

3.15 VISUAL QUALITY AND AESTHETICS

This section evaluates visual resources in the areas through which the proposed pipeline would travel. The pipeline would traverse land managed by the USFS, BLM, the State of Washington, and private landowners. The methodology used to assess scenic resources and impacts generally conforms to the Visual Management System (VMS) developed by the USFS (n.d.) and the BLM's visual resource management program (1980).

Regional topography, landscape cover, and the proposed routing information were analyzed. Fieldwork consisted of driving and hiking the area to qualitatively determine general visibility of the pipeline corridor and related facilities from residences, major roads, and other potential sensitive viewpoints. Viewer types and their general sensitivity to visual changes were assessed.

Portions of the pipeline pass through USFS land. The USFS has developed its own VMS to inventory and manage the visual resources on National Forest lands. (USFS 1990a, 1990b.) The visual management inventory consists of three steps: landscape character type, variety class, and sensitivity levels of viewers overlain on distance zones. These steps are combined and interpreted to develop Visual Quality Objectives (VQOs). VQOs are described in the following section where the pipeline would pass through USFS land.

3.15.1 Affected Environment

3.15.1.1 Existing Visual Resources, Potential Viewers, and Viewing Patterns

At a regional level, the landscape settings are determined by topography, which establishes overall visual character at a broad scale. In western Washington, the pipeline would traverse low-lying lands and foothills with evergreen vegetation. Trees on the western side of the mountains tend to be predominantly Douglas fir, with ponderosa pine dominating on the eastern side. Lands in eastern Washington include large undeveloped areas and agricultural fields of dryland and irrigated crops. The proposed pipeline route was divided into segments based on visual settings. As the visual setting of the pipeline route changed, a new segment was identified.

The visual settings for selected segments of the pipeline, along with the potential viewer groups and viewer sensitivity, are described below. The ASC describes specific criteria for visual quality and visual/viewer sensitivity (OPL 1998). Milepost numbers given below are approximate and based on the current proposed pipeline centerline.

Visual Characteristics of Pipeline Corridor Segments. Table 3.15-1 summarizes the existing visual conditions along the entire pipeline. Segments of the pipeline with high viewer sensitivity or visual quality, and where high visual impacts are likely to occur, are highlighted in the following text discussion.

Table 3.15-1. Summary of Affected Environment for Visual Resources, Proposed Pipeline Route

Segment and Mileposts	Visual Quality	Viewer Sensitivity	Viewer Types	General Visual Setting of Pipeline Corridor
Segment 1 (MP 0.0 - 8.15)	M	H	Residents, ag. workers, local travelers, indust./comm. workers, recreationists (golf course)	Corridor begins in wooded urban/rural residential area; runs east along clearcut BPA corridor.
Segment 2 (MP 8.15 - 9.3)	M	M	Few viewers; ag. workers	Utility corridor; visual features include streamside veg. along Snoqualmie River; uniform hayfield/ pasture in floodplain.
Segment 3 (MP 9.3 - 11.9)	M	M	Few viewers	Utility corridor; similar to Segment 1 but less visually diverse.
Segment 4 (MP 11.9 - 13.0)	M	M	Travelers on W. Lake Kayak Rd. and Kayak Lake Rd.; few viewers	Departs corridor and crosses regenerating forest, enters rural residential area; veg. includes mixed forest, palustrine wetlands.
Segment 5 (MP 13.0 - 21.0)	M	H	Travelers on residential roads; most residences do not directly view BPA corridor	BPA utility corridor through rural residential area; mixture of forest and open space.
Segment 6 (MP 21.0 - 23.45)	L	M	Power and forest products company personnel, a few local residents	Forest road corridor (2nd and 3rd growth trees).
Segment 7 (MP 23.45 - 25.2)	H	H	A few rural residents, local travelers on Tolt River Rd NE, recreationists on Tolt River	Corridor crosses scenic forest; setting has varied topography, diverse veg.
Segment 8 (MP 25.2 - 25.9)	L	M	Forest company personnel, local travelers	Private road corridor through clearcuts, regenerating forest of generally low visual quality.
Segment 9 (MP 25.9 - 26.8)	L	L	Power company maintenance personnel	BPA utility corridor through clearcut forest.
Segment 10 (MP 26.8 - 27.15)	M	L	Few viewers	BPA corridor with more diverse topography and veg. along Griffin Creek; slightly higher visual quality than Segments 10 and 12.
Segment 11 (MP 27.15 - 28.05)	L	L	Travelers on unimproved road; few viewers	BPA corridor through uniform regenerating forest.
Segment 12 (MP 28.05 - 31.7)	L	L	Forest company personnel; a few local residents on unimproved roads; few viewers	Logging road corridor through coniferous and regenerating forest, wetlands.
Segment 13 (MP 31.7 - 32.1)	M	M	A few rural residents, local travelers, forest workers	Corridor passes through rural residential area, crosses Tokul Creek.
Segment 14 (MP 32.1 - 33.7)	M	M	Primary viewers are travelers on 396th Ave.; others include residents, quarry and sawmill workers, local travelers, recreationists using Snoqualmie River	Corridor follows 396th Ave. (county road) between rural residential area, rock quarry, Weyerhaeuser sawmill; departs road near MP 33.6; runs down vegetated slope to join railroad bed (Cedar Falls Trail).
Segment 15 (MP 33.7 - 41.0)	H	H	Residents, recreationists, travelers, workers	Follows Cedar Falls Trail across Snoqualmie River, through to golf course, through King County open space and North Bend, crosses I-90 and SF Snoqualmie River, passes through residential area, crosses a creek.
Segment 16 (MP 41.0 - 42.5)	M	H	Rural residents, I-90 travelers	Corridor crosses wooded area, passes adjacent to Twin Falls State Park, connects to abandoned railroad bed (John Wayne Trail).
Segment 17 ^a (MP 42.5 - 43.9)	M	H	Recreationists (hikers, mt. bikers); no views from I-90	John Wayne Trail corridor; dramatic topography, uniform coniferous forest.

