species is possible if construction occurs during the nesting season (May - July). Based on 1992 observations, there were a maximum of three pairs of grasshopper sparrows that would be affected. Grasshopper sparrows are fairly common and are widespread in the region. Project construction is therefore not considered to present a threat to the species, although there may be a short-term impact.

Bank swallows (*Riparia riparia*) nest in colonies, excavating nest burrows in steep riverbank cliffs, gravel pits, highway cuts, and among other similar type topography. A nesting colony of this species was found in the gravel pit near Interstate-82 during field surveys along the existing transmission line corridor. This colony is in a cut bank created by the quarry. If construction occurs during the nesting season, some disturbance of this colony may occur, but it is unlikely to cause nest disruption or dislocation, so long as construction personnel do not come closer to the colony than the existing road. The

colony is located within five hundred feet of the existing transmission line, but is on the opposite side of an existing gravel road that provides access to a quarry and construction materials storage area. It is likely that this colony is habituated to some disturbance because the bank in which the colony exists was created by the quarry.

One additional species not found on the ONHP list but which may potentially occur in the greater Project vicinity is the peregrine falcon (*Falco peregrinus*). Although no sightings have been recorded in the Impact Area, peregrines may migrate through the area during spring and fall. They nest on tall cliffs and hunt birds and mammals over open country. The Project will not present any additional hazards to the peregrine falcon. The energy facility site will not be used for nesting or foraging, the gas pipeline will be underground, and the electrical transmission line will replace an existing line. Replacement of the existing transmission line with a new line that incorporates a raptor-proof design would reduce the potential for impacts to the peregrine falcon.

Figure 1 of Appendix P-1 shows the wildlife and vegetation features of the proposed Project vicinity, including the location of sensitive species sited during the field surveys. Also identified is the location of the Washington ground squirrel siting reported by Dr. Burr Betts.

Threatened and Endangered Plant Species

Information about species characteristics, habitat requirements, and flowering dates were obtained from taxonomic literature and herbarium specimens at Oregon State University, and are presented in Table R-2.

No populations of the sensitive species were found during field surveys. Two species of *Astragalus* (*Astragalus succumbens*, Columbia milkvetch; and *Astragalus sclerocarpus*, stalk-pod milkvetch) and one *Rorippa* (*Rorippa nasturtium-aquaticum*, watercress) were observed, but none of the species of concern were located and their occurrence is not likely within the general vicinity of the Impact Area owing to a lack of suitable habitat and/or the highly disturbed non-native communities that have replaced the original vegetation of the area. Therefore, no impacts are expected to any sensitive or listed plant species.

MITIGATION MEASURES

Potential adverse impacts on nesting birds can be avoided by scheduling construction of the transmission line and gas pipeline to avoid the nesting season for these species. Black (1992, personal conversation) suggested that the nesting season includes the period of mid-April through August 1. If construction schedules can not be arranged to avoid the nesting season, the energy facility site and the transmission line and gas pipeline right-of-ways will be surveyed to identify nest sites. If nests are identified, mitigation will be provided, which mitigation may include contributing funds to DFW habitat conservation programs. The gas pipeline route will be surveyed for the Washington ground squirrel during the late April to early May active season for the species. If any are located, the colonies will be avoided by construction if possible. If avoidance is not possible, Applicant will consult with DFW on appropriate mitigation measures to be taken.

Potential electrocution hazard to bald eagles and other raptors can be avoided by using a raptor-proof design for the new transmission line. Raptor protection will be employed in the design of the transmission towers, following the methods described by Olendorff et al (1981). Detailed design will be submitted to DFW for review during the design phase of the Project. All energized facilities will be designed with adequate separation of a minimum of nine feet. The greatest wingspan expected in the area is the 8.5 foot wingspan of the bald eagle.

References

- Betts, Burr. 1990. Geographical distribution and habitat preferences of Washington ground squirrels. *Northwestern Naturalist* 71:27-37.
- Black, Mike, Wildlife Biologist, Umatilla District Office, ODFW. Personal Communication. Meeting with Lynn Sharp on October 26, 1992.
- Daubenmire, R. F. 1975. Plant succession on abandoned fields, and fire influences in a steppe area in southeastern Washington. *Northwest Sci.* 49:36-48.
- Ingles, Lloyd G. 1965. *Mammals of the Pacific states.* Stanford University Press, Stanford, California. 506 pp.

- National Geographic Society. 1987. Field guide to the birds of North America. National Geographic Society, Washington, D.C. 464 pp.
- Nussbaum, R.A., Brodie, Jr., E.D. and Storm, R.M. 1983. Amphibians and reptiles of the Pacific northwest. The University Press of Idaho, Moscow, Idaho. 332 pp.
- Olendorff, R.R., A.D. Miller and R.N. Lehman. Suggested practices for raptor protection on power lines -- the state of the art in 1981. Raptor Research Report No. 4, Raptor Research Foundation, Inc. 111 p.
- Oregon Natural Heritage Program (ONHP). 1991. Rare, threatened and endangered plants and animals of Oregon. Oregon Natural Heritage Program, Portland, Oregon. 64 pp.
- ONHP. 1992. Letter and information dated January 16, 1992 to EnviroDynamics.
- Stebbins, Robert C. 1966. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston, Massachusetts. 279 pp.
- Stern, Mark, Wildlife Biologist, The Nature Conservancy, Portland, Oregon. Personal Communication. Telephone conversation with Lynn Sharp on July 14, 1992.
- U.S. Fish and Wildlife Service. 1991. Federal Register Vol. 56 No. 228, November 21, 1991. Notice of Review - Animals.

EXHIBIT S

VISUAL QUALITY AND AESTHETICS

INTRODUCTION

The EFSC must find, under OAR 345-22-080, that design, construction, operation, and retirement of the Project will not result in significant adverse impacts to scenic and aesthetic values which have been identified as significant or important in the acknowledged local land use plan for the site or its vicinity.

This Exhibit first examines the appropriate comprehensive plans to determine scenic and aesthetic areas that have been deemed important, and then discusses the impact of the Project on these resources. It also evaluates other potential visual impacts from the Project. As described in Exhibit C, the Project Order defines Impact Area for Scenic and Aesthetic Areas for the Project as the area within the line of site from highest point of the energy facility, gas pipeline, or transmission line not to exceed 30 miles.

CONCLUSION

The Project will not result in significant adverse visual impacts. The Project will be constructed within an area that is presently designated and used for industrial, commercial, and agribusiness purposes. Further development of the area is expect to intensify these uses. The Project will be visually compatible with the existing appearance of the area as well as with future expected land uses. The Project will not result in the obstruction or degradation of any scenic viewsheds, including important scenic and aesthetic areas designated in the pertinent comprehensive plans.

**IMPACT ON DESIGNATED SIGNIFICANT OR IMPORTANT AREAS -
OAR 345-21-015(1)(s)(i)**

Key Observation Points

Although not specifically identified in the Umatilla County Comprehensive Plan, the following sites and vistas are classified in the Comprehensive Plan Technical Report as “justifying limits to conflicting land uses” and, therefore, constitute key observations points within the Impact Area.

- McKay Reservoir
- Langdon Lake
- Earnest S. Haney Vista
- State Highway 204
- Elephant Rock
- Hat Rock
- Wallula Gap
- Lake Wallula
- Lake Umatilla
- Cold Springs Reservoir

Of these sites and vistas, Hat Rock, Wallula Gap, Lake Wallula, Lake Umatilla, and Cold Springs Reservoir are within the designated Project Impact Area for Scenic and Aesthetic Resources.

In addition to the sites identified in the Technical Report, the County identified the following resources as having scenic value (Mabbott 1992):

Umatilla County Scenic-Historic Road: This road, which is now comprised of a collection of county roads, city streets and state highways, follows the general course of early wagon roads between Umatilla and the Blue Mountains. The road is located approximately four miles east of the energy facility site.

McNary Lock and Dam: This structure on the Columbia River is located approximately ten miles north-northeast of the energy facility site. It is a designated scenic area under the Umatilla County Comprehensive Plan.

The visual resources discussed above that are within the Project Impact Area are identified in Figure S-1

Impacts on Key Observation Points and Scenic Resources

With the possible exception of the Umatilla County Scenic-Historic Road and the McNary Lock and Dam, the Project will not be visible from any of the key observation points identified above.

The Project is not clearly visible from the Umatilla County Scenic-Historic Road because of intervening buildings, vegetation, and topography. It is possible that the upper portions of the stacks may be visible from the road. If visible, the stacks will be seen in combination with other industrial and agricultural structures and will represent a small visual intrusion into views from the Road. Therefore, the Project will not result in significant adverse visual impacts to the Road.

The McNary Lock and Dam is located approximately ten miles north-northeast of the energy facility site and it would not be visible from the lock and dam. However, the northern end of the transmission line may be visible. Because of numerous other transmission lines in the immediate vicinity, the energy facility's transmission line will not be readily discernible. Therefore, the Project will not have an adverse scenic or aesthetic impact on the McNary Lock and Dam.

EVALUATION OF THE COMPATIBILITY OF THE PROJECT WITH THE VIEWED AREA OF THE LANDSCAPE - OAR-345-21-015(1)(s)(ii)

Visual Characteristics of the Existing Landscape

Figure S-1 shows the area contained within the thirty mile Impact Area, which encompasses the Umatilla Plain and the City of Pendleton. The northern portion of the Impact Area includes the Umatilla Plain lowland, which is characterized by relatively flat to moderately rolling terrain, with elevations ranging from about two hundred and fifty feet to seven hundred and fifty feet above mean sea level (MSL). The Columbia River area defines the northerly boundary of the Plain as well as of the Impact Area. It is characterized by broad expansive views up and down the river, both at the water level and from the Plain. Moving eastward and southward within the Impact Area, elevations gradually increase to about 1300 feet near Pendleton and about 3400 feet at the southerly boundary of the Impact Area.

A review of USGS 250,000 scale maps and a field reconnaissance of the Impact Areas indicate that the energy facility will primarily be visible from locations within about a five mile radius. At distances greater than five miles, the energy facility will generally not be visible because of intervening structures, vegetation, topography, and at times, due to atmospheric conditions resulting from dust, haze, and fog.

Within this five-mile radius, the area consists of open agricultural lands used for grazing and the growing of crops. More intense development is concentrated north of Interstate-84, along Highway 395 and includes primarily one to two-story residential and commercial buildings, storage yards, stockyards, agricultural buildings, light industrial buildings, streets and parking lots, commercial signage, power poles and lines, and railroad tracks. Interstate-84, Interstate-82, and Highway 395 are the major roadways traversing the five mile radius. These highways offer the primary vantage points from which the public has views of the Project.

South of Interstate-84, the area is characterized predominantly by agricultural lands used for grazing and crops. Development is very limited and consists primarily of rural residences and farm buildings.

