

Exhibit T

Recreational Opportunities

**Mist Resiliency Project
August 2024**

Prepared for



Northwest Natural Gas

Prepared by



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Figure T-1. Recreational Opportunities in the Analysis Area

Acronyms and Abbreviations

JBHR	Julia Butler Hansen Wildlife Refuge for the Columbian White-Tailed Deer
LCNHT	Lewis and Clark National Historic Trail
LCNWR	Lewis and Clark National Wildlife Refuge
NMCS	North Mist Compressor Station
NWN	Northwest Natural
NPS	National Park Service
OAR	Oregon Administrative Rules
ODFW	Oregon Department of Fish and Wildlife
OPRD	Oregon Parks and Recreation Department
OSU	Oregon State University
Project	Mist Resiliency Project
RFA	Request for Amendment
USFWS	U.S. Fish and Wildlife Service

1.0 Introduction

Northwest Natural Gas (NWN), the Certificate Holder, proposes to amend the Site Certificate for its underground natural gas storage facility at the Mist Resiliency Project (Project) in Columbia County, Oregon. Exhibit T contains information pertaining to potential adverse impacts of construction and operation of the Project on important recreational opportunities, as required to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-021-0010(1)(t) paragraphs (A) through (F). This exhibit demonstrates that the Project can comply with the approval requirements found in OAR 345-022-0100:

(1) To issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities.

(2) The Council must consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location;

(b) The degree of demand;

(c) Outstanding or unusual qualities;

(d) Availability or rareness;

(e) Irreplaceability or irretrievability of the opportunity.

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). In issuing such a site certificate, the Council may impose conditions of approval to minimize the potential significant adverse impacts from the design, construction, and operation of the facility on important recreational opportunities.

(4) The Council must apply the version of this rule adopted under Administrative Order EFSC 1-2002, filed and effective April 3, 2002, to the review of any Request for Amendment to Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.

2.0 Analysis Area

The Analysis Area is the area for which NWN must describe the impacts of the proposed Project changes in this Request for Amendment (RFA) 13. The Analysis Area is the same as the recreational opportunities study area, defined in OAR 345-001-0010(35)(d) as the area within and extending 5 miles from the Site Boundary. The Site Boundary is defined in the Project Description section of this RFA 13 that reflects the information pursuant to OAR 345-021-0010(1)(a) and (b). The Recreational Opportunities Analysis Area is shown on Figure T-1.

3.0 Recreational Opportunities Inventory – OAR 345-021-0010(1)(t)(A)(E)

OAR 345-021-0010(1)(t) Information about the impacts the proposed facility would have on important recreational opportunities in the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0100, including:

OAR 345-021-0010(1)(t)(A) A description of the recreational opportunities in the analysis area that includes information on the factors listed in OAR 345-022-0100(1) as a basis for identifying important recreational opportunities;

OAR 345-021-0010(1)(t)(E) A map of the analysis area showing the locations of important recreational opportunities identified in paragraph (A); and

As previously found by the Energy Facility Siting Council (Council), the design, construction and operation of the Project are not likely to result in a significant adverse impact to any important recreational opportunities in the Analysis Area.¹ Five new recreation areas are located within the Analysis Area since the Final Order on RFA 12 was issued: the Lewis and Clark National Historic Trail (LCNHT), North Coast Travel Management Area/Hunting Area, Blodgett Tract Research Forest, Clatskanie City Park, and Cope's Park.^{1,2,3} The Analysis Area is shown on Figure T-1 and an inventory of the recreational opportunities within the Analysis Area is included as Table T-1.

¹ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 17

² Note that the County Line Park was previously included in the RFA 11 Exhibit T analysis; however, it is managed by Washington entities and located in Washington and is thus outside the scope of Oregon's RFA process. This resource is included in this analysis for consistency,

³ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 132-137

Table T- 1. Inventory of Recreational Resources in the Analysis Area

Recreational Opportunity	Responsible Entity	Distance from Site Boundary (miles)	Description	Size or Distance	Importance Factors					Important Recreation Resource?
					Designation	Demand	Qualities	Rareness	Replaceability	
Federal										
Julia Butler Hansen Refuge (JBHR) for the Columbian White-Tailed Deer	USFWS	1.4	Refuge established in 1971 for protection of endangered Columbian white-tailed deer. Analysis Area encompasses a portion of the Westport unit; the remaining units are outside of the Analysis Area.	6,200 acres; 715 acres within Analysis Area	National Wildlife Refuge	Low; little recreational activity in portion of JBHR within Analysis Area	No facilities; foot traffic only; island access by water only; hunting not permitted in Anunde Island and Westport units but permitted seasonally off Wallace Island (all within Analysis Area) from shoreline or water only; wildlife viewing throughout; no camping	Protected islands are relatively uncommon in a general sense; JBHR island areas within the Analysis Area are among two dozen named islands managed by the USFWS in the lower Columbia River; islands offer a unique wildlife-dependent recreational opportunity.	Undeveloped islands are effectively irreplaceable, although the Kinnunen Cut "Island" within JBHR was created by a constructed ditch	Yes
Lewis and Clark National Historic Trail (LCNHT)	National Park Service (NPS)	2.8	National Historic Trail established under the National Trails System Act in 1978. Analysis Area encompasses a portion of the Trail located within the Columbia River gorge (i.e., accessible only by water); the remainder of the Trail is outside of the Analysis Area.	3,700 miles; 8 miles within Analysis Area	National Historic Trail	Moderate; opportunities for boating, along the Trail	No facilities within Analysis Area; water traffic only and accessed only by water	One of four National Historic Trails in Oregon; the geography and aquatic ecosystems along the trail and within the trail would be considered relatively rare	Irreplaceable	Yes
State										
North Coast Travel Management Area/Hunting Area	ODFW	Within	ODFW-managed hunting area for deer, elk, bear, forest grouse, band-tailed pigeon with no camping or restrooms. ATVs are not permitted. Portion that overlaps the Site Boundary is only accessible for recreational opportunities with a Sporting Permit from the private landowner otherwise public access is not permitted.	1 million acres; 113,814 acres within Analysis Area	State-managed hunting area	Low; considering the vast majority of the hunting area does not contain the Site Boundary and thus demand is likely low in this small portion	No facilities and no camping allowed	Hunting area is very large and spans most of northwestern Oregon, thus many other areas are available within the hunting area to recreate	Replaceable	Yes, due to the hunting area encompassing the entire Site Boundary
Blodgett Tract Research Forest	Oregon State University (OSU)	1.0	OSU-managed research forest that primarily serves as an opportunity for students to learn about forest ecosystems and management, while also allowing non-motorized recreational use such as hiking, picnicking, running, biking, and horseback riding.	2,440 acres; 2,440 acres within Analysis Area	State-managed research forest	Low to high; high during summer months, otherwise low	No facilities and no camping, swimming, fishing, fires, etc., allowed; no motorized vehicle use permitted	One of nine research forest, all located in western Oregon; all offering similar amenities	Irreplaceable	Yes

