Project Description Narrative

In-Water and Overwater Structures Removal Project
Camas Mill, Camas, WA

Revised Final June 20, 2023

Prepared for

Georgia-Pacific

Georgia-Pacific Consumer Operations, LLC
Camas, WA

Prepared by

TETRA TECH

19803 North Creek Pkwy
Bothell, WA 98011

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List of Acronyms

CRD	Columbia River Datum
CWA	Clean Water Act of 1972
DNR	Washington State Department of Natural Resources
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FR	*Federal Register*
GP	Georgia-Pacific Consumer Operations LLC
HPA	Hydraulic Project Approval
LA	lease areas, per Aquatic Lands Lease held by GP, 2016
LI DMA	Lady Island dredged materials area
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NRHP	National Register of Historic Places
OHW	ordinary high water
OHWM	ordinary high water mark
R&HA	Rivers and Harbors Act
RCW	Revised Code of Washington
RM	river mile
SEPA	State Environmental Policy Act
SF	square feet
SPCC	Spill, Prevention, Control and Countermeasures
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

Note

The contents of this document were originally prepared for Georgia-Pacific Consumer Operations, LLC by Wood Environment & Infrastructure Solutions, Inc. Tetra Tech has updated the document to reflect the current planned Project.

1.0 INTRODUCTION

Georgia-Pacific Consumer Operations LLC (GP) is planning to abate, remove, and demolish several structures associated with prior operations at the Camas Mill located in the city of Camas and in unincorporated areas of Clark County, Washington. The structures that GP is proposing to be removed are located in-water and/or overwater on the Columbia River and Camas Slough, and are located within the Shoreline Management Zone of the City of Camas, or are in-water within unincorporated Clark County.

The purpose of this document is to provide:

- A description of proposed Project activities,
- A brief description of the structures proposed for demolition/removal,
- An explanation of the anticipated regulatory reviews, and
- An overview of the anticipated post-demolition/removal conditions.

GP is the sole organization responsible for maintaining, developing, removing, and deconstructing facilities identified here.

1.1 Project Purpose and Need

The Project purpose is to abate, remove, and demolish structures associated with former riverfront operations of the pulp and paper mill which are no longer utilized, including structures located on GP property and on State-owned aquatic lands.

The need for the Project is to reduce liability associated with unused structures and remove structures from state lands enabling termination and/or reduction of a State Aquatic Lands lease and termination of several State Aquatic Lands easements.

The structures that GP is proposing to be removed include:

- A warehouse,
- Five docks/piers,
- Conveyor housings,
- An aboveground oil storage tank,
- Crane foundation, and
- Approximately 3,000 pilings that are associated with the above structures, serve as mooring dolphins, or are abandoned.

It should be noted that GP is still working to determine which structures will be needed for the future operation of the site. As those decisions are still being made, GP is working to permit the removal of all structures. If certain structures are determined to be needed for future operations, those structures will not be removed from the site, and GP will continue to maintain leases and easements where necessary.

Photographs of the structures are presented in **Appendix A**. *Overwater structures* are those that were built along the riverbank with structural components that originate below the ordinary high water mark (OHWM), which enabled the structure to extend over the water surface to provide river access. *In-water structures* are built entirely below the OHWM.

1.2 Background

The Camas Mill has been in operation since the 1880s producing pulp and paper through a variety of technologies. The mill covers approximately 190 acres adjacent to the north bank of the Camas Slough, as well as a portion of the approximate 450 acres of Lady Island.

The Mill is active, operating a single paper production line. Camas Mill no longer manufactures pulp, does not currently perform any significant on-site chemical manufacturing/processing, nor does the Mill currently utilize the river for shipping or log transport/storage. Decisions around the future operation of the site has the potential to impact these activities.

2.0 PROJECT LOCATION

The Project area lies within the City of Camas, Washington, except for one dolphin to be removed on the Columbia River that is located outside the city limits within unincorporated Clark County, Washington. **Figure 1** provides an overview of the Project location. Note that figures are presented at the end of this narrative. The Project area consists of a portion of the Camas Slough, which runs between Lady Island and the city of Camas, Washington, on the north bank of the main channel of the lower Columbia River. Lady Island lies between the Camas Slough and the Columbia River main channel. The Project lies between river mile (RM) 117 and 121, with much of the proposed activity at approximately RM 119 to 120 located in the Camas Slough.

The Project area lies within Township 1 North, Range 3 East, Sections 8, 9, 10, 11, 15, and 16, Willamette Meridian.

As stated, the structures to be removed are located adjacent to the riverbank are entirely or partly below the OHWM of the Camas Slough and are located within either the City of Camas Shoreline Management Zone or Clark County Shoreline Management Zone.

A bathymetric and upland survey of the Project footprint was completed in 2020, and Project drawings are based on that information.

Figures 2A through 2E show the locations of structures GP is proposing to be removed. These locations include:

- Areas along the riverbank within the main Mill site,
- Riverbank locations on Lady Island,
- In-water locations in the Camas Slough, and
- In-water locations extending approximately 3 miles downriver from the Mill on the Columbia River mainstem.

2.1 Land Ownership

The proposed Project would occur on property owned, leased, or under easement by GP (**Table 1**). The Project area is designated as industrial land use (City of Camas 2016, 2019). Lady Island is designated as industrial land use and is classified as Medium Intensity and High-Intensity shoreline designations (City of Camas 2015, 2019; Clark County 2019).

Table 1. Parcels Included in the Project Area

Assessor Parcel Number	Owner[1/]	Tax Parcel Type Description/Zoning/Location
08370-0000	Fort James Camas, LLC (GP)	Manufacturing—paper products/Heavy Industrial/ Lady Island
09104-4013	Georgia-Pacific Corporation	Manufacturing—lumber and wood products/Heavy Industrial
09104-4015	Fort James Camas, LLC (GP)	Manufacturing—paper products/Heavy Industrial/ Main Mill Parcel
09104-4027	Specialty Minerals Inc. [2/](GP)	Storage warehouse/Heavy Industrial
50090-1000	Fort James Camas, LLC (GP)	Tidelands/Water
50090-2000	Fort James Camas, LLC (GP)	Tidelands/Water
50090-3000	Fort James Camas, LLC (GP)	Tidelands/Water
50090-4000	Fort James Camas, LLC (GP)	Tidelands/Water
50081-4000	Fort James Camas, LLC (GP)	Tidelands/Water
50081-4001	Fort James Camas, LLC (GP)	Tidelands/Water
50081-7000	Fort James Camas, LLC (GP)	Tidelands/Water
50081-8000	Fort James Camas, LLC (GP)	Tidelands/Water

1/ The previous corporate name, Fort James Camas LLC, is shown on County's tax parcel information.
2/ Specialty Minerals was a part of Fort James Camas, LLC.

2.1.1 GP Property

Structures to be removed along the riverbank are within the main Mill parcel, which supports a large variety of industrial and warehouse structures related to pulp and papermaking processes and materials management and a variety of office and safety-related buildings, and along the shoreline of Lady Island. The Mill has a long history at this location with previous Mill–related structures known to have been present at the locations of the Truck dock, Dock Warehouse, and PECO dock.

The Project area also includes bank locations on Lady Island. Lady Island is owned in its entirety by GP. Lady Island comprises both developed and undeveloped areas, including the wastewater treatment facilities for the Mill, a dredged materials storage area, an industrial landfill, and structures conveying overhead electrical infrastructure. Washington State Route 14 crosses the northeast portion of the island, connecting to the City of Camas via bridges across Camas Slough to the north and east. Undeveloped portions of Lady Island are mainly forested. Project activities on Lady Island include removal of dolphins along the shoreline, potential storage of dredged materials, and treatment of stormwater during demolition at GP's wastewater treatment facilities for any near riverbank demolition.

2.1.2 State Aquatic Lands Lease Areas

GP has an established State Aquatic Lands lease along with several easements with the Washington State Department of Natural Resources (DNR) in Camas Slough and the Columbia River for use of state bedlands and tidelands.

One dolphin located downriver of the main mill site at approximate RM 117 is on State Aquatic bedlands within Clark County. This area is known as lease area (LA) 1, and the single dolphin at this location would be removed.

3.0 STRUCTURES TO BE REMOVED

Table 2 summarizes structures GP is proposing to be removed from in-water locations, and also indicates which LAs or easement the structures are located within. An estimate of the disturbance area, as well as the quantity of fill or dredging needed, is also provided. A complete impacts analysis on aquatic areas including methods and results discussion will be provided in an updated *Shoreline Report, In-Water and Overwater Structures Removal Project* (Wood 2020).