The dominant visual elements of the landscape include two processing facilities, Lamb-Weston and Simplot, and two industrial stacks from other businesses. The Lamb-Weston facility is located on Westland Road, adjacent to the site of the energy facility. Lamb-Weston and Simplot each consist of a complex of buildings and storage yards. The Lamb-Weston facility is visible in views from Interstate 84 and from Interstate 82, and its plume can be seen from Highway 207. Simplot is located off of Highway 207 and north of Interstate 84. The plant and its plume are visible from Highway 207, and the plume is visible from Highway 395 and Interstate 84. The two industrial stacks are located east of Highway 395, near Stanfield and are visible from Interstate 84 and Highway 395. Steam plumes rising from these stacks are highly visible.

Other strong vertical elements in the Project vicinity include grain silos and other storage structures used for agricultural purposes, power lines, water towers, and stands of trees interspersed throughout the area. See also Exhibit I for a discussion of land uses within one and one half miles of the energy facility site.

Visual Characteristics of the Project

The energy facility, which will be at an elevation of about 560 feet, is to be constructed on a flat, open, undisturbed area. Vegetation within the site boundary consists primarily of non-native grasses. The adjacent Lamb-Weston facility forms a backdrop of industrial buildings (see Figure S-2). Railroad tracks bound the southerly edge of the site, and a power line traverses the southeast portion of the site. Farther south of the site is a stand of trees. Agricultural fields are located west and northwest of the proposed energy facility site, across Westland Road. The predominant visual element in the immediate vicinity of the energy facility is the Lamb-Weston plant.

The transmission right-of-way is characterized by relatively flat terrain, with elevations ranging from about 560 feet at the site of the energy facility to about 300 feet at the McNary Substation.

The pipeline right-of-way is comprised primarily of grazing lands and croplands. County Road 1237 is within the right-of-way, and several residences are located along the road. The terrain is relatively flat, with an elevation of about 560 feet at the energy facility site to approximately 700 feet at the interconnection point with the PGT pipeline.

The energy facility will consist of two approximately 190-foot high emission stacks, numerous buildings and structures ranging in height from approximately 40 feet to 63 feet; storage yards; and parking facilities. The site would be landscaped and the plant structures painted in neutral colors. See Exhibit B for a detailed description of the Project and a site plan.

The upgrade of the transmission line that would run from the energy facility to the McNary Substation will require the replacement of existing 60-foot high wooden power poles with approximately 70-foot high metal poles. This will result in a slight change to the existing view of the transmission right-of-way.

During operation, the gas pipeline would not be visible. Visual intrusion would only occur during pipeline construction. They would consist of the disturbance of an approximately fifty foot wide corridor that will be less than five miles long. Excavation would occur over a three to four month period and would consist of digging an approximately four foot deep trench.

Compatibility of the Project with Existing Landscape

The following discussion addresses compatibility of the energy facility with the existing landscape. Views of the gas pipeline and electrical transmission line were not evaluated for these viewsheds because such features would not present a significant impact on visual resources. As previously discussed, the gas pipeline will only be visible for the three to four month construction period and the electrical transmission line upgrade will only result in a slight increase in pole height.

Based on site reconnaissance, the energy facility will be most visible at distances of up to about two miles from the site. At distances greater than two miles, the energy facility site will appear in the background of viewsheds and will blend with other similar features in the area. Therefore, beyond the two mile range, the energy facility will appear too small to constitute a significant intrusion into a viewshed.

The primary vantage points from which the public could view the Project are located along major roadways, including Interstate-84, Interstate-82, Highway 207, and Westland Road. Due to the high speeds at which motorists are traveling along these roads, views of the Project will be temporary and will be seen as background views within the context of a panoramic view of the landscape. Views of the Project along Westland Road will continue for a greater period of time and at closer distances.

The most visually dominant feature of the Project will be the 190-foot high and approximately 20-foot wide emission stacks, which will be visible from portions of the major roadways and from nearby residences. In views along Interstate-84, Interstate-82, and Highway 207 the stacks will be visible as two of four stacks in panoramic views of the vicinity. In addition to these stacks, other vertical elements are visible such as water towers and grain elevators. The stacks will also be viewed as part of a group of industrial structures visible from the roadways. The Project will increase the industrial appearance of the area's visual character. It will not, however, introduce an industrial structure into a viewshed of a scenic area and will not result in significant adverse visual impacts in views from these roadways.

From Westland Road, the Project will be a more dominant element of the landscape and will be visible from a greater number of vantage points along the roadway, both in foreground and middleground views. The energy facility will be completely visible from Westland Road. However, these views already are characterized by industrial structures. When viewed from

Westland Road, the Lamb-Weston facility will form a backdrop to the energy facility. While the Project will result in a significant change to the appearance of the energy facility site, the Project is compatible with the adjacent and nearby industrial and agricultural buildings in the vicinity. It will not obstruct or degrade any scenic views or vistas in the area and, accordingly, will not result in significant adverse visual impacts.

Nearby residences located to the north, northwest, south, and southwest of the Project site will have views of the energy facility. Most views will be limited to the upper portions of buildings and the stacks. Buildings and structures will be partially or completely obscured in most views by intervening buildings and vegetation. The exception, will be the house located about five hundred feet north of the site, which will have full views of the energy facility plant through the trees that surround the house. The house presently has views of the Lamb-Weston facility and the proposed Project will increase the number of industrial buildings visible from the residence. Although the Project will be visible from nearby residences, it will not obstruct or degrade scenic views or vistas. Therefore, it would not result in significant adverse visual impacts.

OPPORTUNITY FOR TOPOGRAPHIC SCREENING OR OTHER MITIGATION - OAR 345-21-015(1)(s)(iii)

The only portion of the Project that will be visible from the areas identified by the County as having scenic value are the upper portion of the stacks, the cooling tower plume, and the northern end of the electrical transmission line. Because of the relatively flat terrain and the height of these features, topographic screening is not practical.

To minimize visual intrusion caused by the stacks, they will be painted in a matte finished neutral color to minimize the potential for glare caused by reflective surfaces. Light colors such as light gray, gray-blue, or beige are colors most likely to blend with the surrounding area.

Mitigation

1. To minimize visual intrusion caused by the stacks, the stacks will be painted in a matte finished neutral color to minimize the potential for glare caused by reflective surfaces. Light colors such as light gray, gray-blue, or beige are colors most likely to blend with the surrounding area.

2. To minimize Project visibility at night, outdoor lighting will be limited to the extent necessary to maintain safety conditions, and will consist of downward directional lights. Stair lighting will be manually engaged, so that when not in use, the stairs can remain unlighted.
3. Landscaping will be effectively utilized for screening and buffer purposes. To screen views of the energy facility and the nearest residence, shrubbery and trees will be planted along the perimeter of the site. Landscaping will be well-maintained and will include low-maintenance and indigenous plants.

REFERENCES

Mabbott, Tamra, Umatilla County Planning Department, Senior Planner. Personal Communication, November 1992.

Umatilla County, 1987. Umatilla County Comprehensive Plan, adopted May 9, 1983, as amended December 2, 1987.

Umatilla County, 1984. Umatilla County Comprehensive Plan Technical Report.

Umatilla County, 1989. Umatilla County Scenic-Historic Road Program, January 4, 1989.

United States Geologic Survey, 1° X 2° Topographic Sheet, Pendleton, Oregon; Washington, 1973.

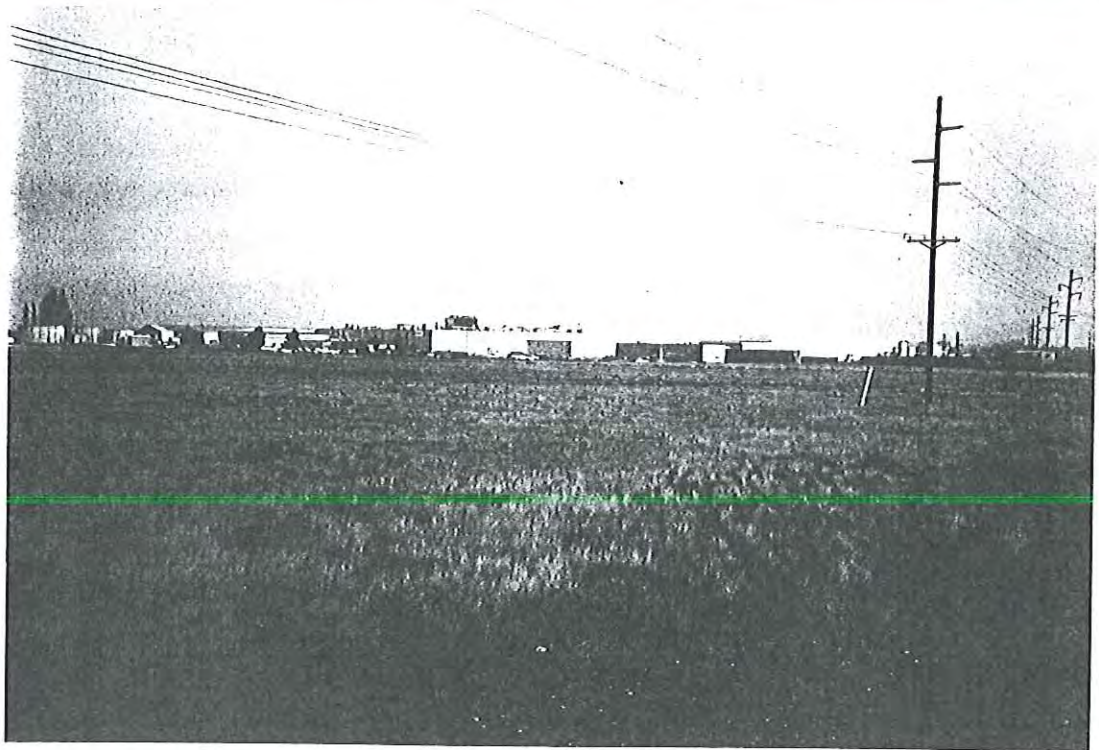


- 1 - Umatilla Co. Scenic-Historic Road
- 2 - McNary Lock & Dam
- 3 - Cold Springs Reservoir
- 4 - McKay Reservoir
- 5 - Lake Umatilla
- 6 - Hat Rock State Park
- 7 - Hat Rock State Park
- 8 - Wallula Gap



30-Mile Impact
Area Boundary

Hermiston Generating Company
HERMISTON PROJECT
Scenic and Aesthetic Areas Map
Date: 12-22-92
Figure S-1



92-43456.009/r/c/0
12-24-92

<i>Hermiston Generating Company</i>	
HERMISTON PROJECT	
VIEWS OF PROJECT SITE (Looking Northeast)	
Date:	FIGURE S-2

EXHIBIT T

HISTORICAL, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

INTRODUCTION

Under OAR 345-22-090, the EFSC must find that construction, operation, and retirement of the Project will not result in significant adverse impacts to historic, cultural, or archeological resources listed or eligible for listing under Oregon and federal laws and that the Project will comply with applicable Oregon laws regarding Indian graves and the removal of historic materials and archeological objects.