Segment and Mileposts	Visual Quality	Viewer Sensitivity		Viewer Types	General Visual Setting of Pipeline Corridor
Segment 18 (MP 43.9 - 45.9)	H	H		Recreationists at state park; no I-90 views	Mt. Baker-Snoqualmie Natl. Forest land managed as "Scenic Forest"; portion follows Homestead Rd. next to Olallie State Park.
Segment 19 ^b (MP 45.9 - 48.9)	H	H		Recreationists	Corridor follows road back to John Wayne Trail corridor, which is screened from I-90 view.
Segment 20 ^b (MP 48.9 - 50.7)	M	H		Trail users and I-90 travelers	John Wayne Trail corridor, descends through forested slope to Tinkham Rd.
Segment 21 ^b (MP 50.7 - 54.9)	H	H		Recreationists at campground and trailhead	Tinkham Rd. corridor past Tinkham Campground, Asahel Curtis Trail, Annette Lake Trailhead; steep topography, mixed forest, river and creeks.
Segment 22 ^b (MP 54.9 - 56.2)	M	H		Recreationists using John Wayne Trail and I-90 travelers	Utility corridor in mountainous forested setting.
Segment 23 (MP 56.2 - 56.7)	M	H		Trail users	John Wayne Trail corridor through forest.
Segment 24 ^b (MP 56.7 - 59.0)	L	H		Recreationists	Snoqualmie Tunnel.
Segment 25 ^b (MP 59.0 - 73.35)	H/M	H		Workers, I-90 travelers, recreationists, forest and utility company personnel	Corridor follows John Wayne Trail through residential development, ski area, and along Keechelus Lake; Wenatchee Natl. Forest land managed under Visual Quality Objectives. Beyond MP 64, corridor is through forest and clearcut areas.
Segment 26 (MP 73.35 - 75.8)	M	L		Forest company and utility personnel	Departs John Wayne Trail, passes through forest, wetlands, utility/forestry clearings.
Segment 27 ^b (MP 75.8 - 98.9)	M/L	L/H		Forest company and utility personnel, workers, travelers, recreationists	Most of segment is in BPA utility corridor 500 feet wide, through commercial forest, farmland, rangeland; numerous unimproved roads cross corridor. At MP 95.8, corridor crosses under I-90, travels downslope, crosses recreational trail, Yakima River, and SR 10; end of segment is in scrub-steppe.
Segment 28 (MP 98.9 - 100.4)	H	M		Occasional recreationists	BPA corridor across Swauk Creek; steep scenic canyon with oak habitat.
Segment 29 (MP 100.4 - 107.7)	L	L		Travelers on Hwy.97	Hilly rangeland, little veg. or water features.
Segment 30 ^c (MP 107.7 - 149.14) <i>Includes three alternatives for approaching Columbia River</i>	L	North of I-90	L	Rural residents, agricultural workers, I-90 travelers, recreationists, military personnel	Corridor passes through pasture/rangeland, farm fields, numerous creek crossings. For three alternatives, two are rangeland adjacent to I-90, one is rangeland/undeveloped Ginkgo State Park land.
	M	South of I-90 up to MP 127.0	H		
	M	YTC fence after MP 127.0	H		
	L	YTC rangeland after MP 127.0	L		
	M	After MP 142.5	H		

