

Appendix B

Detailed Description of the Project
Alternatives

Appendix B - Expanded Description of the Proposed Project and Alternatives

This appendix provides an expanded description of the alternatives that are analyzed within the Environmental Assessment (EA). A reasonable range of alternatives has been selected based on consideration of the purpose and need of the Proposed Action and opportunities for potentially reducing environmental effects. These alternatives include:

- A commercial-heavy mixed-use development (Alternative 1),
- A recreation-heavy mixed-use development (Alternative 2), and
- The No Action Alternative (Alternative 3).

The Tribe proposes to develop a mix of commercial, retail, office, housing, and recreational land uses within the Project Site in addition to ancillary infrastructure and facilities. The timing for development of the Subject Property will be subject to future market conditions and other factors, such as the cost and availability of building materials; therefore, it is important to note the conceptual nature of the alternative site plans. The configuration of land uses, heights, alignment, and relative mixes of uses could vary somewhat within the limits analyzed in this EA. Within the site boundaries, limits of overall square footage and types of land uses addressed within the EA, specific internal road alignments, utility infrastructure, development mix, and building height and bulk for specific buildings could vary from what is shown on the site plans; however, connection points to the adjacent public rights-of-way and utilities are expected to be fixed.

1 ALTERNATIVE 1 – COMMERCIAL-HEAVY MIXED-USE DEVELOPMENT

1.1 Proposed Land Uses

Proposed land uses under Alternative 1 consist of a mix of over 900,000 sf of commercial uses and 320 residential units and are outline in **Table 1**.

A breakdown of the proposed land uses under Alternative 1 is provided in **Table 1** and **Table 2**. An example of how buildings could be arranged within the Project Site is illustrated in **Figure 4**. During operation, Alternative 1 would provide approximately 2,466 new full-time equivalent jobs. Alternative 1 would be constructed per the Nisqually Building Code, which is generally consistent with the 2018 International Building Code (IBC) (Nisqually Tribal Code Section 54.01.200).

Figure 41: Alternative 1 - Commercial-Heavy Mixed-Use Development Project Site Plan

Table 1: Project Uses – Alternative 1

Project Use	Description of Use
Commercial	Commercial areas within the Project Site would include: <ul style="list-style-type: none"> Upscale grocery and neighborhood serving retail uses along Marvin Road. Family Entertainment complex, including movie theater, bowling alley, adult arcade, restaurants, brewery/bar, and a golf entertainment facility. General commercial/retail uses, including big box store, grocery, and retail/dining facilities in the northwest quadrant of the site. 200-room hotel. Car dealership.
Multi-family Residential	High-density, multi-family apartment buildings with up to 300 units are proposed along Britton Parkway, adjacent to the family entertainment and complex and near the grocery and neighborhood serving retail areas.
Cultural Village	The Cultural Village would be a live-work neighborhood with retail space, art studio space, office space, and 20 live/work housing units.
Travel Center	The proposed Travel Center would include full-convenience retail, food, and beverage space; a carwash; a travel lounge with shower and laundry facilities; tobacco outlet; 16 gasoline fuel pumps; 10 diesel fuel pumps; and a service center.
Parking	There would be approximately 4,655 parking spaces provided by several surface parking areas within the Project Site. Of the 4,655 parking spaces, twenty percent will be electric vehicle (EV) capable, approximately 931 spaces, and of the EV capable spaces, twenty-five percent will be EV equipped, approximately 233 spaces.

Table 2: Project Components – Alternative 1

Master Plan Area #	Development Components	Lot Area	Proposed Development Area or Units	Parking Spaces
01	General Commercial/Retail	40.5 acres	395,000 square footage (SF)	2,000
	<i>Big Box Store</i>	-	<i>185,000 SF</i>	-
	<i>Large Grocer</i>	-	<i>100,000 SF</i>	-
	<i>Retail and Dining</i>	-	<i>110,000 SF</i>	-
02 & 04	Golf Entertainment Facility	7.4 acres	93 stations	160
03	Car Dealership	2.0 acres	30,000 SF	10
06	Hotel (4-Story)	5.0 acres	200 rooms	207
07	Family Entertainment	19.5 acres	179,000 SF	720
	<i>Theater and Dining</i>	-	<i>45,000 SF</i>	-
	<i>Bowling Alley</i>	-	<i>40,000 SF</i>	-
	<i>Adult Arcade Facility</i>	-	<i>27,000 SF</i>	-
	<i>Food, Beverage and Retail</i>	-	<i>47,000 SF</i>	-
	<i>Brewery</i>	-	<i>20,000 SF</i>	-
08 & 09	High Density Multi-Family Apartments	14.6 acres	300 units	450
10	Cultural Village - Live-Work	8.2 acres	110,000 SF	185

Master Plan Area #	Development Components	Lot Area	Proposed Development Area or Units	Parking Spaces
	<i>Retail and Studios</i>	-	<i>80,000 SF</i>	-
	<i>Office</i>	-	<i>30,000 SF</i>	-
	<i>Live/Work (Housing)</i>	-	<i>20 units</i>	-
11	Upscale Grocery	4.8 acres	30,000 SF	210
12 & 13	Neighborhood Retail	17.2 acres	149,500 SF	488
14	Travel Center	28.0 acres	36,000 SF	75 car/150 truck
	<i>Convenience Center</i>	-	<i>36,000 SF</i>	-
	<i>Diesel Pumps for Trucks</i>	-	<i>10 pumps</i>	-
	<i>Gasoline Pumps</i>	-	<i>16 pumps</i>	-

Source: HBG, 2022

Table 3: Land Use Summary – Alternative 1

Land Use	Total Development
Commercial and Retail	929,500 SF
Recreational Facilities	7.4 acres
Lodging Facilities	200 rooms
Housing	320 units
Fuel Pumps	10 diesel / 16 gasoline
EV Capable Parking Spaces	931 spaces
EV Equipped Parking Spaces	233 spaces
Total Parking	4,655 spaces

Source: HBG, 2022

Architecture, Signage, Lighting, and Landscaping

An architectural rendering of Alternative 1 facing west near the intersection of Marvin Road and Main Street is included as **Figure 5**. As illustrated therein, the architecture and exterior signage of the proposed development would be contemporary. Exterior colors would include warm tans and grays, and materials would include wood, stone, glass, and other materials.

The exterior lighting of Alternative 1 would be integrated into components of the architecture and would be strategically positioned to minimize off-site lighting and any direct sight lines to the public. Illuminated signs would be designed to blend with the light levels and colors of the building and landscape. The architectural design of Alternative 1 would be enhanced by decorative landscaping. New streetlights would be provided on the internal roadways and parking areas as appropriate to provide sufficient illumination of the streets for traffic and pedestrians to traverse them safely. As described in **Section 1.9**, the streetlights would be designed with cut-off lenses and downcast illumination to minimize light or glare off-site.

Figure5: Alternative 1 Rendering

1.2 Water Supply

A Water Supply and Wastewater Feasibility Study was prepared and is attached as Appendix C to the EA. As shown in **Table 4**, the estimated average daily water demand for Alternative 1 would be approximately 363,129 gallons per day (gpd) with an annual average consumption of approximately 132.5 million gallons (406.8 acre-feet). Maximum daily demand is anticipated to be as high as 737,152 gpd (Appendix C of the EA). The firefighting water demand including water for sprinklers, fire service connections, and fire hydrant outlets, would be 4,000 gallons per minute (gpm). On-site water distribution would be provided through a network of 8-inch to 16-inch diameter pipes as needed to serve the proposed development. Water supply under Alternative 1 would be provided via connections to the City’s water distribution system (Water Supply Option 1) or through the development of on-site wells and treatment facilities (Water Supply Option 2).

Potential uses for reclaimed water under Alternative 1 include toilet flushing, landscape irrigation, and emergency fire flow and fire sprinklers. If a reclaimed water system is utilized, it could reduce the overall potable water demand of Alternative 1 (see **Table 6**) by as much as 37.6% (Appendix C of the EA). If a reclaimed water system is utilized, a dual distribution system would be installed onsite: one for the potable water serving the buildings and one for the reclaimed water.

Table 4: Estimated Average Water Usage – Alternative 1

Facility	Units	Demand per Unit (gpd)	Quantity	Average Daily Water Usage (gpd)
Apartments	Apt	150	300	45,000
Theater	SF	0.12	41,200	4,944
Entertainment Center	SF	0.08	17,500	1,400
Retail	SF	0.011	541,740	5,959
Grocery	SF	0.022	130,000	2,860
Retail Parking Factor	Spot	2	3,430	6,860
Office	SF	0.021	30,000	630
Hotel	Room	73	200	14,600
Golf Entertainment Facility	SF	0.08	55,500	4,440
Car Dealership	SF	0.011	30,000	330
Travel Center	SF	0.016	31,000	496
Restaurants	SF	1	87,060	87,060
Bowling Alley	SF	0.16	30,500	4,880
Live/Work Units	EA	200	20	4,000
HVAC	Ton	30	1,989	59,670
Landscape Irrigation	Acre	4,000	30	120,000
Total				363,129

Source: Appendix C of the EA Water Supply Option 1 – Off-site Water Supply

Water Supply Option 1 – Off-Site Potable Water Supply

The Project Site is located within the City of Lacey’s water service area. Under this option, water supply for Alternative 1 would be provided through connection to the City’s water distribution system that has multiple water lines either onsite or immediately adjacent to the Project Site, as described below. Existing water lines and proposed connections are shown in **Figure 6** and outlined in **Table 5**.