This Exhibit first discusses the extent of which historic, cultural, and archaeological resources have been identified in the Impact Area of the Hermiston Generating Project. It then describes steps that will be taken to assure that any such resources are not impacted adversely by construction, operation, or retirement.

CONCLUSION

Project construction and operation is not expected to impact historic, cultural, or archaeological resources. If these resources are encountered during project excavation, work will be stopped and the appropriate action to protect significant resources will be determined and implemented prior to resuming work.

DESCRIPTION OF DISCOVERY MEASURES - OAR 345-21-015(l)(t)A

As described in Exhibit C, the Impact Area for cultural resources is the area within the site boundary of the energy facility and within the proposed right-of-way for the gas pipeline and transmission line.

The entire Impact Area is considered to be within a potentially high cultural resource occurrence area. The Umatilla River was used by Native Americans who likely occupied and utilized the area upstream from the project site and downstream to the Columbia River. Because little development has occurred in the vicinity of the Project, few cultural resource surveys have been conducted.

Review of Listed Resources

Prehistoric and historic site record files were consulted at the Oregon State Historic Preservation Office in Salem, Oregon for the vicinity of the Project. No recorded sites were found within the Impact Area. Sites that were identified in the vicinity of the Project include:

1. *Site 35UM1; Old Town Umatilla Site* - This site is about one mile north and west of the electrical transmission line route, underlying the town of Umatilla along the banks of the Columbia River, at the confluence of the Umatilla River. This is a large site with both prehistoric and historic components (Minor and Toepel 1968; Schalk 1980).
2. *Site 35UM58* - This prehistoric site is located along the Columbia River at the south end of the Interstate-82 bridge, about 0.7 miles northwest of the northern end of the electrical transmission line.
3. *OR-UM-9* - This site is about 0.5 miles west of the gas pipeline, at the point it crosses Old Stanfield Road, south of Interstate-84. The site consists of a section of an old irrigation canal, surrounded by a scatter of historic artifacts.
4. *Oregon Trail* - The mapped route of the Oregon Trail is within about 1.5 south of the proposed gas pipeline intertie with the PGT pipeline.

The State Historic Preservation Office (SHPO) stated during discussions that the primary concern in the area of the Project is potential impacts to undisturbed portions of the Oregon

Trail. Much of the Oregon Trail has been destroyed by agricultural activities and other development. Therefore, SHPO is interested in preserving any remaining undisturbed portions (Gilson 1992).

Site Surveys

A survey of the impact area was conducted by Heritage Research Associates, Inc. of Eugene, Oregon on December 1, 14, and 15, 1992 to determine the presence of historical, cultural, or archaeological resources. The pipeline and transmission line routes were surveyed in their entirety by teams consisting of two archaeologists. Each surveyor examined one side of the route at a time and each route was completed either by having both surveyors walk in tandem, covering each side of the route centerline, or by an individual walking the entire length of the assigned route on one side of the centerline and then returning on the other side of the centerline. The energy facility site was surveyed by four archaeologists walking straight, parallel transects at 30 meter intervals oriented north-south.

RESULTS OF DISCOVERY MEASURES - OAR-345-21-015(1)(t)(B)

Energy Facility Site

The site was covered with grass and low Russian thistle plants. Ground visibility averaged between 20 to 30 percent. Two shallow irrigation ditches were found running north-south and parallel to one another through the central part of the site. There were several low concrete fixtures along the length of each ditch, which probably served as gates. There were no artifacts associated with either of these features. Consequently, the age of the ditches is unclear. The ends of the ditches have been destroyed, either by the construction of the nearby roads or the dismantling of the irrigation system itself. These ditches were probably connected to some larger system when they were in use, but no evidence of this larger system remains in the energy facility site. These features do not retain any degree of integrity and there is no indication that they are more than 50 years old. Therefore, these ditches were not recorded. No other historic or prehistoric cultural materials were found in this area.

Electric Transmission Line Right-of-Way

A dirt or gravel road access road parallels the transmission line on one side or the other for most of the route. Agricultural fields also border the transmission line for much of the route. Ground

visibility was fair to good for most of the route, although this visibility was primarily due to disturbances created by the road or the plowed fields. No prehistoric or historic cultural materials were found during the survey of the electrical transmission line route.

Gas Pipeline Right-of-Way

The portion of the gas pipeline right-of-way north of Interstate-84 parallels railroad tracks and a gravel road. South of the highway the right-of-way parallels north-south fences until it crosses the High Line Canal. From this point, the remainder of the route crosses range and agricultural land, including plowed and center pivot irrigated fields. The majority of the route supports introduced grasses or is under cultivation. Ground visibility varied from greater than 90 percent in the plowed areas to between 20 and 30 percent elsewhere. No historic or prehistoric cultural resources were observed along the gas pipeline route.

Potential Impacts

Because no known historical, cultural, or archaeological resources exist within the Impact Area and no resources were identified during the surveys of the Impact Area, the Project is not expected to affect these resources. However, the possibility always exists that during construction excavation, subsurface resources or resources covered by vegetation that could not be seen during field surveys may be discovered. Should that be the case, such resources could be adversely affected by the excavation.

Mitigation

If historic, cultural, or archaeological resources are found during Project excavation, work in the affected area will be stopped until an archaeologist has evaluated the significance of the find and determined all necessary actions to minimize or avoid further impacts. SHPO will also be consulted to assist in developing procedures to avoid impacting such resources or to preserve those resources that may be disturbed upon the resumption of excavation.

REFERENCES

- Franklin, J.F. and C.T. Dyrness, 1973. Natural Vegetation of Oregon and Washington. USDA Forest Service, General Technical Report PNW-8.
- Gilson, Leeland, State Historic Preservation Office, Personal Communication, 12/1/92.
- Minor, Rick, and Kathryn A. Toepel, 1986. Archaeological Investigations for the Old Town Umatilla Bank Revetment Project, Umatilla County, Oregon. Heritage Research Associates Report No. 47, submitted to Portland District, U.S. Army Corps of Engineers.
- Orr, Elizabeth L., William N. Orr, and Ewart M. Baldwin, 1992. Geology of Oregon, Fourth Edition. Dendall Hunt Publishing, Dubuque.
- Schalk, Randall F., 1980. Cultural Resources Investigations for the Second Power House Project at McNary Dam, near Umatilla, Oregon. Project Report Number 1. Prepared by Laboratory of Archaeology and History, Washington State University, Pullman, Washington.

EXHIBIT U

SOCIOECONOMIC IMPACTS - OAR 345-21-015(1)(u)

INTRODUCTION

The EFSC must find under OAR 345-22-110 that, taking into account mitigation, construction and operation of the Project will not result in any significant adverse impact on the ability of local governments in the Impact Area to provide essential government services.

The Impact Area for socioeconomic impacts as defined in the Project Order consists of the area within 30 miles of the energy facility site.

This Exhibit evaluates the potential impacts of the Project on the ability of communities in the Impact Area to provide essential governmental services, including sewer and sewage treatment, water, stormwater, solid waste, libraries, police and fire protection, health care, and schools, and evaluates the impacts of the project on the economic welfare of the area.

LOCAL GOVERNMENTS WITHIN THE IMPACT AREA

The Impact Area for socioeconomic impacts covers two counties: Umatilla and Morrow. Within the Impact Area for Umatilla County, Hermiston, Umatilla, Stanfield, and Pendleton are the only incorporated cities and Echo is the only unincorporated city. Within the Impact Area for Morrow County, Irrigon and Boardman are the only two unincorporated communities and there are no incorporated communities.

ESSENTIAL GOVERNMENT SERVICES

Sewer and Sewage Treatment

The City of Hermiston has a sewage treatment facility that was constructed approximately 12 years ago and is designed to handle a treatment capacity of 2.9 million gallons a day (MGD). Currently the facility is operating at an average of about 33% capacity, and during peak flows, the facility is treating about 1.3 to 1.4 MGD, which represents less than 50% of total capacity (Schiffner 1992).

The other cities and towns within the Impact Area have sewage treatment systems that provide service to their communities.

Water Supplies

The City of Hermiston's municipal water system consists of two deep wells and one surface well. The City is presently exploring the possibility of diverting water from the Columbia River to meet future water needs. The City is currently providing about 900 million gallons of water a year to residents of the community (Woodward 1992).

The other cities and towns within the impact area obtain water from groundwater wells.

Stormwater

No governmental entity within the Impact Area provides stormwater disposal as a governmental service except through the municipal sewer facilities described above.

Solid Waste

There are two primary landfills in Umatilla County to accommodate solid waste. The Hermiston Landfill has a projected capacity of 25,000 to 30,000 tons per year for 40 years, and the Pendleton Landfill has a projected capacity of 20,000 tons per year for 40 years. Several smaller

landfills also operate in the County, including landfills located on the Umatilla Reservation and in Milton-Freewater, Pilot Rock, and Athena. Landfills in Umatilla County are operating below capacity and there are no plans to site any new landfills in the immediate future (U.S. Army 1991).

The largest landfill in Morrow County is the Finely Butte Waste Disposal Company's new regional landfill in Boardman. The landfill is designed to handle one thousand tons of garbage per day for fifty years. The landfill has over five hundred acres of land available for current use and an additional one thousand acres on which to expand (U.S. Army 1991).

Libraries

Libraries are available in the communities of Hermiston, Umatilla, Stanfield, Pendleton, and Boardman. The communities of Echo and Irrigon do not have libraries.

Police and Fire Protection

This section discusses the level of police and fire protection for each of the communities within the Impact Area. The discussion is summarized in Table U-1.

Umatilla County

The energy facility site is within the jurisdiction of the Umatilla County Sheriff's Department. Police protection services will be provided by the Department's West County station which has a total of three deputies patrolling a service area of about 150 square miles (Cameron 1992).

Hermiston

The Hermiston Police Department provides police protection services within the city limits. The Department maintains a staff of 16 police officers and 7 dispatchers. The Hermiston Police Department would provide second response capabilities for the energy facility site through its mutual aid agreement with the Sheriff's Department. The Department coordinates 911 emergency response through the Hermiston Safety Center (Asher 1992).

The energy facility site is located within the Hermiston Rural Fire Protection District, and fire protection services to the site are provided by the Hermiston Fire Department. The Department has a total of 13 full-time personnel and 40 volunteer firefighters. The Department is equipped to handle fire and medical emergencies, and hazardous materials spills (Stearns 1992).

Umatilla

Police protection services are provided by the Umatilla Police Department which has a staff of 6 police officers. Emergency 911 response is dispatched through the Hermiston Safety Center. The Department maintains mutual aid and intergovernmental agreements with nearby police departments, the Umatilla County Sheriff's Department and the State Police (Olson 1992).

The Umatilla Fire Department is a volunteer department with 30 volunteers. The Department maintains mutual aid agreements with other fire departments (Roxbury 1992).

Stanfield

Police protection is provided by the Stanfield Police Department which has a staff of 3 police officers. Emergency 911 response is provided by the Hermiston Safety Center (Wainwright 1992).