Segment and Mileposts	Visual Quality	Viewer Sensitivity		Viewer Types	General Visual Setting of Pipeline Corridor
Segment 31 ^{a d} (MP 149.4 - 150.0) <i>Includes five alternatives for crossing Columbia River</i>	M	Dredging	H	River recreationists	Minimal veg. and visual features exist along riverbanks.
	L	I-90 Bridge	H		
	M	HD Drilling	H		
	L	RR Bridge	H		
	L	Wanapum Dam	H		
Segment 32 ^d (MP 150.0 - 151.8) <i>Includes five alternative corridor locations, depending on selected Columbia River crossing method</i>	M	North of I-90	H	River recreationists	Corridor located along riverbank and/or across rangeland.
	L	I-90 to Hwy. 243	M		
	L	Hwy. 26 to Beverly	L		
	L	Wanapum Dam	M		
	L	RR Bridge	M		
Segment 33 ^{d e} (MP 151.8 - 221.0)	M	M		Farm residents, local travelers	Corridor parallels Beverly-Burke Rd., passes through industrial areas of Royal City, follows SR 26, crosses near Columbia NWR, through ag. fields; landscape includes farmsteads, country roads, rolling hills, irrigated farmland, grazing land. High variety of veg. types, colors, patterns, textures year-round.
Segment 34 ^d (MP 221.0 - 227.5)	M	L		Agricultural workers, travelers along Hwy. 395, and local roads	BPA corridor through irrigated ag. fields; crosses Hwy. 395 and local roads.
Segment 35 ^d (MP 227.5 - 231.0)	M	L		Farm residents, travelers, workers at NW Terminalling Co. storage facility	Ag. fields, Pasco industrial area, crossing of Hwy. 12 and local roads; visual character similar to Segment 34.
Notes: L = low, M = moderate, H = high. Portions between MP 45 and 75 are within USFS lands. ^a The segment crosses federal lands administered by the U.S. Bureau of Land Management ^b The segment crosses federal lands administered by the U.S. Forest Service ^c The segment crosses federal lands administered by the U.S. Department of Defense (Yakima Training Center) ^d The segment crosses federal lands administered by the U.S. Bureau of Reclamation ^e The segment crosses federal lands administered by the U.S. Fish and Wildlife Service * Mileposts are approximate. Source: Based in part on information provided by Dames & Moore for OPEs Application for Site Certification.					

Segment 7 - Tolt River Vicinity. Both visual quality and viewer sensitivity are high in this segment. At this point, the pipeline would cross a scenic forest area before rejoining another private forest road. The area is scenic with great variation in topography as it slopes down to the Tolt River. The diverse vegetation includes coniferous forest, mixed forest, pasture, riparian growth along the river, and patches of wetland. Viewers include a few rural residents located near the river, local travelers on Tolt River Road NE, and recreationists using the Tolt River.

Segment 15 - Cedar Falls Trail, Snoqualmie River, Mount Si Area. This segment is the most scenic of the entire pipeline corridor. Both visual quality and viewer sensitivity are high. It follows a railroad bed (Cedar Falls Trail) across the Snoqualmie River (MP 34), runs through Mount Si Golf Course (MP 35), passes through King County open space, passes through the City of North Bend (MP 36), runs adjacent to school/playfields (MP 36.8) and regional business/industrial parcels, crosses I-90 and the South Fork of the Snoqualmie River, passes through a wooded residential area (MP 39.2) then around a wooded hillside (adjacent to I-90), and crosses Boxley/Christmas Creek.

Viewers include residents, recreationists (golfers, river users, trail hikers, etc.), regional and local travelers, industrial/commercial workers, and agricultural workers. Views exist where local roads cross the railroad bed and from higher overlook locations such as recreational trails leading up to Mount Si.

Segments 17 through 20 - Twin Falls State Park, John Wayne Trail Area to Tinkham Road. Visual quality in these segments is moderate to high, and viewer sensitivity is high. After departing from the railroad bed, the pipeline would cut through coniferous trees, follow a county road for 457.2 m (1,500 feet), traverse up a wooded slope through Twin Falls State Park (MP 41.7 to 41.9), and connect to the John Wayne Trail (an abandoned railroad bed). Viewers of the clearcut portions of the pipeline corridor include rural residents (foreground view range) and regional travelers along I-90 (middleground view range).

After MP 42.5, the pipeline would continue along the elevated John Wayne Trail. Topography here is dramatic, but vegetation is mainly uniform coniferous forest. Viewers include recreational hikers and mountain bikers using the trail. Because the trail is surrounded by forest on both sides, and is upslope from I-90, no view exists from the freeway.

From MP 43.9 to 45.9, the pipeline would enter the Mt. Baker-Snoqualmie National Forest. This area is managed under the VQO classification of **AScenic Forest** in which forest activities are to **Retain or enhance viewing and recreational experiences.** At MP 43.8, the pipeline would temporarily leave the John Wayne Trail and travel downslope to follow the ditch-line of a paved county road (Homestead Road). The road is adjacent to Olallie State Park which receives much day use and overnight camping. Visual quality along this segment is high because of the steep mountains, forest, and a meandering river through a canyon. Viewers include recreational users accessing the park. Views of the pipeline corridor are screened by dense vegetation from regional I-90 travelers.

