

3.9 Aesthetics, Light, and Glare

The aesthetic value of an area is based on the visual character and quality of the natural and human-made features of the site. It is also a function of viewers' perceptions of these features, which can vary according to how sensitive the viewer is and how much they are exposed to certain views. In a developed area, light and glare can also affect the visual landscape by detracting from the aesthetic quality and by interfering with adjacent land uses. For example, increased nighttime lighting can bother adjacent residents if the lighting is bright enough.

This section describes aesthetics, light, and glare in the study area. It then describes impacts on aesthetics, light, and glare that could result under the no-action alternative or as a result of the construction and routine operation¹ of the proposed action. Finally, this section presents any measures identified to mitigate impacts of the proposed action and any remaining unavoidable and significant adverse impacts.

3.9.1 What is the study area for aesthetics, light, and glare?

The study area for aesthetics, light, and glare consists of aesthetic resources on and near the project site that could be affected by construction and routine operation of the proposed action. The study area also includes aesthetic resources, light, and glare that could be affected during routine rail transport along the Puget Sound & Pacific Railroad (PS&P)² and vessel transport through Grays Harbor out to 3 nautical miles from the mouth of the harbor.

3.9.2 What laws and regulations apply to aesthetics, light, and glare?

Laws and regulations for determining potential impacts on aesthetics, light, and glare are summarized in Table 3.9-1. More information about these laws and regulations is provided in Appendix B, *Laws and Regulations*, and Appendix I, *Local Policies Governing Aesthetics, Light, and Glare*.

¹ Chapter 4, *Environmental Health and Safety*, addresses the potential impacts from increased risk of incidents (e.g., storage tank failure, train derailments, vessel collisions) and related consequences (e.g., release of crude oil).

² The PS&P rail line refers to the rail line between Centralia and the project site.

Table 3.9-1. Laws and Regulations for Aesthetics, Light, and Glare

Laws and Regulations	Description
Federal	
No federal laws or regulations apply to aesthetics, light, and glare	
State	
Scenic Highways Regulations (RCW 47.39.020)	Dictates that scenic and recreational areas be preserved and protected from inappropriate development.
Shoreline Management Act (RCW 90.58)	Establishes regulations for managing the use, environmental protection, and public access of the state's shorelines.
Local	
Density and Dimensional Requirements (HMC 10.03.100)	Specifies height maximum of 55 feet for structures in the City of Hoquiam Industrial District.
Landscaping and Screening (HMC 10.05 and AMC 17.48)	Contains various ordinances pertaining to aesthetic resources through regulations on landscaping, signs, lighting, and screening.
RCW = Revised Code of Washington; HMC = Hoquiam Municipal Code; AMC = Aberdeen Municipal Code	

3.9.3 How were impacts on aesthetics, light, and glare evaluated?

This section describes the sources of information and methods used to evaluate impacts.

3.9.3.1 Information Sources

Information on aesthetics, light, and glare in the study area was obtained from the following sources.

- Direct field observation from vantage points, including neighboring areas, the project property, and roadways (conducted August 12 and 13, 2014).
- Photographs of key views of and from the project site and of existing sources and levels of light and glare.
- Review of the lighting and features for the proposed action that may cause glare.
- Review of the proposed action and its compliance with state and local ordinances and regulations and professional standards concerning light and glare.

3.9.3.2 Impact Analysis

The methods used in this analysis involved three steps.

1. Objectively identify the aesthetic features (visual resources) of the landscape.
2. Assess the character and quality of those resources relative to overall regional visual character.
3. Determine the importance or sensitivity to people of views of visual resources in the landscape.

3.9.3.3 Visual Concepts and Terminology

The aesthetic value of an area is a measure of its *visual character* and *visual quality*, combined with the viewer response to the area (Federal Highway Administration 1988). Scenic quality is best

described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (U.S. Bureau of Land Management 1980). *Viewer exposure* is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. *Viewer sensitivity* relates to the extent of the public's concern for a particular viewshed. *Viewer response* is a combination of viewer exposure and viewer sensitivity. These terms and criteria are described below.

Visual Character

Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features (U.S. Forest Service 1995; Federal Highway Administration 1988). The appearance of the landscape is described in terms of the dominance of each of these components.

Visual Quality

Visual quality is evaluated using the well-established approach to visual analysis adopted by the Federal Highway Administration, employing the concepts of vividness, intactness, and unity (Federal Highway Administration 1988; Jones et al. 1975), which are described below.

- *Vividness* is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- *Intactness* is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.
- *Unity* is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by its visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Viewer Exposure and Viewer Sensitivity

The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency, and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related, in part, to the position of the viewer (viewer exposure) to the resource; therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail) (Federal

Highway Administration 1988). To identify the importance of views of a resource, a viewshed must be divided into distance zones of foreground, middleground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic region and types of terrain, the standard foreground zone is to 0.25 to 0.5 mile from the viewer, the middleground zone is 0.25 to 0.5 mile to 3 to 5 miles from the viewer, and the background zone extends from the middleground to infinity (Litton 1968).

Viewer sensitivity depends on the number and type of viewers and the frequency and duration of views. Viewer sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, viewer sensitivity is generally higher for views seen by people who are driving for pleasure, people engaging in recreational activities such as hiking, biking or boating, and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work (U.S. Forest Service 1995; Federal Highway Administration 1988; U.S. Soil Conservation Service 1978). Commuters and nonrecreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they are generally considered to have low sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes; therefore, they are generally considered to have high sensitivity. Viewers using recreational trails and areas, scenic highways, and scenic overlooks are usually assessed as having high sensitivity.

Judgments of visual quality and viewer response must be made based in a regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

3.9.4 What aesthetic resources are in the study area?

This section describes aesthetics, light, and glare in the study area that could be affected by construction and operation of the proposed action. This section provides the general context for aesthetics, light, and glare in the study area and describes aesthetics, light, and glare at the project site, along the PS&P rail line, and in and along the shoreline of Grays Harbor.