Fire protection services are provided by the Stanfield Fire Department. Total personnel include 16 full-time firefighters. The Stanfield Fire Department has a mutual aid agreement with the Hermiston Fire Department and other departments in the area (Whelan 1992).

Echo

Police protection services are provide by the Umatilla County Sheriff's Department through a mutual aid agreement (Berry 1992). Emergency 911 response is provided by the Hermiston Safety Center.

Echo is located in the Rural Fire Protection District and fire protection is provided by the Echo Volunteer Fire Department which has a total of 25 volunteer fire fighters (Berry).

Pendleton

The Pendleton Police Department provides police protection services to the residents of Pendleton. The Department maintains a staff of 22 officers and 6 emergency dispatchers. In addition to the City's 911 emergency response capabilities, Umatilla County maintains a 911 dispatch center in Pendleton. The City and County departments have an agreement to provide back-up assistance to each other as needed (Ward 1992).

Fire protection services are provided by the Pendleton Fire Department. The Department has 24 full-time and 20 volunteer personnel, including paramedic units. The Pendleton Fire Department has a mutual aid agreement with Hermiston Fire Department and other departments in the area (Reynolds 1992).

Irrigon

Police protection is provided by the Umatilla County Sheriff's Department through a mutual aid agreement (Winter 1992)

Fire protection is provided by the Irrigon Fire Department, which is a volunteer department. There are a total of 20 volunteers. The department maintains mutual aid agreements with Hermiston Fire Department and other departments in the area (Buchanan 1992).

Boardman

The Boardman Police Department provides police protection services to the community. The Department maintains a total of 2 police officers (Muir 1992).

Fire protection is provided by the Boardman Volunteer Fire Department.

Table U-1: Police and Fire Services

Jurisdiction	Police		Fire	
	Staffing	Services in Project Area	Staffing	Services in Project Area
Umatilla County (West County Station)	3 Deputies	Primary Response	N/A	N/A
Hermiston	16 Officers 7 Dispatchers	Mutual Aid	13 Full-time 40 Volunteers	Primary Response
Umatilla	6 Officers	Mutual Aid	30 Volunteers	Mutual Aid
Stanfield	3 Officers	None	16 Full-time	Mutual Aid
Echo	N/A	N/A	25 Volunteers	Mutual Aid
Pendleton	22 Officers 6 dispatchers	None	24 Full-time 20 Volunteers Paramedics	Mutual Aid
Irrigon	N/A	N/A	20 Volunteers	Mutual Aid
Boardman	2 Officers	None	N/A	Mutual Aid

Health Care

Hospitals located in the Impact Area include the Good Shepherd Community Hospital in Hermiston and St. Anthony Hospital in Pendleton. The Hermiston Community Health Clinic provides outpatient care, laboratory, pharmacy, outreach, and social services. The Project will be serviced by the Good Shepherd Community Hospital, which is a fully equipped hospital including a helicopter pad for air evacuation. Good Shepherd Community Hospital has arrangements with hospitals in Pendleton, The Dalles, and the Tri-Cities area to handle overloads in the event of an emergency situation (e.g. failure of primary and backup power supplies).

Schools

This section discusses the enrollment and capacity of the schools within the Impact Area. Table U-2 summarizes the number of students currently enrolled in each school and the current level of capacity.

Hermiston

The Hermiston Public School System has a total of six schools including Hermiston High School, Hermiston Junior High School, Highland Hills Elementary School, Rocky Heights Elementary School, Sunset Elementary School and West Park Elementary School. Total enrollment at these six schools is 3,775 students. At the present time these schools are close to or at capacity.

Hermiston High School has a current enrollment of 1,065 students for an 80% capacity; Hermiston Junior High School has an enrollment of 634 students and is at 97% capacity; Highland Hills Elementary School has 549 students for a capacity of 105%; Rocky Heights Elementary School has 531 students for a 105% capacity; Sunset Elementary School's student population is 506 for a 96% capacity; and West Park Elementary School has 490 students for a 95% capacity (Torres 1992).

According to the Superintendent's Office, the School System is currently undertaking a growth study to assess future demands on Hermiston Schools. A proposal is under consideration to construct a new middle school that would provide instruction for grades 6-8. Additionally, Hermiston Junior High School, which now offers instruction for grades 7-8, would change to a 6-8 grade middle school. This would free up additional capacity at the existing elementary schools (Torres 1992).

Umatilla

The Umatilla Public School System maintains three schools, including McNary Heights Elementary School; Clara Brownell Middle School; and Umatilla High School. McNary has a current enrollment of 500 students for a capacity of 125%; Clara Brownell Middle School has 250 students and is at capacity; and the High School has an enrollment of 250 students and is also at capacity (Fenton 1992).

Stanfield

There are three schools within the Stanfield Public School System: West Elementary School with a current enrollment of 150 students; Stanfield Middle School with 280 students; and Stanfield High School with an enrollment of 155 students. All three schools are currently at capacity (Pomeroy 1992).

Echo

The Echo Public School System consists of one school, Echo Public School, which provides education for grades K through 12. The school has a current enrollment of 205 students and is at about 45 percent capacity (Enright 1992).

Pendleton

The Pendleton Public School System has a total of eight schools including; Pendleton High School, Pendleton Junior High School, Hawthorne Elementary School, Lincoln Elementary School, McKay Elementary School, Washington Elementary School, West Hills Elementary School, and Sherwood Elementary School. Total enrollment at these schools is 3,492 students. At the present time, all of these schools are at capacity. Current enrollment in these schools is: 715 at Pendleton High School; 788 at Pendleton Junior High School; 386 at Hawthorne; 209 at Lincoln; 363 at McKay; 391 at Washington; 173 at West Hills; and 467 at Sherwood.

Irrigon

The City of Irrigon is within the Morrow County School District. Irrigon maintains two schools including A.C. Houghton Elementary School and Columbia Junior High School. The Elementary School has a current enrollment of about 400 students and is at capacity. Columbia Junior High School's current enrollment is 209 students and is over capacity. High school-age students residing in Irrigon attend school in Boardman (Reed 1992).

Boardman

The City of Boardman is within the Morrow County School District. There are two new schools in the city, including Boardman Elementary School and Riverside High School. Junior High School-age students attend Columbia Junior High School in Irrigon. Boardman Elementary School has a current enrollment of 376 students for a capacity of 107%, and Riverside has 368 children for a capacity of 105% (Reed 1992).

Table U-2: School Enrollment and Capacity

	Enrollment	Percent Capacity
Hermiston		
Hermiston H.S.	1065	80
Hermiston J.H.S.	634	97
Highland Hills E.S.	549	105
Rocky Heights E.S.	531	105
Sunset E.S.	506	96
West Park E.S.	490	95
Umatilla		
Umatilla H.S.	250	At Capacity
Clara Brownell M.S.	250	At Capacity
McNary Heights E.S.	500	125
Stanfield		
Stanfield H.S.	155	At Capacity
Stanfield M.S.	280	At Capacity
West E.S.	150	At Capacity
Echo		
Echo Public School	205	46
Pendleton		
Pendleton H.S.	715	At Capacity
Pendleton J.H.S.	788	At Capacity
Hawthorne E.S.	386	At Capacity
McKay E.S.	363	At Capacity
Lincoln E.S.	209	At Capacity
Washington E.S.	391	At Capacity
West Hills E.S.	173	At Capacity
Sherwood E.S.	467	At Capacity
Irrigon		
Columbia J.H.S.	209	Over Capacity
A.C. Houghton E.S.	400	At Capacity
Boardman		
Riverside H.S.	368	105
Boardman E.S.	376	107

Other Socioeconomic Factors

Population

According to 1991 State population data, the total Umatilla County population was 60,100. Of this, approximately 40,085 persons lived in incorporated cities and 20,015 persons resided in unincorporated areas. The four cities: Hermiston, Umatilla, Stanfield, and Pendleton had populations of 10,015, 3,080, 1,580, and 15,440 respectively. The population for Echo was 580 persons in 1986, which represents the most recent population data for this area (U.S. Army 1991). In 1991, Morrow County had a total population of 7,800 with 3,565 in unincorporated areas. The communities of Irrigon and Boardman had populations of 820 and 1,465 respectively (Center for Population Research 1992).

Housing

The permanent housing supply in the Impact Area is very limited. Within the Impact Area, housing demand exceeds the supply, resulting in low vacancy rates and long waiting lists for persons looking for housing. Current vacancy rates are less than 0.5% (Fife 1992). Rental housing, when it becomes available, is rented immediately. New housing construction within the area is limited because the average income levels, generally, cannot support the costs associated with the construction of new housing for owner occupants (Culley 1992).

In Hermiston, about twenty to thirty new multi-family housing units may be constructed within one to two years. If demand is high, an additional 60 to 80 units may be constructed (Fife 1992).

Transient housing accommodations are provided by motels and recreational vehicle (RV) parks. Total motel accommodations for the Impact Area is approximately 884 units. Of this total, 159 units are available in Hermiston, 181 units are available in Umatilla, 111 units are available in Boardman and 433 units are available in Pendleton (Oregon Lodging Association 1992).

RV accommodations within the Impact Area are limited to two communities: Echo and Pendleton, for a total of 39 spaces. Seven spaces are available in Echo and 32 spaces in Pendleton

(Oregon Lodging Association 1992). A new RV park with between 50 and 100 spaces is proposed for the Hermiston area (Woodward 1992).

POTENTIAL IMPACTS

Potential Impacts on Essential Government Services

Sewer and Sewage Treatment

During Project operation, domestic wastewater would be treated by the Lamb-Weston treatment system. Industrial waste water generated by operations would be used for crop irrigation. The Project would not deliver wastewater to the Hermiston treatment facility or any other municipal treatment facility, and would therefore not result in any adverse impacts to municipal sewer systems.

It is expected that plant employees will be hired from the local area. Therefore, the Project will not result in increased demands placed on the sewer system from an increase in local populations generated by the Project.

Water Supplies

The Project is considering several alternative water sources (see Exhibit O), none of which is based on the existing Hermiston municipal water system. Under one of the alternatives discussed, water could be supplied to the Project in connection with expansion of water facilities that would serve other regional users, including possibly the City of Hermiston. In no case will the provision of water supplies create a significant adverse impact on the ability of the local municipal water system to serve its other users.

Stormwater

Stormwater from the Project will be contained on site and reused for crop irrigation, as described in Exhibit B. Stormwater discharge from the Project will not have a significant adverse impact on

the ability of governmental entities within the Impact Area to provide stormwater disposal services.

Solid Waste

The Plant will generate approximately 40 tons per year of solid waste. A recycling and waste minimization program will be developed for the Project that establishes guidelines for conservation and recycling of materials (see Exhibit V). Project generated solid waste could be accommodated by the Hermiston Landfill and would not result in adverse impacts to landfill capacities over the short or long term.

Because Project employees would be drawn from the local labor pool and are expected to be residents of the Impact Area, the Project would not result in an increase in new households. Therefore, the Project would not result in an increase in solid waste generated from new residences.