Table 2. Summary of In-Water Structures to be Removed

Structure to be Demolished	Location within State Aquatic Lands Lease Area Number or Easement	In-water Filling or Dredging required?	Estimated Disturbance Area (SF)	Estimated Quantity of Fill (+) or Dredge (-) (Cubic Yards) Below OHWM
Dolphins and piling	Lease Areas (LA): 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19	None	890	-0-
Downriver dolphin in Clark County	LA 1	None	30	-0-
Dock Warehouse piers access dredging[1/]	LA 17	Dredging	58,710	-10,500
Berger Crane foundation[2/]	LA 17	Filling	19,370	+3,500
Tug Dock	LA 17	None	-0-	-0-
Approximate net change in fill or dredge				-7,000 CY

Notes:
1/ Dock Warehouse piers disturbance area is the area of the dredge prism, and the quantity of dredge is that to be removed to provide barge access to the structure.
2/ Berger Crane foundation has a riverbed footprint of 300 SF, of which 100 SF will be retained below the new sediment line at the end of the Project. Area of disturbance here reflects the extent of the fill prism to create new riverbed topography and cover the retained portion.

Abbreviations:
CY = cubic yard
DNR = Washington State Department of Natural Resources
LA = DNR Lease Area
SF = square feet

Overwater structures are located on the north bank of the Camas Slough. **Table 3** summarizes the overwater structures GP is proposing to be removed. **Table 4** summarizes the other structures to be removed that are upland of the riverbank and within the City's Shoreland zone.

Table 3. Summary of Overwater Structures to be Removed

Structure to be Demolished	Filling or Excavation/Dredging	Ground Disturbance Area (SF)	Fill (+)/Excavate (-) Quantity (Cubic Yard)	
			Below existing OHWM	Above existing OHWM
Riverbank Structures: Truck Dock, Dock Warehouse & PECO Dock	Excavation/dredging and filling	40,450	+1,230 / -2,990	+18,300 / -17,100
Approximate net change in fill or dredge at Riverbank			- 1,760	+1,200

Note:
Together, the Truck Dock, Dock Warehouse, and PECO Dock cover approximately 1,055 lineal feet along the riverbank. Given the contiguous nature of the structures, removal activities are summarized for all three structures together.

Abbreviation:
OHWM = ordinary high water mark
SF = square feet

Table 4. Other Structures to Be Removed in Shoreland Zone

Structure	Filling or Excavation	Total Ground Disturbance (SF)	Notes
Aboveground Oil Storage Tank	None	-0-	Demolition is to slab, and no ground disturbance planned
South Wood Chip Storage Area	Excavate remaining wood chips and backfill to previous grade	155,580	Approximately 11,100 CY of fill for restoration of area topography (all located landward of OHWM)
Product Conveyor Housing[1]	None	-0-	Elevated housing
Wood Chip Conveyor Housings[1/]	None	-0-	Elevated housing

Note:
1/ Conveyor housings are elevated and cross over the Wood Chip Storage Areas and the Truck Dock area. The adjacent North Wood Chip Storage Area is approximately 3.0 acres of upland habitat outside of the shoreline zone, but will be graded and reclaimed collectively with activities proposed in the South Wood Chip Storage Area.

Abbreviations:
CY = cubic yard
OHWM = ordinary high water mark
SF = square feet

The planned final grades and landscaping activities are shown on the following figures:

- **Figure 3:** Grading Plan, Berger Crane Foundation
- **Figure 4:** Berger Crane Foundation River Bottom Restoration
- **Figure 5:** Grading Plan—PECO Dock, Dock Warehouse, Dock Warehouse Piers, and Wood Chip Storage Areas

Planning-level approaches for demolition and the other proposed activities are summarized by structure type and location in **Table 5**. The actual type, size, and quantity of equipment used, production rates and work schedule, along with Project sequencing will be determined by GP in collaboration with the contractor selected to do the work and in adherence to conditions of approvals. Additional details for each structure are provided after **Table 5**.

Table 5. Activities by Structure or Location

Structures to be Removed	Activities and Methods
Pilings and dolphins	• Demolition would be accessed from river barges. • Pilings would be removed following best management practices for derelict piling removals (DNR 2017, EPA 2016). • Extracted pilings and attached sediment would be contained on the barge deck until off-loaded to an upland location, per state requirements for creosote pile and best management practices. • All tire bumpers would be removed to barges and disposed of at an approved upland location.
Dock Warehouse Piers	• Demolition would be from river barges for most of the removal. • Riverbed dredging would be required to enable demolition barge access to the piers. • All utilities and miscellaneous supporting materials from the piers would be removed. • Pier decking would be cut, rigged, and removed, then piling caps would be rigged and removed, followed by pile removal.
Berger Crane foundation	• Due to the massive nature of this strong foundation, demolition may require more than a single method. • Methods may include mechanical approaches using demolition claws and/or expanding demolition grouts, for example. • Access would be either from land or from barge or both and would be up to the contractor to determine best approach. • Demolition is planned to reduce structure down to the river's water stage level estimated to be at approximately +2 feet CRD. • Every effort will be made to ensure that demolition debris is confined to the foundation removal location and removed from the site. • Retaining the foundation's lower columns in place would avoid excessive disturbance to riverbed sediment. • Fill would be used to cover the retained lower columns, creating bottom contours that match the adjacent natural riverbed in this previously dredged location. • Clean fill materials will be specified at the minimum size that is coarse enough to be stable for this location.
Tug Dock	• The metal access gangway and the floating dock would be removed.
Three Adjacent Riverbank Structures: Truck Dock, Dock Warehouse, and PECO Dock	• Demolition would be staged primarily from the riverbank, but some pilings at the westernmost extent may be removed using equipment with barge access. • Miscellaneous materials would be removed prior to beginning structure demolition • For the Truck Dock and PECO Dock, asphalt and concrete decking would be cut or broken and removed, followed by removal of piling caps. • Support beams would then be rigged and lifted for removal. • For the Dock Warehouse, demolition would occur starting from upland-facing side toward the riverbank, leaving the riverside wall to last to reduce risk of materials falling toward the river. • Pilings below and between structures along the riverbank would be removed by access from the riverbank. • The riverbank would be reshaped to shallower slopes (5 to 1 and 4 to 1), grading to steeper slopes to match existing grades. • Final surfacing materials would be specified as the finest materials that is coarse enough to remain stable in this location. • Final surfaces would be sampled and analyzed to ensure compliance with the State's anti-degradation standards.
Aboveground Storage Tank	• Tank will be deconstructed and removed from the site. • Aboveground pipelines and associated utilities would be removed from vicinity. • Tank slab would be retained.

Structures to be Removed	Activities and Methods
South Wood Chip area and Conveyor Housings	• Linear metal conveyor housings would be removed from above the South Wood Chip Storage Area. • Conveyor support foundations would remain following demolition. • Wood chips remaining in the area would be removed from the site as part of this Project. • Wood chip area would be backfilled with clean specified materials to design grades.
North Wood Chip area	• Area outside of the shoreline zone and would be completed as part of an overall grading plan for the historic wood chip storage area. • Wood chips remaining in the area would be removed from the site as part of this Project. • Wood chip area would be backfilled with clean specified materials to design grades.

Abbreviations:
CRD =Columbia River Datum
OHWM = Ordinary High Water Mark

3.1 Dolphins and Pilings

Approximately 3,000 pilings and dolphins made of wood, carbon steel H-Piling, concrete-filled pipe, and concrete would be removed from locations in the Camas Slough, extending approximately 3 miles downriver from the Mill to RM 117 (see **Figures 2A–2E; Appendix A, Photographs 7 and 8**). Many of these were previously used for log rafting.

Dolphins are groups of 3, 5, 7, or 9 piles individually installed at an angle and all bound together to create a sturdy structure for mooring or to protect an adjacent structure from potential impacts (see **Appendix A**, **Photograph 8**, for example of a Dolphin).

Table 6 lists the locations and approximate number of dolphins and pilings proposed for removal.

Table 6. Estimated Amount of Piling to be Removed

Location	In-water or Overwater	Approximate Number of Pilings 1/
Open-water dolphins and pilings	In-water	250
One downriver dolphin in Clark County	In-water	9
Piling at riverbank that is associated with in-water structures 2/	In-water	200
Piling associated with overwater structure foundations 3/	Overwater	2,500
Estimated Total Number of Pilings		**Approximately 3,000**

1/ Numbers of pilings are estimates and the total estimated number has been rounded up.
2/ In-water pilings include pilings associated with mooring dolphins, remnant riverbank pilings, sheet pilings, and pilings supporting the Dock Warehouse Piers, and pilings at the Tug Dock.
3/ Overwater pilings include pilings associated with the foundations supporting the Dock Warehouse, PECO Dock, and Truck Dock along the riverbank.