Table 5: Proposed Connections to Existing Water Lines

Onsite Facilities	
Proposed Connection	Connection Site
16-inch water lines	Gateway Boulevard Northeast (NE)
16-inch water line	Main Street NE
12-inch water line	Western Parkway NE on the western portion of the Project Site
14-inch water line	Main Street NE on the eastern portion of the Project Site
Off-site Facilities	
Proposed Connection	Connection Site
16-inch water lines	Britton Parkway NE to the north
14-inch water lines	Marvin Road NE to the east

Based on preliminary discussions with the City, their water supply system currently has the water supply and pressure capacity to serve the Project Site with up to 350,000 gpd, which is insufficient to meet the average water demands of Alternative 1 (363,129 gallons). The City has proposed plans to install two new wells (Well S04 Supplemental Well and Marvin Road Well) by 2030. Upon completion, these additional facilities would provide sufficient capacity to meet the average and maximum daily demands of Alternative 1. With the addition of at least one of the new proposed municipal wells, the City would be able to provide water service at 696 gpm at 70-75 psi (max water demand would be approximately 511 gpm). The City would also be able to provide fire service at 4,500 gpm at 20 psi where 500 gpm will be for water service, and 4,000 gpm for the fire flow.

If Alternative 1 is operational prior to the installation of the new municipal well projects, two 67-foot diameter, 25-foot-tall storage tanks with a combined capacity of approximately 1,300,000 gallons and an associated booster pump will be developed on the Project Site to ensure fire flow and maximum peak water daily demand volumes are available (Appendix C of the EA). Alternative 1 may also use reclaimed water to reduce its potable water demand. While using reclaimed water would reduce the average potable water demands to 226,750 gpd from 363,129 gpd (see **Table 6**), the use of reclaimed water, if available, would not eliminate the need for the storage tanks because the maximum day demand (as high as 737,152 gpd) and fire flow demands combined would still exceed the 350,000 gpd limit that the City would be able to provide.

Figure6: Off-Site Water and Wastewater Option

Table 6: Estimated Average Water Usage with Reclaimed Water – Alternative 1

Facility	Average Daily Water Usage (gpd)	Reclaimed Water Use Potential (%)	Reclaimed Water Use Potential (gal)	Average Daily Water Usage with Reclaimed Water (gpd)
Apartments	45,000	10	4,500	40,500
Theater	4,944	25	1,236	3,708
Entertainment Center	1,400	25	350	1,050
Retail	5,959	25	1,490	4,469
Grocery	2,860	12	343	2,517
Retail Parking Factor	6,860	25	1,715	5,145
Office	630	25	158	473
Hotel	14,600	25	3,650	10,950
Golf Entertainment Facility	4,440	25	1,110	3,330
Car Dealership	330	25	83	248
Travel Center	496	25	124	372
Restaurants	87,060	0	0	87,060
Bowling Alley	4,880	25	1,220	3,660
Live/Work Units	4,000	10	400	3,600
HVAC	59,670	0	0	59,670
Landscape Irrigation	120,000	100	120,000	0
Total	363,129	-	136,379	226,750

Source: Appendix C of the EA

Off-Site Reclaimed Water Supply

The Lacey, Olympia, Tumwater, Thurston Clean Water Alliance (LOTT)¹ provides wastewater management services for the urban area of northern Thurston County, including wastewater treatment and production of Class A Reclaimed Water. Currently, there are 16-inch reclaimed water lines in Main Street NE and Gateway Boulevard NE (see Drawing E1.0 in Appendix C of the EA) that Alternative 1 could connect to for reclaimed water supply. While these pipelines are large enough to provide the necessary volumes of reclaimed water for Alternative 1, LOTT currently does not produce enough reclaimed water to put these lines to use. Planned upgrades to the Martin Way Water Reclamation Plant will address this shortage. Based on LOTT planning documents, those upgrades are currently planned for 2035 (Appendix C of the EA). Alternative 1 could connect to these lines in the future once sufficient reclaimed water becomes available.

¹ LOTT is a non-profit corporation that was formed by four government partners – Cities of Lacey, Olympia, Tumwater, and Thurston County.

Water Supply Option 2 – On-site Water Supply

Under this option, water supply would be provided via an on-site water treatment plant and at least one groundwater well with a pumping capacity of 928-gpm. A secondary well with similar specifications would be installed to provide redundancy. The wells would be constructed with a 100-foot sanitary control area to be consistent with Washington Department of Health guidelines (Washington Administrative Code [WAC] 246-290-135). Existing groundwater quality will be tested for potential contaminants, including chlorinated solvents, to ensure the water treatment plant is designed to achieve the standards set forth in the Safe Drinking Water Act. Additionally, water testing shall be conducted to meet the USEPA's standard on Per- and Polyfluoroalkyl Substances (PFAS) following Method 1633 (USEPA, 2024). A reservoir and booster pump to provide fire, standby equalization, and operational flows would also be developed. The water storage volume of the reservoir would depend on the number of wells and the volume required for water distribution lines with and without reclaimed water (see Water Supply Options 1 & **Section 1.3**, respectively, for more information on the potential on- and off-site reclaimed water supply). The reservoirs are proposed to be two 67-foot diameter, 25-foot-tall storage tanks with a combined capacity of approximately 1,300,000 gallons described under Water Supply Option 1. A conceptual layout of the potential on-site well, treatment plant, and reservoir system to serve Alternative 1 under Water Supply Option 2, is shown in **Figure 7**.

1.3 Wastewater Treatment

Appendix C of the EA includes an assessment of the wastewater flow generated under Alternative 1 and feasible options for treatment and disposal. As shown in **Table 7**, Alternative 1 would generate an estimated average daily wastewater flow of approximately 213,294 gpd, and peak flow of approximately 432,987 gpd. If reclaimed water is used, the volume of treated wastewater discharge would be reduced to 75,115 gpd under average wastewater flow conditions and 279,737 gpd under peak flow conditions. Wastewater treatment under Alternative 1 would be provided via connections to the City's wastewater collection system (Wastewater Treatment Option 1) or through the development of on-site wastewater treatment facilities (Wastewater Treatment Option 2).

Wastewater Treatment Option 1 – Off-site Wastewater Treatment

Under Wastewater Treatment Option 1, off-site wastewater services would be provided by connecting to existing sewer lines operated by the City and LOTT that convey wastewater to either Budd Inlet Treatment Plant or Martin Way Reclaimed Water Plant. As shown on **Figure 7**, the City currently owns and operates a 24-inch sewer line adjacent to the western boundary of the Project Site and a 24-inch sewer line that intersects Main Street NE and the eastern part of the Project Site. In addition, there are 12-inch and 10-inch sewer lines along Gateway Boulevard NE that intersect the western portion of the Project Site. Alternative 1 would connect to the LOTT sewer main that intersects Main Street NE, to the City sewer line adjacent to the Project Site on its northwestern border, and to the City sewer lines in Gateway Boulevard. These connections would not require building off-site sewer lines as they are located either adjacent to or within the Project Site itself. The existing sewer lines have sufficient capacity to accept wastewater from Alternative 1; however, specific downstream improvements could be required.

Potential off-site wastewater utility improvements are shown in **Figure 7**. As described in more detail in Section 3.13 in the EA, upgrades already planned by the City would be made to Pump Station #49 during construction of Alternative 1 to increase its capacity to accommodate wastewater generated by Alternative 1, including replacing pumps and electrical equipment. For the sewer line that intersects the

Figure 7: Alternative 1 – On-site Water and Wastewater Option

eastern portion of the Project Site, downstream sewer lines along Martin Way East (south of the Project Site) may require upgrades depending on the timing of other development projects in the area. These potential improvements and associated impacts are discussed in further detail in Section 3.13 and Section 3.15.2 of the EA.