3.9.4.1 Project Site

As discussed in Chapter 2, *Proposed Action and Alternatives*, the project site is developed and currently operates as a methanol distribution facility. Predominant visual features consist of pavement and four white aboveground storage tanks, 120 feet wide and 40 feet tall. There are two rail spurs. An elevated, gray, lattice steel bridge supports offloading pipes and is slightly taller than the railcars. Also at the project site are a covered truck weigh station composed of gray steel, two office trailers, and a large warehouse that is not in use. The ground is either paved with gray asphalt or covered with gravel. Vegetation is sparse and limited to patches of weedy plants and grasses growing in some of the gravel areas, which do not provide any aesthetic benefit in this highly industrialized setting.

The area immediately to the north, east, and south of the project site consists of other industrial. The Hoquiam River and Rennie Island lie to the southwest. The project site is primarily visible to

motorists traveling on roadways surrounding the project site (Chapter 2, *Proposed Action and Alternatives*, Figure 2-2). Individuals participating in recreational activities at the 28th Street Boat Launch and Viewing Tower and recreationalists (Section 3.10, *Recreation*, Figure 3.10-1) and commercial and tribal fishers in the harbor (Section 3.12, *Tribal Resources*, Figure 3.12-1) can also view the site.

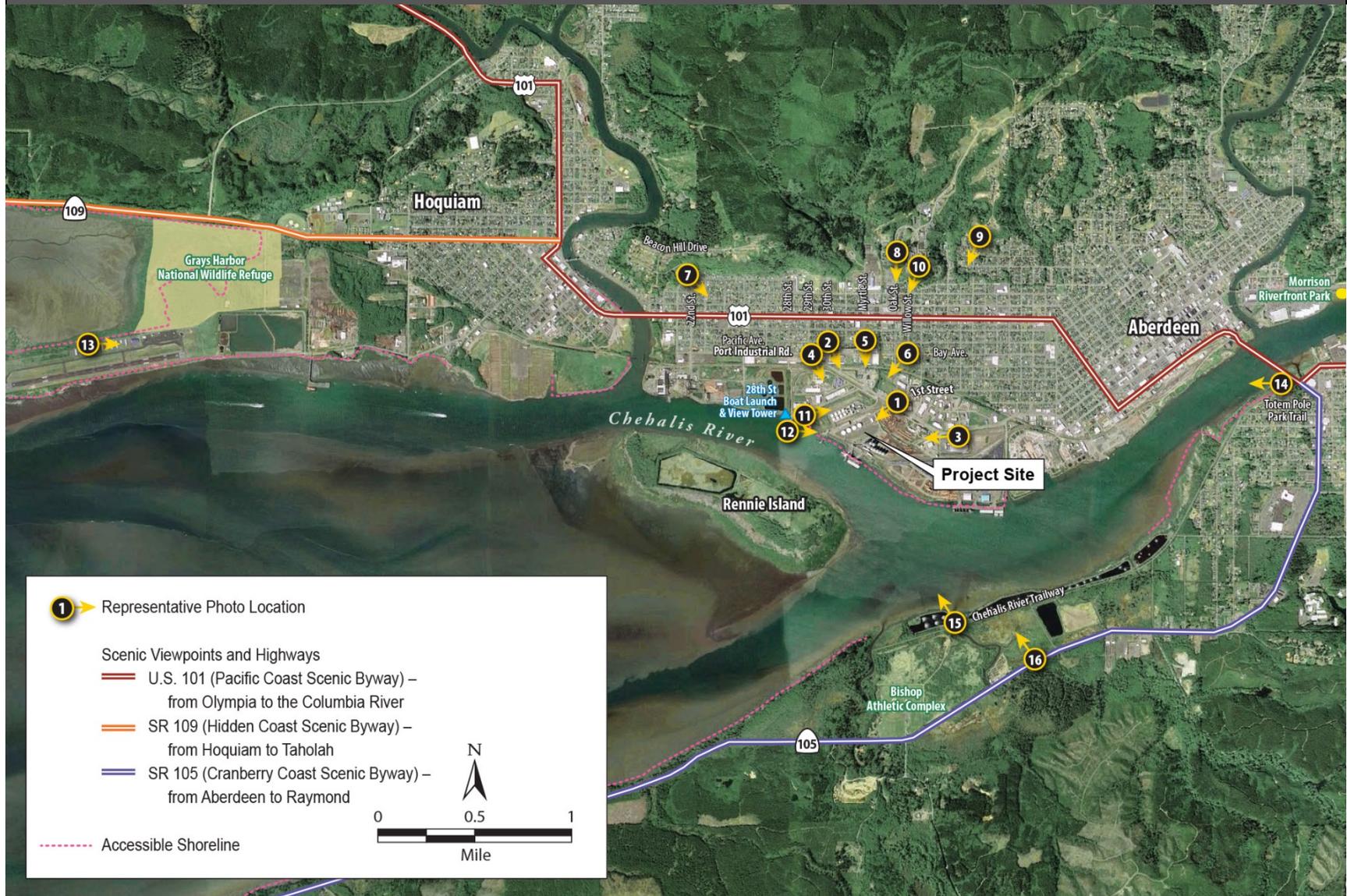
The nearby Ag Processing, Inc. (AGP) facility has eight concrete storage silos, approximately 75 feet wide and 135 feet tall and four clustered, concrete storage silos approximately 40 feet wide and 127 feet tall. The top of the tan-painted steel structure that is on top of the four clustered silos is 280 feet tall. The 12 silos are all composed of gray concrete. AGP also has a large offloading dock along the shoreline and timber storage yards east of the silos and up to Port Industrial Road. AGP's storage tanks and silos are the tallest at the Port of Grays Harbor (Port) and are often the tanks seen rising above the tree line.