Near MP 46, the pipeline would follow an upslope road and reconnect to the elevated John Wayne Trail, which is screened from I-90 view. Primary viewers along the entire segment consist of recreationists having high visual sensitivity.

The pipeline would continue along the John Wayne Trail to MP 48.9, where it would descend and cut through a forested slope to connect to Tinkham Road. Viewers are trail users and regional travelers on I-90.

Segment 21 - Tinkham Campground and Curtis/Annette Lake Trailhead Area. The pipeline would follow graveled Tinkham Road, passing Tinkham Campground, Asahel Curtis Interpretive Trail, and Annette Lake Trailhead, then turning up to the BPA corridor. Visual quality is high due to the steep topography, mixed deciduous/coniferous forest, and the meandering Snoqualmie River, Alice Creek, and Humpback Creek. Viewers consist of recreationists using Tinkham Campground and Curtis/Annette Lake Trailhead. On weekends, 300 to 400 people use the trailhead, and parking extends down Tinkham Road.

Segments 23, 24, and 25 - John Wayne Trail Corridor, Snoqualmie Tunnel, to Keechelus Lake. The pipeline would follow the elevated John Wayne Trail through coniferous forest interspersed with large patches of regenerating forest. The viewers of Segment 23 are generally trail users.

From MP 56.7 to 59.0, the pipeline would enter an abandoned railroad tunnel (Snoqualmie Tunnel). Viewers are recreationists within the tunnel, but there are no views within the tunnel. After leaving Snoqualmie Tunnel, the pipeline would continue to follow the John Wayne Trail through a mountain planned-unit development, the Hyak ski area, and travel along the shoreline of Keechelus Lake. Segment 25 would be located in the Wenatchee National Forest and would cross areas managed under the VQO classes of **A**Scenic Travel - Retention (ST-1)@, **A**Scenic Travel - Partial Retention (ST-2)@, **A**Riparian Zone (EW-2)@, and **A**General Forest (GF)@.

Under the **A**Retention@VQO, developments and forest management activities are generally not visually apparent in the foreground and middleground from developed recreation sites and designated roads and trails. In **A**Partial Retention@ areas, visual changes are to appear as **A**natural@(evident, but compatible) in the foreground and middleground along scenic travel corridors. Visual quality in this segment is high. Viewers are commercial workers, regional travelers along I-90, and a variety of recreational participants (hikers, skiers, mountain bikers, etc.). Travelers along I-90 have middleground views across Keechelus Lake of the pipeline corridor.

After MP 64, the pipeline would travel through coniferous and regenerating forest. Many clearcut utility corridors cross the area. Viewers include recreationists following the Iron Horse State Park/John Wayne Trail and forest or utility company personnel.

Portion of Segment 27 - Yakima River Area. Near MP 95.8, the pipeline would cross under I-90, travel downslope, cross a recreation trail (used by hikers, horse-drawn buckboards, etc.), cross the Yakima River, cross State Route 10, and ascend a steep slope. Viewers of this segment include forest and utility personnel, agricultural workers, local and regional travelers, and recreationists. Travelers on the recreation trail and State Route 10 and recreationists on the Yakima River have views of the pipeline corridor on the steep slopes facing the river. The pipeline would then travel through rangeland with scrub-steppe vegetation.

Pump Stations. The proposal includes five pump stations plus one at the Kittitas Terminal. Visual conditions of each pump station site, and viewers, are described below.

Thrasher Station (Segment 1, MP 0). The site is located adjacent to Puget Sound Energy ROW. The area has rolling topography and fairly diverse vegetation. Viewers include residents, but views of the station are blocked by surrounding forest. Visual quality and viewer sensitivity are high.

North Bend Station (Segment 15, MP 35.25). This site is located in an urban area between Cedar Falls Trail (abandoned railroad) and the USFS North Bend Ranger Station. Visual quality is low, while viewer sensitivity is high. The site is near an existing electrical substation and is visually screened from the Cedar Falls Trail by a vegetated area 12.2 m (40 feet) wide. Viewers consist of recreationists on the trail; however, most views of the site are screened.

Stampede Station (Segment 26, MP 67.1). This site is located in a partially cleared forest meadow. Visual quality within this area is moderate. Viewers are recreationists using the John Wayne Trail and forest products company personnel. Viewer sensitivity is high.

Beverly-Burke Station (Segment 33, MP 154.1). This site is located in rangeland that is not currently cultivated. The land surrounding the site is cropland and shrub-steppe rangeland having moderate visual quality. Viewers include a few local travelers along the Beverly-Burke Road. Visual quality is moderate; viewer sensitivity is low.