Table 7: Estimated Wastewater Flow and Discharge – Alternative 1

Facility	Average Daily Wastewater Flow (gpd)	Peak Wastewater Flow (gpd)	Average Flow Daily Wastewater Discharge with Reclaimed Water Usage (gpd)	Peak Flow Wastewater Discharge with Reclaimed Water Usage (gpd)
Apartments	45,000	91,350	40,500	82,215
Theater	4,944	10,036	3,708	7,527
Entertainment Center	1,400	2,824	1,050	2,132
Retail	5,959	12,097	4,469	9,072
Grocery	2,860	5,806	2,517	5,110
Retail Parking Factor	6,860	13,926	5,145	10,444
Office	630	1,279	472	958
Hotel	14,600	29,638	10,950	22,229
Golf Entertainment Facility	4,440	9,013	3,330	6,760
Car Dealership	330	670	247	501
Travel Center	496	1,007	372	755
Restaurants	87,060	176,732	87,060	176,732
Bowling Alley	4,880	9,906	3,660	7,430
Live/Work Units	4,000	8,120	3,600	7,308
HVAC	29,835	60,565	29,385	60,565
Landscape Irrigation	0	0	(120,000)	(120,000)
Total	213,294	432,987	76,915	279,737
Sludge Retained	1,800	3,650	1,800	3,650
Net Discharge	211,494	429,337	75,115	276,087

Source: Appendix C of the EA

Wastewater Treatment Option 2 – On-site Wastewater Treatment

Wastewater Treatment Plant

Under Wastewater Treatment Option 2, an on-site wastewater treatment plant (WWTP) would be constructed in the southeastern portion of the Project Site to treat the wastewater generated by Alternative 1 (see **Figure 7**). The proposed WWTP would utilize a membrane bioreactor (MBR) plant with ultraviolet radiation (UV) treatment of the membrane filtrate and would be operated by certified personnel. This system would allow the WWTP to treat the wastewater to USEPA reuse standards, be consistent with Washington State Department of Ecology (WDOE) Class A effluent standards, and facilitate both surface/subsurface discharge as well as reclaimed water use. As described in more detail in Section

3.2.4B of Appendix C of the EA, the proposed on-site WWTP would consist of the systems shown in **Table 8**.

Table 8: On-Site WWTP

Systems for Treating On-Site Wastewater	
Headworks	Consists of flow measurement and screening systems
Covered Holding or Equalization Basins (anoxic zone)	Designed to stabilize peak flows to the MBR tanks.
Aerated Tanks	Converts ammonia to nitrates.
Disinfection facilities	Provides substantial disinfection and deactivation for wastewater prior to surface disposal or reclaimed water uses using UV ²
Biosolids stabilization basin	Stabilizes, thickens, and processes biosolids
Supernatants recycle pump station	Pumps supernatant into the reclaimed water storage or into the infiltration areas
Operations building	Houses the plant controls and blowers, office, and laboratory facilities and also acts as a chemical storage and handling facility
Reclaimed Water Storage Reservoir	One or more reservoirs would be constructed to store reclaimed water for toilet flushing, landscape irrigation, and emergency fire flow and fire sprinklers on the Project Site

Due to the topography of the Project Site, the majority of wastewater generated under Alternative 1 can be served by gravity sewer lines. The remaining portion of the wastewater that cannot be conveyed via gravity will be routed to a sewage lift station which would include a foul air collection and scrubbing system to control odors. In addition, the lift station would be a duplex system with backup power to improve reliability. This backup power can be supplied by an emergency standby diesel-powered generator. For additional information about the WWTP, see Appendix C of the EA.

Reclaimed Water System

If a reclaimed system is utilized for reducing water demand, a 1,300,000-gallon reservoir would be built to store reclaimed water for toilet flushing, landscape irrigation, and emergency fire flow and fire sprinklers on the Project Site. In addition, a booster pump would be required to provide the necessary fire flow. Following treatment to WDOE Class A effluent standards, WWTP effluent would go directly to the onsite reservoir. In the event of low reclaimed water levels, a control valve in the potable water backup pipeline would open and supply backup potable water through an “air gap” to the reservoir until sufficient reclaimed water levels are achieved³. The amount of reclaimed water generated by the sanitary sewer treatment facility will be greater than the demand for reclaimed water; therefore, the need for supplemental potable water is anticipated to be minimal (Appendix C of the EA).

² Prior to storing the disinfected effluent, chlorine would be added to maintain disinfected levels

³ As required by International Plumbing Code

Disposal of Treated Wastewater

All surplus treated wastewater not needed for the reclaimed water system would be discharged in one of the following ways as shown in **Table 9**.

Table 9: Alternative 1 Treated Wastewater Discharge Methods

Discharge Method	Description
On-site Ponds and Infiltration Basins	A reclaimed water pond facility would be developed on the Project Site that consists of approximately 7.5 acres of ponds and approximately 0.4 acres of infiltration basins. The ponds would be designed as water features within the Project Site or as standalone ponds and would allow for both infiltration and evaporation. The infiltration basins would be placed under a parking lot to avoid potential impacts to landscaping or other uses.
On-site Groundwater Injection Well	One or more Class V injection wells would be developed on the Project Site. The wells would inject treated effluent under pressure to a depth above the underlying aquifer where it would continue to be treated as it moved through the vadose zone and into the aquifer. The injection well would be regulated by the USEPA under their Underground Injection Control program. The injection point for the effluent would be placed as far as practicable from the potable water well to ensure maximum filtration.

Source: Appendix D of the EA

In addition to treated effluent, approximately 1,800 gpd of biosolids would be produced by the wastewater treatment process on average (peak would produce up to 3,650 gpd). When bi-annual cleaning is required for the treated biosolids, the biosolids would go through a thickening process before being dried and subsequently delivered to a municipal solid waste landfill or a dedicated sludge disposal site.

1.4 Law Enforcement, Fire Protection, and Emergency Medical Services

The Lacey Police Department (LPD) provides law enforcement services to the City and is currently the primary agency responsible for law enforcement within the Project Site. The Tribe operates its own justice system, which includes a comprehensive Public Safety Department composed of three major divisions – Police, Corrections, and Fish and Wildlife. The Nisqually Police Department is responsible for enforcing the law on the Reservation. Following the acquisition of the Project Site into trust, the Tribe intends to hire new Tribal Police officers to provide law enforcement services to accommodate Alternative 1, and Tribe-managed security cameras would provide surveillance of proposed structures, parking areas, and ancillary facilities. The Tribe intends to enter into an agreement with the City for the coordination of law enforcement, prosecution, and court administration, which will identify the scenarios when cases would be referred to the City and address the payment of actual costs for investigation, prosecution, and court administration.

The Project Site is within the service area of Lacey Fire District #3, which provides fire protection and emergency services in the vicinity of the Project Site. Under Alternative 1, Lacey Fire District #3 would provide fire protection and emergency medical services to the Project Site. As described in Section 1.5.1 of the EA, an agreement was signed on January 19, 2017, by and between the Lacey Fire District #3 and the Tribe for fire protection and emergency medical services. The agreement obligates Lacey Fire District #3 to provide fire and emergency medical services to the Reservation and Tribal trust lands, including visitors and employees on those lands, that are within their service area. In exchange, the Tribe is

obligated to pay compensation to Lacey Fire District #3 per incident responded to, which is paid quarterly. Both parties have the right to review conditions of this agreement annually. In addition, both parties can review the rate paid per incident every two years and adjust accordingly through mutual agreement. In a letter dated November 21, 2022 (Appendix A of the EA), Lacey Fire District #3 expressed its ability and willingness to provide services to Alternative 1 and indicated that the existing agreement (see Section 1.5.2 of the EA) has been effective and could serve as a model for a future agreement between the Tribe and Lacey Fire District #3 for the provision of fire protection and emergency services to the Project Site. The Tribe intends to meet with Lacey Fire District #3 per the conditions of the agreement to address development on the Project Site.

1.5 Electricity and Natural Gas

Puget Sound Energy (PSE) provides electricity and natural gas to the County and City, including the Project Site. The nearest electricity transmission line to the Project Site, a 345-volt transmission line, is approximately 0.65 miles west, along with an electric substation (Energy Information Administration, 2023). While no natural gas lines are near the Project Site, a high-pressure gas line and gate station are proposed near the closest electrical transmission line and electric substation to the Project Site (City of Lacey, 2016b). For wastewater treatment Option 2, there would be one 250kW diesel generator for emergency uses at the WWTP. The emergency back-up generator is estimated to operate up to 84 hours per year.

1.6 Grading and Drainage

Site Preparation and Grading

Site preparation will be conducted in compliance with the Cleanup Action Plan (Appendix E of the EA) approved by the WDOE for soil contamination associated with the Tacoma Smelter Plume (known regionally as the TSP) that has contaminated the region with aerially-deposited lead and arsenic (refer to Section 3.6.2 of the EA for additional discussion). As described in more detail in the Cleanup Action Plan, soil testing within the Project Site was conducted in 2012 and confirmed that while most of the site has not been impacted by the TSP, there are slightly elevated levels of arsenic and lead in the surficial duff layer on the western portion of the Project Site and a southern strip along I-5 (**Figure 8**). The WDOE-approved clean-up procedure consists of diluting lead and arsenic concentrations by blending the shallow surficial soils with the underlying native soils in impacted areas during the grading and site preparation process.