Views of the project site include industrial operations and infrastructure. However, from some viewpoints the industrial uses are juxtaposed against the forested hillsides and waterfront. The foreground views of the surrounding area that include the project site exhibit low to moderate visual quality. Residents, recreationalists, and roadway users viewing the project site would all have low to moderate visual sensitivity to changes to the project site because all users are familiar with the industrialized visual conditions and operations associated with the Port. Specific views of the project site are discussed and shown in photographs below. Locations of the photographs are shown in Figure 3.9-1.

- **Ground-level views.** Port Industrial Road and its intersection with 1st Street provide the most direct, least-obstructed foreground views of the project site. Foreground views consist of the timber and mulch piles and the storage tanks at the project site and at the Imperium and AGP facilities. It is also possible to see the associated structures, including rail tracks, office trailers, pipelines, and lights. Sensitive viewers consist primarily of motorists traveling along Port Industrial Road (Figure 3.9-2). Although there is a relatively high number of motorists in this area each day, viewer sensitivity is considered low because motorists are passing by and are exposed to views for only a short time.

The taller Imperium tanks and AGP silos, industrial buildings and office trailers, and existing trees and shrubs limit views of the Westway tanks even a short distance beyond the immediate vicinity (Figures 3.9-3 and 3.9-4); however, limited foreground views are also visible to residents in this area. While partial views of the taller AGP silos and Imperium tanks are sometimes present, views of the shorter Westway tanks from these roadways are often obscured by the taller tanks and silos, industrial buildings and office trailers, residential and commercial development north of the site, wooden utility poles, and existing trees and shrubs (Figures 3.9-5 and 3.9-6). Some limited views of the tops of the tanks may be seen from nearby residences and businesses and by recreationalists in local parks; however, foreground views of the tanks are mostly obscured or not available (Figure 3.9-7).

Figure 3.9-1. Photo Locations



- **Hillside views.** Views from elevated hillsides north of the project site often allow for views of the project site. Views are also available from hillside roadways and residential, commercial, and institutional uses. Residents can see the project site in the middleground from the elevated hillsides to the north. However, like ground-level views, views of the shorter Westway tanks are fully to partially obscured by intervening trees and shrubs and development, although the tops of the taller Imperium and AGP tanks are visible (Figure 3.9-8). Even when coming downhill, where views of the taller AGP silos and Imperium tanks can be identified, views of the Westway tanks are not discernable (Figure 3.9-9). Partial to full views of the Westway tanks do exist where the viewing location is high enough and trees and development do not intervene (Figures 3.9-10 and 3.9-11).
- **Recreational views.** Nearby recreational areas have limited views of the site. The closest recreational feature is the 28th Street view tower and boat ramp, which has foreground views of the project site. The Imperium tanks are most visible with views of the Westway tanks most visible from the view tower (Figure 3.9-12). Views from the boat ramp primarily focus is on the AGP silos and structures associated with the Terminal 1 berth (Figure 3.9-13).

Views of the project site from more distant recreational areas are more limited. From the Bowerman Basin Sandpiper Trail at the Grays Harbor National Wildlife Refuge (Figure 3.9-14) and from the Totem Pole Park Trail (Figure 3.9-15), located across the harbor, it is possible to see the AGP silos in the background, but it is not possible to discern the applicant's specific facility at the project site from the broader industrial development. The storage tanks can be seen from the Chehalis River Walkway, along the south bank of the Chehalis River approximately 1 mile southeast of the project site, but views are often screened by fencing, the aboveground pipeline, and vegetation along the trail and harbor shoreline (Figure 3.9-16).

- **Scenic byway views.** The project site can be seen by motorists traveling on State Route 105 (SR 105) (in Oregon) where gaps in vegetation are present along the roadway; however, as seen in Figure 3.9-17, it is difficult to distinguish the project site features from the surrounding industrial development. Views of the project site from vantages across the harbor are limited by topography and vegetation. For example, the project site is not visible from residential areas of Aberdeen that are south of the harbor, the Bishop Athletic Complex, or from most vantages along SR 105. Although the nearby AGP silos may be visible, views of the project site from US Route 101 (US 101) and State Route 109 (SR 109) are not available due to intervening development, infrastructure, and vegetation.
- **Water-based views.** The project site is visible from recreational, commercial, and industrial vessels in the harbor and close to the Terminal 1 berth. Visibility is limited by elevation moving farther from the shoreline.

The visual character of the project area consists of a mix of industrial, commercial, residential, and recreational uses. Views of the harbor and vegetated hillsides serve as a scenic backdrop, helping to increase the overall vividness of the project vicinity. However, somewhat disjointed land uses and the presence of human-made structures affect the overall intactness and unity of the project vicinity, as a whole. Therefore, depending on the specific location, visual quality can range from moderately low in highly industrialized portions of the vicinity to moderately high in areas with fewer encroaching features (industrial facilities) where views of primarily homes and natural landscapes (hillsides and harbor) are more intact.

