1 INTRODUCTION

At the request of Blue Square Real Estate (BSRE) Point Wells, LP, David Evans and Associates, Inc. (DEA), has prepared this supplemental memorandum to DEA’s 2019 Critical Areas Report (DEA 2019) to address Supplemental Staff Recommendations #2 (Snohomish County 2020) involving existing critical area documentations. The Supplemental Staff Recommendation requested additional information on design and environmental impacts associated with construction and operation of proposed foot ferry facilities and effects on groundwater for a proposed Sounder train station.

The following analysis was conducted to assess short- and long-term impacts to marine habitat and wildlife where proposed foot ferry facilities would operate between the Project Site in Snohomish County and Seattle (Figure 1). Relevant species and habitats assessed in the analysis were identified using current records of priority habitats and species (PHS), Washington Department of Fish and Wildlife (WDFW), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). Relevant site information on habitats and zoning data is shown in Figure 2. PHS data for the site is shown in Figure 3. The wetland, stream, and shoreline data for the project, including off site wetlands, are fully described in the Critical Areas Report (DEA 2019) as shown in Figure 4. This memorandum will address construction and operation impacts, and conceptual mitigation opportunities for a passenger foot ferry and future Sounder rail station (Figure 5).

1.1 Report Background

Previous versions of critical area reporting were prepared in December 2019, April 2016, April 2017, and March 2018 as part of the Point Wells Urban Center Application package. The December 2019 report (DEA 2019) was revised to reflect the current status of project design. This supplemental Memorandum address two main questions from the County regarding impacts associated with transportation by train and ferry. This report supports BSRE’s current land use application submittal – PFN 11-101457LU.
1.2 Project Site History

The onshore and dock facilities on Point Wells were reportedly constructed in 1912 after Standard Oil (now Chevron), Shell, and other smaller oil companies purchased the property. The facility was used as an asphalt refinery and light products/lube oil distribution terminal. The various types of petroleum products stored or processed at Point Wells included crude oil, asphalt products, lubrication oils, fuel oils, aviation fuels, motor vehicle and marine vessel fuels, and thinners. The light products/lubrication oil distribution terminal is no longer in operation. The asphalt refinery ceased operations in 2000. BSRE Point Wells, LP, purchased the site in 2005. Currently, the facility is used for the storage and distribution of marine fuels and asphalt.

The existing facility was reportedly constructed on a salt marsh, which was filled with 4 to 15 feet of imported sand and gravel. The fill has been overlaid with pavement. Groundwater is typically present at depths ranging from 1 to 2.5 feet below the surface in the eastern area and 5 to 8 feet in the western area.

2 OVERALL PROJECT PROPOSAL

Overall, the Snohomish County’s Comprehensive Plan Map designation of the site changed from Urban Industrial to Urban Village. The zoning of the site has also been changed from Heavy Industrial to Planned Community Business with special provisions that require County approval prior to major site redevelopment for mixed use. These plan map and zoning changes were necessary to facilitate the master-planned redevelopment of the industrial portion of Point Wells into a new mixed-use commercial, recreation, and residential site that is pedestrian-oriented and takes full advantage of its unique and attractive waterfront setting.

The Point Wells redevelopment project consists of a 4-lot short plat in preparation for a future multi-phased urban center application. The urban center will consist of mixed-use commercial, retail, residential, and public recreational uses.

2.1 Foot Ferry Proposal

This memorandum presents an analysis of impacts related to construction and operation of a proposed foot ferry or water taxi with initial service between Point Wells to Seattle’s Coleman Dock. While specific details of the vessel and schedule are yet to be determined, there are several parameters within which the water taxi would likely fall. Vessel type would likely mirror vessels that service the Kitsap Transit fast ferry from Kingston to Seattle. These vessels are aluminum hulled catamarans, that hold approximately 250 passengers. Similar to this existing service, and based on the expected population of the Point Wells development, as well as residents from nearby neighborhoods, it can be expected that the new water taxi could conduct 6 to 12 sailings per day on weekdays with no weekend sailings during the Commute Only (October-April) schedule. The Peak Season (May-September) schedule would adjust sailings to accommodate increased seasonal demand and could include weekend sailings. One-way transit times are estimated to average 40 minutes.
The proposed docking facilities at Point Wells would utilize the existing pier along with a new floating loading dock and gangway (Figure 5). The footprint of the floating dock is adequate for operation of a foot ferry, but the exact layout of the dock facility would be determined after vessels selection and general operations are chosen. The south end of the ferry run is proposed to use the existing slip space at the Coleman Dock in Seattle. It is also assumed that no dock upgrades would be required at the Seattle location. Signage improvement on the terminals would be required prior to start of operation.