Recreational Opportunity	Responsible Entity	Distance from Site Boundary (miles)	Description	Size or Distance	Importance Factors					Important Recreation Resource?
					Designation	Demand	Qualities	Rareness	Replaceability	
Local										
Beaver Boat Ramp and Park	Columbia County	1.7	Beaver Boat Ramp and Park is a day-use park and offers paved parking, boarding floats, restrooms and barbeque grills.	1.8 acres; 1.8 acres within Analysis Area	County Park	High; commonly used boat launching location on the Clatskanie River	Common day-use park facilities including restrooms, parking, grills, boat launch	Common	Replaceable	No
County Line Park	Wahkiakum County	4.4	County Line Park is a day-use and overnight park with recreational vehicle hookups and tent camping.	5.5 acres; 5.5 acres within Analysis Area	County Park	High; primarily during summer months	Common day-use park facilities; overnight camping including both recreational vehicle and tent camping	Common	Replaceable	No
Clatskanie City Park	City of Clatskanie	2.0	Clatskanie City Park is a day-use park with a boat ramp, swimming pool, skate park, several sports fields and courts, a play area, and picnic areas.	23 acres; 23 acres within Analysis Area	City Park	Low to high; high during summer months, otherwise low	Common day-use park facilities including sports fields and courts, play area, boat ramp, and picnic areas; swimming pool and skate park are somewhat unique qualities	Common	Replaceable	No
Cope's Park	City of Clatskanie	2.0	Cope's Park is a day-use park with a 1.4-mile paved walking trail that includes eight fitness stations along the path. The park is also home to the Veterans Memorial and the location of the Clatskanie Farmer's Market every Saturday during the summer months.	5.0 acres; 5.0 acres within Analysis Area	City Park	Low to high; high during summer months, otherwise low	Public walking trail with no developed facilities; Veterans Memorial is a unique quality	Common	Replaceable	No
Private										
Lower Columbia River Water Trail	Lower Columbia River Estuary Partnership	1.4	146-mile, bi-state trail spanning the tidally influenced river waters from Bonneville Dam to the Pacific Ocean. The trail is a loose affiliation of launch and landing sites, including County Line Park, campsites, and other facilities for non-motorized boaters. No affiliated campsites are located within the Analysis Area.	146 miles; approximately 7.6 miles of route in Analysis Area	None	Moderate; opportunities for boating, along the trail	Loose affiliation of businesses and ports that cater to or easily accommodate needs of human-powered river travelers; no dedicated facilities or specific route designated	Participating facilities common in region; the geography of the water trail and aquatic ecosystems along and within the water trail would be considered relatively rare	Irreplaceable due to geography of the water trail and aquatic ecosystems along and within the water trail	Yes
Vernonia to Astoria Bike Route	Not specific	0	61-mile bicycle tour route from Vernonia to Astoria, following OR-47 and OR-202. Publicized on PBOT web site.	61 miles; Approximately 12.0 miles of route in Analysis Area	State highways; not a state-designated tour or scenic route or bike route	Low	Long, challenging scenic bicycle tour route on lightly trafficked rural state highways; no bike lanes or other bike infrastructure	Common	Replaceable	No
Green shading indicates a recreation area added since the last RFA that EFSC reviewed for the facility.										

3.1 Inventory Methods

Recreational opportunities within the Analysis Area were identified through collection and review of existing published and unpublished information available from desktop research sources commonly used for recreation inventory efforts. Key types of information resources investigated for the inventory included:

- Geographic Information System files documenting recreational resources obtained from key recreation provider agencies, e.g., the Bureau of Land Management (BLM 2022), Oregon Department of Fish and Wildlife (ODFW; ODFW 2021), United States Forest Service (USFS 2023a, USFS 2023b), United States Geological Survey (USGS 2022), and Oregon Parks and Recreation Department (OPRD; OPRD 2018);
- Land management agency planning documents;
- Comprehensive plans, park and recreation plans, and individual park master plans prepared by OPRD and by counties and municipal governments within the Analysis Area;
- Internet sites maintained by recreation provider agencies, including the National Park Service (NPS), OPRD, ODFW, Oregon State University (OSU), and county and city park departments (Clatskanie Park and Recreation District 2023, Columbia County Undated, NPS 2024, ODFW 2023a, OPRD 2023, OSU 2024, Wahkiakum County 2020); and
- Internet sites maintained by various commercial entities, including sites providing general recreation and tourism information and sites applicable to specific private-sector recreation opportunities (Google Earth 2021, ORBIC 2020).