Figure 3.9-2. Photo Location 1
View From 1st Street at the Intersection with Port Industrial Road
Looking Southwest Toward the Project Site

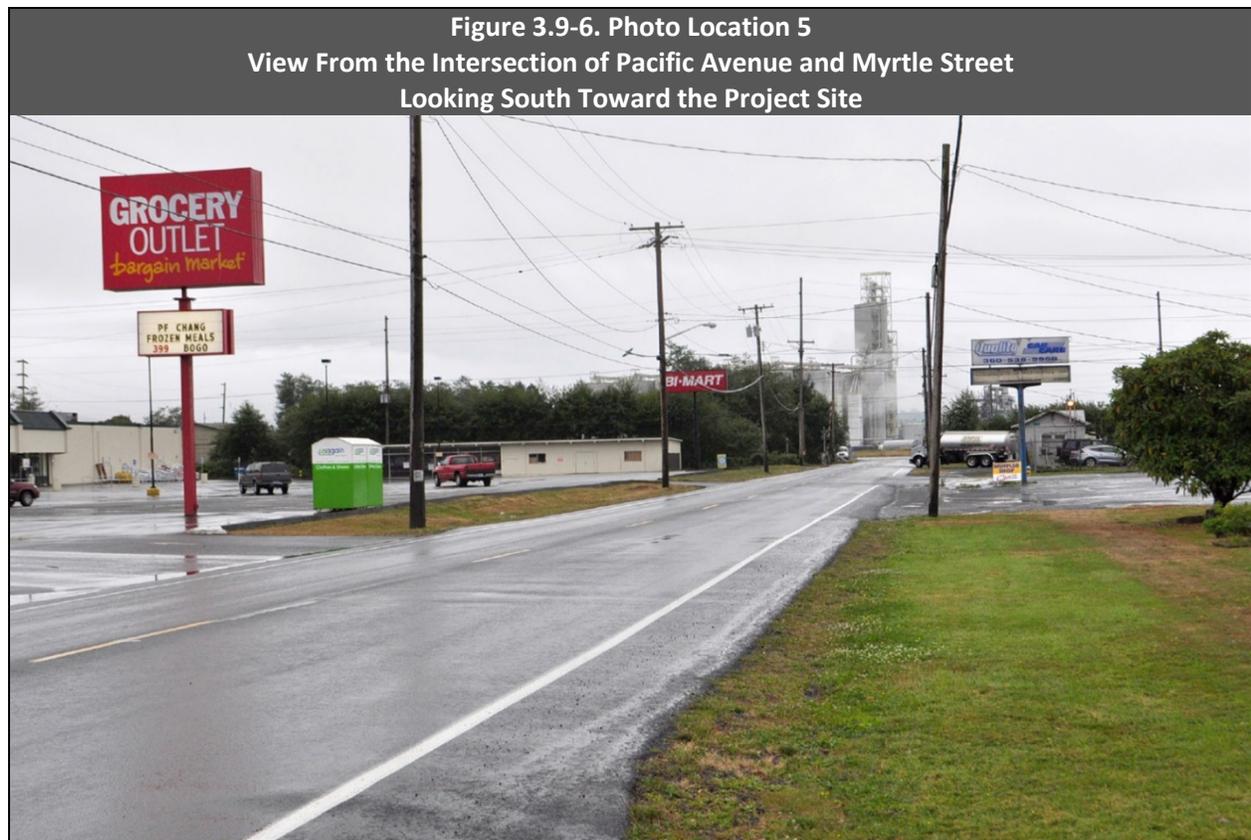


Figure 3.9-3. Photo Location 2
View From Port Industrial Road, Near 29th Street
Looking Southwest Toward the Project Site



Figure 3.9-4. Photo Location 3
View From the Home Depot Parking Lot Looking West Toward the Project Site



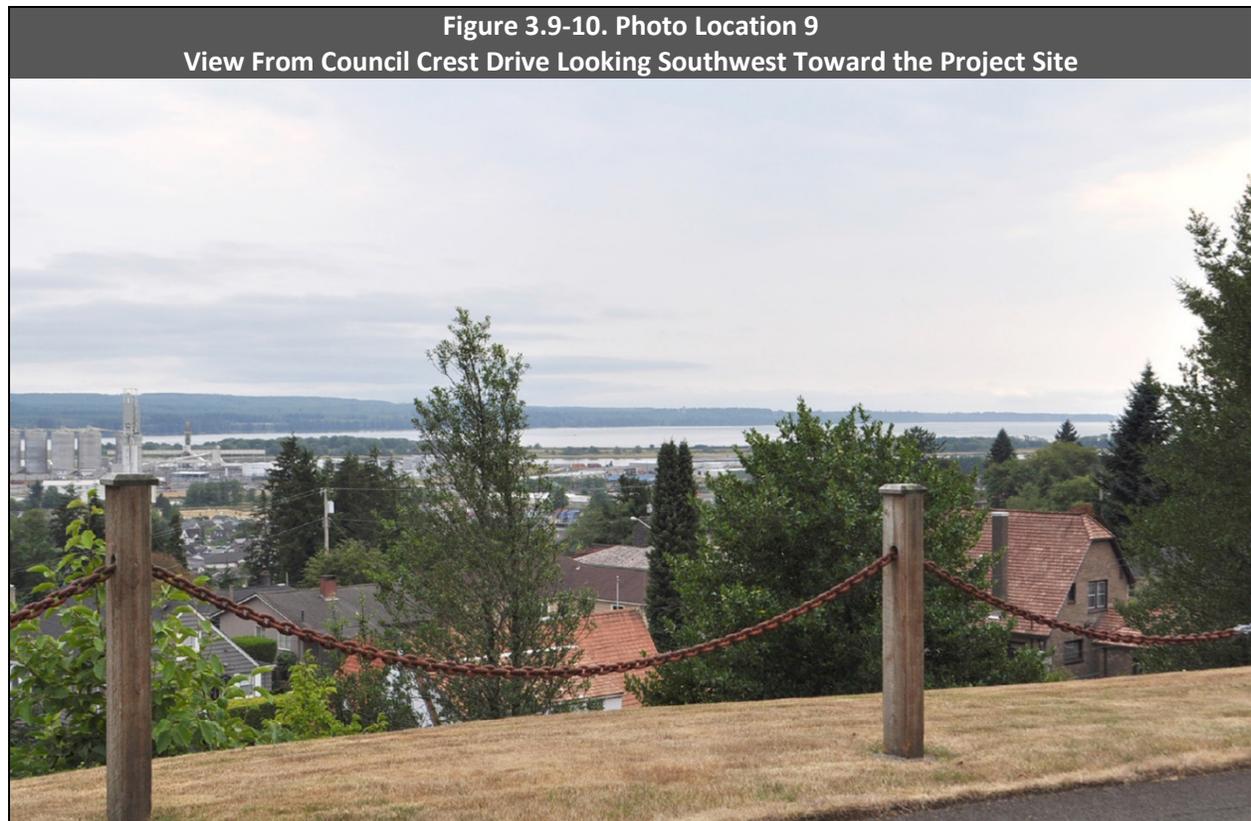


**Figure 3.9-7. Photo Location 6
View From the West End Playfield on Bay Avenue Looking
Southwest Toward the Project Site**