2.2 Sounder Rail Proposal

Evaluation of construction impacts associated with a proposed Sounder rail station along the existing BNSF rail line are subject to more specific details of the rail stations which are yet to be determined although a general footprint of the station has been identified. The proposed dimensions of the station would include two 490-foot by 18-foot platforms along the existing track, one for northbound loading and unloading and one for southbound loading and unloading (Figure 5). Subgrade design is currently unavailable although it is assumed that the existing rail subgrade is adequate for the proposed construction. In addition, it is assumed that the station can be constructed within the existing rail prism. The train capacity and frequency would be determined at a later date, but it is assumed that Sound Transit would operate the facility within the existing Sounder North Seattle to Everett line. The Sounder service presently runs with two trains in the morning and two trains in the evening commute. One-way transit times are estimated to average approximately 30 minutes from Point Wells to Seattle.
Figure 1. Project Site and Vicinity
Figure 2. Project Site GIS Data Map
Figure 3. PHS Data for the Project Site
Figure 4. Wetlands, shoreline, and critical area buffers on the Project Site
Figure 5. Wetlands, shoreline, and critical area buffers on the Project Site
3 FOOT FERRY IMPACTS

The proposed foot ferry dock is shown in Figure 5. The foot ferry would be located in an area of subtidal marine water adjacent to the existing pier. Based on current nautical charts, the water depth at the proposed dock site ranges from 18-50 feet deep. The over-water area for the proposed foot ferry floating dock and adjustable gangway would include approximately 7000 square feet. The gangway maybe designed to limit shading with the use of grating or similar pedestrian-safe surface. Up to five steel pipe piles may be required to stabilize the floating dock.

Existing mapping of habitat types on and adjacent to the study site show documented and potential surf smelt and sand lance spawning habitat in the intertidal area shoreward of the proposed foot ferry dock. There is eelgrass beds and subtidal geoduck beds south of the proposed foot ferry dock. The PHS data is shown in Figure 3.

3.1 Construction Impacts

Construction impacts would result from installation of the floating dock, piles to stabilize the dock, and barges for construction equipment. The construction activity would occur at the floating dock site shown in Figure 5. This area is approximately 300 feet from the ordinary high water mark (OHWM) of the adjacent shoreline and in deeper subtidal water. There are no wetlands or streams near the foot ferry dock. Proposed construction for the foot ferry would not impact mapped eelgrass beds. The proposed floating loading dock would shade a maximum of 7000 square feet of subtidal marine water (Figure 5). Several piles would be installed to stabilize the floating portion of the dock. The operation of construction equipment would create noise and light pollution during active construction. The removal and installation of piles can suspend sediment. The project pile work is fully described in the Critical Areas Report (DEA 2019).

Impacts from construction are anticipated to be minor and would be mitigated by the overall project design. The proposed project as a whole will remove the three existing access structures from the shoreline to the existing pier (Figure 2). This would be replaced with a single new access structure and the floating dock for the foot ferry and other boat moorage (Figure 5). Construction of the foot ferry dock will provide a net gain in habitat function with the removal of existing creosote piles and use of fewer untreated piles.

3.2 Operation Impacts

Potential operation-related impacts to marine habitats and fish and wildlife from the proposed project include shading, scour from prop wash at the dock, and disturbance/interference of marine mammals from operation of the ferry between Point Wells and Seattle as it moves through Puget Sound waters. Operations of the foot ferry will occur at the existing dock facility that is used by small to large vessels. Movement of the foot ferry between Point Wells and Seattle is similar to the Kitsap County Kingston to Seattle foot ferry. The proposed foot ferry will also adhere to all existing maritime rules for navigating between Point Wells and Seattle.
Operation at the Point Wells dock will occur 300 feet offshore from the ordinary high water mark (OHWM) thereby providing sufficient distance to attenuate waves and avoid significant beach erosion. Operations of the foot ferry will be designed to minimize substrate scour during ferry docking by maintaining minimum speeds and avoiding wake. Localized scour to the subtidal zone may occur in the area at the dock but is unlikely to be significant due to the water depth (greater than 18 feet). There will be impacts to air quality from diesel fuel combustion, however, these will be partially offset by the vessels’ reduction in vehicle commuter passenger vehicle trips from Point Wells to Seattle. Additionally, the selected vessel design can incorporate a low-resistance, fuel-efficient hull design to maximize fuel economy at cruising speeds. The feasibility of use of a hybrid vessel or biodiesel fuel will also be reviewed.

### 3.2.1 Habitat Impacts

Impact to fish and wildlife habitat at the Point Wells dock and for operation between Point Wells and Seattle will occur but are assumed to be minimal. Impacts to fish and wildlife habitat from the operation of the foot ferry are not expected to be significantly different from the existing use of the project site. The foot ferry will be functioning within reasonable range of existing marine navigation uses that occur in the marine water between Point Wells and Seattle. Impacts from operation are similar to those previously described in the Critical Areas Report (DEA 2019).

The proposed foot ferry vessels may have potential water quality impacts to marine waters. The vessel may use raw water cooling, which would result in discharge of heated water during use. Water intakes would be screened according to current design standards to prevent loss of marine life or debris accumulations. Pollutant discharges into marine waters would be regulated by current operational best management practices for the ferry system. Sanitary sewer waste would be discharged into the sanitary sewer treatment system.