3.2 Importance Criteria

Recreational opportunities identified within the Analysis Area were evaluated for “importance” based on the criteria outlined in OAR 345-022-0100. A recreational opportunity may be determined to be important based on assessment of available information specific to each criterion, and a qualitative balancing of the attributes for all five criteria for a given resource. Specific considerations used to characterize the importance of a recreational opportunity relative to the five criteria outlined in OAR 345-022-0100 are summarized as follows:

- 1. Any special designation or management of the location;*

There are distinct, identifiable differences among the types of special management designations that apply to lands within the Analysis Area, and their associated implications for resource protection. Wilderness designation, for example, results in management direction to preserve the resource values of the designated area and represents a high level of protection. Other types of designations allow much more latitude in undertaking management activities and involve a lower degree of resource protection. The source of the special designation is also a relevant consideration; a designation established through an Act of Congress clearly carries more weight than an administrative designation applied by a resource management agency.

- 2. The degree of demand;*

Qualitative ratings of High, Moderate, and Low were used as proxy measures for the level of demand for a specific recreational opportunity.

3. Outstanding or unusual qualities;

Identification of characteristics that might be considered outstanding or unusual for a given opportunity is a highly subjective task, as there is a wide variation in the values, tastes, and perceptions among the recreational public. The standard does not specify what qualities would define an opportunity as “outstanding” or “unusual,” or indicate how those characteristics could be measured. Some sites or areas have attributes that qualify them as “unique” (i.e., one of a kind), while others have qualities that are not unique, but intuitively set them apart from other opportunities and could be considered outstanding or unusual.

4. Availability or rareness; and

Qualitative ratings of Rare, Uncommon, and Common were used to address the criterion based on the apparent rareness of an opportunity. Consideration of this rareness attribute was based on the approximate set of comparable opportunities (and the geographic scale appropriate to each type of opportunity) available within the region surrounding the Project.

5. Irreplaceability or irretrievability of the opportunity.

Ratings of Irreplaceable, Somewhat Irreplaceable, and Replaceable were used to address the criterion based on the ability to replace an opportunity. In general, opportunities based on inherent natural resource characteristics that could not feasibly be recreated in the same place or at another reasonably nearby location were considered Irreplaceable. By contrast, most opportunities that are based on constructed recreational facilities or infrastructure (such as typical campgrounds) could feasibly be replaced and were considered Replaceable.

The overall assessment of importance for each recreational opportunity identified was conducted on a case-by-case basis. Table T-1 provides a summary of each identified recreation opportunity in the Analysis Area, and indicates which are considered important for the purposes of this RFA 13. A description of each recreation opportunity is provided in the following sections.

3.3 Summary of Recreational Opportunities

In general, recreation activities in the vicinity of the Project consist of hiking, fishing, boating, camping, bicycling, organized sports, photography, game and bird hunting, and sightseeing. These activities may occur in numerous locations both inside and outside the Analysis Area; however, most of these activities occur only on an informal basis within the Analysis Area and therefore do not rise to a level of importance sufficient to require analysis under OAR 345-022-0100(2).

There are ten identified recreational opportunities within the Analysis Area. These are:

- Julia Butler Hansen Refuge for the Columbian White-Tailed Deer (JBHR);
- Lewis and Clark National Historic Trail (LCNHT);
- North Coast Travel Management Area/Hunting Area;

- Blodgett Tract Research Forest;
- The Beaver Boat Ramp and Park;
- County Line Park;
- Clatskanie City Park;
- Cope's Park;
- The Lower Columbia River Water Trail; and
- The Vernonia to Astoria Bike Route.

One of the recreational opportunities overlaps with the Site Boundary as proposed by RFA 13 (North Coast Travel Management Area/Hunting Area). Recreational opportunities within the Analysis Area are described below in order of federal, state, local and private ownership/management. Table T-1 provides a summary of each identified recreational opportunity, and an assessment of the importance of each opportunity. Figure T-1 shows the location of the recreation opportunities identified in the Analysis Area; note that the Lower Columbia River Water Trail does not have a designated route so its presence is indicated only by the open waters of the Columbia River.

3.3.1 Federal

3.3.1.1 U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) manages a single recreation area within the Analysis Area (see Figure T-1): the JBHR. The JBHR encompasses several islands in the Columbia River and portions of the mainland in Washington, just west of Cathlamet, covering over 6,000 acres of pastures, forested tidal swamps, brushy wood lots, marshes and sloughs. The Analysis Area encompasses a majority of the Westport Unit of the JBHR, approximately 4.1 miles northwest of the Site Boundary, as well as Wallace Island, located approximately 2.2 miles north of the Site Boundary, and Anunde Island, located approximately 1.4 miles northeast of the Site Boundary. All other portions of the JBHR are outside of the Analysis Area (i.e., the Crims-Gull Island Complex [6.4 miles northeast of the Site Boundary] and the Mainland-Hunting Islands-Tenasillahe Island-Welch Island-Price Island Unit [11.8 miles northwest of the Site Boundary]; Figure T-1). The locations outside of the Analysis Area are not considered for compliance with OAR 345-022-0010(t).

This refuge was established in 1972 specifically to protect and manage the endangered Columbian white-tailed deer. The JBHR is managed under a Comprehensive Conservation Plan (USFWS 2010) that also guides management of the Lewis and Clark National Wildlife Refuge (LCNWR); the LCNWR is outside of the Analysis Area and is not discussed further in this exhibit.

One estimate provided in the Comprehensive Conservation Plan indicates that the JBHR and LCNWR combined attract approximately 29,000 visitor-use days each year (USFWS 2010). Recreation activities within the JBHR include wildlife viewing, photography, boating, fishing, and seasonal hunting in designated areas. Most of the JBHR is accessible only by boat, and only foot

traffic is permitted outside of the few developed areas in the Mainland Unit, located northwest of Cathlamet and over 11 miles outside of the Analysis Area (Figure L-1). The Comprehensive Conservation Plan notes that activities in the units nearest the Project “are self-limiting due to dense vegetation, with public uses generally occurring only on the shorelines of these sites.” Seasonal waterfowl hunting is permitted along the shorelines of Wallace and Crims islands, while the Anunde Island and Westport units are closed to hunting; note that Wallace Island, Anunde Island, and a portion of the Westport unit are the only portions of the JBHR within the Analysis Area. Fishing is known to occur throughout the river near these islands, but the USFWS indicates that fishing appears to be concentrated in areas near the Mainland Unit, outside of the Analysis Area. Wildlife viewing opportunities are effectively confined to the Mainland Unit, due to the difficulty in accessing the JBHR’s island units and their dense riparian vegetation. Camping, overnight use, and fires are not permitted within the JBHR. Wallace Island has been designated as a wilderness study area and is managed to retain its wilderness characteristics. Observations of recreational use in the area during noise monitoring in June 2015 support the Comprehensive Conservation Plan statements (USFWS 2010). There appeared to be no use of Kinnunen Cut Island (within Wallace Island) for recreational activities, and the adjacent waterways appeared to be used primarily as a thoroughfare for motorized craft transiting from the Beaver Boat Ramp in Clatskanie to the Columbia River.