Othello Pump Station (Segment 33, MP 189.85). The Othello Pump Station would be located near State Route 24 at the corner of McKinney Road and a minor dirt road. Visual conditions and viewer types are similar to the Beverly-Burke Station. Visual quality is moderate, and viewer sensitivity is low.

Kittitas Terminal. The terminal would be constructed on a 10.9 ha (27-acre) site currently used for irrigated agriculture north of I-90 and east of Badger Pocket Road. Viewer sensitivity is high. Although the site is flat, visual quality is moderate due to the variety of color and patterns present throughout the year from agriculture. Viewers include travelers on the interstate. Westbound views are open, while eastbound views are partially screened by fill slopes of the Badger Pocket Road overcrossing. Overlooking views are particularly evident for travelers exiting on the off-ramp for Kittitas. Secondary viewers include agricultural workers.

3.15.1.2 Light and Glare

Existing light and glare levels vary at each of the six proposed pump station sites. Two of the sites, Thrasher and North Bend, would be located in areas of potential residential viewers. The Thrasher Station would be located in wooded surroundings, and the North Bend Station would be open to a new residential development planned for an adjacent site. The remaining sites (Stampede, Kittitas, Beverly-Burke, and Othello) would be located in remote sites having few viewers. The proposed Stampede Station would be located in forested surroundings, and the other three sites are in open range or agricultural surroundings.

The Kittitas Terminal site is an open agricultural field adjacent to I-90 and Badger Pocket Road which leads to Kittitas. Presently, some ambient light has been introduced to the area by overhead highway lights mounted on standard 12.2 m (40-foot) high side-arm poles located at the highway overpass and off-ramps.

3.15.2 Environmental Consequences

Visual impacts of the pipeline would be most noticeable during construction, when viewers would observe corridor clearing (where necessary), trenching operations, placement of pipe sections, backfilling/compaction, and vegetation seeding and restoration. After construction, visual impacts would depend on the amount of visual contrast created by trench scars relative to the amount and type of vegetation that was removed, local conditions affecting revegetation (slope steepness, soil type, rainfall, etc.), and exposure of viewers to the pipeline corridor. OPL is proposing various steps to minimize impacts, including:

- # stockpiling topsoil to speed regeneration of vegetation,
- # creating irregular corridor edges,
- # providing visual screening vegetation around facilities, and
- # using earth-tone colors for above-ground devices along the pipeline to blend with the natural surrounding.

Visual impacts generalized for the pipeline route are summarized below. See Figure 3.15-1 for pipeline ROW impacts through rangeland. The ASC describes specific criteria used to assess visual impacts (OPL 1998).

3.15.2.1 Proposed Petroleum Product Pipeline

Visual Impacts along Pipeline Corridor. Table 3.15-2 summarizes visual impacts along the pipeline corridor. Because visual conditions vary highly within route segments, a general overview of visual impacts based on landscape settings is provided below.

Pipeline Route in Utility Corridor. Much of the pipeline would follow existing utility corridors where visual impacts would be low. The BPA corridors are typically several hundred feet wide, and little new clearing of trees would be required. The growth of trees and large shrubs is limited within these maintained corridors, so pipeline trench scars would return to grass and small shrubs within a few years and not be noticeable within the larger corridor.

Pipeline Route through Residential Areas. At several locations along the corridor, the pipeline would pass through suburban and rural residential areas, such as Woodinville and North Bend. In general, visual impacts in these areas would be moderate. Residential viewers have high viewer sensitivity, but since the pipeline would typically follow powerline or old railroad corridors, visual disturbances would not be seen unless crossing the corridors or from elevated residences, public gathering sites (schools, etc.), and commercial/industrial sites. Many of the areas

INSERT FIGURE 3.15-1

Table 3.15-2. Summary of Visual Impacts per Pipeline Route Segment

Segments	Existing Conditions		Visual Impacts		Comments
	Visual Quality	Visual Sensitivity	Impacts During Construction	Operational Impacts After Restoration	
1	M	H	M	L	Varied and sensitive viewers; screened views; some shrub clearing; impacts to Echo Falls Country Club
2	M	M	L	L	Limited view exposure; some shrub clearing within BPA corridor
3	M	M	L	L	Limited view exposure; patches of regen. forest; some shrub clearing
4	M	M	M	L	Limited view exposure; disturbed setting; some tree clearing
5	M	H	L	L	Limited view exposure; some shrub clearing within BPA corridor
6	L	M	L	L	Some view exposure; disturbed setting; disturbance to forest road
7	H	H	H	M	Scenic setting; moderate view exposure; tree cuts on creek slopes
8	L	M	L	L	Limited view exposure; disturbed surroundings; disturbance to forest road
9	L	L	L	L	Limited view exposure, disturbed setting; disturbances to forest road
10	M	L	M	M	Limited view exposure; some tree clearing on creek slopes
11	L	L	L	L	Limited view exposure; disturbed setting; some shrub clearing in BPA cor.
12	L	L	L	L	Limited view exposure; disturbed setting
13	M	M	M	L	Cuts on forested slopes, moderate view exposure
14	M	M	M	L	Moderate view exposure to sawmill workers/residents; disturbances to county road; short impact duration
15	H	H	H	L	High view exposure to trail users/some residents; short impact duration; impacts to Cedar Falls Trail, Mount Si Golf Course
16	M	H	H	H	Cuts on forested slopes; high viewer exposure to residents & I-90 travelers; forest cover expected to screen corridor from view of recreationists at Twin Falls State Park
17 ^a	M	H	H	L	Visual impacts to John Wayne Trail (heavily used); short impact duration; no view from I-90
18	H	H	H	L	Visual impacts to Olallie State Park recreationists; short impact duration; views from I-90 screened by veg.
19 ^b	H	H	H	M	Minor cuts on forested slope; disturbances to forest road
20 ^b	M	H	H	H	High view exposure to JWT users; I-90 travelers would have