**Figure 3.9-8. Photo Location 7
View From Beacon Hill Drive Looking Southeast Toward the Project Site**



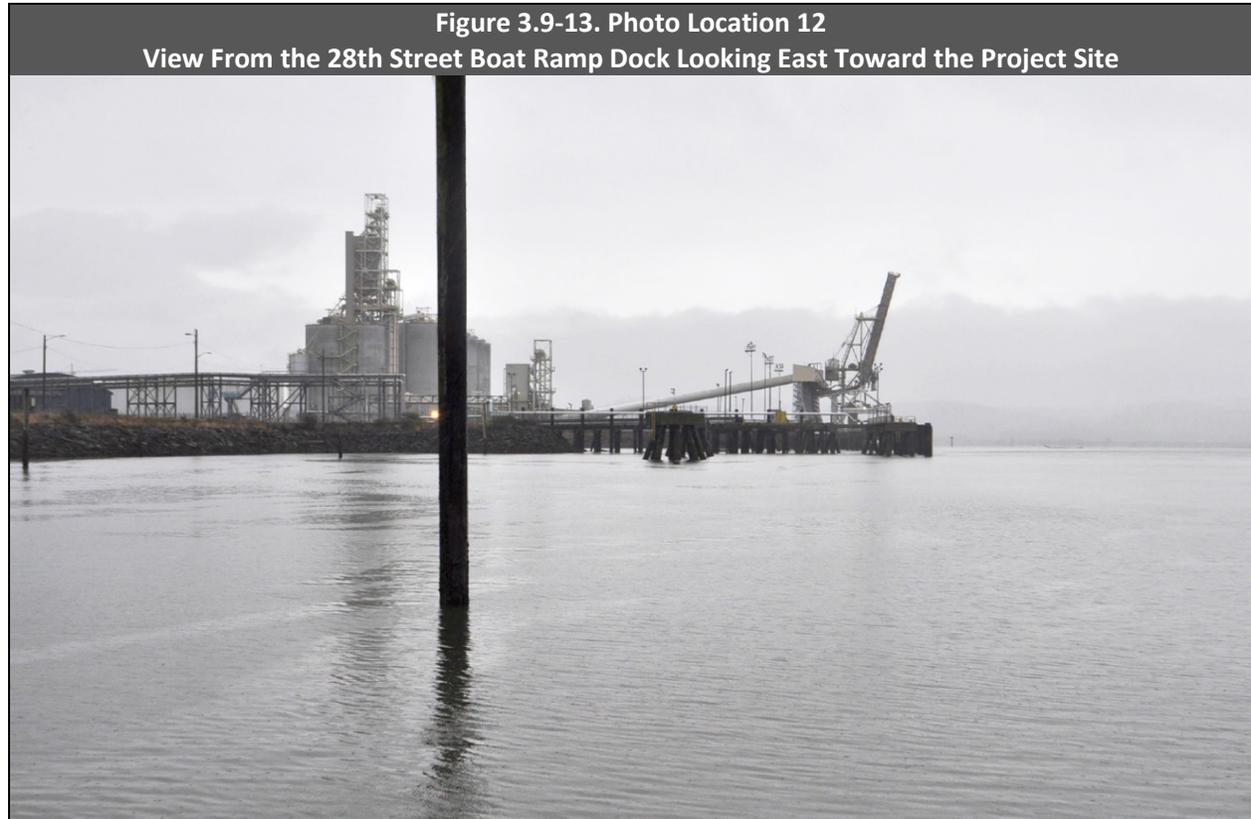


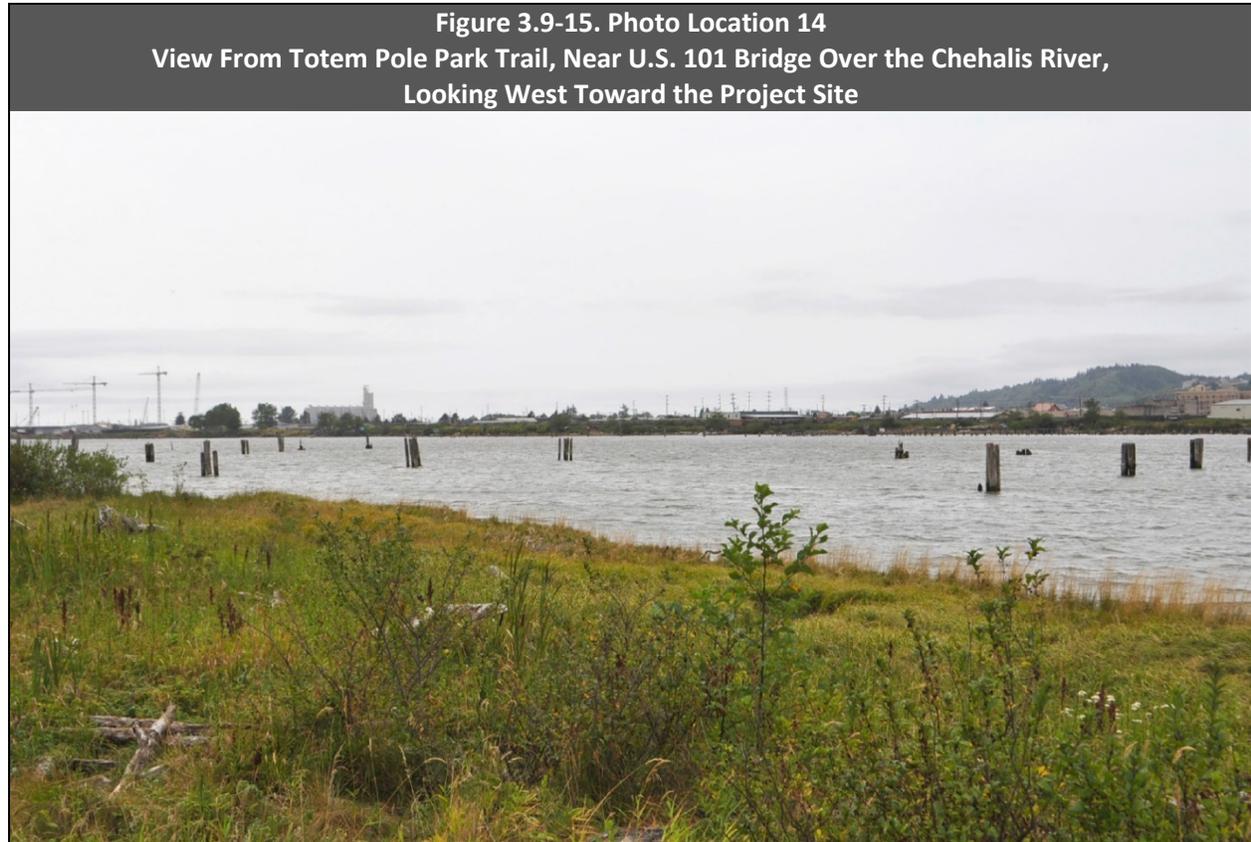
**Figure 3.9-11. Photo Location 10
View From the Grays Harbor Community Hospital
Looking Southwest Toward the Project Site**



**Figure 3.9-12. Photo Location 11
View From the 28th Street View Tower Looking Northeast Toward the Project Site**







**Figure 3.9-17. Photo Location 16
View From SR 105 Looking Northwest Toward the Project Site**



Light

The project site and the Port are well lit at night. Existing sources of light include interior office lighting, exterior safety lighting on buildings, overhead lighting to illuminate outdoor work areas, lighting at the dock and rail offloading areas, weigh station lighting, and lighting at the tops of stair cases that lead to the tops of the storage tanks and silos.

Sources of light seen from the area surrounding the project site include interior and exterior lighting associated with residential, commercial, and industrial development; overhead streetlights; vehicle headlights; train headlights; lighting on vessels; and nighttime stadium lighting associated with local sports fields. The concentration of nighttime lighting from Hoquiam, Aberdeen, and Cosmopolis produces ambient light glow that radiates into the night sky.

Glare

Existing sources of glare include reflective surfaces such as the existing white storage tanks, light-colored building exteriors, building windows, vehicle windows, and lighter paved surfaces lacking vegetative cover. A major source of glare near the project site is the water surface of Grays Harbor and Chehalis River, which are large, reflective bodies of water that can reflect sunlight, moonlight, and artificial nighttime lighting.

3.9.4.2 PS&P Rail Line