The USFWS does not collect or maintain recreational use data in a format that would support an estimate of the level of recreational use within the JBHR areas within the Analysis Area (Paul Meyers, USFWS, pers. comm. with Tetra Tech, June 26, 2015; and JBHR/USFWS staff, pers. comm. with Tetra Tech, July 5, 2023). The Comprehensive Conservation Plan does, however, include data on the distribution of use by the type of activity; interpretation of these data indicates that very little recreational use occurs in the Westport Unit, Anunde Island, and Wallace Island.

Wildlife observation/photography (6,700 annual visits) and environmental education/interpretation (600 visits) account for more than half of total JBHR use; virtually all that activity occurs at the Mainland Unit, where there is vehicle access, hiking/walking opportunities, and a viewpoint on Washington State Route 4 (USFWS 2010). Activity that would logically occur at or around the JBHR components within the Analysis Area or near the Project is essentially limited to waterfowl hunting and fishing. As noted above, those activities occur only along the shorelines of islands where hunting and access are permitted (the Westport Unit is closed to hunting) and on the adjacent waters, and fishing activity is concentrated around the Mainland Unit. Waterfowl hunting activity for the entirety of JBHR is estimated at 1,200 visits, and fishing is estimated at 4,500 visits, for a combined total of 5,700 annual visits. That volume of use is distributed in an uncertain pattern throughout the water-accessible areas of the 6,000-acre JBHR. The Comprehensive Conservation Plan indicates that Wallace Island includes 579 total acres (including the 47-acre Kinunen Cut Island; entirely within the Analysis Area) all owned by the USFWS; Anunde Island is 102 total acres, including only 3.6 acres owned by USFWS (the privately owned remainder is entirely within the Analysis Area); the Westport Unit includes 146 acres, of which perhaps 131.4 acres are within the Analysis Area, all owned by USFWS; and Crims Island includes 695 acres, of which 473 are owned by the USFWS (not within the Analysis Area). Among these islands, the combined area located

within the Analysis Area is likely 715 acres or less. Based on their acreage and shoreline extent, the JBHR components within the Analysis Area account for at most a small fraction of the total waterfowl hunting and fishing activity within JBHR.

The federal designation as a national wildlife refuge would not by itself automatically qualify this area as an important recreation opportunity. The specific descriptions of JBHR use in the Comprehensive Conservation Plan indicate that there is very little recreational use in the portion of the JBHR within the Analysis Area; USFWS staff confirmed that visitor use in that area has not been quantified but is quite low (Paul Meyers, USFWS, pers. comm. with Tetra Tech, June 26, 2015; and JBHR/USFWS staff, pers. comm. with Tetra Tech, July 5, 2023). Rather, recreational use tends to be concentrated on or near the Mainland Unit, outside of the Analysis Area. However, because the JBHR is operated under a special designation by a management plan (which includes goals for enhancing wildlife-dependent recreational opportunities) and includes irreplaceable islands with unique and unusual wildlife-dependent recreational opportunities including hunting, fishing, wildlife observation, and photography, environmental education and interpretation, the JBHR is considered an important recreation opportunity for the purposes of this RFA 13. The JBHR is also considered a protected area and impacts to it are discussed in Exhibit L of this RFA 13.

3.3.1.2 National Park Service

The Analysis Area includes a portion of the Lewis and Clark National Historic Trail (LCNHT), which received federal designation as a “historic trail” under the National Trails System Act (NTSA) in 1978. The purpose of the historic trail designation on federal lands is to protect the historic route and any associated artifacts. Specifically, the purpose is described in Section 3(a)(3) of the NTSA as follows (GovInfo 2023):

National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of an historic trail which are on federally owned lands and which meet the national historic trail criteria established in this chapter are included as Federal protection components of a national historic trail....

Thus, the NTSA and its related protections apply only to where the ONHT is on federal lands. In addition, the focus of the NTSA is on historic preservation, not the management of scenic or recreational resources.

The NTSA indicates that specific locations along a historic trail can be identified as “high-potential” sites or trail segments. High-potential sites and trail segments are described as those locations that provide an opportunity to interpret the historic significance of the trail during its major use. No high-potential sites or trail segments were found within the Analysis Area (NPS 1982). Additionally, no specific recreational attractions were found along the LCNHT within the Analysis Area (NPS 2024).

The Comprehensive Plan for Management and Use of the Lewis and Clark National Historic Trail (NPS 1982) was developed to comply with the requirements of the NSTA and to manage preservation of the LCNHT. The Comprehensive Plan, as well as the updated Foundation Plan (NPS

2012), explain that the purposes of the LCNHT are “to commemorate the 1804 to 1806 Lewis and Clark Expedition through the identification; protection; interpretation; public use and enjoyment; and preservation of historic, cultural, and natural resources associated with the expedition and its place in U.S. and tribal history”. Thus, the LCNHT is managed for historical significance and not primarily as a recreational resource. No developed facilities are available and the portion within the Analysis Area can only be accessed by water. The LCNHT is one of four National Historic Trails in Oregon, traveling a total of 3,700 miles, 8 miles of which are within the Analysis Area. The LCNHT is considered to have moderate demand and be irreplaceable. Therefore, the LCNHT is considered an important recreation opportunity for the purposes of this RFA 13.