Libraries

The Project will not result in the creation of a significant number of new households within the Impact Area and will therefore have no impact on existing library services.

Police and Fire Protection

Police

The energy facility will be fenced and it will operate 24-hours a day with personnel on site at all times. This will minimize opportunities for theft or vandalism. Police protection would be provided by the Umatilla County Sheriff's Department. According to the Sheriff's Department, the Project is not expected to result in significant adverse effects to the department nor its capability to provide adequate service to the area (Cameron 1992). Second response calls for emergency services would be provided by the Hermiston Police Department through its mutual aid agreement with the Sheriff's Department. The Hermiston Police Department anticipates no problems with providing police services to the site (Asher 1992).

The Project is not expected to generate significant numbers of new households within the Impact Area because most Project employees are expected to be hired from local communities. Therefore, the Project will not cause an increase in demand for police services as a result of new residents moving to the area.

Fire

The Project will be constructed with full hydrants and a sprinkler and deluge system. Project employees would be trained in emergency first aid procedures. According to the Hermiston Fire Department, if the Project provides all fire protection equipment and facilities in accordance with the Oregon Fire Code, it will not be expected to result in significant adverse impacts to the Department's existing capabilities (Stearns 1992).

The Project is not expected to generate significant numbers of new households within the Impact Area because most Project employees are expected to be hired from local communities. Therefore, the Project will not cause an increase in demand for fire services as a result of new residents moving to the area.

Health Care

The Project is not expected to adversely affect medical services in the Impact Area. Good Shepherd Community Hospital has ample capability to handle any emergency situation at the Project (Franz 1992).

Schools

The Project will not result in the creation of significant new numbers of households because it is expected that most plant employees will be hired from local communities. There will be no significant in-migration of new families, and consequently, no significant increase in the student population. The Project will not adversely affect the local schools.

The construction work force is not expected to include families. Consequently, temporary increases in the local population caused by the in-migration of 150 construction workers will not result in increases in the student population and there will be no impact on schools within the Impact Area.

Impacts on Other Socioeconomic Factors

Employment

The Project will result in the creation of approximately twenty-five permanent jobs over a twenty-four hour period. Fifteen employees would work during the 8:00 a.m. to 5:00 p.m. period, and five employees would cover each of the evening and nighttime shifts. Applicant expects that most, if not all, of these jobs will be filled by existing residents within the region.

The number of new permanent jobs created as a result of the project is considered to be moderate and will not result in significant increased demands to local services. The new jobs created by the Project will provide a positive impact to the local economy, as would the contribution of the Project to the local tax base.

Construction is expected to last approximately two years. The average construction work force will be approximately one hundred and fifty workers, with a peak at about two hundred workers. Of the total construction work force, Applicant expects that about 25 - 100 workers will be filled from outside the region. The remaining 100 - 175 will be drawn from the regional labor pool.

The temporary construction jobs created by the Project will contribute to the local economy through the purchase of goods and services by the temporary construction work force during their stay in the area.

Increased Economic Activity

As noted above, the Project will create up to 200 temporary construction jobs and approximately 25 permanent jobs. These employees will purchase goods and services locally. In addition, the Project itself will purchase considerable quantities of goods and services from local and regional

businesses, from plant maintenance services to office equipment to business services. All of this will result in a net in-flow of dollars into the local economy that will have a beneficial effect beyond that of the immediate new employees.

Increased Tax Revenues

The Project will be a major taxpayer to local government. This injection of additional tax revenues - at a time of widespread cutbacks in government services - will contribute to the provision of quality education, police, fire, and other municipal needs that will benefit the entire community.

Improved Lamb-Weston Competitiveness

The Project will provide considerable savings to Lamb-Weston by helping the potato processor reduce its operating costs. This will help to keep the Lamb-Weston Hermiston facility viable in the very competitive food processing market. Since Lamb-Weston employs over 500 people at the Hermiston plant, its economic viability is critical to the well-being of the Hermiston community.

Population

Limited in-migration is expected to occur as a result of the Project. Applicant expects to fill most, if not all, of the full-time plant operations jobs with residents from the local communities. Because new employees will be existing local residents, the Project is not expected to result in direct population increases.

Up to 200 workers will be required for construction at any one time over the two year construction period. Of this, about 100 - 175 of the construction workers are expected to be drawn from the region; the remaining work force is expected to be brought into the area. Applicant does not anticipate that these construction workers will bring their families with them because most would remain on the job site for only a matter of months.

Housing

During operation, the Project is not expected to increase demand for permanent housing in the Impact Area because plant employees will be hired mostly from the local community and are assumed to have housing already.

Temporary housing accommodations for the construction work force should reduce the vacancy rates for the motels, rental housing, and RV parks in the region during the construction period. Vacancy rates for these accommodations tend to be low throughout much of the year. Applicant estimates that accommodations can be arranged for the transient construction workers in the existing motels, rental units, and RV parks in the region.

MITIGATION

To minimize the potential for the adverse impacts on the supply of temporary housing, Applicant will coordinate with local businesses and individuals providing housing to secure adequate facilities in advance of the arrival of the construction workers. This could include arrangements with local Realtors to secure rental housing, and reserving blocks of motel rooms and RV spaces. If necessary, Applicant will consider the feasibility of providing temporary RV park accommodations during the construction period. This would require compliance with OAR 918-650-065 which permits exemptions from the State Building Code occupancy requirements including toilet facilities, road surface treatment, and spacing. In addition to State approval, planning and zoning approval would be required by Umatilla County.

REFERENCES

Asher, Grant, Hermiston Police Department, Personal Communication, 12/10/92.

Berry, Diane, City Administrator, City of Echo, Personal Communication 12/10/92.

Buchanan, Orville, Irrigon Fire Department, Personal Communication, 12/14/92.

Cameron Sgt. Umatilla County Sheriff's Department, Personal Communication, 12/10/92.

Center for Population Research, Oregon State University, Personal Communication, 12/10/92.

Culley, Bob, Broker, Century 21 Southgate Realty, Inc. Personal Communication, 12/10/92.

Enright, Janey, Secretary, Echo Public School System, Personal Communication, 12/14/92.

Fenton, George, Superintendent, Umatilla Public School System, Personal Communication, 12/10/92.

Fife, Rod, Broker, Schroth Realty, Inc., Personal Communication, 12/10/92.

Franz, Ken, Emergency Room Nurse Manager, Good Shepherd Community Hospital, Personal Communication 12/15/1992.

Jordan, Jean, Secretary, Pendleton School System, Personal Communication, 12/14/92.

Muir, Linda, Secretary, City of Boardman, Personal Communication, 12/14/92.

Olson, Elden, Chief, Umatilla Police Department, Personal Communication, 12/10/92.

Oregon Lodging Association, *Where to Stay in Oregon - 1992 Oregon Travel Guide to Accommodations*, 1992.

Pomeroy, Carol, Secretary, Stanfield Public School System, Personal Communication, 12/10/92.

Reed, Ralph, Superintendent, Morrow County School District, Personal Communication, 12/10/92.

Reynolds, Todd, Captain, Pendleton Fire Department, Personal Communication, 12/14/92.

Roxbury, Jim, Umatilla Fire Department, Personal Communication, 12/10/92.

Schiffner, Daryl, Superintendent, Waste water, Hermiston Public Works Department, Personal Communication, 12/10/92.

Stearns, Jim, Chief, Hermiston Fire Department, Personal Communication 12/10/92.

Torres, Earl, Superintendent, Hermiston Public School System, Personal Communication 12/3/92.

U.S. Army, *Disposal of Chemical Agents and Munitions Stored at Umatilla Depot Activity, Hermiston, Oregon*, DEIS, October 1991.

Winters, Pauline, Morrow County Sheriff's Department, Personal Communication, 12/10/92.

Wainwright, Tina, Secretary, City of Stanfield, Personal Communication, 12/14/92.

Ward, Gary, Pendleton Police Department, Personal Communication, 12/14/92.

Whelan, Jim, Stanfield Fire Department, Personal Communication, 12/14/92.

Woodward, Dude, Superintendent, Water, Hermiston Public Works Department, Personal Communication, 12/10/92.

EXHIBIT Y

MONITORING PLANS - OAR 345-21-015(1)(y)

INTRODUCTION

This Exhibit describes the various monitoring plans that Applicant has developed in order to assure that design, construction and operation of the Project are consistent with applicable state and local laws. Monitoring will be required for air quality and water quality as part of the Air Contaminant Discharge Permit and the Water Pollution Control Facilities ("WPCF") Permit.

MONITORING REQUIREMENTS

Air Quality

Applicant has submitted an application for an Air Contaminant Discharge Permit for the Hermiston Generating Project to DEQ for review (see Exhibit M). DEQ will require air quality monitoring as part of their conditions of approval of the permit. Specific monitoring requirements will not be finalized until DEQ has completed their review and evaluation, and the permit is issued.

Water Quality

Applicant has submitted a Cooling Water Reuse Land Application System Management Plan to DEQ to obtain a WPCF permit (see Exhibit M). As part of the Management Plan, Applicant has

proposed a monitoring program to evaluate the performance of the land application system (see Chapter 7 of the Management Plan). Monitoring will include; volume and quantity of cooling water discharged; quality of cooling water stored in the reservoir, and soil and groundwater quality at the fields irrigated with cooling water. This program will ensure compliance with WPCF permit requirements and will allow the system to be operated in an environmentally sound manner.

Conditions of the WPCF permit will dictate actual monitoring requirements and frequency of monitoring for the project.

EXHIBIT W

MITIGATION PLANS - OAR 345-21-015(1)(w)

INTRODUCTION

This Exhibit describes the various mitigation plans that Applicant has developed in order to assure that the design, construction and operation of the Project are consistent with applicable state and local laws. It is relevant to a number of standards set forth in OAR Division 22, including OAR - 345-22-020, OAR-345-22-030, OAR 345-22-040, and OAR 345-22-060.

GEOLOGY, SLOPE STABILITY AND SEISMICITY

Geology and Soils

The following measures will be implemented to offset the potential impacts of the Project associated with geology and soils.

1. Facility structures will be founded in dense materials beneath unconsolidated surface materials to offset potential impacts from soil compaction;
2. Placement of electrical transmission towers will include setbacks from cut slopes associated with the quarry east of the Umatilla River, along the electrical transmission line route; and

3. Water will be applied to graded surfaces during construction to reduce the potential for wind erosion and silt fences or similar structures will be provided as necessary to further reduce soil erosion.

Seismicity

The following measures will be taken to offset potential seismic impacts associated with the Project relating to seismicity:

1. Facility structures will be designed and constructed to minimize potential damage from strong ground shaking. This will include compliance with UBC requirements.
2. Facility structures will be founded in dense materials beneath unconsolidated surface materials to offset potential impacts from differential settlement.
3. Placement of electrical transmission towers will avoid or other wise mitigate for, to the extent practical, the narrow strip of alluvium along the Umatilla River that may be subject to liquefaction.