Site preparation will include felling all the trees and mowing the brush and grasses within the proposed development areas of the Project Site. This material may be hauled as common yard waste to a municipal waste facility, or it may be recycled into topsoil. Stumps of the cleared trees would then be pulled, and the soils carefully shaken off from the root ball. Following this, the stumps may go to any common offsite disposal area such as a landfill as organic waste or to a facility with a tub grinder to reduce the stumps to wood chips. Following the removal of the stumps, soil blending will be conducted in a manner that incorporates the soil with the upper 18 inches of the native site soils. Soil blending may be accomplished through various methods, including, but not limited to, the use of ripper teeth, a brush rake to blend the soils, or a dozer with an angle blade. Following the blending procedure, soil confirmation testing will be conducted in accordance with the Cleanup Action Plan to verify that the final average arsenic level are below the WDOE Model Toxics Control Act (MTCA) limit for arsenic of 20 milligrams/kilogram (mg/kg).

Figure 8: Alternative 1 – Preliminary Grading Plan

and the average lead concentration below 250 mg/kg. Following confirmation of the blending objectives, site grading will proceed. If necessary, the blended soils may be used as structural fill on site. The ground surface at the Project Site is gently to moderately sloping with localized small hills, ridges, and depressions. Construction would involve grading and excavation for building pads and parking lots on the Project Site. The slopes and low areas associated with the valley in the northwestern portion of the Project Site will require extensive grading to enable the proposed uses to be constructed. A preliminary grading plan for Alternative 1 is shown in **Figure 8**. Approximately 370,000 cubic yards (cy) of material would be excavated and subsequently used as fill within the Project Site, resulting in balanced cut and fill (Appendix D of the EA). Therefore, no import or export of fill material is anticipated.

Drainage

As described further in Section 3.7.2 of the EA, all stormwater within the Project Site currently infiltrates into the ground and no stormwater currently leaves the Project Site. Under Alternative 1, runoff from roads, sidewalks, roofs, and landscape areas will be collected and routed to different water quality and/or flow control facilities depending on the surface type or use and infiltrated into the ground. Like the existing conditions, no stormwater runoff will leave the Project Site.

The Project Site has been divided into nine different catchment areas for stormwater retention, treatment, and infiltration (see **Figure 9**). The potential stormwater pollutants of most concern are total suspended solids, oil and grease, nutrients, pesticides, other organics, pathogens, biochemical oxygen demand, heavy metals, and salts. Runoff from approximately 118.32 acres of hard surfaces with the potential for pollutants that could contaminate stormwater, such as roads and parking areas, and from approximately 26.10 acres of adjacent landscaping that will be collected and routed to a bioretention treatment facility prior to an infiltration facility. Each bioretention treatment facility will consist of multiple bioretention cells and associated infiltration trenches spaced throughout the parking areas of the Project Site to mimic existing infiltration conditions to the greatest extent practical. The biofiltration cells shall be designed to treat the stormwater (91% of the 24-hour continuous runoff volume) consistent with City of Lacey Stormwater Design Standards Manual based on Section 5.03 and Volume V of the Stormwater Management Manual for Western Washington (SWMMWW). The size of the bioretention areas for each catchment area can be seen in **Table 9**. Runoff from approximately 29.6 acres of roof areas will be collected and routed directly to infiltration facilities since rooftops are not a potential source of stormwater pollution. In addition, the Travel Center will incorporate oil/water separation devices all sized according to manufacturer's guidelines, use dead-end sumps within the fuel island, have double walled tanks, and extensive subsurface monitoring to ensure there are no leaks in any part of the fuel storage or conveyance systems. Source control best management practices (BMPs) related to service stations will also be implemented, including but not limited to, managing and preventing illicit discharges to storm drains, formation of a pollution prevention team, preventive maintenance, spill prevention and cleanup, employee training, and record keeping.

Figure9: Alternative 1 - Preliminary Drainage Map

All on-site stormwater will be collected and conveyed to infiltration facilities throughout the parking areas of the Project Site to mimic existing infiltration conditions to the greatest extent practical; the exact locations of these facilities will be determined during final design. Infiltration galleries are relatively shallow and can be affected by perched groundwater, therefore a conservative infiltration rate was used in the preliminary design that assumed using a generic shallow infiltration trench with 35% subsurface void space. Furthermore, the infiltration facilities will be designed to contain and infiltrate the 24-hour 100-year storm event. There will be at minimum one infiltration facility for each catchment area. Infiltration facility areas would range in size from 10,300 – 51,400 sf with a total combined area of 275,800 sf on-site (see **Table 10**).

Table 10: Alternative 1 Bioretention and Infiltration Areas

Catchment Number	Catchment Area (acre)	Impervious Area (acre)*	Landscape Area (acre)	Bioretention Area Required (sf)	Infiltration Area Required (sf)
C101	22.60	19.21	3.39	25,700	35,800
C102	22.98	19.53	3.45	26,100	36,400
C103	18.53	15.75	2.78	21,100	29,400
C104	32.42	27.56	4.86	36,800	51,400
C105	8.61	7.32	1.29	9,800	13,700
C106	28.47	24.20	4.27	32,300	45,100
C107	6.51	5.53	0.98	7,400	10,300
C108	24.92	21.18	3.74	28,300	39,500
C109	8.96	7.62	1.34	10,200	14,200
Totals	174.00	147.90	26.10	197,700	275,800

Source: Appendix D of the EA

* Includes 29.58 acres of roof areas in addition to 118.32 acres of paved area, but roof areas do not require treatment and would be routed directly to the infiltration facilities.

Conveyance for on-site surface water will be provided via a catch basin network. Roof drains will be conveyed by an enclosed stormwater pipeline directly to the infiltration trenches/galleries. The conveyance system will be designed consistent with the 2022 Stormwater Design Manual and have sufficient capacity to convey and contain a 25-year peak flow event.

As part of the stormwater treatment system, the Tribe intends to create an interactive display of how the on-site stormwater is being treated to protect salmon and other stream life. This will include, but not be limited to, descriptions of the BMPs, what they remove from the runoff, how they operate, the path of the runoff from the sky to the streams, and descriptions of plants and other fauna being used to enhance the natural environment.

1.7 Roadway Access, Network, and Parking

Regional access to the Project Site is provided by I-5, which runs in an east-west direction immediately south of the Project Site, from the existing I-5/SR 510 (Marvin Road NE) interchange. Local access to the Project Site is provided by Marvin Road NE to the east, Britton Parkway NE to the north, and Gateway Boulevard to the west. The Project Site currently has nine access points and two more would be

constructed as part of Alternative 1, for a total of 11 access points. These proposed and existing access points can be seen in **Figure 10** and are listed and described in **Table 11**. Currently, the I-5 frontage road and its associated access points are closed by Washington State Department of Transportation (WSDOT). To gain WSDOT approval of the I-5 frontage road access point, the Tribe will comply with conditions specified in the 2018 Memorandum of Understanding between the City and WSDOT, which will include establishing local roadway network conditions to Access Locations 1 and 2 (**Figure 10**), completion of a traffic analysis, and the installation of signage⁴ The indirect effects of these off-site improvements and the others described in **Table 11** are discussed in detail in Section 3.15.1 of the EA.

As shown in **Figure 10**, Alternative 1 would construct an internal road network to connect the proposed access points to each other and to the various proposed land uses and parking lots. The proposed roadway network would extend Main Street NE west through the Project Site and other tribally owned lands to Gateway Boulevard NE; extend Western Parkway south then east to connect to the existing Main Street NE road segment south of Gateway Boulevard; and would connect the two access points to the existing I-5 frontage road to Main Street NE. Other internal roadways would be constructed from the various access points to Main Street NE or parking lots. Under Alternative 1, bicycle and sidewalk facilities would be extended from existing facilities along the surrounding road network to allow for pedestrian access to and through the Project Site.

Parking for the Alternative 1 would be provided through 4,655 surface parking spaces located in surface parking lots throughout the Project Site, with approximately 931 spaces constructed as EV capable and approximately 233 equipped with EV supply (**Table 2** and **Figure 4**).

1.8 Construction

Construction activities associated with Alternative 1 are anticipated to commence in 2026. Although buildout of the site will likely take place over a time span of three to eight years, depending on market conditions and other factors, this EA conservatively assumes construction of the site will occur over a period of 24 months. Over the course of construction, Alternative 1 would directly employ approximately 2,090 workers locally. Construction employee parking and staging areas for equipment and materials will occur within the Project Site boundaries. The proposed facilities would conform to applicable Nisqually Tribal Building Codes, which are generally consistent with the IBC and related codes, including fire, electrical, energy, mechanical, plumbing, and safety. Indoor sprinkler systems would be installed to provide fire protection.

⁴ For additional information regarding the 2018 Memorandum of Understanding and associated requirements, see Section 3.12.2 of the EA.