3.3.2 State

3.3.2.1 Oregon Department of Fish and Wildlife

There are two parcels owned by the State of Oregon within the Analysis Area. These parcels do not contain designated recreation areas nor are considered to be recreational resources. Within the Analysis Area and within 5 miles of the Site Boundary is the North Coast Travel Management Area/Hunting Area, managed by ODFW (Figure T-1). The site is located almost entirely on private land (aside from identified protected areas/scenic resources within the Analysis Area that are not included in the Travel Management Area; ODFW 2023b; see Exhibits L and R) and is open to hunting for deer, elk, bear, forest grouse, and band-tailed pigeon with no camping or restrooms. All-terrain vehicles (ATVs) are not permitted, limited motor vehicle travel allowed, and the access period is three days prior to the opening of archery season through close of all bull elk rifle seasons (ODFW 2023a). The entire Site Boundary overlaps with this hunting area, but only makes up less than one percent of the hunting area available, which totals over one million acres; additionally, where the Site Boundary overlaps the hunting area, the property is private and is not open to public hunting or other recreational activities without obtaining a Sporting Permit from the private landowner (i.e., Weyerhaeuser). Demand for hunting within the Site Boundary is predicted to be low due to the great amount of other areas available for hunting within the same hunting unit. Due to the hunting area’s lack of demand, outstanding qualities, rareness, and replaceability, the hunting area would typically not be considered an important recreational resource, but is included in this analysis due to the hunting area encompassing the entire Project Site Boundary.

3.3.2.2 Oregon State University

The Blodgett Tract Research Forest is contained within the Analysis Area, located one mile west of the Site Boundary (Figure T-1). The site is open for non-motorized use such as hiking, picnicking, running, biking, and horseback riding. Otherwise, it’s primary function is for research and providing students with the opportunity to learn about forest ecosystems and management (OSU 2024). Demand is assumed to be highest in the summer months but otherwise low, during which only researchers and students access the forest. No developed facilities are present and it is one of nine research forests in western Oregon, all with similar amenities. Due to the proximity to the Site Boundary, demand, and irreplaceability, the forest is considered an important recreational

resource. The Blodgett Tract Research Forest is also considered a protected area and impacts to it are discussed in Exhibit L of this RFA 13.

3.3.3 Local Governments and Special Districts

Counties, cities, and special districts provide three recreation opportunities within the Analysis Area. Local government resources tend to be smaller-scale parks with an emphasis on day-use activities and typically serve more localized user populations. Local government recreation providers within the Analysis Area include Columbia County, Wahkiakum County, and the City of Clatskanie.

Columbia County manages one recreational opportunity in the Analysis Area, the Beaver Boat Ramp and Park (see Figure T-1). The park is nearly two acres and is a day-use park with paved parking, boarding floats, restrooms, and barbeque grills (Columbia County Undated). Demand is considered high, for it is a commonly used boat launching location on the Clatskanie River. Due to the park's lack of outstanding qualities, rareness, and replaceability, the park is not considered an important recreation resource for the purposes of this application.

Wahkiakum County manages one recreational opportunity in the Analysis Area, the County Lin Park (see Figure T-1). The park is 5.5 acres and is a day-use and overnight camping park with recreational vehicles hookups and tent camping (Cathlamet Marina 2024). Based on its location, day-use, and overnight camping opportunities, the degree of demand would be considered high. Due to the park's lack of outstanding qualities, rareness, and replaceability, the park is not considered an important recreation resource for the purposes of this application.

There are also two parks owned and managed by the City of Clatskanie within the Analysis Area: Clatskanie City Park and Cope's Park (see Figure T-1). The Clatskanie City Park is a day-use park with a swimming pool, skate park, boat ramp, several sports fields and courts, a play area, and picnic areas. The Clatskanie City Park is the sole city park in the area with rare amenities such as a public swimming pool and skate park. Cope's Park is a day-use park with a 1.4-mile paved walking trail that includes eight fitness stations along the path; there are no developed facilities (Clatskanie Park and Recreation District 2023). The park is also home to the Veterans Memorial and the location of the Clatskanie Farmer's Market every Saturday during the summer months. Cope's Park is the sole city park in the area with rare amenities such as a Veterans Memorial. Both parks primarily serve the residents of Clatskanie, and demand is anticipated to range from high during the summer months to low during the other seasons for both parks. Both parks are over 2 miles from the Project Site Boundary, specifically the northern-most portion of the Site Boundary that will house the temporary sorting yard/laydown yard, which will not be utilized once construction is complete. Both parks are otherwise greater than 5 miles from the remainder of the Project Site Boundary. Therefore, due to both parks' lack of outstanding qualities, rareness, and replaceability, and proximity to permanent portions of the Site Boundary, the parks are not considered to be important recreation resources for the purposes of this RFA 13.

3.3.4 Private

There are two privately owned recreation opportunities within the Analysis Area, the Lower Columbia River Water Trail and the Vernonia to Astoria Bike Route. The Lower Columbia River Water Trail is not a designated trail route; rather, it is a loose affiliation of businesses, parks, and boat launch sites that cater to or easily accommodate human-powered travel on the lower Columbia, none of which are specific to the Lower Columbia River Water Trail. There is no official state or local designation for the route or any associated sites. The Lower Columbia Estuary Partnership hosts a website with information and an interactive map of trail resources including boat launches, campsites, and a few restaurants (LCEP 2023). Identified boat launches and parks within the Analysis Area are discussed above. The map points out that a grocery store and several restaurants are within walking distance of boat launches in Clatskanie. Demand is considered to be moderate due to the various opportunities for boating along the trail. The geography of the water trail and aquatic ecosystems along and within the water trail would be considered relatively unusual, uncommon and irreplaceable. Therefore, the trail is considered to be an important recreation opportunity for the purposes of this RFA 13.