Table 3.15-2. Summary of Visual Impacts per Pipeline Route Segment

Segments	Existing Conditions		Visual Impacts		Comments
	Visual Quality	Visual Sensitivity	Impacts During Construction	Operational Impacts After Restoration	
					potential views of corridor cut on forested slope (foreground to middleground)
21^b	H	H	H	M	Visual disturbances to Tinkham road/recreationists, tree cuts on connecting spurs between trail and utility corridor
22^b	M	H	M	M	Some cuts on forested slope for BPA connection; some viewer exposure
23	M	H	H	L	Visual impacts to John Wayne Trail (heavily used); short impact duration
24^b	L	H	H	L	Temporary visual disturbances/JWT closure through Snoqualmie tunnel
25 < MP 62.5 ^b >MP 62.5 ^b	H M	H H	H H	L L	Potential views from Hyak Ski Area; visual impacts to JWT users; diverse viewers in area; short impact duration
26	M	L	M	M	Some tree clearing; disturbed setting; limited view exposure
27 < MP 95 ^b MP 95-96 >MP 96	M M L	L H L	M H L	L M L	Some tree cutting, but mostly within BPA corridor; limited view exposure Visible disturbances to slopes along Yakima River; diverse viewers Rangeland scarring; moderate recovery time; limited view exposure
28	H	M	M	M	Oak cuts on slope of Swauk creek; permanent scars, limited view exposure
29	L	L	L	L	Rangeland scarring; mod. recovery time; limited views except MP 101.6
30 N. of I-90 ^{a,c} S. of I-90 <MP 127 YTC fenceline >MP 127 ^{a,c} YTC rangeland >MP 127 ^{a,c} >MP 142.5 ^{a,c}	L M M L M	L H H L H	M M M M L	L L L L L	Short impacts to farmland; rangeland scarring; limited view exposure Many road/creek crossing; diverse viewers; short impacts to farmland Rangeland scarring; mod. recovery time; scarring visible to I-90 travelers Rangeland scarring (Yakima Training Center); mod. recovery time; lim. views
31 Dredging^d I-90 Bridge^d	M L	H H	M L	L L	Dredging north of I-90 Bridge; construction along banks would be viewed by recreationists using the river Installing pipeline on side of I-90 Bridge; viewed by recreationists using the river, but visual quality of the river at the bridges is low.

Table 3.15-2. Summary of Visual Impacts per Pipeline Route Segment

Segments	Existing Conditions		Visual Impacts		Comments
	Visual Quality	Visual Sensitivity	Impacts During Construction	Operational Impacts After Restoration	
HDDrill^d	M	H	L	L	Crossing of Columbia by directional drill; would not include construction at the river bank. Installing pipeline on side of Beverly Railroad Bridge; viewed by recreationists using the river, but visual quality of the river at the bridges is low. Installing pipeline on side of Wanapum Dam
RR Bridge^d	L	H	L	L	
Wanapum Dam^d	L	H	L	L	
32 N. of I-90^d	M	H	M	L	Scarring to slopes facing Columbia River; rec. viewers; limited vegetation Scarring to slopes facing Columbia River; rec. viewers; limited vegetation Scarring to rangeland; limited viewers Scarring to slopes facing Columbia River; rec. viewers; limited vegetation Scarring to slopes facing Columbia River; rec. viewers; limited vegetation
I-90 to H 243^d	L	M	M	L	
H 26 to Beverly^d	L	L	L	L	
Wanapum Dam^d	L	M	M	L	
Railroad Bridge^d	L	M	M	L	
33^{d e}	M	M	M	L	Passes near many farm buildings, short recovery for scars in irrigated fields
34^d	M	L	L	L	Minimum disturbance in BPA corridor through ag. fields; res./hwy. viewers
35^d	M	L	L	L	Minimum disturbance to ag. fields/industrial area

Source: Based on OPL 1998.