3.2 Dock Warehouse Piers

Three piers servicing the warehouse extend up to approximately 175 feet from the warehouse into the Camas Slough (**Figure 2E; Appendix A, Photograph 4**). The piers are decked with concrete and supported by 54 octagonal, solid concrete piles, along with 21 concrete-filled carbon steel pipe piles with concrete pile caps. Most of the piles are protected with truck tires that function as bumpers.

Dredging of sediments in the vicinity of the piers will be required to enable a demolition crane barge to access the piers for removal.

3.3 Berger Crane Foundation

The Berger crane foundation is located approximately 1,000 feet west of the PECO dock located in the Camas Slough (**Figure 2E**). The foundation is a remnant from a previously demolished dock initially built in 1948. This 90-foot-long, massive concrete foundation stands completely within the river approximately 40 feet from the top of the riverbank (**Appendix A, Photograph 5**).

This wall-like structure previously supported a large crane that lifted logs from the river to a wood mill. The dock and wood mill were demolished in 2002, or shortly thereafter, but the large foundation was retained. Several concrete piers are pocketed into the bedrock below the riverbed to provide stability for the foundation.

The approximately 300-square-foot (SF) foundation would be demolished down to the river stage. Approved clean suitable fill material would be used to cover the retained lower columns, create bottom contours that match the natural riverbed in this previously dredged location, and create river habitat.

3.4 Tug Dock

The Tug Dock is a 2,600 SF floating dock structure lying west of the Berger Crane foundation (**Figure 2E**). The Tug Dock is approximately 180 feet long and lies approximately parallel to the riverbank 30 feet from shore. Built in 1984, the Tug Dock provided boat moorage and access to the river. This floating dock structure is held in place by pilings and is accessed from the top of the riverbank by an 80-foot-long, modern, metal gangway. Four large guidance/mooring dolphins in this location would also be removed.

3.5 Riverbank Structures

Together, the Truck Dock, Dock Warehouse, and PECO Dock cover approximately 1,055 continuous feet of riverbank with about 12,100 SF of total area currently perched overwater. Following potential removal, approximately 40,450 SF along the riverbank would no longer have structures.

Following potential structure removal, the riverbank would be reshaped to 5 to 1 and 4 to 1 slopes transitioning to about 2 to 1 and slightly steeper to match existing grades. The final riverbank surface would be covered with the finest material that is coarse enough to be stable for the location. The eastern extent of this location is largely behind a small peninsula and is known to be an area of river deposition, while the western extent protrudes into the river and would be subject to more river currents than the eastern extent and require coarser material.

A portion of the completed riverbank above ordinary high water would be revegetated with native plant species.

3.5.1 Truck Dock

This approximately 3,700 SF flat, asphalt- and concrete-covered area provides truck access to the loading bays on the east end of the Dock Warehouse (**Figure 2E; Appendix A, Photograph 1**). This dock is supported by approximately 320 pilings constructed from wood and pipe along approximately 350 feet of the riverbank. The dock is protected by a 100-foot-long marginal sheet-pile bulkhead at the water's edge. Following removal, approximately 1,140 SF of overwater area would be uncovered.

Elevated conveyors formerly conveyed materials between buildings. The product conveyor housings in the vicinity of the Dock Warehouse would be removed, starting from the building and moving to a support at an inland location that allows for the remaining portions of the housing to be retained.

3.5.2 Dock Warehouse

Situated between the Truck Dock and the PECO Dock on the Riverbank (**Figure 2E**), the Dock Warehouse is a 23,500 SF, three-story (lower/loading dock, first, and second floors) concrete and wooden structure (**Appendix A, Photographs 3 and 4**). The Dock Warehouse extends along approximately 400 lineal feet of riverbank. It is supported by approximately 1,020 pilings with concrete pier foundations along the upper riverbank and upland side.

Originally constructed in 1934 at the site of a previous dock, the building was used to house paper shipped through the Mill. The concrete and wooden building was covered with exterior sheet metal siding in 1980. Following demolition, approximately 7,041 SF of overwater shading would be removed.

3.5.3 PECO Dock

The PECO Dock is located west of the Dock Warehouse and was constructed in 1983 (**Figure 2E**). This 305-foot-long marginal dock was built largely overwater to support a 9-ton crane (manufactured by PECO) and used to offload wood chips from river barges. The dock is approximately 13,200 SF in area and supported by approximately 170 carbon steel H-pilings (**Appendix A, Photograph 5**). Approximately 450 dilapidated wood pilings from a previous structure are also beneath the dock. An additional 200 to 300 wood and steel pipe pilings along the riverbank between and around the PECO Dock and Dock Warehouse would also be removed.

3.6 Aboveground Oil Storage Tank

A non-operational 40,000-gallon steel aboveground oil storage tank located approximately 100 feet east of the Truck Dock and 150 feet north of the shoreline would be deconstructed and removed down to ground level (**Figure 2E; Appendix A, Photograph 9**). This aboveground storage tank was decommissioned and cleaned in 2015. The tank and its associated pipes and utilities would be removed.

3.7 Wood Chip Storage Area and Wood Chip Conveyor Housings

There are two distinct previously used wood chip storage areas, the South Wood Chip Storage Area and the North Wood Chip Storage Area. The South Wood Chip Storage Area was previously used to

store wood chips for pulping at the Mill (**Figure 2E**). Currently most of the wood chips have been removed with minor amounts of wood chips remaining. The removal resulted in a depression that will be backfilled to the design grades with clean structural materials. Elevated conveyors formerly conveyed wood chips from the PECO Dock to the South Wood Chip Storage Area (**Appendix A, Photograph 2**). The conveyor housings would be removed, and the foundation for the supports would remain.

The North Wood Chip Storage Area was also previously used to store wood chips for pulping at the Mill (**Figure 2E**). This area is located outside of the shoreline zone but would be part of the overall grading and reclamation plan that will include the entire wood chip storage area (i.e., north and south). As this area will no longer be considered a location at the mill with industrial activity, this area will be designed to allow drainage to naturally flow back to Camas Slough.

3.8 Miscellaneous Debris Removal

Unspecified debris that currently exists along the riverbank or in-water in the Project vicinity and within lease areas would be removed by the demolition contractor. Examples of miscellaneous debris include cable, chain, floating deck walkways, unidentified metal scrap, and broken pilings. Debris would be loaded to barges or to upland location and taken off-site to approved disposal locations.

4.0 COLUMBIA RIVER AND CAMAS SLOUGH

The Columbia River and Camas Slough form the majority of the Project area. Water elevations of the Columbia River and Camas Slough in the Project reach are determined by dam operations and river water withdrawal upriver, basin-wide precipitation, and to a smaller extent by diurnal tidal fluctuations from the Pacific Ocean 120 miles downstream. The mean range of the tidal prism is approximately 1.19 feet, with a diurnal range of 1.85 feet in the Project area. Camas Slough river stage is also influenced by flows from the unregulated Washougal River.

Even though the Columbia River is a highly regulated system with numerous dams, its discharge hydrograph and resulting river water elevations (stage) vary considerably between seasons and years. Generally, peak high river stage occurs most years in late May or June as a result of snowpack runoff. Low river stages tend to occur in September or October when precipitation is regionally low and at the end of summer irrigation. At the end of the growing season and return of winter precipitation, river stage levels trend to higher levels. Intense winter storms can produce an intermediate high stage for short durations during any of the months of November through January. River stage is an important factor in safely accessing the structures for demolition.

The U.S. Army Corps of Engineers (USACE) currently maintains the 17-foot-deep and 300-foot-wide federal navigation channel in the Columbia River adjacent to the south side of Lady Island. The navigation channel is authorized to be 27 feet deep, but currently is maintained at a shallower depth considered adequate for the primarily tug and barge traffic that traverse the area (USACE 2008). In August 2020, the USACE confirmed under Section 408 of the Rivers and Harbors Act of 1899 that this In-water/Overwater Structures Removal Project would not alter, occupy, or use a federal authorized

Project due to the natural depth of the channel (Letter to J. Dambrun, GP from V.A. Ringold, Planning Chief, USACE Regulatory Branch, Portland, Oregon, August 20, 2020).