The PS&P rail line travels through the region, roughly parallel to US Route (US 12), and rail traffic is common to the existing visual landscape. In general, the PS&P rail line is most visible to those traveling along US 12 and to residents in communities most heavily populated at the western end of the rail line in Hoquiam and Aberdeen, and at the southern end of the rail line in Fords Prairie and Centralia. Smaller communities along the PS&P rail line include Cosmopolis, Junction City, Central Park, Alder Grove, Montesano, Brady, Satsop, Elma, Saginaw, Malone, Porter, Oakville, and Rochester. In some locations, rail traffic is visible from residences and businesses close to the rail line. Although this is primarily the case in the larger communities, some rural residences are located close to the PS&P rail line.

The forested terrain on either side of the numerous river valleys and harbor create an enclosed landscape. Development is concentrated close to the rivers and harbor on flatter lands and along transportation routes. However, some development extends onto the hillsides and isolated development does occur in forested areas. Flat, fertile areas along rivers also support a patchwork of agricultural uses and the forested hillsides support timber harvest.

Near the project site, US 101 is designated as the Pacific Coast Scenic Byway from Olympia to the Columbia River (Washington State Department of Transportation 2014a). SR 109 is designated as the Hidden Coast Scenic Byway from Hoquiam to Taholah (Washington State Department of Transportation 2014b). SR 105 is designated as the Cranberry Coast Scenic Byway from Aberdeen to Raymond (Washington State Department of Transportation 2014c, 2014d). US 101 passes closest to the project site, approximately 0.5 mile to the north, and is separated from the project site by development in Aberdeen.

3.9.4.3 Grays Harbor

Forested hillsides surround Grays Harbor, which has two bars that separate the harbor from the Pacific Ocean, creating a largely enclosed bay. The shoreline communities of Ocean Shores, Westport, and Cohasset Beach support year-round residential and commercial development, tourism, commercial and sport fishing, and aquaculture. Most development around the harbor is centrally located in Hoquiam, Aberdeen, and Cosmopolis. Smaller areas of development are located around the harbor's edge, such as Grays Harbor City, Gray Gables, Ocosta, and individual properties.