Notes: L = low, M = moderate, H = high.

^a The segment crosses federal lands administered by the U.S. Bureau of Land Management
^b The segment crosses federal lands administered by the U.S. Forest Service
^c The segment crosses federal lands administered by the U.S. Department of Defense (Yakima Training Center)
^d The segment crosses federal lands administered by the U.S. Bureau of Reclamation
^e The segment crosses federal lands administered by the U.S. Fish and Wildlife Service

* Mileposts are approximate.

are also wooded so vegetation is anticipated to provide partial screening of construction activities. Visual impacts would be temporary, and construction scars are expected to recover within 2 to 3 years.

Pipeline Routed along Recreational Trails. For approximately 45 km (28 miles), the pipeline corridor would follow the Cedar Falls and John Wayne Trails. For most of this distance, the visual setting is mountainous terrain of moderate to high visual quality. These trails also receive heavy use by hikers, mountain bikers, skiers, and other recreationists who have high visual sensitivity. Construction of the pipeline would pose temporary but high visual impacts to these recreationists. Although tree cutting would be minimized, soil stockpiling on one side of the trench would cover herbaceous plants and extend into adjacent trees where the trail corridor is narrow. Disturbed vegetation within the trail corridors is expected to recover in 1 to 2 years.

Construction of the pipeline along recreation trails would temporarily exceed the USFS VQO of **ARetention@** and **APartial Retention@** within the Mt. Baker-Snoqualmie and Wenatchee National Forests. Visual changes would be evident in the foreground of recreation trails and forest cuts on slopes connecting the route between trails. Utility corridors would be visible in the middleground of primary scenic travel corridors such as I-90. For both **ARetention@** and **APartial Retention@** areas, these short clearcut connections would exceed the USFS VQO, but some impact reduction and visual blending can be achieved through mitigation measures.

Pipeline Routed along Forest Roads. Many miles of the pipeline would be routed along private forest company or USFS roads. Along forest company roads, visual impacts would be low due to an already highly disturbed natural setting. The numbers of viewers would be low and sensitivity levels of these viewers, mostly forest products workers, is also low. For example, along segments such as Tinkham Road maintained by the USFS, visual impacts during construction would be moderate to high. The road is heavily used by visually sensitive recreationists who are accessing campgrounds and trailheads. The duration of visual impacts, however, would be short term, and permanent scarring would be minor, other than where connections occur between the road and utility corridor as described above.

Pipeline Routed through Rangeland. A long portion of the pipeline corridor would pass through a visual setting of rangeland. Visual impacts within the rangeland setting are expected to be low, with temporary visual contrast of a linear trench scar of exposed soil across rolling topography of grass and low shrubs. The rangeland setting has lower rainfall than other settings, so scars may take years to revegetate with grass, but scarring would not likely be permanent or evident. Much of the rangeland is more remote than other settings, and few viewers would see the scarring except where the route parallels highways.

Pipeline Routed through Agricultural Land. A portion of pipeline would run through agricultural land, usually along section lines or dirt roads. Because the fields are routinely tilled, temporary visual disturbances caused by trenching would generally be visually compatible with the agricultural context of this setting. Many of the fields are irrigated, so trenching scars are expected to recover within 1 year or less. Moderate visual impacts would be created where the corridor passes adjacent to farm buildings at close viewing ranges, or runs along dirt roads.

Visual Impacts at Pump Stations

Thrasher Pump Station. Visual impacts would be low due to screening. If the pump building is seen, it would be similar in visual character to other residential metal sheds and buildings in the area.

North Bend Station. Visual impacts would be low. The adjacent BPA substation establishes a semi-industrial context, and the pump station would be screened by vegetation from the adjacent Cedar Falls Trail. The land north of the pump station has been rezoned to multi-family; however, the land is currently undeveloped. Figure 3.15-2 shows the existing view at the site; Figure 3.15-3 shows a simulated view with the station in place.

Stampede Station. Visual impacts would be low. Some tree clearing may be required, but existing trees and shrubs on the heavily wooded site are expected to screen the facility from the John Wayne Trail recreationists and all other viewer groups.

Beverly-Burke Station. The pump station site is located adjacent to the paved Beverly-Burke Road near an irrigated field and would not be screened. Visual impacts would be moderate. Figure 3.15-4 shows the existing view of the site; Figure 3.15-5 simulates the view with the station in place.

Othello Pump Station. The pump station site is located adjacent to an apple orchard and bounded by dirt roads on two sides. Even though the site would not be screened, visual impacts would be low due to very minimal traffic.

Kittitas Terminal. The Kittitas Terminal and pump station would have high visual impacts due to its industrial character in an area of agriculture and grazing, and its visual dominance from I-90. Figure 3.15-6 shows the terminal site under existing conditions and with the proposal.