The Columbia River Datum (CRD) is the adopted fixed low water reference plane for the river. CRD is a USACE nontidal datum defined at distinct river miles relative to the North American Vertical Datum of 1988 (NAVD88[1]). The datum is calculated using observations from the low river stages of the year, generally August through October, due to the masking of the tidal signal from strong seasonal river runoff during other portions of the year. Depending on river flow, water levels can be significantly higher than Columbia River Datum.

As mentioned above, the river is tidal in the Project area. River tides are monitored by the National Oceanic and Atmospheric Administration (NOAA) at the Washougal Station (9440047) located approximately 1.5 miles upriver. To be clear, although this is a tidal river reach, the river has fresh water, as the saltwater wedge does not extend upriver to the Project location.

River stage levels are monitored and forecasted for Vancouver Washington, a gage operated by NOAA, Northwest River Forecast Center, sited at RM 105 or about 15 miles downriver. There are no river gages within the Project area. In general, the river in the Project area is known to fluctuate across roughly 15 feet of elevation based on known river hydrographs and observations made at the site. There are no river dikes in the Project area.

5.0 SCHEDULING AND SEQUENCING OF WORK

Removal of the in-water and overwater structures would occur in a manner that is not disruptive to operations at the Mill. Work below OHWM would occur during regulatory in-water work windows for the Camas Slough in the Project reach. Joint agency coordination between DNR, Washington Department of Fish and Wildlife (WDFW), U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries), would establish the regulatory in-water and overwater work windows for the Project.

In-water work windows are cognizant of biologically sensitive periods. Project-specific allowances are necessary to reduce repeated reentry while accomplishing the removal of structures, and to allow safe operations of vessels. One of the key time considerations is the need to access and complete removal of some structures.

The Project has reviewed published agency requirements, site habitat locations and characteristics, river hydrographs, and other available information on species likely to be present. A *Biological Assessment* has been developed which evaluates potential effects of Project activities on threatened and endangered species. Based on this research, the in-water work windows shown in **Table 7** are proposed for joint agency consideration.

[1]. National Oceanographic and Atmospheric Administration, Notification of Updates to Columbia River Datum (CRD) References at 5 Ports® Stations in the Columbia River: https://tidesandcurrents.noaa.gov/crd.html, accessed December 12, 2020.

Table 7. Proposed In-Water Work Windows

Proposed In-Water Work Windows	Allowed Activity during the Work Window
Year-round, provided work does not violate water quality standards	
	Extract pilings using vibratory equipment or direct pulling, except for concrete piles.
	Structure demolition conducted overwater or below the OHWM, but outside the wetted perimeter of the river (in-the-dry).
	Excavation/dredging for riverbank reshaping, but outside the wetted perimeter of the river (in-the-dry).
	Fill placement for riverbank/riverbed shaping, but outside the wetted perimeter of the river (in-the-dry).
	Fill placed at upland locations (e.g., North and South Wood Chip Area)
	Above OHWM miscellaneous debris removal activities
August 1 to February 28	
	Extraction of concrete piles at the Dock Warehouse piers
	Riverbed dredging
	Below OHWM miscellaneous debris removal activities
	Riverbank fill placement in the wet
	Berger Crane foundation demolition
November 1 to February 28	
	Riverbed filling—new riverbed at Berger Crane foundation

An in-water work window to allow dredging is proposed, which would begin in August. This is early enough in the work season to allow these removal activities to be completed prior to the bulk of the peak juvenile salmonid outmigration in the spring/summer and the peak run timing for Pacific eulachon in the late winter/early spring. An early start timeframe for these structure removal activities below the OWHM will not result in adverse effects to any fish or other aquatic species, or to other river-dwelling species.

With the above construction work windows available, work would span approximately three years, with the actual schedule dependent on the in-water work windows. Ultimately, the demolition schedule will also be influenced by weather, river stage, and contractor availability. At the time of this document development, demolition is expected to begin in 2023 following receipt of all Project permits and approvals.

6.0 BEST PRACTICES

The In-Water/Overwater Structures Removal Project would be accomplished in a manner that is sensitive to and protective of the environment. Best practices will be implemented throughout the Project by first identifying potential detrimental effects and implementing methods that eliminate or reduce the potential effect. These best practices have been identified for dredging, dredged materials management, vessel operations, piling and dolphin removal, and structure demolition along the riverbank, including construction stormwater management.

6.1 Best Practices for Dredging and Dredged Materials Management

As stated, dredging will be required and includes:

- Reshaping the Camas Slough riverbank following the removal of overwater structures; and
- Deepening to -10 feet (CRD) an 1,800 SF area surrounding the Dock Warehouse Piers to enable access for demolition barges.

Until recently, maintenance dredging in the Camas Slough has occurred regularly to maintain barge access and other operations at the Mill's waterfront. However, the Dock Warehouse Piers have not received recent maintenance dredging and the riverbed at the piers has filled in with river sediment. The available draft during most river stages is too shallow for demolition equipment access without dredging.

For the entire Project, dredging will be conducted in a manner to prevent impingement of fish by a dredging clamshell or hydraulic dredge. Regular observation of dredged sediment aboard the barge or at the placement areas will be conducted to ensure impingement is not occurring. If impingement should occur, clamshell equipment will be adjusted (slowed) or modified to increase the opportunity for fish to avoid or escape the bucket and/or suction head. Where hydraulic dredging is used, the dredge will be lowered deeper into the sandy sediment to reduce water entrainment.

Best management practices to minimize sediment loss and turbidity generation may include, but are not limited to, the following:

- Smooth closure of the bucket when at the riverbed;
- Minimal stockpiling of dredged material on the riverbed;
- Maintaining suction head of any hydraulic dredge in the riverbed to the extent practicable;
- Using a buffer plate or other means to reduce flow energy of the hydraulic dredge at the placement area; and
- Other conditions as specified in the Project's Water Quality Certification and other approvals.

When dredged materials are placed on a barge for transport to the placement area, no spill of sediment back to the river from the barge will be allowed. The barge will be managed such that the dredged sediment load does not exceed the capacity of the barge. The load will be placed in the barge to maintain an even keel and avoid listing.

A Dredged Materials Management Plan will be developed prior to undertaking dredging and will likely include the following best practices:

- Hay bales and/or filter fabric may be placed over the barge scuppers to help filter suspended sediment from the barge effluent, if needed based on sediment testing results.
- The contractor will be required to use a tightly sealing bucket and to monitor for spillage during transfer operations.
- Visual water quality monitoring and, if necessary, follow-up measurements will be conducted at the removal and upland transfer location to confirm no uncontrolled releases back to the river.

In-water reuse and other upland reuse is preferred for dredged materials determined to be suitable. The *Revised Tier 1 Report* provides details on the development and long-term use of this area, as well as sediment quality evaluations. A sediment sampling and analysis is planned at the time of this document, which will provide data on existing sediment quality prior to dredging and materials management. The Dredged Materials Management Program will evaluate sediment quality and determine suitability for in-water disposal. Coordination with the City and other agencies for reuse at other locations will occur prior to any reuse.

Materials not suitable for in-water reuse, but otherwise found suitable, would be disposed at the Lady Island Dredged Materials Area (LI DMA) located at the western extent of Lady Island (see **Figure 1** for location on Lady Island). Clean dredged materials from Camas Slough and the Columbia River in the vicinity have been stored at the LI DMA for many years under agreement with the Washington Department of Natural Resources.

When stockpiling dredged material at the LI DMA, best management practices will be employed to control runoff and erosion, and for example could include:

- Installing silt fences, straw bales, and/or containment berms;
- Managing runoff and elutriate water; and
- Routine inspections of the off-load and stockpile area to verify water quality protections are functioning properly.

6.2 Best Practices for Vessel Operations

Derrick barges, material barges, tugboats, along with support boats (work skiffs, survey boats) will be used on the Columbia River and in Camas Slough during demolition to provide access to the structures for removal and materials management. These vessels would be in the Project area throughout the regulatory in-water work window.

A navigation channel allows access from the Columbia River at approximately RM 119.5 to the Camas Slough and the Project area from downriver. No navigable access is available to the Camas Slough from the Columbia River at RM 122 from upriver during most river stages.

Material barges would work between the various dredge prisms and the LI DMA for off-loading dredge materials during dredging operations.

Best practices for vessel operation will include:

- The contractor will notify the U.S. Coast Guard of planned river operations prior to commencing work.
- The Contractor will prepare a Spill, Prevention, Control and Countermeasures (SPCC) Plan to be used to safeguard against unintentional release of fuel, lubricants, or hydraulic fluids.
- Drive mechanisms of equipment operated from the barge will be prevented from entering water to the extent possible.