Views of Grays Harbor are relatively intact and are available from land- and water-based vantages. The many recreational and wildlife areas around the bay with views of the water include Grays Harbor National Wildlife Refuge, Bowerman Basin Sandpiper Trail, Ocean Shores Bay Wildlife Area, John Gable Community Park, Damon Point State Park, Harms Field, Oyhut Wildlife Recreation Area, Bottle Beach State Park, the Chehalis River Surge Plain Natural Area Preserve, the Johns River Wildlife Area, and the Chehalis River Trailway. Views are also available through gaps in the vegetation and development along local roadways, including SR 109 and SR 105, and from residences that are near the harbor. Water-based views are available from recreational, commercial, and industrial vessels.

Views in the region vary based on viewers' location in the landscape. Many views are of high visual quality due to the available views of the harbor and rivers, tidal areas, forested hillsides, and relatively low levels of development. However, other views are somewhat degraded and include mostly industrial operations and infrastructure juxtaposed against the forested hillsides and waterfront.

3.9.5 What are the potential impacts on aesthetics, light, and glare?

This section describes the impacts on aesthetics, light, and glare that could occur in the study area. Potential impacts of the no-action alternative are described first, followed by potential impacts of the proposed action.

3.9.5.1 No-Action Alternative

Under the no-action alternative, impacts on aesthetic, light, and glare from the construction of the proposed action would not occur. The applicant would continue to operate its existing facility as described in Chapter 2, Section 2.1.3.2, *Existing Operations*. Although the proposed action would not occur, it is assumed that growth in the region would continue under the no-action alternative. This growth could lead to development of another industrial use at the project site, which could result in impacts similar to those described for construction and routine operation of the proposed action. However, for the purposes of this analysis, it is assumed that no future development would occur at the project site.

3.9.5.2 Proposed Action

This section describes the impacts that could occur in the study area as a result of construction and routine operation of the proposed action. First, this section describes impacts from construction of the proposed action. It then describes impacts of routine operation at the project site and of routine rail and vessel transport to and from the project site.

Construction

Aesthetics

The presence of construction equipment (e.g., backhoes, tractors, cranes, and trucks) and the related increase in activities would create short-term visual changes at the project site. However, as described in Section 3.9.4.1, *Project Site*, the project site is an existing industrial area and cranes and industrial operations are a common part of the visual environment. Although construction activity would increase, the use of heavy machinery is consistent with the existing visual environment at and nearby the project site.

Close views (within 1.5 miles) of the project site by the public would be limited for motorists traveling along Port Industrial Road and SR 105, and even more limited for residents to the north. Much of the construction activity would not be visible from these locations. From the 28th Street viewing tower and boat ramp, from within and across the harbor, or from any other slightly elevated vantages, it may be possible to see construction of the proposed tanks and the hose tower at the dock. However, as noted previously, these activities are similar to existing operations and would likely be difficult to discern from existing industrial activities. Scenic views from US 101 and SR 109 would not be affected by the proposed action because of the limited views of the project site from these locations.

Because views of the project site would be either limited or similar to existing operations and because construction would be short term, construction of the proposed action would not result in substantial visual impacts, especially when seen from a distance of 1.5 miles or more.

Light and Glare

Because construction would take place during daylight hours (between 7:30 a.m. and 4:30 p.m.), it would not require the use of high-intensity nighttime lighting and would not negatively affect day or nighttime public views. Glare would not be increased at the project site during construction.

Operations

This section describes impacts that would occur as a result of routine operations at the project site, rail transport along the PS&P rail line, and vessel transport through Grays Harbor.

Project Site

Aesthetics

The two new rail spurs would be built next to the existing rail spurs and would be similar to existing conditions. Lengthening of the existing rail spurs would only be visible to Port workers. The new pipelines would be visually similar to the existing bridge structures and pipelines and would not constitute a substantial visual change. Vessels would be at the Terminal 1 docks more often under the proposed action (up to an additional 119 days per year) compared to the no-action alternative (34 days per year), but the view would be similar to existing conditions.

Removal of the existing warehouse would not greatly alter visual conditions at the Port because, as seen in Photo 3.9-1, the existing offloading pipe bridge and common presence of rail cars limits views of the structure. The hose tower and marine vapor control system at the dock would be visible from the harbor and the 28th Street viewing tower and boat ramp but, as seen in Photo 3.9-12, offloading structures on the dock are already prominent. The hose tower and marine vapor control system would blend in with existing infrastructure on the dock and would not detract from views of the coastline from the harbor or the 28th Street viewing tower and boat ramp. Similarly, because the hose tower and marine vapor control system would blend with existing infrastructure on the dock, they would not be very noticeable or detract from views of the coastline from slightly elevated vantages, distant views, views across the harbor, or panoramic scenic vista views. Therefore, visual changes resulting from the new and lengthened rail spurs, new pipelines, removal of the existing warehouse, the new hose tower, and new marine vapor control system are not anticipated to result in substantial visual impacts on views of the Port or harbor that would negatively affect any viewer groups.

The most prominent features to be built at the project site would be the storage tanks. As described in Section 3.9.4.1, *Project Site*, the four existing storage tanks are white and 120 feet wide and 40 feet tall. The five proposed tanks, to be located south of the existing tanks, would be 150 feet wide and 64 feet tall. While 24 feet taller than the existing tanks at the project site, the proposed tanks would be only 4 feet taller than the existing Imperium Terminal Services tanks and 63 to 71 feet shorter than the existing AGP silos. The new taller tanks, therefore, would not be noticeably taller than existing tanks and silos at the Port when seen from surrounding vantages by all viewers. As noted in Section 3.8, *Land and Shoreline Use*, the proposed action would be required to obtain a conditional use permit from the City of Hoquiam because the proposed tanks would otherwise exceed the City's height restriction.