In addition, prior to construction, a detailed geotechnical investigation will be performed at the energy facility site to evaluate subsurface conditions and to evaluate further the potential for liquefaction. The investigation will also provide information for foundation design, site preparation and grading, and roadway design. The investigation will include drilling bore holes to confirm the depth to ground water and sampling of the subsurface materials for testing.

LAND USE PLANS AND POLICIES

The Project will comply with the Umatilla Comprehensive Plan and applicable zoning (both Umatilla County and the City of Umatilla) requirements. The Project will be compatible with nearby land uses. The proposed Project design and construction practices described in this application will avoid significant land use impacts.

PROTECTED AREAS

The Project is not located within Protected Areas as described in OAR 345-22-040. In addition, because of the distance of the Project from those areas, it will have no adverse impacts on them.

NATIVE VEGETATION AND SOIL COVER

Vegetation

Project impacts on native vegetation will be minimal. Native vegetation that does occur in the Project area is sparse, except for that within the Umatilla Ordnance Depot. Disturbance will be limited to pole replacement activities along the right-of-way associated with upgrading the existing transmission line. In most cases, native vegetation can be avoided by construction activities. The Project will not affect the native vegetation within the Umatilla Ordnance Depot.

Soils

Because of the susceptibility of the soils in the Project area to wind erosion, precautions will be taken during construction to minimize erosion. This could include watering of the site and pipeline access road and use of dust palliatives. Impacts to soils along the pipeline route will be limited to a short construction period. If appropriate, topsoils and subsoils will be segregated during excavation for the pipeline to minimize impacts on soil fertility.

FISH AND WILDLIFE

Potential adverse impacts can be avoided by scheduling construction outside of the nesting season for ground nesting species and western kingbirds. If this cannot be done, the energy facility site and the transmission line and gas pipeline rights-of-way should be surveyed by qualified biologists and nest sites identified. Discussions should then be held with the local ODFW wildlife biologist to identify whether mitigation is necessary.

Mitigation and enhancement possibilities which could offset potential minor adverse impacts include placing a few nesting platforms for raptors on the new transmission line, and ensuring that

the new line also provides suitable areas for western kingbirds to construct nests. The kingbird nesting season is approximately April 15 through August 1.

If wintering bald eagles do occur occasionally at the Umatilla River at the site of the electric transmission line crossing, it is very unlikely that they would be adversely affected by upgrading of this line, as long as the upgraded line is a raptor-proof design. Raptor protection will be employed in the design of the transmission towers following the methods described by Olendorff et al. (1981). A detailed design will be submitted to ODFW for review during the design phase of the Project. All energized facilities will be designed with adequate separation of a minimum of nine feet; the greatest wingspan expected in the area is the 8.5 foot wingspan of the bald eagle.

RECREATION

No mitigation is necessary for recreational resources.

THREATENED AND ENDANGERED SPECIES

Potential adverse impacts on nesting birds can be avoided by scheduling construction of the transmission line and gas pipeline to avoid the nesting season for these species. Black (1992, personal conversation) suggested that the nesting season includes the period of mid-April through August 1. If construction schedules can not be arranged to avoid the nesting season, the energy facility site and the transmission line and gas pipeline right-of-ways will be surveyed to identify nest sites. If nests are identified, mitigation will be provided, which mitigation may include contributing funds to DFW habitat conservation programs. The gas pipeline route will be surveyed for the Washington ground squirrel during the late April to early May active season for the species. If any are located, the colonies will be avoided by construction if possible. If avoidance is not possible, Applicant will consult with DFW on appropriate mitigation measures to be taken.

Potential electrocution hazard to bald eagles and other raptors can be avoided by using a raptor-proof design for the new transmission line. Raptor protection will be employed in the design of the transmission towers, following the methods described by Olendorff et al (1981). Detailed design will be submitted to DFW for review during the design phase of the Project. All energized

facilities will be designed with adequate separation of a minimum of nine feet. The greatest wingspan expected in the area is the 8.5 foot wingspan of the bald eagle.

VISUAL QUALITY AND AESTHETICS

Mitigation for Identified Areas of Scenic Value

The only portion of the Project that will be visible from the areas identified by the County as having scenic value is the upper portion of the stacks, the cooling tower plume, and the northern end of the electrical transmission line. Because of the relatively flat terrain and the height of these features, topographic screening is not practical.

To minimize visual intrusion caused by the stacks, they will be painted in a matte finished neutral color to minimize the potential for glare caused by reflective surfaces. Light colors such as light gray, gray-blue, or beige are colors most likely to blend with the surrounding area.

Mitigation for Other Visual Resources

1. To minimize visual intrusion caused by the stacks, the stacks will be painted in a matte finished neutral color to minimize the potential for glare caused by reflective surfaces. Light colors such as light gray, gray-blue, or beige are colors most likely to blend with the surrounding area.
2. To minimize Project visibility at night, outdoor lighting will be limited to the extent necessary to maintain safety conditions, and will consist of downward directional lights. Stair lighting will be manually engaged, so that when not in use, the stairs can remain unlighted.
3. Landscaping will be effectively utilized for screening and buffer purposes. To screen views of the energy facility and the nearest residence, shrubbery and trees will be planted along the perimeter of the site. Landscaping will be well-maintained and will include low-maintenance and indigenous plants.

HISTORICAL, CULTURAL AND ARCHAEOLOGICAL RESOURCES

If historic, cultural, or archaeological resources are found during Project excavation, work in the affected area will be stopped until an archaeologist has evaluated the significance of the find and determined all necessary actions to minimize or avoid further impacts. SHPO will also be consulted to assist in developing procedures to avoid impacting such resources or to preserve those resources that may be disturbed upon the resumption of excavation.

SOCIOECONOMICS

To minimize the potential for the adverse impacts on the supply of temporary housing, Applicant will coordinate with local businesses and individuals providing housing to secure adequate facilities in advance of the arrival of the construction workers. This could include arrangements with local Realtors to secure rental housing, and reserving blocks of motel rooms and RV spaces. If necessary, Applicant will consider the feasibility of providing temporary RV park accommodations during the construction period. This would require compliance with OAR 918-650-065 which permits exemptions from the State Building Code occupancy requirements including toilet facilities, road surface treatment, and spacing. In addition to State approval, planning and zoning approval would be required by Umatilla County.

EXHIBIT X

CONSTRUCTION SCHEDULE - OAR 345-21-015(1)(x)

Figure X-1 shows a construction schedule for Unit One of the two combined-cycle generating units of the. The construction of Unit 2 will follow a similar, either parallel or sequential, schedule. While preliminary, this schedule is representative of the construction process that will be followed for the energy facility.

The electric transmission line will be constructed concurrently with the energy facility to ensure its completion on or before the date of Unit One's commencement of operation. Construction of the electric transmission line will be performed primarily during the winter, when irrigation loads on this portion of the Umatilla Electric Cooperative Association distribution system are the lightest. It is expected that the transmission line can be completed within a single winter. The in-substation work at McNary Substation will be scheduled to minimize the impact on BPA's system.

The gas pipeline line will also be constructed concurrently with the energy facility so that fuel will be available on or before the date of Unit One's commencement of operation. Construction of the gas pipeline will require approximately three months of field work. This will be performed primarily in the fall and winter months in order to minimize impacts on agricultural activities and to avoid nesting and mating seasons of local wildlife.

As shown in Figure X-1 and X-1a, the development, construction and procurement schedule (including permitting) is projected to require twenty five months from initial start to commercial operation. Preliminary work, which can be accomplished prior to obtaining financial closing for

the Project but does not involve any on-site activities will occur ahead of the twenty five month construction schedule.

All construction work will be performed either at the site of the energy facility or within the transmission and gas pipeline rights of way, that are described in Exhibit C and shown on Figures C-2 through C-4. It is possible that some construction materials and equipment may be temporarily stored on property adjacent to the site of the energy facility site.

Figure X-1A
Hermiston Generating Project
Preliminary Development Schedule

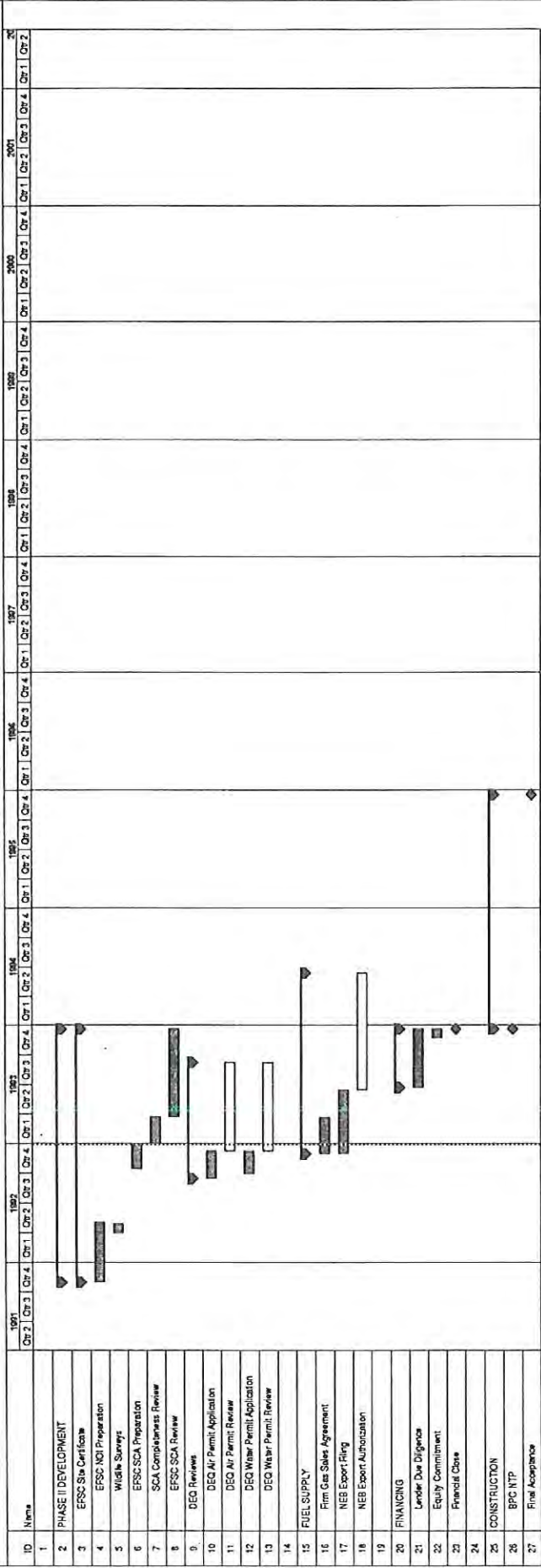


EXHIBIT Z

SITE RESTORATION - OAR 345-21-015(1)(z)

INTRODUCTION

The retirement of the Project, as well as its design, construction and operation, must be found to meet the standards described elsewhere for:

- soil preservation (OAR 345-22-020(2))
- financial assurance (OAR 345-22-050)
- fish and wildlife (OAR 345-22-060)
- threatened and endangered species (OAR 345-22-070)
- scenic and aesthetic values (OAR 345-22-080)
- historical and cultural resources (OAR 345-22-090)

In addition, the EFSC must find that the site of the project can, taking mitigation into account, be restored adequately to a useful condition after the energy facility is retired. (OAR 345-22-130)

This Exhibit describes the expected operating life of the Hermiston Project, and describes, in general terms, how the Project will be retired and the site restored at the end of that operating life.