Bicycling can occur on any road, but there is one recognized bicycle tour route within the Analysis Area, a ride from Vernonia to Astoria via Oregon Highway 47 (OR-47) and Oregon Highway 202 (OR-202). This bike route is described on the Portland Bureau of Transportation website (PBOT 2023). This is not a state- or county-designated bike route, and there are no bike lanes or bike-specific infrastructure on any of the roads on which the route runs. Due to a lack of official designation or support, and the ability to replace this route using other similar roads, this bike route is not considered an important recreation opportunity for the purposes of this application.

3.3.5 Importance Assessment Summary

Based on the importance criteria described above, five of the identified recreation resources have been determined to be important for the purposes of this analysis. These resources are summarized in Table T-1 of this exhibit. The potential for impacts to the important recreation resources as a result of the Project as modified by RFA 13 is discussed in Section 4.

4.0 Impact Assessment – OAR 345-021-0010(1)(t)(B)(C)

OAR 345-021-0010(1)(t)(B) A description of any potential adverse impacts to the important opportunities identified in paragraph (A) including, but not limited to:

- (i) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation;*
- (ii) Noise resulting from facility construction or operation;*
- (iii) Increased traffic resulting from facility construction or operation;*

(iv) Visual impacts of facility structures or plumes, including but not limited to, changes in landscape character or quality;

OAR 345-021-0010(1)(t)(C) An evaluation of the significance of the potential adverse impacts identified under paragraph (B);

As previously found by the Council, the design, construction, and operation of the Project, when taking into account mitigation, are not likely to result in any significant adverse impacts to any important recreational opportunities in the Analysis Area.^{4,5} The following sections summarize the types of potential adverse impacts evaluated and provide summaries of the analysis.

4.1 Direct or Indirect Loss of Recreational Opportunities – OAR 345-021-0010(1)(t)(B)(i)

(ii) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation;

For a direct loss of opportunity to occur, the Project would need to physically disturb the ground located within the affected recreational resource area. The Project as modified by RFA 13 would not directly impact any identified recreation resource, as four of the five important recreational opportunities are not within the Site Boundary. Similarly, although the North Coast Travel Management Area/Hunting Area crosses the Site Boundary, the Project as modified by RFA 13 will be constructed on private property on which access/hunting will not be permitted without a Sporting Permit from the private landowner (see above); note that the Project is already operational and thus shared usage of the Analysis Area already occurs at the site and has been approved in previous amendments. All permanent portions of the Project as modified by RFA 13 are contained within the previously approved Site Boundary.^{6,7} Note that the Project represents less than one percent of the total area of the North Coast Travel Management Area/Hunting Area, which totals over one million acres, thus direct impacts are anticipated to be minimal.

An indirect loss of opportunity could occur if 1) a recreational opportunity nearby the Project would not be physically disturbed by construction activity but might need to be temporarily closed to public use in response to safety concerns; or 2) if development of the Project were to alter the environment of a recreational opportunity through indirect effects that it substantially adversely impacted the quality of the recreation experience at that site.

With respect to the first type of potential indirect loss, because four of the five identified important recreation resources in the Analysis Area are located one mile or more from the Site Boundary, indirect opportunity loss due to temporary closure for safety concerns is unlikely to occur.

⁴ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 17.

⁵ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 137.

⁶ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 7.

⁷ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 4.

Similarly, although the North Coast Travel Management Area/Hunting Area crosses the Site Boundary, the Project will be constructed on private property on which access/hunting will continue to not be permitted without a Sporting Permit from the private landowner; see description above. Potential sources of the second type of indirect loss—environmental disturbance impacts to important recreational opportunities—include noise, traffic, and changes in visual quality associated with the Project as modified by RFA 13; the following sections analyze these three factors.

4.2 Noise – OAR 345-021-0010(1)(t)(B)(ii)

(ii) Noise resulting from facility construction or operation;

Exhibit Y provides an assessment of the existing acoustical environment and anticipated Project sound levels. The methodology for noise modeling is also discussed in detail in that Exhibit. Exhibit Y describes sound level thresholds derived from the Oregon Department of Environmental Quality (ODEQ) noise regulations (OAR 340-035-0035), which are used to assess the significance of impacts to noise sensitive properties. As defined in OAR 340-035-0035, “noise sensitive properties” are “real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.” None of the important recreation areas are considered to be noise sensitive properties, and the ODEQ noise regulations do not apply.

Mechanical equipment at the North Mist Compressor Station (NMCS) will create noise; however, the NMCS will be designed to meet ODEQ standards at the nearest residences to the site, which are located near Fishhawk Lake. Noise from operations of the NMCS will be inaudible generally or indistinguishable from background/ambient noise levels (35 decibels) at sites beyond 0.5 miles from the NMCS. Therefore, only the North Coast Travel Management Area/Hunting Area may experience operational noise, however, the hunting area is not considered to be a noise sensitive property and worst-case will receive sound levels of up to 60 decibels (immediately outside of the Site Boundary), considered to be equivalent to less than that of a normal conversation; this noise level is similar to existing operational noise levels, and what was previously approved in RFA 11 for noise levels directly outside the NMCS Site Boundary⁸. As provided in Exhibit Y, various measures will continue to be implemented to limit the noise levels during operations as necessary, including an exhaust silencer system at the NMCS.

The Oregon State Noise Control Regulations specifically exempt noise emanating from construction activities from compliance with the state noise regulations under OAR 340-035-0035(5). Notwithstanding the arguable inapplicability of the noise regulations to construction activities, the following discussion of construction noise is intended to demonstrate that the Project as modified by RFA 13 continues to meet the evidentiary requirements as previously found by the Council under OAR 345-021-0010(1)(t)(B)(ii), and would not create new noise impacts to important

⁸ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 160-163.

recreational opportunities beyond those that were previously identified.^{9,10} Construction activities will occur at the NMCS Site, and along the proposed pipeline route. Along the pipeline route and within the NMCS Site, there is one primary method of construction: trenched pipe installation. Trenched piping will involve logging and grading of the route, excavation, pipe welding and placement, and backfilling. In general, the types and loudness of sound sources associated with trenched pipe will be similar to logging and silviculture activities that already occur in the proposed trenched pipe section.