Light and Glare. All of the proposed six pump stations and the Kittitas Terminal will require minimum security lighting in the range of 1 to 3 foot-candles, which will be directed down and inward on the property. Visual impacts from light and glare at the pump stations and the terminal would be low. In forested locations, surrounding vegetation would screen much of the light spillover. At more open locations, the low light levels would be compatible with the surrounding residential development or farmsteads. Because lighting will be directed downward, glare is not expected to create impacts.

Columbia River Approach and Crossing Options. There are three primary alternative routes to the Columbia River crossing: the proposed route would continue on the north side of I-90 across private land and undeveloped portions of the Ginkgo State Park land; the second and third alternative routes would be south of I-90 on the YTC. For the proposed route north of I-90, the corridor would be located out of view of I-90 travelers (see Section 3.14 for potential effects on recreational users at the state park during construction). Between MP 127.2 to 129.2, the pipeline route south of I-90 would follow the south side of I-90, and travelers are expected to see slope scarring when the route turns southeast and heads up a slope between MP 129.2 and 130.2.

INSERT FIGURE 3.15-2

INSERT FIGURE 3.15-3

INSERT FIGURE 3.15-4

INSERT FIGURE 3.15-5

The last portion of this segment (MP 129.2 to MP 144) passes through the Yakima Training Center. The landscape setting is hilly shrub-steppe which extends for miles with few, if any, landscape features of visual interest. One alternative route would be located near the northern fence line of the Yakima Training Center which would be within view of travelers on I-90, and then south along Hunsinger Road to a crossing at either Wanapum Dam or farther south at the Beverly Railroad Bridge. Travelers are expected to see slope scarring.

The second alternative route would be located farther to the south of I-90 and would head southeasterly. Primary potential viewers along this portion of the segment would be military personnel. The remaining portion of the segment passes near Getty's Cove private campground (located within 500 feet of the pipeline route) near MP 144.7, passes adjacent to the Wanapum Dam, and travels down a steep slope to the Columbia River. Slope scars are anticipated to be seen by recreationists using the river.

Where the pipeline route crosses the Columbia River, there are minimal vegetation and visual features along the river banks. The proposed construction method and crossing location is a horizontal directional drill south of Wanapum Dam. Because the proposed river crossing method is directional drilling, there will be no construction along the banks.

There are four other alternative construction methods and locations for crossing the Columbia River: dredging across the river north of the I-90 bridge; hanging the pipeline on the I-90 bridge; hanging the pipeline on the Wanapum Dam; and hanging the pipeline on the Beverly Railroad Bridge which is downstream from Wanapum Dam. The dredged crossing north of the I-90 bridge would include construction along the banks. Slope scars are anticipated to be seen by recreationists using the river. Installing the pipeline on the side of the existing I-90 bridge or the Beverly Railroad Bridge would be seen by recreationists using the river; however the visual quality of the river under the bridges is low and would not be further degraded by the existence of the pipeline along the side.

On the east side of the Columbia River, the pipeline route would be determined by the selected crossing location for the Columbia River. If the dredged crossing north of the I-90 Bridge is selected, the route would be located along the river bank to the west of I-90 and would turn south to the intersection of I-90 and State Route 243. Slope scars are anticipated to be seen by recreationists using the river. The pipeline from either the dredged crossing or the I-90 Bridge crossing would then be located on the east side of State Route 243. Slope scars would be visible to travelers on the roadway. At the intersection with State Route 26, the pipeline would turn to the southeast and diagonally cross rangeland until it reaches the Beverly Burke Pump Station. The directional drill route south of Wanapum Dam would cross State Route 243 and travel up a slope located 0.8 km (0.5 mile) east of highway. The route utilizing the Beverly Burke Railroad Bridge would be located adjacent to State Route 243 for approximately 0.4 km (0.25 mile) and then cross rangeland in a north/northeasterly direction until intersecting with State Route 26. Visual features are similar to Segment 29.

Cumulative Impacts. Cumulative impacts on visual quality and aesthetics are generally considered minor because the majority of the pipeline would be sited in existing utility corridors, existing forest roads, and along established section lines through agricultural land. Such corridors generally attract linear projects because they provide a route with easier access and generally lower

impacts than new corridors. However, continued use of existing corridors can result in a growing corridor width which can exacerbate visual impacts, depending on the location. This cumulative impact of previous and future corridor users will continue to create these conflicts. In general, such impacts are likely to be less than establishing a new corridor for each and every project, which would minimize corridor width but greatly increase the number of corridors required.

3.15.2.2 No Action

There would be no impacts to visual resources resulting from the No Action Alternative because existing visual conditions would not be altered as part of new pipeline construction. Increased barge operation and truck trips would not affect visual resources.

3.15.3 Additional Proposed Mitigation Measures

No additional mitigation measures beyond those already included as part of the project are proposed.

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