ESTIMATED LIFE OF THE PROJECT

The expected life of the Project is up to thirty years. Applicant anticipates that the initial power sales agreement for the Project will have a shorter duration, during which time all of the capital investment in the Project will be recovered and all debt obligations satisfied. Thereafter, Applicant will continue to operate the Project for as long as it can sell the electricity it generates and operate the Project.

REASONABLE METHODS FOR SITE RESTORATION

Because the Project will be designed to the most current standards for spill containment and material storage, and because of its use of natural gas fuel, site restoration will consist primarily of the dismantling and removal of unneeded equipment and structures on the energy facility site. As a result, no particular technical difficulties that could prevent site restoration are anticipated.

The transmission line and gas pipeline will probably be left in service for use in connection with other facilities.

Because the energy facility site is within an area zoned Light Industrial, the site will likely be restored to allow for other industrial uses. With the existing infrastructure, it may be advantageous to continue to use the site for power production. In this case, certain buildings and components of the Project may be retained, including possibly the steam turbines, cooling towers, warehouses and control rooms. The steam turbines and HRSGs could be replaced (“repowered”), or an alternative source of thermal energy production could be provided.

A second alternative for the site would be use for some other industrial purpose, possibly related to Lamb-Weston’s operation. In general, this would require the dismantling and removal of most of the power production equipment—primarily the gas turbine/generators, HRSGs, steam turbine/generators, condensers, cooling towers, and most of the structures.

At the time of retirement, these activities will be conducted in compliance with all applicable law and regulations applicable at that time. A decommissioning plan will be developed and implemented to restore the site to a useful state, depending on the anticipated use at that time. If

in the future the restoration of the site is expected to cost an extraordinary amount, Applicant will begin, five years prior to the Project's removal from service, to fund a reserve that would be available for site restoration.

ESTIMATED COST OF SITE RESTORATION

Depending on the scope of facility removal and the nature of the next use of the site, the cost of site restoration is not expected to exceed \$5 million in current dollars.

EXHIBIT AA

CITATIONS TO REGULATIONS AND REQUIRED PERMITS

INTRODUCTION

Under OAR 345-22-000(1)(b), the EFSC must determine that the Project complies with all other Oregon statutes and administrative rules applicable to the issuance of a site certificate for the facility. Under OAR 345-22-000(2), the Project Order is required to contain an inclusive list of such applicable statutes and rules. The Project Order states that:

[t]he statutes and administrative rules listed in paragraphs 1 through 13 of this order shall be used by the Department of Energy and the Oregon Energy Facility Siting Council to review the application for a site certificate and determine whether or not a site certificate shall be granted.

Exhibit AA provides citations to state statutes and administrative rules and city ordinances with which Applicant must comply in constructing and operating the Project. This Exhibit also describes Applicant's with applicable standards not discussed elsewhere in this SCA.

REGULATIONS - OAR 345-21-15(1)(aa)(A)

Table AA-1 lists statutes, rules, and ordinances that must be addressed for issuance of a Site Certificate, as identified in the Project Order, and the agencies which administer these regulations.

Table AA-1: Statutes, Rules, and Ordinances

<i>Regulations</i>	<i>Administering Agency</i>
Energy	
ORS 469.300 <i>et seq</i>	Oregon Department of Energy
OAR 345	Energy Facility Siting Council
Air Quality	
ORS 468A	Department of Environmental Quality
OAR 340-20-001	"
OAR 340-20-020	"
OAR 340-20-025	"
OAR 340-20-030	"
OAR 340-20-035	"
OAR 340-20-037	"
OAR 340-20-040	"
OAR 340-20-047	"
OAR 340-20-140 through 185	"
OAR 340-20-220 through 276	"
OAR 340-20-300 through 315	"
OAR 340-20-350 through 380	"
OAR 340-21-015	"
OAR 340-21-050	"
OAR 340-21-060	"
OAR 340-22-005 through 104	"
OAR 340-22-160	"
OAR 340-25-645	"
OAR 340-31-005 through 130	"
Water Quality	
ORS 468	Department of Environmental Quality
OAR 340-14	"
OAR 340-40	"
OAR 340-41	"
OAR 340-45	"
OAR 340-52	"
Transfer of Water Rights	
ORS 540.505 through 540.530	Water Resources Department
OAR 690-11-070	"
OAR 690-15-060	"
OAR 690-15-070	"

**Table AA-1: Statutes, Rules, and Ordinances
(Continued)**

<i>Regulations</i>	<i>Administering Agency</i>
Reclamation of Wastewater ORS 537.110 through 537.330 OAR 690-11-005 through 220	Water Resources Department "
Hazardous and Solid Waste OAR 340-100 through 120	Department of Environmental Quality
Fish and Wildlife ORS 496.012 ORS 496.172 through 496.192 ORS 506.109 OAR 635-100 OAR 635-415 OAR 635-425	Department of Fish and Wildlife " " " " "
Threatened and Endangered Plant Species ORS 564.010 through 564.135 OAR 603-73-005 through 100	Department of Agriculture " "
Historic Preservation ORS 97.750 ORS 358.905 through 358.955 ORS 390.235	State Historic Preservation Office, State Parks & Recreation Dept " "
Land Use ORS 197 OAR 660-04 OAR 660-09 OAR 660-11 OAR 660-12 OAR 660-15 OAR 660-16 OAR 660-18 OAR 660-25 Statewide Planning Goals Zoning Ordinance No. 554 Umatilla County Development Ordinance	Department of Land Conservation and Development " " " " " " " " " " City of Umatilla Umatilla County

**Table AA-1: Statutes, Rules, and Ordinances
(Continued)**

<i>Regulations</i>	<i>Administering Agency</i>
State Lands ORS 196.800 through 196.990	Division of State Lands
Building Codes ORS 447	Building Codes Agency
ORS 455	"
ORS 460	"
ORS 479.510	"
ORS 480	"
ORS 671	"
OAR 918-225	"
OAR 918-290	"
OAR 918-301	"
OAR 918-302	"
OAR 918-400	"
OAR 918-440	"
OAR 918-460	"
OAR 918-750	"
OAR 918-770	"
OAR 918-780	"
Natural Gas Pipeline and Transmission Line Safety ORS 757.035	Public Utilities Commission
ORS 757.039	"
ORS 757.541 through 757.571	"
OAR 860-24	"
OAR 860-28-005	"

PERMITS AND LICENSES - OAR 345-15-21(1)(aa)(B)

Under ORS Chapter 469, the Project is subject to a “one stop” siting process. Through the “one stop” siting process, particularly as explained in a recent Oregon Attorney General’s Opinion (November 4, 1991), it is important that potential issues relating to permits which Applicant must obtain from other agencies be resolved in the context of the EFSC proceedings. Exceptions to this are federally-delegated programs implemented by the DEQ. For the Project, these include the Air Contaminant Discharge Permit and Stormwater Discharge Permit.

The following discussion addresses state and local requirements for the Project.

State Permit Requirements

Agency: Department of Energy--Energy Facility Siting Council (EFSC)
625 Marion Street NE
Salem, OR 97310
(503)378-6469

Permit: Site Certification

Agency: Department of Environmental Quality(DEQ)--Hazardous and Solid
Waste Division
811 SW Sixth Avenue
Portland, OR 97204
(503)229-5913

Permit: Hazardous Waste Generator Registration

Discussion: Applicant will register and obtain a generator identification number before generating hazardous waste in the operation of the Project. Applicant or its general contractor will register and obtain a generator identification number before generating hazardous waste in the construction of the Project.

Agency: **Department of Environmental Quality (DEQ)–Air Quality Division**
811 SW Sixth Ave
Portland, OR 97204
(503)22-5359

Permit: Air Contaminant Discharge Permit (ACDP)

Discussion: Air Quality permitting requires acquisition of an Air Contaminant Discharge Permit. A copy of the application submitted to DEQ is included in Exhibit M.

Agency: **DEQ–Water Quality Central Division**
811 SW Sixth Ave
Portland, OR 97204
(503)22-5279

Permits: Water Pollution Control Facilities (WPCF) Permit
General Stormwater Discharge Permit for Construction Activities

Discussion: A WPCF permit will be required for discharge of wastewater. The energy facility is anticipated to have a daily discharge of 1.0 million gallons. The project will utilize land application (crop irrigation) for disposal of effluent from the facility. A General Stormwater Discharge Permit for Construction is required to address erosion control for construction activity. Copies of the applications for both permits are included in Exhibit M.

Agency: **Building Codes Agency**
1535 Edgewater NW
Salem, OR 97310
(503)378-4133

700 SE Emigrant St.
Pendleton, OR 97801
(503)276-7814

Permits: Plumbing
Structural/Mechanical/Energy
Elevator
Fire Marshall
Electrical
Pressure Vessel (Boiler)

Discussion: The energy facility will be subjected to a rigorous structural and safety permitting process by the Oregon Building Codes Agency. The purpose of this process is to ensure adequate facility design for operational safety. Review by the Building Codes Agency will include structural, electrical, mechanical, plumbing and safety. Design review and issuance of the necessary permits will be conducted through the Salem Office of the Building Codes Agency. The result of this review will be issuance of building permits, electrical permits and other plant operational component permits. The local office, in Pendleton, will be responsible for construction inspection of the Project during and upon completion of construction.

Agency: **Department of Transportation—Highway Division, Region 5,
District 12**
Region 5 Office
3012 Island Ave
LaGrande, OR 97850
(503)963-3177

District 12 Office
104 SE 12th St.
P.O. Box 459
Pendleton, OR 97801
(503)276-1241

Permits: Permit for Performing Miscellaneous Operations upon a State Highway
Access Permit

Discussion: The State Department of Transportation will require filing of an Application for Performing Miscellaneous Operations upon a State Highway for any state roads or highways crossed by pipelines or power transmission structures associated with the proposed power plant. The guidelines for such crossing will be defined in Oregon Administrative Rule, Chapter 734, Division 55, Highway Division. These guidelines will be part of the permit and any additional conditions placed upon the action will be attached to the face of the permit. The Department of Transportation will review and require any special crossing conditions based on design, crossing method, and other factors related to roadway stability. Any access either temporary or permanent from state highways will require acquisition of an access permit.

Local Permit Requirements

Agency: **Umatilla County–Public Works Department**
216 SE 4th
Pendleton, OR 98701
(503)276-7111

Permits: Utility Permit
Access Permit

Discussion: Crossing of County roadways by pipelines or transmission line facilities will require acquisition of a Utility Permit. This requirement will also apply to any other “utilities” such as water supply pipelines. A permit will be required for each crossing point.