Horizontal directional drilling pipe installation will primarily occur along the powerline alignment near the stretch of the mainline road down near Highway 202. With the exception of the North Coast Travel Management Area/Hunting Area, this Site Boundary area for the powerline alignment is located over 4 miles away from the nearest important recreation area (Blodgett Tract, which is not considered a noise sensitive property), thus adverse noise impacts are not anticipated as a result. Note that horizontal directional drilling will occur only during construction, thus noise impacts to the hunting area are anticipated to be temporary in duration, and sound levels will return to current levels upon construction completion.

4.3 Traffic – OAR 345-021-0010(1)(t)(B)(iii)

(iii) Increased traffic resulting from facility construction or operation;

No new significant traffic impacts to important recreation areas are anticipated from the Project as modified by RFA 13.^{11,12} Most construction traffic would occur on U.S. Highway 30 (US-30), which has adequate capacity to carry all Project construction traffic without creating traffic delays (see traffic impact analysis in Exhibit U). Although access to the JBHR, North Coast Travel Management Area/Hunting Area, Blodgett Tract Research Forest, and the Lower Columbia River Water Trail are largely via US-30 (for portions within the Analysis Area), there would be no direct traffic impacts at those recreation areas, and little likelihood of even temporary delays in reaching those areas due to the capacity of US-30. The LCNHT and portions of the JBHR closest to the Project are islands accessible only by boat, so would be unaffected by Project traffic. Similarly, the portions of the LCNHT and Lower Columbia River Water Trail within the Analysis Area will predominately be boaters. Project traffic would also utilize OR-47 between Clatskanie and Mist, and some of the local roads north of Clatskanie. None of these roads provide direct access to any important recreation area but could be utilized to access the Blodgett Tract Research Forest and North Coast Travel Management Area/Hunting Area. While some of the access roads cross or run within the Site

⁹ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 17.

¹⁰ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 135-136.

¹¹ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 17.

¹² Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 136-137.

Boundary and may experience some temporary disruption during Project construction, these are private timber roads that would not typically be accessible to the public.

In the unlikely event that users of any important recreation area experience access disruptions or delays due to delivery of Project materials or construction equipment, these impacts would be brief, intermittent and temporary, and traffic levels would return to normal following construction.

During construction, best management practices as detailed in Exhibit U, will ensure that access restrictions to any important recreation area will be temporary and timed to avoid peak traffic flow.

The operational phase of the Project would not generate amounts of traffic that could adversely impact important recreation areas; the Project would not require additional staffing to operate, so operational traffic levels would be similar to current, pre-project levels. Therefore, there will be no significant impacts to important recreation areas due to Project traffic.

Traffic impacts are addressed in greater detail in Exhibit U, which provides additional information on anticipated traffic volumes, peak construction traffic times, potential delays, and temporary road closures; mitigation measures that would be implemented by NWN and the construction contractor to avoid significant traffic impacts; and required coordination with Oregon Department of Transportation and county road officials for necessary road improvements, road closures, and permits for construction and oversized load movements.

4.4 Visual – OAR 345-021-0010(1)(t)(B)(iv)

(iv) Visual impacts of facility structures or plumes, including, but not limited to, changes in landscape character or quality;

No new significant visual impacts to protected areas are anticipated from the Project as modified by RFA 13.^{13,14} OAR 345-021-0010(1)(t)(B)(iv) requires an assessment of “Visual impacts of facility structures or plumes, including, but not limited to, changes in landscape character or quality.” The Project would not generate any emissions plumes, so would not cause any visual impacts from air emissions.

Nearly all Project facilities would be underground, so visual effects of the Project are largely limited to potential views of construction activities (including activity at the temporary laydown yards), and potential views of the area along the pipeline right-of-way and powerline alignment right-of-way that would be cleared of vegetation. All of these would be temporary impacts; construction will be phased lasting from approximately July 2025 through November 2029, and any cleared rights-of-way would be revegetated following completion of construction. Permanent above-ground facilities as proposed by RFA 13 are limited to infrastructure at the NMCS and above-ground appurtenances at the Newton, Stegosaur, and Medicine well pads. All of these locations are surrounded by mature forest vegetation that would effectively screen them from public view.

¹³ Final Order on Requests for Contested Case and Amendment #12 of the Site Certificate (September 2017), p. 17.

¹⁴ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 137.

Additionally, potential views of these facilities from the important recreation areas (with the exception of the North Coast Travel Management Area/Hunting Area and Blodgett Tract Research Forest; see Table T-2) would be blocked by both terrain and vegetation (see Table T-2 and Figure L-2, Zone of Visual Influence). Note that all above-ground infrastructure as proposed by RFA 13 will be equal or less height as previously approved by EFSC.¹⁵ Table T-2 describes the locations of the identified recreation areas and geographic features that would serve to block potential views of the Project; Figure T-1 is a set of topographic maps that show the recreation area locations and intervening terrain and Figure L-2 includes a Zone of Visual Influence viewshed analysis; see Exhibit L for a detailed description of the analysis and the Project components that were included.

As described in Table T-2, the visual impact of the Project on all important recreation areas would be negligible. Based on an assessment of screening due to topography and vegetation, all important recreation areas may have partial views of the Project; All important recreation areas may have visibility of the cleared pipeline right-of-way and cleared powerline alignment right-of way located within the timber lands south of US-30, but actual views are likely to be partially to entirely screened by vegetation. If visible, the cleared rights-of-way would be seen in the context of a patchwork of actively managed timber lands including clearcuts and regenerating areas and a network of logging roads. In addition, the predominately long viewing distances would make these features difficult to distinguish. The cleared rights-of-way through the timber lands, therefore, would not represent an unusual visual feature in the area, and would not be considered a significant change to existing visual quality.