- Turbidity and other parameters will be monitored to ensure compliance, to the greatest extent possible, with the Surface Water Quality Standards for Washington (Washington Administrative Code [WAC] 173-201A).
- Equipment operating in the water will use vegetable-based oils in hydraulic lines.
- A turbidity curtain will be used where river currents allow and moved as necessary to accommodate vessel operations.
- Floating debris will be recovered to the barge.
- Petroleum products, concrete, chemicals, or other toxic or deleterious materials will be prevented from entering surface waters to the extent possible through the use of best management practices. For example:
  - Fuel hoses, oil drums, oil or fuel transfer valves, and fittings will be checked regularly for leaks.
  - Fuels and lubricating materials will be maintained and stored properly to prevent spills.

Any barge used as a work platform to support demolition will be:

- Large enough to remain stable under foreseeable loads and adverse conditions;
- Inspected by the contractor before arrival to ensure the vessel and ballast are free of invasive species; and
- Secured, stabilized, and maintained as necessary to ensure no loss of balance, stability, anchorage, or other condition that can result in the release of demolition debris or other materials from the barge.

The contractor will time vessel operations to occur during regulatory in-water work windows, and during river stages and at locations where water depths are sufficient to avoid groundings, minimize prop-wash, and avoid creating unnecessary turbidity.

6.3 Best Practices for Piling and Dolphin Removals

In the Project area, pilings comprise the following materials:

- Carbon steel H-pile
- Reinforced concrete pile
- Concrete-filled steel pipe pile
- Steel sheet pile
- Untreated wood
- Treated wood

Methods to remove pilings and dolphins will be determined in part by the nature and locations of the pilings and dolphins. To protect water, sediment, and habitat quality, all pilings will be removed following the best management practices for removals, as published by the U.S. Environmental Protection Agency (EPA 2016) and DNR (2015). Work will be accomplished while minimizing turbidity, sediment disturbance, and debris reentry to the water column.

In general, piling removal will use a direct-pull extraction method that primarily utilizes a vibratory hammer to loosen the piling along with a crane to stabilize and help extract the loosened pile. Use of a clamshell bucket may be required for piling removal in some locations. Complete extraction of the piling is preferred to partial removal, although some pilings may need to be cut below the mudline. The contractor will make multiple attempts to remove a pile before resorting to cutting the pile. Also, pilings along the riverbank may be partially excavated to enable removal.

The following best management practices will be implemented:

- Prior to commencement of work to remove piles, a work plan will be produced by the contractor with the intent to identify appropriate detailed methods to minimize turbidity, sediment disturbance, and debris reentry.
- The contractor will assess each pile's condition, material, and location and identify if access will be from a barge or from the riverbank.
- Where river currents allow, the contractor will surround the structure to be removed with a floating surface boom to capture floating surface debris.
- Some piles in the Project area are protected by tire bumpers (e.g., the piling supporting the PECO dock). Once the piling is extracted, tires will be cut from the piling and placed on the barge or at an upland location for disposal.
- All dolphin binding materials (e.g., cables, steel straps) will be removed to the barge or upland location for disposal.
- If the pile is intractable or breaks, the contractor will cut the pile off approximately 2 feet below the mudline with consideration given to the mudline elevation, slope, and stability of the location.
- The contractor's work plan will include procedures for extracting and handling pilings that break off during removal.
- To the extent possible, the contractor will keep all equipment (e.g., bucket, steel cable, vibratory hammer) out of the water, and grip the piling above the waterline.
- The contractor will minimize overall damage to pilings during removal and will remove the piling slowly to minimize sediment disturbance and turbidity.
- A containment basin will be provided on the barge deck to contain removed materials along with sediment removed, floating debris, and splintered wood.
- Upon removal, the pile will be moved expeditiously into the containment area for processing.
- The piling shall not be shaken, hosed-off, stripped or scraped, left hanging to drip, or subjected to any other action intended to clean or remove adhering material from the piling. Sediment associated with the removed piling must not be returned to the river.

6.4 Best Management Practices for Demolition Along the Riverbank

Best management practices will be employed throughout the operation of the Project and are to include:

- Any hazardous materials present would be abated prior to the start of demolition.
- Limits of work will be clearly established prior to any demolition.
- Only established staging areas will be used for fueling, servicing, and demolition.
- Temporary equipment storage will be located in a manner that will prevent contaminants from entering aquatic areas.
- Demolition materials management areas will be identified on-site and will include appropriate sediment controls and stormwater controls.
- Materials resulting from demolition will be managed appropriately to protect the environment.
- Demolition materials will be recycled to the extent possible and if not recyclable, will be disposed at off-site approved facilities.
- Appropriate stormwater and temporary erosion and sediment control plans will be developed and will comply with the City's erosion control standards and state requirements.
- A site-specific SPCC Plan appropriate for the Project activities will be developed.

6.5 Stormwater Management During Demolition Along the Riverbank

Within the demolition area on the Camas Slough riverbank, stormwater runoff is collected currently as industrial stormwater and conveyed to the Lady Island Wastewater Treatment facility for treatment. Treated waters are discharged to the Columbia River (Outfall 001) from the Lady Island Wastewater Treatment plant under GP's Industrial NPDES Permit (No. WA0000256). Per Condition S7 of the Permit, coordination with the Washington State Department of Ecology (Ecology) would occur to secure permission for construction stormwater to be collected and treated as industrial water during demolition.

GP will also apply to be covered by the State's General Construction Stormwater Permit during demolition for areas not within the industrial treatment footprint and for coverage of off-site transportation.

Following completion of structure demolition and riverbank shaping, all industrial activities in this area will have ceased within the footprint. Impervious surfaces will have been greatly reduced over the area. Stormwater from this riverbank area, now free from all industrial activities and industrial structures, would infiltrate, or if not infiltrated, would flow naturally toward Camas Slough.

Additional details on best management practices for stormwater management are provided in the Project's *Stormwater Pollution Prevention Plan* (SWPPP).

In summary, the following practices will be followed to help ensure stormwater quality protection and protection of the adjacent aquatic areas:

- Clear staging and laydown areas away from water will be identified and designated.
- Work will be sequenced with water protection as a priority; for example, demolition activities will be timed so that low river stages allow demolition with no water present (in-the-dry).
- Riverbank demolition will be conducted in a fashion that prevents debris movement toward water, such as through use of screens or staging in a manner that barricades materials from movement toward water.
- Activities will be conducted to meet conditions as specified in the Project's Water Quality Certification and requirements of the General Construction Stormwater Permit.
- Temporary disturbance to riverbank vegetation at Camas Slough and on Lady Island will be limited to the minimum amount needed to access and remove infrastructure.
- The Contractor will prepare an SPCC Plan to be used to safeguard against unintentional release of fuel, lubricants, or hydraulic fluids.
- Drive mechanisms of equipment operated from the riverbank, but that may reach waterward of OHWM, will be prevented from entering water to the extent possible.
- Turbidity and other parameters will be monitored to ensure compliance, to the greatest extent possible, with the Surface Water Quality Standards for Washington (WAC 173-201A).
- Petroleum products, concrete, chemicals, or other toxic or deleterious materials will be prevented from entering surface waters to the extent possible through the use of best management practices. For example:
  - Fuel hoses, oil drums, oil or fuel transfer valves, and fittings will be checked regularly for leaks.
  - Fuels and lubricating materials will be maintained and stored properly to prevent spills.

7.0 REGULATORY REQUIREMENTS

The Project would require approvals from the City of Camas, Clark County, Ecology, DNR, and WDFW, as well as permits and approvals to comply with the Clean Water Act Sections 404 and 401 and Section 408 of the Rivers and Harbors Act through the USACE and Ecology (see **Table 8**).

Many of these permits and approvals require review under the Washington State Environmental Policy Act (SEPA) prior to issue. Following receipt of all permits and approvals, in-water and overwater work would be performed during the timelines outlined in the applicable permits.