An Access Permit will be required by the County for any temporary or permanent construction or modification to existing or previously permitted access points. This process also includes review and potential requirement of yield/stop sign placement and culvert requirements.

Movement of oversize loads on public roadways is a joint permit between the State and the County. The State Department of Transportation issues the permit after incorporating any County agency concerns or conditions.

Agency: **City of Umatilla–Planning Commission**
P.O. Box 130
Umatilla, OR 97882
(503)922-3226

Permit: Conditional Land Use Permit

Discussion: A portion of the electrical transmission line that will be upgraded for the Project is located within the City Limits of Umatilla. A Conditional Use Permit will be required for upgrading this portion of the line to ensure compliance with local zoning and land use requirements.

COMPLIANCE - OAR 345-21-15(1)(aa)(C)

The following text discusses anticipated Project compliance with the categories of regulations identified in Table AA-1.

Air Quality

The Project will require an Air Contaminant Discharge Permit issued by the DEQ. DEQ's air quality program operates under authority delegated by the EPA. As indicated in the Addendum to the Project Order, compliance with Oregon's air quality standards will be determined by DEQ in accordance with its procedural and substantive rules. A copy of the Air Contaminant Discharge Permit is included in Exhibit M to this SCA.

Water Quality

The Project Order lists ORS Chapter 468 and OAR Chapter 340, Divisions 14, 40, 41, 45 and 52 as the applicable water quality standards and permit requirements.

Exhibit M includes a copy of the WPCF permit application and Land Application Management Plan for Reuse of Industrial Wastewater required by these statutes and regulations, and demonstrates that the Project will comply with the applicable water quality standards.

Compliance will be achieved through the beneficial reuse of cooling water for irrigation on nearby farm land. The Land Application Management Plan contained in Exhibit M was prepared in conformity with the "Checklist for Land Application of Industrial Wastewaters" issued as guidance by DEQ.

Water Availability

The Project Order lists ORS Chapter 540, Section 505 through 530; and OAR 690-11-070, 690-15-060 and 690-15-070 as the applicable statutes and rules for transfer of water rights. The Project Order lists ORS Chapter 537, Section 110 through 330 and OAR 690-11-005 through 690-11-220 as the applicable statutes and rules for reclamation of wastewater.

Exhibit O addresses these standards. No new water right is sought for the Project, and the planned source of makeup water is through a proposed regional water supply system with capacity far in excess of Projected water demand.

Hazardous and Solid Waste

Generation and management of hazardous waste is regulated under OAR Chapter 340, Divisions 100 to 120, which are identified in the Project Order as the applicable standards.

Exhibit B of the SCA describes the use, storage and handling of hazardous substances and other industrial materials at the Project. It is not known at this time exactly what hazardous wastes might be generated at the Project, and in what quantities such wastes could be present.

Applicant does not expect to accumulate any hazardous wastes on site for more than 90 days. Thus, the Project will not be subject to permitting requirements for hazardous waste treatment, storage, or disposal facilities. If hazardous wastes are generated on site, Applicant will comply with the requirements for generators of such wastes, including registration, record keeping, reporting, contingency planning and payment of generator fees.

Fish and Wildlife

The referenced statutes from ORS Chapter 496 articulate the State policy that wildlife be managed for optimum recreational and aesthetic benefits, establish the authority of the Fish and Wildlife Commission, describe the process for listing of threatened or endangered species, require consultation for Projects on state-owned lands and provide that the referenced statutes are not intended to impose additional requirements or restrictions on the use of private land. ORS 506.109 establishes goals of food fish management. The referenced administrative rules relate to the criteria and standards for listing threatened and endangered species and establish habitat mitigation goals and standards and implementation guidelines.

The fish and wildlife habitat mitigation goals and standards of OAR 635-415-030 describe four categories of habitat, the state's goal with respect to preserving the habitat, and measures to be recommended or required by the Department of Fish and Wildlife to meet the habitat mitigation goals. **Exhibit P** discusses these goals in the context of the Project.

No in-water blasting will be required for construction of the Project. Thus Division 425 of OAR Chapter 635 is not applicable.

With respect to threatened and endangered fish and wildlife species, OAR 345-22-070 requires a finding by EFSC that "(a) the design, construction, operation and retirement of the proposed facility is consistent with any applicable conservation program adopted pursuant to ORS 496.172(3) ...; or (b) if no conservation program applies, the facility does not have the potential to appreciably reduce the likelihood of the survival or recovery of any threatened or endangered species listed under ORS 496.172(2)." **Exhibit R** addresses threatened or endangered species. Based on a field survey, no threatened or endangered species are known to occur in the Project area and no critical habitat for said species has been identified in the Project area. Thus, the Project will not have an effect on threatened or endangered fish or wildlife species.

OAR Ch. 635, Div. 425 establishes procedures and criteria for in-water blasting, which is not expected to be required for the Project. As a result, this rule is not applicable.

Threatened and Endangered Plant Species

The referenced statutes from ORS Ch. 564 and the referenced rules from OAR Ch. 603 establish criteria and procedures for listing threatened or endangered plant species, and require that the Department of Agriculture develop, by rule, conservation programs for threatened and endangered plant species. The provisions do not directly apply to private lands (see ORS 564.135(1)). However, OAR 345-22-070 requires that “design, construction, operation, and retirement of the proposed facility be consistent with conservation programs adopted pursuant to ORS 564.105(3),” or if there is no conservation program, that “the facility does not have the potential to appreciably reduce the likelihood of the survival or recovery of any threatened or endangered species” listed under Oregon statutes.

Exhibit R addresses this standard. A total of 10 sensitive plant species were identified as potentially occurring within a 50-mile radius of the site on the basis of a database search. None of these species was located during field surveys of the Project environs, and none were observed to occur within the Impact Area for threatened and endangered species identified in the Project Order. Thus, the Project will not present any potential for adverse impacts to sensitive, threatened, or endangered plant species.

Historic Preservation

ORS 97.750 prohibits excavating a native Indian cairn or grave, except in compliance with specific procedures. Based on our current knowledge, the Project will not necessitate excavation and reinterment of native Indian objects and human remains. Applicant will comply with ORS 97.750 if native Indian cairns or graves are encountered during construction.

ORS 390.235 requires a permit issued by State Parks and Recreation Department prior to excavating or altering an archaeological site on public lands, making an exploratory excavation on public lands to determine the presence of an archaeological site or systematically removing from public lands any material of an archaeological, historical, prehistorical, or anthropological nature. No such excavations on public lands are expected.

ORS 358.905 through 358.955 regulate the excavation of archaeological sites and the sale of archaeological objects. Three sections regulate private conduct. ORS 358.920 establishes requirements for excavating archaeological sites on public lands and private property, and regulates the sale of archaeological objects obtained from land within the state. ORS 358.940 requires that native Indian remains disturbed at an archaeological site must be reinterred under the supervision of an Indian tribe. ORS 358.950 establishes notification requirements for excavation of a prehistoric or historic American Indian archaeological site.

No excavation of archaeological sites covered by this statute is anticipated. If any such archaeological site is encountered, Applicant will comply with the terms of the statute.

State Lands

ORS 196.800 through 196.990 require that a permit be obtained from the Division of State Lands prior to removing more than 50 cubic yards of material from the bed or banks of a waterway, or filling 50 cubic yards or more of material in the waters of the state.

Exhibit H concludes that no fill or removal within the meaning of the statute will be required as a part of the Project.

Land Use

As discussed in **Exhibit I**, the Project constitutes permitted uses under the applicable land use comprehensive plans and ordinances. The applicable plans, adopted by Umatilla County and the City of Umatilla, have been acknowledged by LCDC.

Health Services

The Project Order references ORS 448.131 and OAR 333-61-050 (preconstruction approval for public domestic water supply); ORS Chapter 624 and OAR 333-161-000 (licensing and review of plans for food service facilities); and ORS Chapter 446, OAR Chapter 333, Divisions 29 and 31, and OAR Chapter 918, Division 650 (licensing of facilities providing travelers' accommodations).

Exhibit B describing the Project shows that no facilities requiring Health Services approval are included.

Building Codes

The Project Order references ORS Chapters 455, 447, 460 and 480, and ORS 479.510, and OAR Chapter 918, Divisions 225, 290, 301,302, 400, 440, 460, 750, 770 and 780. These standards address building, mechanical and plumbing codes, electrical safety, elevator safety, and boiler/pressure vessel safety.

Exhibit B addresses design and safety features of the Project, and stipulates that the Project comply with all applicable structural, seismic, fire and life safety, boiler and pressure vessel codes.

Natural Gas Pipeline and Transmission Line Safety

The Project Order references ORS 757.035, 757.039 and 757.541 through 757.571, OAR Chapter 860, Division 24, and OAR 860-28-005. These standards regulate construction and operation of transmission lines and natural gas pipelines, excavation for underground utility facilities and reporting of accidents.

Exhibit B to the SCA addresses design and safety features, and incorporates a stipulation that the Project will comply with applicable standards for constructing and operating transmission lines and natural gas pipelines.

EXHIBIT BB

ALTERNATIVE SITES - OAR 345-21-15(1)(bb)

The Project is not a pipeline or transmission line as defined in ORS 469.300. Therefore, a study of alternatives is not applicable to the Project.

EXHIBIT CC

OTHER INFORMATION REQUESTED IN PROJECT ORDER - OAR 345-21-15(1)(cc)

The following Exhibit discusses additional information requested by the EFSC in Paragraphs 14 through 19 of the Project Order.

PROJECT ORDER PARAGRAPH 14(A)

The requested stipulation is included in Exhibit B.

PROJECT ORDER PARAGRAPH 14(B)

The requested conceptual design drawings and associated information is provided in Exhibit B.

PROJECT ORDER PARAGRAPH 15

Exhibit B includes a statement that Applicant will obtain the services of a registered architect or engineer as required by ORS Chapter 671.

PROJECT ORDER PARAGRAPH 16

Exhibit G gives serious consideration to the geologic work by Mann and Pogue.

PROJECT ORDER PARAGRAPH 17

The Cooling Water Reuse Land Application Management Plan provided with Exhibit M includes the information required by DEQ to comply with the "Checklist for Land Application of Industrial Wastewaters."

PROJECT ORDER PARAGRAPH 19(i)

Exhibit P includes a discussion of the type and design of protective measures that which will be provided at transmission towers to minimize the potential for raptor electrocution.

PROJECT ORDER PARAGRAPH 19(ii)

A copy of the biological survey conducted for the impact area, *Vegetation and Wildlife Investigation, Hermiston Generating Project* (Woodward-Clyde, 1992), is attached as Appendix P-1.

PROJECT ORDER PARAGRAPH 19(iii)

As explained in Exhibit R, a search of the Oregon Natural Heritage Program (ONHP) data base for sensitive plant species was conducted to develop a search list for plant species that might potentially occur within the Project's Impact Area. This list was expanded to include a 50-mile radius from the Project site. The list of species identified in this search is shown in Table R-2 of Exhibit R.