Figure 10: Proposed Access Improvements

Table 11: Proposed Access Points for Alternative 1

Access Point Name	Location	Proposed Access Improvement
Access 1	Existing I-5 frontage road right-in that is located on the southwestern boundary of the Project Site.	Extension of a tribally owned public access roadway to the frontage road.
Access 2	Existing I-5 frontage road right-in/right-out that is located on the southeastern boundary of the Project Site.	Extension of a tribally owned public access roadway to the right-in right-out along the frontage road.
Access 3	Existing limited access right-in/right-out entrance located at the intersection of Marvin Road NE and Nisqually Markets Tobacco Outlet and on the southeastern corner of the Project Site.	New tribally owned limited access right-in/right-out side street stop-controlled intersection driveway directly adjacent to the existing Nisqually Markets Tobacco Outlet entrance on its norther boundary.
Access 4	Existing entrance located at the Marvin Way NE and Main Street NE roundabout and on the eastern portion of the Project Site.	Extension of Main Street NE from its current termination on the eastern portion of the Project Site to connect with a new on-site intersection near Gateway Boulevard NE.
Access 5	Existing limited access right-in/right-out entrance located at Britton Parkway NE and 7-Eleven entrance intersection that is immediately west of the Britton Parkway NE and Marvin Road NE roundabout and adjacent to the northern boundary of the Project Site.	No additional access required. Only minor maintenance required (e.g., repaving).
Access 6	Existing full-access entrance located on Britton Parkway NE and Eastern Parkway NE (Twin Oak Road NE) that is immediately west of Access 5 and on the northern boundary of Project Site.	Extension of a tribally owned access road to the existing driveway. The right-turn to access the driveway for west-bound traffic is already present.
Access 7	Proposed limited access right-in/right-out side street stop-controlled intersection entrance located on Britton Parkway NE that is immediately west of Access 6 and on the northern boundary of the Project Site.	New tribally owned right-in right-out side street stop-controlled intersection on Britton Parkway NE.
Access 8	Existing full access with the exception of northbound left-turns entrance located on Britton Parkway NE and Central Parkway NE (Callison Road NE) that is immediately west of Access 7, east of the Britton Parkway NE and Gateway Boulevard roundabout, and on the northern boundary of the Project Site.	Extension of a tribally owned access road to the existing driveway. The right-turn to access the driveway for west-bound traffic is already present.
Access 9	Existing entrance located at the Britton Parkway NE and Gateway Boulevard roundabout and on the northern boundary of the Project Site.	No improvement proposed due to access exists.

Access Point Name	Location	Proposed Access Improvement
Access 10	Proposed limited access right-in/right-out side street stop-controlled intersection entrance located immediately west of the Britton Parkway NE and Gateway Boulevard roundabout and on the northern boundary of the Project Site.	Creation of a new right-in right-out side street stop-controlled intersection entrance on Britton Parkway and extension of a tribally owned public access road.
Access 11	Existing limited access right-in/right-out entrance located at the Britton Parkway NE and Western Parkway intersection and the northern boundary of the Project Site.	A tribally owned access road would be extended from the current termination of Western Parkway.

1.9 Protective Measures and Best Management Practices

Protective measures and BMPs, including regulatory requirements and voluntary measures that would be implemented by the Tribe, have been incorporated into the design of Alternative 1. Where applicable, these measures would be incorporated into any design or construction contracts to eliminate or substantially reduce environmental consequences from Alternative 1. These measures are discussed below in **Table 12**.

Table 12: Alternative 1 Protective Measures and Best Management Practices

Resource Area	Protective Measures and Best Management Practices
Air Quality	<p>The following dust suppression measures shall be implemented during construction to control the production of fugitive dust (particulate matter 10 microns in size [PM₁₀]) and prevent wind erosion of bare and stockpiled soils.</p> <ul style="list-style-type: none"> ▪ Exposed soil shall be sprayed with water or other suppressant twice a day or as needed to suppress dust. ▪ Non-toxic chemical or organic dust suppressants shall be used on unpaved roads and traffic areas. ▪ Dust emissions during transport of fill material or soil shall be minimized by wetting truck loads of soil, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, cleaning the interior of cargo compartments on emptied haul trucks before leaving a site, and/or covering loads. ▪ Spills of transported fill material on public roads shall be promptly cleaned. ▪ Traffic speeds on the Project Site shall be restricted to 15 miles per hour to reduce soil disturbance. ▪ Wheel washers shall be provided to remove soil that would otherwise be carried offsite by vehicles to decrease deposition of soil on area roadways. ▪ Dirt, gravel, and debris piles shall be covered as needed to reduce dust and wind-blown debris. <p>The following measures shall be implemented to reduce emissions of criteria air pollutants (CAP), greenhouse gases (GHG), and diesel particulate matter (DPM) from construction.</p> <ul style="list-style-type: none"> ▪ The Tribe shall control criteria pollutants and GHG emissions from the facility by requiring all diesel-powered equipment be properly maintained and minimize idling time to five minutes when construction equipment is not in use, unless per engine manufacturer’s specifications or for safety reasons more time is required.

Resource Area	Protective Measures and Best Management Practices
	<p>Since these emissions would be generated primarily by construction equipment, machinery engines shall be kept in good mechanical condition to minimize exhaust emissions. The Tribe shall employ periodic and unscheduled inspections on site to accomplish the above measures.</p> <ul style="list-style-type: none"> ▪ All construction equipment with a power rating of greater than 50 horsepower shall be equipped with diesel particulate filters, which would reduce approximately 85% of DPM. ▪ The use of low reactive organic gases (150 grams per liter or less) shall be required for architectural coatings to the extent practicable. ▪ Environmentally preferable materials, including recycled materials, shall be used to the extent readily available and economically practicable for construction of facilities. <p>The Tribe shall reduce emissions of CAPs, hazardous air pollutants (HAPs), and GHGs during operation through the following actions.</p> <ul style="list-style-type: none"> ▪ The Tribe shall use clean fuel vehicles in the vehicle fleet where practicable, which would reduce CAPs and GHG emissions. ▪ The Tribe shall provide preferential parking for employee vanpools, carpools, and or other rideshare vehicles which would reduce CAPs and GHGs. ▪ Twenty percent of parking spaces will be constructed as EV capable spaces. Twenty-five percent of the EV capable spaces will be provided with EV supply equipment (i.e., chargers). ▪ The Tribe will use electric boilers and appliances in lieu of natural gas or propane units to the greatest extent practicable. ▪ Shuttle service to and from population centers shall be provided as feasible, which would reduce CAPs and GHGs. ▪ Water consumption shall be reduced through low-flow appliances, drought resistant landscaping, and the incorporation of “Save Water” signs near water faucets throughout the development. ▪ The Tribe shall control CAPs, GHG, and DPM emissions during operation by requiring that all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use, unless per engine manufacturer’s specifications or for safety reasons more time is required. ▪ The Tribe shall use energy efficient lighting and appliances, which would reduce energy usage, thus, reducing indirect CAP and GHG emissions from the project. ▪ The Tribe shall install recycling bins throughout the facility for glass, cans, and paper products. Trash and recycling receptacles shall be placed strategically outside to encourage people to recycle. In addition, the Tribe shall promote the use of non-polystyrene take-out containers and encourage food waste composting programs at all restaurants that serve more than 100 meals per day. The Tribe shall reduce the solid waste stream of the facility by at least 50%. ▪ The Tribe shall prohibit buses from idling for extended periods. ▪ Adequate ingress and egress at entrances shall be provided to minimize vehicle idling and traffic congestion.
Geology and Soils	<ul style="list-style-type: none"> ▪ A registered design professional shall prepare a project-specific design-level geotechnical report conducted in accordance with standards no less stringent than the IBC, including for seismic shaking. The Tribe shall adhere to the recommended measures within the report.

Resource Area	Protective Measures and Best Management Practices
<p>Hazardous Materials</p>	<p>The following measures shall be followed for the design and construction of the Travel Center:</p> <ul style="list-style-type: none"> ▪ Underground storage tanks (USTs), piping, and fuel dispensers shall be designed, built, installed, tested, and certified to prevent fuel leaks, as required by 40 CFR Part 280. Leak prevention measures required under 40 CFR Part 280 include corrosion resistant and double walled tanks and piping, inclusion of spill and overflow prevention equipment, and use of leak detection equipment. <p>Personnel shall follow BMPs for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving hazardous materials include the following.</p> <ul style="list-style-type: none"> ▪ Fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment to reduce the potential for accidental release. ▪ Catch-pans shall be placed under equipment to catch potential spills during servicing. Servicing should take place off site when practical. ▪ Refueling shall be conducted only with approved pumps, hoses, and nozzles. ▪ All disconnected hoses shall be placed in containers to collect residual fuel from the hose. ▪ Vehicle engines shall be shut down during refueling. ▪ No smoking, open flames, or welding shall be allowed in refueling or service areas. ▪ Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents. ▪ Should a spill contaminate soil, the impacted soil shall be segregated, covered, and/or placed into containers not exposed to rainwater, the containers shall be disposed of in accordance with local, State, and federal regulations. All containers used to store hazardous materials shall be stored/equipped with secondary containment pans or structures capable of fully containing a potential lead and inspected at least once per week for signs of leaking or failure. <p>Personnel shall implement the following BMPs to reduce the potential for fires during construction:</p> <ul style="list-style-type: none"> ▪ Construction equipment shall contain spark arrestors, as provided by the manufacturer. ▪ Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. ▪ Prior to initiating excavation at the work site, the Tribe shall contact the Utility Notification Center to notify the utility service providers to mark or stake the horizontal path of underground utilities, provide information about the utilities, and/or give clearance to dig. ▪ The site shall be cleaned daily of trash and debris to the maximum extent practicable. <p>The Tribe shall implement the following BMPs consistent with federal guidelines to ensure worker safety related to exposure to existing arsenic and lead in the soil:</p> <ul style="list-style-type: none"> ▪ During onsite work with the potential for dermal exposure to arsenic and lead contaminated soil, workers will be provided with and required to use chemical protective clothing, gloves, and other appropriate protective clothing necessary to prevent skin contact with inorganic arsenic. ▪ Clothing which is contaminated with inorganic arsenic will be removed immediately and placed in sealed containers for storage until it can be discarded or