Table 8. Regulatory Requirements

Permit or Approval	Agency	Attendant Approvals	Application
SEPA Determination	City of Camas	Suitability determinations	SEPA Checklist and supporting documentation
Shoreline Substantial Development Permit	City of Camas	Requires SEPA determination prior to issue	City Application and supporting documentation
FEMA Floodplain Review and Zero Rise evaluation	City of Camas and Clark County	SEPA determination	Report and Zero-rise Certification
Historic and Archaeological Review	City of Camas and DAHP	SEPA determination	Inventory of Historic Properties Archaeologic Resources Report
Grading Review	City of Camas	SEPA determination	Grading plans
Materials Reuse Approvals	Clark County Public Health and Ecology	Suitability determination	Data Report and determinations
Construction Stormwater General Permit	Ecology	SEPA determination	Notice of Intent and public notices
Approval under Existing Industrial Discharge Permit for construction stormwater discharges	Ecology	SEPA determination	Letter to Ecology addressing conditions provided in Condition S7 of the permit
Clean Water Act Section 401 Water Quality Certification	Ecology	CWA Section 404, ESA concurrence, requires anti-degradation review and review of suitability of materials for reuse	Joint Aquatic Resources Permit Application (JARPA); Suitability determination from DMMP, Preapplication meeting request form.
Clean Water Act Section 404 Permit (Individual)	USACE	Requires review and concurrence by USFWS and NOAA Fisheries under ESA. Requires Section 106 consultation with Tribes and DAHP. Requires NEPA compliance by federal agency. Requires Suitability determination for in-water disposals	JARPA along with Historic and Cultural Resources documentation, Biological Assessment, impacts assessment.
River and Harbors Act, Section 408 for use of Civil Works Projects	USACE	None	USACE provided letter to GP in 2020 indicating no Civil Works are within the Project footprint and no further action needed for compliance with this section at this time.
Hydraulic Project Approval (HPA)	WDFW	Requires SEPA determination prior to issue.	Application submitted through Aquatic Protection Permitting System (APPS) including supporting reports and JARPA

Abbreviations:
CWA = Clean Water Act
DAHP = Washington Department of Historic Preservation
Ecology Washington State Department of Ecology
ESA = Endangered Species Act
FEMA = Federal Emergency Management Agency
JARPA = Joint Aquatic Resources Permit Application
NEPA = National Environmental Policy Act
NOAA Fisheries = National Oceanic and Atmospheric Administration, National Marine Fisheries Service
SEPA = Washington State Environmental Policy Act
USACE = U.S. Army Corps of Engineers
USFWS = U.S. Fish and Wildlife Service

7.1 State Environmental Policy Act

The State Environmental Policy Act of 1971 (SEPA; Revised Code of Washington [RCW] 43.21C) established a process to identify and analyze environmental impacts associated with governmental decisions, including issuing permits for private Projects. All the City, County and State permitting and approval processes for the Project also require a SEPA review and threshold determination be made prior to issuance of a permit or approval.

The City of Camas is the lead SEPA agency for the Project. A pre-application meeting was held with the City in March 2020 based on the earlier plan. A new pre-application meeting will be scheduled to discuss the revised IWOW Structures Removal Project.

7.2 Shoreline Management Act and City of Camas Shoreline Management Program

The Shoreline Management Act (RCW 90.58) requires jurisdictions with shorelines to develop and implement a Shoreline Master Program. Such programs have been developed by the City of Camas (2015) and Clark County (2016). For this Project, the proposed structures to be removed are located within the City of Camas Shoreline Management zone with the exception of one dolphin removal within the Clark County Shoreline Management zone.

A *Shoreline Report* has been completed for the Project in compliance with requirements and addresses how Project activities potentially impact shoreline and meet compliance requirements for the City's Shoreline Master Program. This includes the requirements found in Section 5.7.2 (i.e., Clearing, Grading, Fill, Excavation), Section 6.4.2.1 (i.e., Dredging), Section 6.4.2.2 (i.e., Dredge Material Disposal), and Section 6.4.5 (i.e., Shoreline Stabilization – General) of the City's Shoreline Master Program. Note that most of the requirements of Section 6.4.5 would not apply to this Project as the Project does not involve the establishment of "new or enlarged structural shoreline stabilization measures".

The Project area is primarily designated as a "High Intensity" shoreline, which provides for industrial uses while protecting existing ecological functions. Critical Areas are protected under the Shoreline Master Program, including wetlands and fish and wildlife habitat conservation areas. See the *Shoreline Report* for details.

Given that the Camas Shoreline Master Program does not list all of the Project's proposed activities as permitted uses, some of the activities would be considered an "unlisted use," which would require a Shoreline Conditional Use approval by the City of Camas. Other activities are recognized in the Master Program. Structural shoreline modification and fill placement waterward of the OHWM require a Conditional Use Approval. Dredging is permitted where it will not result in significant adverse impacts. To be eligible for a Conditional Use approval, the Project must be consistent with the requirements of WAC 173-27-160.

7.3 Critical Areas Ordinances from the Camas Shoreline Master Program

Appendix C of the Camas Shoreline Master Program (City of Camas 2021), as adopted by Ordinance No. 21-003, defines critical areas. These include Wetlands; Critical Aquifer Recharge Areas; Frequently Flooded Areas; Geologically Hazardous Areas; and Fish and Wildlife Habitat Conservation Areas. The following provides the description of these critical areas, as defined by the City of Camas (also see Chapter 16.51.070 of the Camas Shoreline Master Program):

- **Wetland critical areas** are defined as important natural resources which provide significant environmental functions including: the control of floodwaters, maintenance of summer stream flows, filtration of pollutants, recharge of ground water, and provision of significant habitat areas for fish and wildlife.
- **Critical aquifer recharge areas (CARA)** are defined as those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). CARA have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. These areas include the following:
    - Wellhead Protection Areas;
    - Sole Source Aquifers;
    - Susceptible Ground Water Management Areas;
    - Special Protection Areas (as defined WAC 173-200-090);
    - Moderately or Highly Vulnerable Aquifer Recharge Areas; or
    - Moderately or Highly Susceptible Aquifer Recharge Areas.
- **Frequently Flooded Areas** include areas of special flood hazard which are commonly identified as critical areas in local government development regulations.
- **Geologically Hazardous Areas** include areas susceptible to one or more of the following types of hazards:
    - Erosion hazard;
    - Landslide hazard;
    - Seismic hazard; or
    - Other geological events including, mass wasting, debris flows, rock falls and differential settlement.
- **Fish and wildlife habitat conservation areas** include the following areas:
    - Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
    - State priority habitats and areas associated with state priority species;

- Habitats of local importance as identified by the city's park, recreation and Open space comprehensive plan as natural open space;
- Naturally occurring ponds under twenty acres;
- Waters of the state;
- Bodies of water planted with game fish by a governmental or tribal entity; or
- State natural area preserves and natural resource conservation areas.

The Project's potential effects on these critical areas, as well as how the Project has been designed and would be implemented in compliance with the city and county's critical areas ordinances is addressed in various Project related documents, as listed in Section 9. These include:

- The "*Shoreline and Critical Areas Review and Impacts Assessment*[2]*,"* which addresses wetlands critical areas as well as fish and wildlife habitat conservation areas.
- The "*Geologically Hazardous Area and Critical Aquifer Recharge Review - Addendum to the Shoreline and Critical Areas Review and Impacts Assessment,"* which addresses geologically hazardous areas and critical aquifer recharge areas.
- The "*Frequently Flooded Areas Report and Flood Hazard Assessment for Demolition of Encroachments*," the "*Certification of No-Rise and Description of Flood Hazard for Demolition of One Dolphin*," and the "*No-Rise Report for Removal of Structures along Camas Slough*," which addresses frequently flooded areas.
- The "*Biological Assessment*," which further addresses fish and wildlife habitat conservation areas (in addition to the information provided in the "*Shoreline and Critical Areas Review and Impacts Assessment"*)

As discussed in these documents, the Project has been designed to avoid and minimize impacts to critical areas to the extent possible, and measures have been proposed to minimize impacts when complete avoidance is not possible. In addition, the assessments and measure proposed to address the critical areas ordinances for the City of Camas would also address critical areas as defined by Clark County.

7.4 Clean Water Act

The Clean Water Act of 1972 (CWA; 33 United States Code [U.S.C.] §1251 et seq.) along with implementation rules, including the Navigable Waters Protection Rule (85 *Federal Register* [FR] 22250), establishes the structure for regulating discharges of pollutants into Waters of the U.S. and regulating quality standards for surface waters. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into Waters of the U.S., including wetlands, and requires a permit before dredged or fill material may be discharged into waters of the U.S. The USACE

[2] This document has been prepared to meet the requirements of the City of Camas and Clark County Shoreline Master Programs and requirements for critical areas reports (Camas Municipal Code [CMC] 16.51.140 and Clark County Code [CCC] 40.440, 40.450, and 40.460). It has also been developed to provide information relevant to the SEPA process.

Seattle District Regulatory Branch administers individual permit decision, conducts, or verifies jurisdictional determinations, and enforces Section 404 permit provisions. The Columbia River and Camas Slough are Waters of the U.S. because they are traditional navigable waters (85 FR 22250). The USACE's jurisdictional boundary for fresh waters under the CWA is the ordinary high water along with the upland boundary of any adjacent wetlands.