### 3.2.2 Species Impacts

While numerous marine fishes, mammals, and birds reside and migrate through the Puget Sound and may be affected by the operation of a foot ferry between Point Wells and Seattle, the operation of this ferry will be time limited and transient, and as such is not anticipated to have significant impacts on species or species movements. The Critical Areas Report (DEA 2019) discusses marine species’ impacts to salmonids, forage fish, resident marine fish, marine mammal, marine bird, and marine invertebrates. This assessment will focus on operational impact of the proposed foot ferry on these marine species.
3.2.2.1 Salmonids, Forage Fish and Resident Marine Fish

The proposed foot ferry would have no significant adverse impacts to salmonids, forage fish or resident marine fish. The project will not significantly increase shading along the shoreline to a degree that would create a detectable effect on juvenile salmonid nearshore migration. The project avoids any direct impacts to documented forage fish habitat. Indirect impacts from propeller scour would be minimal due to water depth and distance from the shoreline. Over the long term, resident marine fish such as pile perch and cabezon would be expected to inhabit the area under the dock as they inhabit the existing pier and access structures.

Operation of the foot ferry between Point Wells and Seattle will operate offshore and will follow standard maritime rules of navigation for central Puget Sound. Overall effects on salmon, forage fish, and resident marine fish will be beneficial. The proposed mitigation will increase intertidal habitat. Treated pilings will be removed which also will benefit marine fish habitat.

3.2.2.2 Marine Mammals

Operation of the water taxi has the potential for strikes and unintentional harassment of marine mammals. The foot ferry will follow all required avoidance and navigation rules when marine mammals are observed along the ferry route. It is anticipated that vessel operations would follow Washington State Ferries and British Columbia Ferries current Vessel Operation and Cetacean Protection Policies when operating in the presence of marine mammals. Noise impacts from vessel operation would potentially impact marine mammals within close proximity to the operating vessel. Vessel operation methods will address minimizing noise effects while in close proximity to marine mammals, particularly listed killer whales.

The most common large marine mammal in the operation route of the foot ferry is the eastern Pacific population of the gray whale that migrates through Puget Sound. A small group of these whales reside in Washington’s nearshore waters during portions of the spring and early summer. Termed the ‘Sounders’, these whales spend approximately 2 to 3 months (typically March through May) feeding on ghost shrimp in north Puget Sound waters. Operation of the water taxi service may impact these whales from increased underwater noise, as well as unintentional harassment and ship strike. The foot ferry will follow all required avoidance and navigation rules when marine mammals are observed along the ferry route.

3.2.2.3 Marine Birds

Operation of the water taxi has the potential for unintentional harassment of marine birds. However, the vessel will avoid intentional approach and harassment of seabird aggregations. Also, the proposed location of the dock would not affect any documented marine seabird nesting or loafing areas. Operations of the proposed foot ferry is not a significant increase in marine navigation traffic.
3.2.2.4  **Marine Invertebrates**

Disturbance of benthic communities would be essentially short-term in nature limited to construction of the proposed Point Wells dock upgrades; nearshore disturbance from vessel-generated wakes; and potential substrate scour from vessel operation at the Point Wells dock. Discharge of heated water at the dock during idling periods may result in a minor increase in ambient water temperature in the immediate vicinity of the operating vessels. This temperature change is expected to have a minimal impact on marine invertebrates. Additionally, potential spills or accumulation of diesel at docking locations could also affect local communities of marine invertebrates near the docks. The potential impact on benthic invertebrates is limited in time and space. Overall, foot ferry operations will have limited effects on these invertebrate communities near the Point Wells dock.

4  **SOUNDER RAIL STATION IMPACTS**

Detailed plans for the proposed Sounder station are not currently available. While there are mapped wetlands on the slope east of the site, all surface and shallow water is presently collected in ditches along the east side of the rail prism and directed to streams on and adjacent to the project site. It is assumed that station construction will include means and methods to continue to transport surface and groundwater from the east side of the railroad to the west side. If future studies indicated unexpected effects on groundwater, design options for conveying groundwater through the existing railroad prism will be evaluated and incorporated into the project design where feasible.

While the layout of the Sounder rail station will be established within the existing rail prism, some temporary impacts may occur to facilitate the final design and construction activities. The proposed work will be designed to avoid permanent impacts to wetlands and streams. Some of the ditches may be temporarily affected but they will be restored onsite. Buffer impacts will occur within the existing developed portion of the rail right of way, which are typically not regulated within this federally-recognized freight rail corridor.

5  **CONCLUSION**

Based on the analysis provided above, DEA concludes that the proposed passenger foot ferry and Sounder Station would not result in significant adverse impacts to marine habitat or wildlife, or the shoreline environment. As such, no specific additional mitigation measures are proposed for these activities. A full discussion of the project’s proposed conceptual mitigation plan is described in the Critical Areas Report (DEA 2019). Any potential impacts resulting from construction or operation of the proposed foot ferry will be fully addressed by the proposed mitigation and Innovative Development Design proposal. The extensive restoration of the existing shoreline and daylighting of Chevron Creek will compensate for project impacts including those from construction and operation of the foot ferry. The proposed cleanup of site contamination along with the mitigation will provide a significant net benefit to the ecological functions of the Puget Sound shoreline.
3 References