As described in Section 3.9.4.1, *Project Site*, foreground views of the project site would primarily include motorists traveling along Port Industrial Road, US 101, and SR 105, with even more limited views visible to residents to the north. Foreground views would also be visible to recreationalists at

the 28th Street viewing tower and boat ramp. Although residents and recreationalists in general are thought to have a higher sensitivity to changes in the visual environment, these viewer groups are expected to have relatively low to moderate sensitivity to changes related to the proposed action. This is because the proposed facility would be largely consistent with the existing industrial character of the Port and immediately surrounding area. As mentioned previously, motorists are also anticipated to have relatively low sensitivity to the proposed changes because they would be passing through the area.

Within and across the harbor, or from any other slightly elevated vantages (such as the residential area farther to the north), it may be possible to see the proposed tanks, particularly the taller tanks, in the middleground or background; however, it would likely be difficult to discern the proposed facility from the existing industrial area. Scenic views from US 101 and SR 109 would not be affected by the proposed action because of these locations provide limited views of the project site. Additionally, the proposed facility would be consistent with the existing industrial character of the immediately surrounding area and would not materially change the visual character or quality of the views from these locations. Implementation of the mitigation measures described in Section 3.9.7.1, *Applicant Mitigation*, would further reduce the impact of visual changes.

Light and Glare

As described in Section 3.9.4.1, *Project Site*, the project site and the Port are well lit at night. The proposed rail unloading and vessel-loading facility would require some additional lighting for nighttime operations. Similar to existing conditions, lighting would not be needed to illuminate the new pipelines. The hose tower and dock safety unit (a component of the marine vapor combustion unit) at the dock may need some additional lighting, similar to what currently exists at the dock. The storage tanks would also have lighting at the top of the tank staircases, similar to the existing tanks. Some additional security lighting is also likely. This new lighting would result in minor increases in light and glare compared to existing conditions and would be installed to minimize impacts on offsite receptors (e.g., water, residential uses).

The changes in lighting toward the interior of the Port and away from residential areas are not anticipated to affect views from scenic routes. Operating hours are not limited to daylight hours; increased light at the dock for night loading is anticipated to occur up to an estimated 119 nights per year and could affect views from within and across the harbor. Although nighttime lighting would increase compared to the no-action alternative, new sources of nighttime lighting are not expected to affect any viewer groups negatively. Additionally, implementation of the mitigation described in Section 3.9.7.1, *Applicant Mitigation*, would further reduce potential impacts related to increased lighting.

While the proposed tanks would mostly blend in with the existing tanks (both at the project site and in the immediately surrounding area), silos, and offloading infrastructure and would be in keeping with the existing visual character at the Port, they could stand out slightly if they were to be painted in a highly reflective color. This could draw viewers' attention toward the tanks and result in increased glare on sunnier days. As described in Section 3.9.7.1, *Applicant Mitigation*, painting the tanks in a more subdued tone may help them to blend better with the majority of tanks at the Port. This would also ensure that a larger clustering of brightly colored tanks does not become a focal point associated with the Port in scenic views. The hose tower and marine vapor control system would be colored similar to existing structures on the dock and would not increase glare in any views. This would reduce the potential for glare seen by onsite workers, within scenic views, or

where the tops of tanks are visible from nearby vantages by avoiding a clustering of large, white surfaces that are more reflective than gray. Changes in glare would not affect views from scenic routes because they would not be readily visible due to distance and intervening development and vegetation. Furthermore, the proposed action would not conflict with laws and regulations related to light and glare, which are described in Section 3.9.2.

Rail and Vessel

As described in Section 3.15, *Rail Traffic*, and Section 3.17, *Vessel Traffic*, the proposed action would result in increased rail and vessel traffic in the study area compared to the no-action alternative. These increases would occur in existing transportation corridors. Rail and vessel transport in these areas is ongoing and a predominant part of the visual landscape in these areas. Currently, rail and vessel operators use lighting for safety when operating at night. In general, nighttime train lighting is directed downward and ahead of the train to illuminate the path forward or to make the train more visible to others. Vessels are required by law to display lights for navigation and these lights would be visible in a 360-degree arc around the vessel. These lights are designed to identify the vessel and its location but do not act as floodlights to illuminate the surrounding area.

Although most lighting would not disturb surrounding land uses, the proposed action would result in the potential for increased nighttime lighting compared with the no-action alternative. While it is not possible to determine what proportion of the additional traffic would occur at night, it is possible that some small increase in nighttime traffic would occur.

3.9.6 What required permits and plans apply to aesthetics, light, and glare?

The following permit conditions and required plans are expected to reduce impacts on aesthetics, light, and glare.

- City of Hoquiam Conditional Land Use Permit
 - Grants exception to maximum height of 55 feet specified in the Density and Dimensional Requirements (HMC 10.03.100)

3.9.7 What mitigation measures would reduce impacts on aesthetics, light, and glare?

This section describes the applicant mitigation that would reduce impacts on aesthetics, light, and glare from construction and routine operation of the proposed action. Mitigation measures to reduce potential impacts on environmental health and safety from increased risk of incidents and related consequences are presented in Chapter 4, *Environmental Health and Safety*.

3.9.7.1 Applicant Mitigation

The applicant will implement the following mitigation measures.

- To reduce potential glare, the applicant will ensure the proposed storage tanks are of a tone that blends into the surrounding landscape and/or match the existing facility tank paint or insulation, appropriate to the existing design and without affecting air emissions for the surrounding facilities.

- To ensure that lighting at the project site does not conflict with other land uses, the applicant will coordinate with the Port of Grays Harbor to develop the proposal for project lighting.

3.9.8 Would the proposed action have unavoidable and significant adverse impacts on aesthetics, light, and glare?

Compliance with the applicable regulations and permits along with implementation of the mitigation measures described above would reduce impacts on aesthetics, light, and glare. Although the proposed action would result in unavoidable visual changes, there would be no unavoidable and significant adverse impacts. Potential impacts related to increased risk of incidents and related consequences are addressed in Chapter 4, *Environmental Health and Safety*.