Resource Area	Protective Measures and Best Management Practices
	<p>until provision is made for the removal of inorganic arsenic from the clothing. If the clothing is to be laundered or cleaned, the person performing the operation will be informed of inorganic arsenic's hazardous properties. Reusable clothing and equipment will be checked for residual contamination before reuse or storage.</p> <ul style="list-style-type: none"> ▪ Workers who are exposed to inorganic arsenic will be required to wash their faces, hands, and forearms thoroughly with soap and water before eating, smoking, or using toilet facilities. ▪ If determined to be needed, respirators will be provided to workers in compliance with Occupational Safety and Health Administration (OSHA) Safety and Health Standards 29 CFR 1910.134.
<p>Hydrology and Floodplain</p>	<p>For construction site runoff on the Project Site <u>prior</u> to the start of construction activities, the Tribe shall apply for coverage under the National Pollutant Discharge Elimination System General Construction Permit from the USEPA under the Clean Water Act (CWA). A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with General Construction Permit requirements. The SWPPP prepared for the Project Site would include, but would not be limited to, the following BMPs to minimize storm water effects to water quality during construction:</p> <ul style="list-style-type: none"> ▪ To the extent feasible, grading activities shall be limited to the immediate area required for construction. ▪ Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas. ▪ Construction activities shall be scheduled to minimize land disturbance during peak runoff periods. ▪ Disturbed areas shall be paved or re-vegetated following construction activities. ▪ Construction area entrances and exits shall be stabilized with large-diameter rock. ▪ A spill prevention control and countermeasure (SPCC) plan shall be developed which identifies proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on site. ▪ Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the CWA (33 USC Section 1251 to 1387). ▪ Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater. ▪ Fuel and vehicle maintenance areas shall be designed to control runoff. ▪ Sanitary facilities shall be provided for construction workers in accordance with OSHA Standard 1926.51 sanitation requirements for job sites. ▪ Disposal facilities shall be provided for soil wastes, including excess asphalt during construction. ▪ Solid waste storage containers will be stored in a roofed enclosure so that runoff cannot contact contents of waste storage containers. The storage area will be paved with the area's grading to prevent uncontaminated stormwater from flowing into the waste storage area. ▪ To minimize dust generation during construction, soil will be wetted down with water prior to ground disturbance. All generated waste must be properly disposed of. ▪ Loose aggregate chunks and dust will be swept or shoveled and collected (not hosed down a storm drain) for recycling or proper disposal.

Resource Area	Protective Measures and Best Management Practices
	<ul style="list-style-type: none"> ▪ Wheel wash or rumble strips and sweeping of paved surfaces shall be used to remove all tracked soil. ▪ Low impact development (LID) methods (i.e., bioswales) shall be implemented that would help store, infiltrate, evaporate, and detain stormwater runoff. <p>To be implemented if utilizing the Water Supply Option 2:</p> <ul style="list-style-type: none"> ▪ The Tribe shall contract with a registered design professional/groundwater resource specialist to design a site-specific filtration and treatment system to ensure water quality meets the standards set forth in the Safe Drinking Water Act. This includes assessing the potential of chlorinated solvents entering the project’s groundwater supply. The system shall also be designed to prevent contamination from entering the groundwater table from the proposed on-site potable drinking water system. <p>BMPs to be implemented during operation:</p> <ul style="list-style-type: none"> ▪ To reduce water usage, low-flow toilets, faucets, and other water-using appliances shall be installed. <p>BMPs to be implemented during operation of the truck stop to prevent runoff contamination:</p> <ul style="list-style-type: none"> ▪ Source control BMPs related to service stations will be implemented, including but not limited to correcting illicit discharges to storm drains, formation of a pollution prevention team, preventive maintenance, spill prevention and cleanup, employee training, and record keeping.
Noise	<p>BMPs to be implemented during construction for noise:</p> <ul style="list-style-type: none"> ▪ Construction activities shall be limited to daytime hours between 7:00 a.m. and 10:00 p.m. ▪ All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds in accordance with manufacturers’ specifications. ▪ Haul trucks shall be operated in accordance with posted speed limits. ▪ Maintenance of construction equipment and machinery, including noise reducing components such as mufflers, silencers, covers, guards, vibration isolators, etc., shall be performed regularly to reduce excess noise. ▪ Construction equipment and machinery shall only be operated by trained and qualified personnel. <p>BMPs to be implemented during operation:</p> <ul style="list-style-type: none"> ▪ Heating, ventilation, and air conditioning equipment shall be shielded to reduce noise.
Public Services	<p>BMPs to be implemented during operation:</p> <ul style="list-style-type: none"> ▪ Parking areas shall be well lit and monitored by parking staff, and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other similar criminal activities. ▪ Facilities shall have “No Loitering” signs in place, be well lit, and be patrolled regularly by roving security guards. ▪ Security cameras would provide surveillance of Project Site to both lessen and apprehend criminal activity onsite.
Utilities	<p>BMPs to be implemented during construction:</p> <ul style="list-style-type: none"> ▪ The Tribe shall contact the Utility Notification Center to notify the utility service providers of excavation at the work site. In response, the utility service providers

Resource Area	Protective Measures and Best Management Practices
	<p>will mark or stake the horizontal path of underground utilities, provide information about the utilities, and/or give clearance prior to digging.</p> <ul style="list-style-type: none"> ▪ The site shall be cleaned daily of trash and debris to the maximum extent practicable. <p>BMPs to be implemented during construction and operation:</p> <ul style="list-style-type: none"> ▪ A solid waste management plan shall be developed and adopted by the Tribe that addresses recycling and solid waste reduction and proper disposal onsite during construction and operation. These measures shall include, but not be limited to, the installation of a trash compactor for cardboard and paper products, the installation of ample and visible trash bins to encourage proper disposal, recycling, and periodic waste stream audits.
<p>Transportation and Circulation</p>	<p>The Tribe shall work with the City to implement necessary transportation technology measures and travel demand management strategies to reduce and manage trips in the vicinity of the Project Site. These potential measures could include the following:</p> <ul style="list-style-type: none"> ▪ Install commuter information center in multiple locations where appropriate. ▪ Construct infrastructure improvements related to the transit, bike, and pedestrian environment. ▪ Provide weather -protected bicycle storage and amenities. ▪ Provide onsite commuter shower and locker facilities for onsite employees. ▪ Prioritize parking for carpool and vanpool parking. ▪ Provide or require tenants to offer transit pass subsidy to onsite employees. ▪ Provide shuttle services to the Project Site. ▪ Provide shared vehicle/bicycle fleets for tenant use. ▪ Offer incentive for onsite employee commuters who bicycle or walk to work. ▪ Allow for flexible working hours for employees to avoid peak commute times.
<p>Visual Resources</p>	<p>BMPs to be implemented during operation for exterior lighting across the Project Site:</p> <ul style="list-style-type: none"> ▪ Exterior lighting on buildings shall be designed to not cast significant light or glare into the public right-of-way or any surrounding residential areas. ▪ Outdoor light fixtures shall be fully or partially shielded and filtered. ▪ The exterior lighting of the development would be integrated into components of the architecture and would be strategically positioned consistent with the International Dark-Sky Association’s Model Lighting Ordinance to minimize light or glare off-site, and to minimize any direct site lines to the public. ▪ Lighting will consist of pole-mounted lights up to a maximum height of 25 feet and use high pressure sodium or light-emitting diodes (LEDs) with cut-off lenses and downcast illumination unless an alternative light configuration is needed for security or emergency purposes. Additionally, no strobe lights, spotlights, or flood lights will be used, and shielding will be used consistent with the International Dark-Sky Association’s Model Lighting Ordinance. <p>BMPs to be implemented during operation for structures visible from I-5:</p> <ul style="list-style-type: none"> ▪ Follow BMPs in the Federal Highway Administration (FHWA) Guidelines for the Visual Impact Assessment of Highway Projects (2015) to minimize glare to motorists on I-5, which include but may not be limited to: <ul style="list-style-type: none"> ○ Structures will be constructed with low-sheen and non-reflective surface materials to reduce potential for glare. Unpainted metal surfaces will not be permitted. ○ At a minimum, finishes will be matte and roughened and concrete will be painted or will use concrete colored integrally with a shade that is two to three shades darker than the general surrounding area. Paints

Resource Area	Protective Measures and Best Management Practices
	will be of a dull, flat, or satin finish only to reduce potential for glare, and the use of glossy paints for surfaces will be avoided.