¹⁵ Final Order on Request for Contested Case and Amendment No. 11 of the Site Certificate (April 2016), p. 94-137.

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Table T- 2. Potential Visual Impacts to Important Recreation Resources

Protected Area	Potential Project Visibility	Potential Visual Impact
Julia Butler Hansen Refuge	Some potential visibility of portions of Project in hills south of US-30, from island units nearest the Project. View of the NMCS infrastructure and well pad appurtenances blocked by terrain and/or vegetation for entirety of the JBHR (see Figure T-1 and L-2).	Negligible. Potential views of the Project from refuge headquarters and primary public use areas in the Mainland Unit are largely blocked by vegetation within the JBHR and also by terrain. Some portions of the pipeline and powerline alignment rights-of-way may be visible from the Mainland Unit, at a distance of at least 11.7 miles. Some portions of some of the island units closer to the Project may have increased views of pipeline and powerline alignment rights-of-way at a minimum viewing distance of about 4.6 miles. However, where visible, the rights-of-way would be seen in the context of actively managed commercial timber lands with a network of logging roads and a patchwork of clearcuts and recovering harvested areas, so would not represent new or unusual visual features in the landscape. Additionally, the island units are accessible only by water and reportedly receive little public use (USFWS 2010) so there would be few viewers affected. The NMCS infrastructure and well pad appurtenances would not be visible from any point in the JBHR.
Lewis and Clark National Historic Trail	Some potential visibility of portions of the cleared rights-of-way; View of the NMCS infrastructure and well pad appurtenances blocked by terrain and/or vegetation (see Figure T-1 and L-2).	Negligible. Potential views of the Project along the LCNHT are largely blocked by vegetation and terrain. Some portions of the pipeline and powerline alignment rights-of-way may be visible, at a minimum viewing distance of at least 8.7 miles. However, where visible, the rights-of-way would be seen in the context of actively managed commercial timber lands with a network of logging roads and a patchwork of clearcuts and recovering harvested areas, so would not represent new or unusual visual features in the landscape. The NMCS infrastructure and well pad appurtenances would not be visible from any point along the LCNHT.
North Coast Travel Management Area/Hunting Area	Some potential visibility of the NMCS infrastructure and well pad appurtenances, and portions of the rights-of-way in timber lands (see Figure T-1 and L-2).	Negligible. The hunting area within the Analysis Area is located almost entirely on private land (aside from identified protected areas/scenic resources within the Analysis Area that are not included in the Travel Management Area). Otherwise, the hunting area within the Analysis Area consists predominately of a patchwork of clearcuts and recovering harvest areas, with a network of logging roads and log decks and is not managed for scenic qualities. From a few high vantage points in the hunting area, and directly adjacent to the Site Boundary containing aboveground structures, the NMCS infrastructure and well pad appurtenances, may be visible; however, for most of the hunting area (the remaining 99 percent of the over one million acre hunting area) the NMCS infrastructure and well pad appurtenances would be hidden from view by high hills just to the northwest of the site, as well as by terrain in the hunting area and by forest vegetation surrounding the NMCS infrastructure and well pad appurtenances. Some portions of the pipeline and powerline alignment rights-of-way may also be visible where permitted by terrain and clearcuts; where visible, the cleared rights-of-way would not represent new or unusual features in the landscape.
Blodgett Tract Research Forest	Some potential visibility of the NMCS infrastructure and well pad appurtenances, and portions of the rights-of-way in timber lands (see Figure T-1 and L-2).	Negligible. The Blodgett Tract is a working research forest, consisting of a patchwork of clearcuts and recovering harvest areas, with a network of logging roads and log decks; it is not managed for scenic qualities. From a few high vantage points in the Tract, the NMCS infrastructure and well pad appurtenances, may be visible (located over 1.7 miles away); however, for most of the Tract the NMCS infrastructure and well pad appurtenances would be hidden from view by high hills just to the northwest of the site, as well as by terrain in the Tract and by forest vegetation surrounding the NMCS infrastructure and well pad appurtenances. Some portions of the pipeline and powerline alignment rights-of-way may also be visible where permitted by terrain and clearcuts; where visible, the cleared rights-of-way would not represent new or unusual features in the landscape.
Lower Columbia River Water Trail	Some potential visibility of portions of Project in hills south of US-30. View of the NMCS infrastructure and well pad appurtenances blocked by terrain and/or vegetation (see Figure T-1 and L-2).	Negligible. Potential views of the Project along the Trail are largely blocked by vegetation and terrain. Some portions of the pipeline and powerline alignment rights-of-way may be visible, at a minimum viewing distance of at least 5.1 miles. However, where visible, the rights-of-way would be seen in the context of actively managed commercial timber lands with a network of logging roads and a patchwork of clearcuts and recovering harvested areas, so would not represent new or unusual visual features in the landscape. The NMCS infrastructure and well pad appurtenances would not be visible from any point along the Trail.

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5.0 Minimization and Mitigation Measures – OAR 345-021-0010(1)(t)(D)

OAR 345-021-0010(1)(t)(D) A description of any measures the applicant proposes to avoid, reduce or otherwise mitigate the significant adverse impacts identified in paragraph (B);

As described in Section 4, the Project as modified by RFA 13 will have no significant, direct adverse impact on any important recreational opportunity in the Analysis Area. Indirect disturbance effects associated with traffic, noise, or visual aspects of the Project as modified by RFA 13 would not lead to an indirect loss of any important or identified recreational opportunity. Consequently, no mitigation measures for recreation are proposed.

6.0 Monitoring Program – OAR 345-021-0010(1)(t)(F)

OAR 345-021-0010(1)(t)(F) The applicant's proposed monitoring program, if any, for impacts to important recreational opportunities.

Because construction and operation of the Project as modified by RFA 13 would have no significant adverse impacts on recreational opportunities in the Analysis Area, and no mitigation specific to recreation is warranted or proposed, no monitoring program for recreation is proposed.

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