

3.12 Summary of Mitigation Measures

Table 3.12-1 summarizes the mitigation measures discussed in this section.

**Table 3.12-1
Summary of Mitigation Measures**

Resource	Mitigation Measure
Soils	
	S-1: Restrict construction traffic to the defined ROW.
	S-2: Restrict the pipeline construction ROW width to 75 feet in the Wanser loamy fine sand and Winchester sand units where the natural gas supply/ <i>plant</i> discharge <i>water</i> pipeline route crosses native vegetation communities.
	S-3: Use measures such as topsoil matting, planting of cover crops, or soil binder in the Wanser loamy fine sand and Winchester sand units along the southern portion of the natural gas supply/ <i>plant</i> discharge <i>water</i> pipeline routes to reduce wind erosion.
	S-4: Segregate the stripped topsoil separately from the trench spoil;
	S-5: Remove all excess large-size rock from the upper 12 inches of the soil to the extent practical in agricultural and residential areas.
	S-6: Excess pipeline trench rock would be placed in a landowner-approved location.
Vegetation/Land Cover	
	VLC-1: The revegetation mixture applied to disturbed soils on the Wanaket Wildlife Area would conform to the future management objectives for the site as described by the Wildlife Area Management Plan (CTUIR and BPA 2001b).
	VLC-2: A pre-construction weed inventory would be completed along the approved pipeline route to determine the location of weed populations within and adjacent to the construction ROW. Excavation equipment would be cleaned (air pressure hoses, or wash stations) after crossing weed infestation areas and entering weed-free areas. All soil excavated from weed-infested areas would be replaced in the same location.
	VLC-3: Any hay used as mulch would be certified as weed-free prior to application.
Wildlife	
	W-1: Prior to construction activities during the raptor breeding season (March 1 - June 30), breeding raptor surveys would be conducted by a qualified biologist through areas of suitable nesting habitat to identify any potentially active nest sites within 0.5 mile from the project area. If applicable, appropriate protection measures, including seasonal constraints and establishment of buffer areas would be implemented at active nest sites until the young have fledged and have dispersed from the nest area. These measures <i>would</i> be implemented on a site-specific and species-specific basis, in coordination with CTUIR and Wanaket Wildlife Area biologists.
	W-2: Standard, safe designs as outlined in Mitigating Bird Collision with Power Lines (APLIC 1994) would be incorporated in the design of the electrical distribution lines to prevent collision to foraging and migrating bird species with the project area, in coordination with CTUIR and Wanaket Wildlife Area biologists. Design features would include the configuration of the route to avoid partitioning foraging and resting habitat, alignment of overhead groundwire to the same height as the conductors, and the use of markers to increase the visibility of the lines to birds.

Table 3.12-1 (Continued)

Resource	Mitigation Measure
Wildlife (continued)	
	W-2: Standard, safe designs as outlined in Mitigating Bird Collision with Power Lines (APLIC 1994) would be incorporated in the design of the electrical distribution lines to prevent collision to foraging and migrating bird species with the project area, in coordination with CTUIR and Wanaket Wildlife Area biologists. Design features would include the configuration of the route to avoid partitioning foraging and resting habitat, alignment of overhead groundwire to the same height as the conductors, and the use of markers to increase the visibility of the lines to birds.
	W-3: Prior to construction activities during the avian breeding season (March 1 - June 30), avian breeding surveys for long-billed curlew, grasshopper sparrow, loggerhead shrike, and western burrowing owl would be conducted by a qualified biologist through areas of suitable nesting habitat to identify any potentially active nest sites within 0.25 mile from the project area. If applicable, appropriate protection measures, including seasonal constraints and establishment of buffer areas would be implemented at active nest sites until the young have fledged and have dispersed from the nest area. These measures would be implemented on a site-specific and species-specific basis, in coordination with CTUIR Wanaket Wildlife Area biologists.
	W-4: Prior to construction activities through suitable breeding habitat for special status reptile and amphibian species, occurrence surveys for western painted turtle, western toad, Woodhouse's toad, and northern leopard frog would be conducted by a qualified biologist to determine presence. If present, appropriate protection measures could include rerouting the pipeline ROW to avoid breeding habitat, in coordination with CTUIR and Wanaket Wildlife Area biologists.
Transportation	
	T-1: Implement partial plant site shift changes to reduce the number of personal vehicles that queue at the Beach Access Road/U.S. Highway 730 intersection.
	T-2: Time major construction material deliveries to off-peak hours (early morning, late evening) to prevent local congestion on U.S. Highway 730.
	T-3: A site-specific construction traffic flow plan would be submitted to the Oregon DOT that documents the present traffic volumes, expected volume of project construction traffic, and the intersections to be used. If warranted by this study, the width of the U.S. Highway 730 at the Beach road intersection (or other intersections) would be expanded to provide left-hand and right-hand turn lanes.
Cultural Resources	
	<i>C-1: Upon concurrence from the SHPO/THPO, adverse effects to three NRHP – eligible elements (A-line Canal, the Feed Canal, and the Furnish Ditch) would be avoided by horizontally boring under these features rather than trenching through them.</i>
	<i>C-2: The CTUIR Cultural Resources Protection Program (CRPP) considers the Wanapa Energy site to be a Traditional Cultural Property (TCP). Therefore, the CRPP would: 1) ensure that a CRPP Tribal Monitor is present during all ground disturbing activities; 2) the CRPP would be consulted throughout the entire planning and construction process until the project is completed; and 3) the CRPP would participate in appropriate mitigation planning to maintain traditional uses of the site and/or develop appropriate mitigation plans, as necessary.</i>