2 ALTERNATIVE 2 – RECREATION-HEAVY MIXED-USE DEVELOPMENT

Alternative 2 is like Alternative 1 but would have less commercial development and more recreational facilities, plus the addition of a K-8 school and open space. Alternative 2 would develop over 550,000 sf of commercial uses including a grocer, dining facilities, movie theater and bowling alley, artist studios and offices, regional and neighborhood retail, four-story 200-room hotel, a car dealership, and a convenience store. The proposed convenience store would include 10 gasoline fuel pumps for passenger vehicles (no truck fueling stations are proposed), electric vehicle charging stations, and full-convenience retail, food, and beverage space. Like Alternative 1, proposed residential development includes approximately 300 high-density multi-family units and 20 live/work units in the Cultural Village for a total of 320 housing units. Approximately 53 acres of the project site is planned for recreational facilities and open space, including the following components:

- Golf Entertainment Facility approximately 7.4 acres with 93 stations.
- Open Space approximately 14.6 acres of the Project Site along the northern boundary would remain as open space. This area of the Project Site contains the highest concentration of trees. Unpaved trails may be established within the open space area and a playground.
- Indoor Recreation approximately 200,000 sf for flat-floor sports (e.g., volleyball, basketball, wrestling, track) and non-sporting events. Event projections are 93 annual events and 129 event days per year while attendance at these events is anticipated to be approximately 125,000 per year (HBG, 2022c).
- Athletic Complex approximately 26.5 acres of sport fields, including up to eight (8) softball and/or baseball fields and four soccer fields for use by the proposed school and other youth/adult recreational teams. The athletic complex on the eastern portion of the Project Site will have nighttime sports lighting to accommodate evening practices. Sports lighting will be shielded, downcast, and directed away from Britton Parkway NE and surrounding residences. Evening events requiring sports lighting are not expected to regularly go past 10 p.m.

Proposed educational facilities would consist of an approximately 30,000 sf school with capacity for 200 K-8 students. Throughout the Project Site, there would be approximately 3,186 parking spaces provided by several surface parking areas **Table 13** and **14** provide a breakdown of the proposed land uses under Alternative 2. An example of how buildings could be arranged within the Project Site is illustrated in **Figure 11**. During operation, Alternative 2 would provide approximately 1,308 new full-time equivalent jobs. Alternative 2 would be constructed per the Nisqually Building Code, which is generally consistent with the 2018 IBC (Nisqually Tribal Code Section 54.01.200; Appendix B of the EA).

2.1 Grading and Drainage

Similar to Alternative 1, site preparation will be conducted in compliance the Cleanup Action Plan (Appendix E of the EA) approved by the Washington State Department of Ecology for soil contamination

Figure 11: Alternative 2 - Recreation-Heavy Mixed-Use Development Site Plan

associated with the TSP that has contaminated the region with aeriually deposited lead and arsenic. See **Section 1.6** for a description of site preparation procedures.

Grading and excavation for building pads and parking lots on the Project Site would be required. A preliminary grading plan for Alternative 2 is shown in **Figure 12**. Approximately 362,000 cy of material would be excavated and subsequently used as fill within the Project Site, resulting in balanced cut and fill (Appendix D of the EA); therefore, no import or export of fill material is anticipated. Drainage facilities would be like Alternative 1 as shown in **Figure 13**. The size of the bioretention and infiltration facilities dimensions are shown in **Table 15**.

2.2 Water and Wastewater

While water demand and wastewater generation for Alternative 2 would be more than Alternative 1, the facilities and required improvements would be similar for both on-site and off-site options (see **Section 1.2** and **1.3** for additional information). However, in Option 2 of Alternative 2 the location of the WWTP would be in the central portion of the Project Site in the open space area (see **Figure 14**). Alternative 2 would require approximately 493,667 gpd of water on an average daily basis (see **Table 16**) with peak maximum water demand of approximately 1,002,144 gpd. Like Alternative 1, the City will have sufficient flow and pressure to supply Alternative 2 following the installation of one of the new potable water well projects planned to be completed by the year 2030. Alternative 2 would require similar fire flow as Alternative 1 and 696 gpm for potable water demand (see **Section 1.2**, Water Supply Option 1 for City supply availability). As shown in **Table 17**, if reclaimed water is utilized to the maximum extent possible, then average daily demand would decrease to 247,447 gpd (approximately 49.9%). Daily average wastewater flows would be approximately 246,862 gpd while peak wastewater flow would be approximately 501,130 gpd. If reclaimed water is utilized, then the volume of wastewater discharge would decrease to approximately 640 gpd under average flow conditions and 227,899 gpd under peak wastewater flow conditions (see **Table 18**). If reclaimed water is used, approximately 27,628 gpd of potable water would be necessary to supplement the reclaimed water system during average wastewater periods because the amount of reclaimed water produced (218,592 gpd) would not be sufficient to meet the average reclaimed water demands (246,220 gpd).

2.3 Other Components

All other aspects of Alternative 2 not discussed above, such as other utility requirements and best management practices, would be similar to Alternative 1.

2.4 Construction

Construction activities associated with Alternative 2 are anticipated to commence in 2026. Although buildout of the site will likely take place over a time span of three to eight years, depending on market conditions and other factors, this EA conservatively assumes construction of the site will occur over a period of 24 months. As with Alternative 1, the proposed facilities would conform to applicable Nisqually Tribal Building Codes, which are generally consistent with the IBC and related codes, including fire, electrical, energy, mechanical, plumbing, and safety (Appendix B of the EA). Indoor sprinkler systems would be installed to provide fire protection. Approximately 1,594 direct employment opportunities would be generated during the construction of Alternative 2.

Figure 12: Alternative 2 – Preliminary Grading Plan

Figure 13: Alternative 2 – Preliminary Drainage

Figure 14: Alternative 2 – On-site Water and Wastewater Option

Table 13: Project Components – Alternative 2

Master Plan Area #	Development Components	Lot Area	Proposed Development Area or Units	Parking Spaces
01	School	4.0 acres	200 K-8 students; 30,000 sf	48
02 & 03	Athletic Complex	26.5 acres	12 fields	566
	<i>Baseball/Softball</i>	-	<i>8 fields</i>	-
	<i>Soccer</i>	-	<i>4 fields</i>	-
04 & 06	Golf Entertainment Facility	7.4 acres	93 stations	160
05	Car Dealership	2.0 acres	10,000 sf	10
07	Indoor Recreation	19.5 acres	200,000 sf	570
08	Hotel (4-Story)	5.0 acres	200 rooms	207
09	Cultural Village - Live-Work	8.2 acres	110,000 sf; 20 units	185
	<i>Retail and Studios</i>	-	<i>80,000 sf</i>	-
	<i>Office</i>	-	<i>30,000 sf</i>	-
	<i>Live/Work (Housing)</i>	-	<i>20 units</i>	-
10 & 11	High Density Multi-Family Apartments	7.4 acres	300 units	450
12	Upscale Grocery	5.08 acres	40,000 sf	175
	<i>Grocery Store</i>	-	<i>30,000 sf</i>	-
	<i>Retail</i>	-	<i>10,000 sf</i>	-
13	Family Entertainment	20.0 acres	159,000 sf	492
	<i>Theater and Dining</i>	-	<i>54,000 sf</i>	-
	<i>Bowling Alley</i>	-	<i>37,000 sf</i>	-
	<i>Adult Arcade Facility</i>	-	<i>16,000 sf</i>	-
	<i>Retail and Dining</i>	-	<i>52,000 sf</i>	-
14	Neighborhood Retail	7.7 acres	59,500 sf	245
15	Convenience Store Gas Station	8.0 acres	10,000 sf; 10 pumps	54
16	Undeveloped/Passive Park	14.6 acres	14.6 acres	24
	<i>Gravel Trails</i>	-	<i>1 mile</i>	-
	<i>Playground and Lawn</i>	-	<i>23,000 sf</i>	-

Source: HBG, 2022

Table 14: Land Use Summary – Alternative 2

Land Use	Total Development
Commercial, Retail, and Office	588,500 SF
Educational Facilities	30,000 SF
Recreational Facilities	53.1 acres
Lodging Facilities	200 rooms
Housing	320 units
Fuel Pumps	10 gasoline
Parking	3,186 spaces

Table 15: Alternative 2 Bioretention and Infiltration Areas

Catchment Number	Total Catchment (acre)	Impervious Area (acre)*	Landscape Area (acre)	Bioretention Area Required (sf)	Infiltration Area Required (sf)
C201	22.6	5.19	17.41	18,500	35,900
C202	22.98	19.53	3.45	27,900	42,100
C203	18.53	3.71	14.82	15,800	29,000
C204	32.42	27.56	4.86	39,400	59,400
C205	8.61	7.32	1.29	10,500	15,800
C206	28.47	24.2	4.27	34,600	52,200
C207	6.51	5.53	0.98	7,900	12,000
C208	24.92	4.98	19.94	21,200	38,900
C209	8.96	7.62	1.34	10,900	16,400
Totals	174.00	105.64	68.36	186,700	301,700

Source: Appendix D of the EA

* Includes 19.16 acres of roof areas in addition to 86.41 acres of paved area, but roof areas do not require treatment and would be routed directly to the infiltration facilities.