Wetlands are present below OHWM in the Project area and are unavoidably impacted by Project activities. Descriptions of wetlands in the Project area, potential effects to those wetlands, and mitigating actions are provided in the *Shoreline Report*. All the wetlands in the Project area are also subject to state and local regulations, as well as the federal CWA.

As part of the Section 404 permitting process, the USACE consults with the U.S. Fish and Wildlife Service and NOAA Fisheries to evaluate impacts on fish and wildlife protected under the Endangered Species Act. To facilitate the USACE consultation process, a *Biological Assessment* has been prepared to document the biological resources and evaluate potential effects to species listed on the Endangered Species Act that may be present in the Project area.

Further, federal agencies are mandated to consider the effects of their undertakings on historic properties under Section 106 of the National Historic Preservation Act of 1966 [16 U.S.C. §470(f)]. Thus, as part of their review, the USACE consults with Washington State Department of Archaeology and Historic Preservation. The Project has developed an *Inventory of Historic Properties and Historic Context*, which summarizes the presence of historic structures and provides evaluation regarding eligibility for listing as an Historic Resource. The Project's *Archaeological Cultural Resources Report* provides information on resources and an analysis of potential effects.

Delegation of CWA Section 401 and its implementing rules authorizes Washington State to certify that a discharge would not violate state water quality standards prior to the issuance of a Section 404 CWA permit. For the Project area, Ecology is the designated state water pollution control agency for issuing a Section 401 water quality certification. Ecology requires a SEPA determination to be completed for the Project prior to issuing a certification.

7.5 Rivers and Harbors Act

As stated, the Columbia River and Camas Slough are navigable waters. The Rivers and Harbors Act of 1899 (R&HA; 33 U.S.C. §401 et seq.) regulates all work affecting the condition of navigable waters. Section 10 of the R&HA requires authorization from the USACE for the construction of any structure in or over any navigable waters of the U.S., the excavation and dredging or deposition of material, or any obstruction or alteration to a navigable water. Under the R&HA, the jurisdictional boundary for fresh navigable waters is the ordinary high water (OHW) (33 Code of Federal Regulations 329.11).

As mentioned earlier, Section 408 of the R&HA addresses securing federal permission for making alterations to federal Civil Works Projects. USACE has made a determination that the Project would not alter, occupy, or use a USACE federally authorized Project (Letter to J. Dambrun, GP, March 20, 2020). There are no river levees in the Project reach.

7.6 Hydraulic Project Approvals

Projects that occur below the OHW require a Hydraulic Project Approval (HPA) from the WDFW (RCW 77.55).

All demolition work or other work below the OHWM or directly over the waters of Camas Slough or the Columbia River would be covered by the HPA. Other in-water work, such as sediment sampling, also requires an HPA.

7.7 Activities on State-Owned Aquatic Lands

State-owned aquatic lands are defined as all tidelands, shorelands, harbor areas, the beds of navigable waters, and waterways owned by the state. These areas are administered by the DNR. This Project includes activities on state aquatic lands leased by GP in the 2016 State Aquatic Lands Lease and also within various Aquatic Land Easements issued by DNR.

The lease terms require coordination and approval by DNR prior to undertaking the Project. Coordination with DNR to meet the terms of the lease has been initiated with the objective for the Project to identify and meet various lease terms for work occurring within the footprint. DNR coordination will continue throughout the Project.

8.0 ENVIRONMENTAL REVIEW SUMMARY

Environmental resources and uses within the Project area with the potential to be affected by the proposed Project were identified. A *SEPA Checklist* has been prepared to document in more detail the potential effects of Project activities. **Table 9** lists the resources considered and summarizes the potential effects that could result from implementation of the Project.

Table 9. Project Effects Summary

Resource or Use	Present and May be Impacted	Present and Not Impacted or Not Present	Summary of Anticipated Effects and Associated Documentation
Air Quality	X		Temporary emissions generation associated with demolition equipment and activities. Best management practices will be implemented to reduce vehicle and equipment emissions and provide dust control. The Contractor is required to secure approvals from the Southwest Clean Air Agency prior to handling regulated materials and performing structure demolition.
Historic Resources	X		Six historic resources were documented within the study area. Three were determined to not be eligible for listing on the National Register of Historic Places (NRHP). Three other resources individually fail to meet NRHP criteria, however, as a group, they were determined to be potentially eligible for NRHP listing as a contributing resource to a potential historic district. As such, demolition is considered an adverse effect. Additional information is provided in the report, *Inventory of Historic Properties and Historic Context Study*.

Resource or Use	Present and May be Impacted	Present and Not Impacted or Not Present	Summary of Anticipated Effects and Associated Documentation
Archaeological Resources	X		An archaeological pedestrian survey of the proposed work areas on the mainland identified the Berger Crane foundation footings as a recorded archaeological site (45-CL-1380). The site is considered not eligible for listing on the NRHP. Work on and adjacent to the mainland is highly unlikely to encounter intact archaeological material because most of the area has been disturbed repeatedly by shoreline construction and is mostly covered by fill material. An inadvertent discovery plan is recommended for work between the low waterline and the OHW along the main Mill parcel.
Fish and Wildlife Habitat, including Threatened and Endangered Species	X		The proposed activities include placement of fill within a water of the U.S. that is known to provide habitat to fish species listed under the Endangered Species Act. Additional information on fish species within the Project area and potential impacts are provided in the Biological Assessment. Native vegetation would be installed following riverbank grading activities near the Berger Crane foundation to provide riparian restoration. Additional information on impacts to vegetation and Fish and Wildlife Habitat Conservation Areas, as protected under City and County Critical Areas codes, is provided in the *Shoreline Report* and *Critical Areas Review*.
Floodplains	X		The Project would occur in the special flood hazard area of the Columbia River, including portions of the floodway as mapped by the Federal Emergency Management Agency. The Project would remove existing encroachments to flow, and no new construction would be involved. Changes in ground elevation would be minor given small areas of net fill, and other areas of net cut within the floodway. Additional information is provided in the Frequently Flooded Areas Reports and Flood Hazard Assessments prepared for the City of Camas and Clark County.
Hazardous Materials	X		Regulated materials present would be abated prior to demolition activities to the extent possible. Some roofing materials will be abated at the time of demolition. Regulated materials will be managed and disposed of in compliance with rules and regulations.
Land Use	X	X	Project activities would occur on lands under DNR Aquatic Lands Lease agreement and easements. A potential goal of the Project is to terminate this lease. Waterfront operations would no longer be possible from the river. However industrial land uses on the main mill parcel and Lady Island would not change as a result of the Project.
Navigation	X		The USACE currently maintains the federal navigation channel in the Columbia River adjacent to the south side of Lady Island (USACE 2008). The USACE has determined the Project will not occupy a federal Project (Section 408 letter, USACE 2020). Barge operations in the Camas Slough and on the Columbia River would result in temporary use of these areas. The contractor is required to inform the U.S. Coast Guard prior to operations on the river.
Noise	X		Temporary noise generation associated with demolition equipment and activities would be consistent with existing noise levels associated with the Industrial zoning. In-water noise impacts are evaluated in the *Biological Assessment*.
Migratory Birds	X		Temporary vegetation disturbance will occur during the Project. Impacts to birds protected under the Migratory Bird Treaty Act is very limited. Best management measures include confining activities related to clearing, grubbing, and trimming of trees/shrubs to the non-nesting season (August 1 to January 31). See the *Shoreline Report.*
Recreational Use		X	Project activities would not preclude recreational users or the public from accessing the Camas Slough or Columbia River.