Table 16: Estimated Average Water Usage – Alternative 2

Facility	Units	Demand per Unit (gpd)	Quantity	Average Daily Water Usage (gpd)
Apartments	Apt	150	300	45,000
Theater	SF	0.12	50,200	6,024
Entertainment Center	SF	0.08	10,375	830
Retail	SF	0.011	138,000	1,518
Grocery	SF	0.022	30,000	660
Retail Parking Factor	Spot	2	1,000	2,000
Office	SF	0.021	30,000	630
Hotel	Room	73	200	14,600
Golf Entertainment Facility	SF	0.08	55,500	4,440
Car Dealership	SF	0.011	10,000	110
Convenience Store	SF	0.016	10,000	1,600
Restaurants	SF	1	85,425	85,425
Athletic Complex	Restroom Stalls	250	24	6,000
Indoor Recreation	SF	0.1	200,000	20,000
School	SF	0.75	30,000	22,500
Bowling Alley	SF	0.16	29,500	4,720
Live/Work Units	EA	200	20	4,000
HVAC/Cooling	Ton	30	1,787	53,610
Landscape Irrigation	Acre	4,000	55	220,000
Total				493,667

Source: Appendix C of the EA

Table 17: Estimated Average Water Usage with Reclaimed Water – Alternative 2

Facility	Average Daily Water Usage (gpd)	Reclaimed Water Use Potential (%)	Reclaimed Water Use Potential (gal)	Average Daily Water Usage with Reclaimed Water (gpd)
Apartments	45,000	10	4,500	40,500
Theater	6,024	25	1,506	4,518
Entertainment Center	830	25	207	623
Retail	1,518	25	379	1,139
Grocery	660	12	79	581
Retail Parking Factor	2,000	25	500	1,500
Office	630	25	157	473
Hotel	14,600	25	3,650	10,950

Facility	Average Daily Water Usage (gpd)	Reclaimed Water Use Potential (%)	Reclaimed Water Use Potential (gal)	Average Daily Water Usage with Reclaimed Water (gpd)
Golf Entertainment Facility	4,440	25	1,110	3,330
Car Dealership	110	25	27	83
Convenience Store	1,600	25	400	1,200
Restaurants	85,425	0	0	85,425
Athletic Complex	6,000	25	1,500	4,500
Indoor Recreation	20,000	25	5,000	15,000
School	22,500	25	5,625	16,875
Bowling Alley	4,720	25	1,180	3,540
Live/Work Units	4,000	10	400	3,600
HVAC/Cooling	53,610	0	0	53,610
Landscape Irrigation	220,000	100	220,000	0
Total	493,667	-	246,220	247,447

Source: Appendix C of the EA

Table 18: Estimated Wastewater Flow and Discharge – Alternative 2

Facility	Average Daily Wastewater Flow (gpd)	Peak Wastewater Flow (gpd)	Average Daily Flow Wastewater Discharge with Reclaimed Water Usage (gpd)	Peak Flow Wastewater Discharge with Reclaimed Water Usage (gpd)
Apartments	45,000	91,350	40,500	82,215
Theater	6,024	12,229	4,518	9,172
Entertainment Center	830	1,685	623	1,264
Retail	1,518	3,082	1,139	2,311
Grocery	660	1,340	581	1,179
Retail Parking Factor	2,000	4,060	1,500	3,045
Office	630	1,279	473	959
Hotel	14,600	29,638	10,950	22,229
Golf Entertainment Facility	4,440	9,013	3,330	6,760
Car Dealership	110	223	83	167
Convenience Store	1,600	3,248	1,200	2,436
Restaurants	85,425	173,413	85,425	173,413
Athletic Complex	6,000	12,180	4,500	9,135
Indoor Recreation	20,000	40,600	15,000	30,450
School	22,500	45,675	16,875	34,256
Bowling Alley	4,720	9,582	3,540	7,186

Facility	Average Daily Wastewater Flow (gpd)	Peak Wastewater Flow (gpd)	Average Daily Flow Wastewater Discharge with Reclaimed Water Usage (gpd)	Peak Flow Wastewater Discharge with Reclaimed Water Usage (gpd)
Live/Work Units	4,000	8,120	3,600	7,308
HVAC/Cooling	26,805	54,414	26,805	54,414
Landscape Irrigation	0	0	(220,000)	(220,000)
Total	246,862	501,130	640	227,899
Sludge Retained	2,050	4,160	2,050	4,160
Total Discharged	244,812	496,970	(1,410)	223,739

Source: Appendix C of the EA

3 ALTERNATIVE 3 – NO ACTION ALTERNATIVE

Under Alternative 3, neither of the development alternatives (Alternatives 1 and 2) would be implemented. No land would be placed in federal trust for the benefit of the Tribe. Alternative 3 assumes that the Project Site would continue to remain in its current undeveloped state for the foreseeable future.

4 COMPARISON OF THE ALTERNATIVES

A comparison of the land uses proposed under Alternatives 1 and 2 are provided in **Table 19**, while a comparison of the environmental effects of each alternative is provided following the table.

Table 19: Comparison of Land Uses

Land Use	Alternative 1 Development	Alternative 2 Development	Land Use Differences
Commercial and Retail	929,500 SF	588,500 SF	341,000 SF
Educational Facilities	–	30,000 SF	30,000 SF
Recreational Facilities	7.4 acres	53.1 acres	45.7 acres
Lodging Facilities	200 rooms	200 rooms	0 rooms
Housing	320 units	320 units	0 units
Fuel Pumps	10 diesel 16 gasoline	10 gasoline	10 diesel 6 gasoline
Parking	4,655 spaces	3,186 spaces	1,469 spaces

- Alternative 1 – Commercial-Heavy Mixed-Use Development.** Among the project alternatives considered, Alternative 1, which is fully evaluated in Section 3 of the EA, would provide the greatest socioeconomic benefit to the Tribe and surrounding community. Alternative 1 would generate more traffic and have greater potential impacts to public transportation systems but would result in less water demand and wastewater generation than Alternative 2. The social cost of greenhouse gas

emissions would be higher for Alternative 1 due to the larger number of vehicle trips associated with the more intensive commercial development.

- **Alternative 2 – Recreation-Heavy Mixed-Use Development.** This alternative would result in similar effects to the environment as Alternative 1 but would provide the Tribe and the community with less economic benefit than Alternative 1. Most potential effects associated with most environmental issue areas would be less due to the smaller sized development that would be constructed under Alternative 2, but the water demand would be higher due to the additional irrigation requirements. Impacts to natural communities would be lessened due to retaining some area as open space, but the lower density of Alternative 2 would be less consistent with the land uses long envisioned in local planning documents for the Gateway Town Center area. Alternative 2 would eliminate air quality and hazardous materials impacts associated with the diesel fueling stations in the convenience store area.
- **Alternative 3 – No Action Alternative.** Under Alternative 3, the Project Site would remain in its existing condition and would not be taken into trust. No environmental effects would occur. Under Alternative 3, the Tribe would not achieve any of the economic benefit that would be achieved with development of Alternative 1 or Alternative 2. Moreover, the Tribe would not be able to utilize its landholdings in a manner that would most benefit its members. This alternative would be less preferable than Alternative 1 and Alternative 2 since it would not meet the stated purpose and need of facilitating tribal self-sufficiency, self-determination, and economic development.

5 ALTERNATIVES ELIMINATED FROM CONSIDERATION

The intent of the analysis of alternatives in the EA is to present to decision-makers and the public a reasonable range of alternatives that are both feasible and sufficiently different from each other in critical aspects. Section 1502.14 of the CEQ's Regulations for Implementing NEPA states that lead agencies are required to evaluate all reasonable alternatives and discuss the reasoning as to why additional alternatives were eliminated from detailed study. Section 1502.14 of the CEQ's Regulations for Implementing NEPA states that a lead agency should present environmental impacts of proposed alternatives in a comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker. Alternatives considered must include those that offer substantial environmental advantages over Alternative 1 and which may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors. The alternatives discussed herein were considered and rejected from further consideration because the alternatives were either deemed infeasible, would not offer environmental advantages over Alternative 1, and/or would not fulfill the stated purpose and need of the Proposed Action.

5.1 Alternative Location

Prior to formally submitting an application requesting the Project Site be taken into trust, the Tribe considered a number of other sites in the State of Washington for the Proposed Project. These sites were evaluated based on size, proximity to transportation corridors, cost, availability for purchase, environmental constraints, revenue potential, proximity to competing tribal facilities, and location within traditional homelands. There are no other known available lands either owned by the Tribe or that can feasibly be purchased by the Tribe that would fulfill the Tribe's purpose and need for the Proposed Action, and that would provide substantial environmental advantages over the Project Site. Therefore, alternative locations for the trust acquisition are not evaluated within the EA.