Resource or Use	Present and May be Impacted	Present and Not Impacted or Not Present	Summary of Anticipated Effects and Associated Documentation
Soils and Sediments, including Dredged Materials	X		Sediments would be disturbed by dredging. Dredged materials management is required, and dredged materials would be disposed of at approved locations. The *Tier 1 Evaluation for Dredged Materials Management* report provides additional information on dredge activities.
Solid Wastes	X		In additional to debris generated by the Project, many of the existing dolphins and pilings include rubber tires. All solid waste generated by the Project would be removed and recycled when feasible or properly disposed of.
Vegetation	X		Limited temporary vegetation removal would be required for the Project activities. Native vegetation would be installed following riverbank grading. Additional information on impacts to vegetation is provided in the *Shoreline Report*.
Visual Resources	X		Removal of structures within the riverbed and riverbanks would reduce the visual clutter as experienced by users on the waterways and traveling on SR 14. Due to natural slopes and existing development, the area is not visible from downtown Camas.
Water Resources and Water Quality	X		The Project includes activities within Camas Slough, the Columbia River, and the Shoreline Zone of the City of Camas and Clark County. The Columbia River and Camas Slough are listed under Section 303(d) of the Clean Water Act for water quality impairment. The proposed activities include dredging and/or placement of fill within waters of the U.S. and would require permitting under Section 404 of the Clean Water Act. Additional information is provided in the Shoreline Report and Critical Areas Review. A Preliminary Stormwater Management Plan has been prepared to describe temporary erosion and sedimentation control measures, pollution prevention measures, inspection/monitoring activities, and record keeping that would be implemented during construction. A Stormwater Pollution Prevention Plan would be prepared by the construction contractor prior to initiating work activities.
Wetlands	X		The proposed activities include dredging and/or placement of fill within wetlands, resulting in temporary impacts, and would require permitting under Section 404 of the Clean Water Act. Additional information on wetland conditions and impacts assessment are provided in the Shoreline Report and Critical Areas Review.

Abbreviations:
DNR = Washington State Department of Natural Resources
NRHP = National Register of Historic Places
USACE = U.S. Army Corps of Engineers

9.0 DOCUMENTS PRODUCED FOR THIS PROJECT

The following documents and applications have been previously prepared and will be updated as necessary to support the permitting process and agency reviews:

- City of Camas Pre-Application Meeting, Presentation (December 1, 2022)
- City of Camas Development Application (February 2023)
- *Inventory of Historic Properties and Historic Context Study* (August 2020)
- *Archaeological Resources Cultural Survey and Literature Review* (July 2020)
- *Tier 1 Evaluation for Dredged Materials Management* (February 2023)
- *Sediment Sampling and Analysis Plan* (February 2023)

- Washington State Department of Ecology, Section 401 Water Quality Certification, Pre-Filing Meeting Request Form (November 2022)
- *Biological Assessment* (February January 2023)
- *SEPA Checklist* (February 2023)
- *Shoreline and Critical Areas Review and Impacts Assessment* (January 2023)
- *Geologically Hazardous Area and Critical Aquifer Recharge Review - Addendum to the Shoreline and Critical Areas Review and Impacts Assessment* (May 2023)
- *Frequently Flooded Areas Report and Flood Hazard Assessment for Demolition of Encroachments* (Memorandum for City of Camas, January 2023)
- *Certification of No-Rise and Description of Flood Hazard for Demolition of One Dolphin* (Floodplain Memorandum for Clark County, February 2023)
- *No-Rise Report for Removal of Structures along Camas Slough* (February 2023)
- Joint Aquatic Resource Permit Application Form (JARPA, To be submitted after SEPA is completed or decision is imminent)
- *Preliminary Stormwater Management Plan* (March 2023)

10.0 REFERENCES

85 FR 22250 Department of the Army, Corps of Engineers, Department of Defense; and Environmental Protection Agency June 22,2020 Final Rule. The Navigable Waters Protection Rule: Definition of "Water of the United States." Effective date: June 22, 2020. Available online: https://www.federalregister.gov/documents/2020/04/21/2020-02500/the-navigable-waters-protection-rule-definition-of-waters-of-the-united-states. Accessed 10/15/2020.

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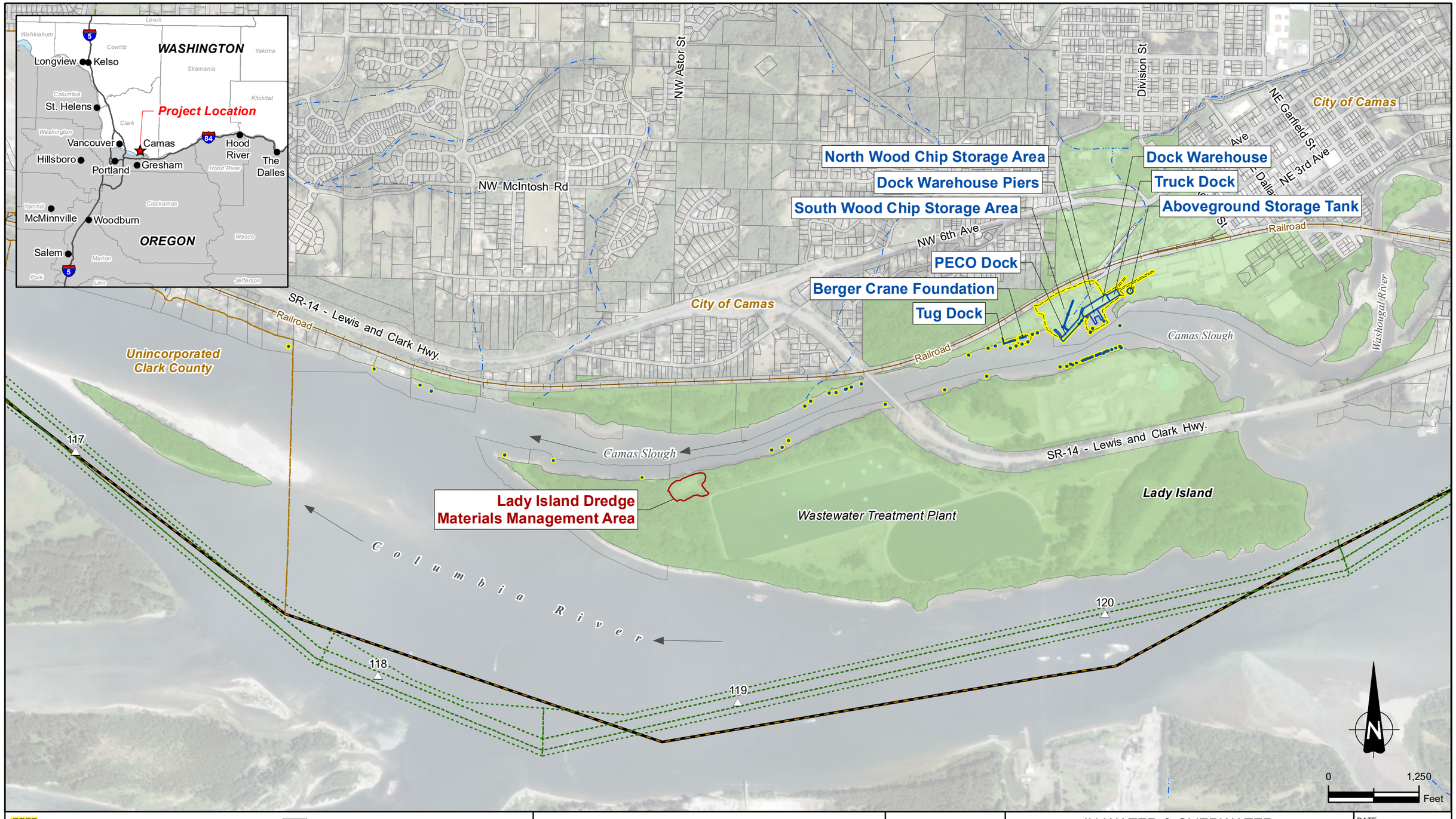
EPA (U.S. Environmental Protection Agency). 2016. Best Management Practices for Pilling Removal and Placement in Washington State. February 18, 2016. Region 10, EPA. Accessed 11/11/2020. https://www.nws.usace.army.mil/Portals/27/docs/regulatory/RGPs/RGP6/EPA%20BMPs%20for%20Piling%20Removal%202-18-16.pdf?ver=2017-02-07-230329-363

USACE (U.S. Army Corps of Engineers). 2008. Navigable Waters of the United States in Washington State. Originally listed 12/19/1986, revised 12/31/2008. Available online: https://www.nws.usace.army.mil/Portals/27/docs/regulatory2/FormsEtc/NavigableSec10List-v20200212.pdf?ver=2020-02-12-191659-707. Accessed 11/11/2020.

FIGURES



- Project Limits
- Columbia River Mile Marker
- Stream/River
- Structure To Be Removed
- Dolphin To Be Removed
- Lady Island Dredge Materials Management Area
- Tax Lot
- Tax Lot Owned by Georgia-Pacific
- City Boundary
- County Boundary
- Federal Navigation Channel

GEORGIA-PACIFIC CONSUMER OPERATIONS LLC

Tetra Tech

TETRA TECH

IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

PROJECT LOCATION

DATE: OCTOBER 2022
SCALE: 1 " = 1,250 '
PROJECT NO.
FIGURE: 1

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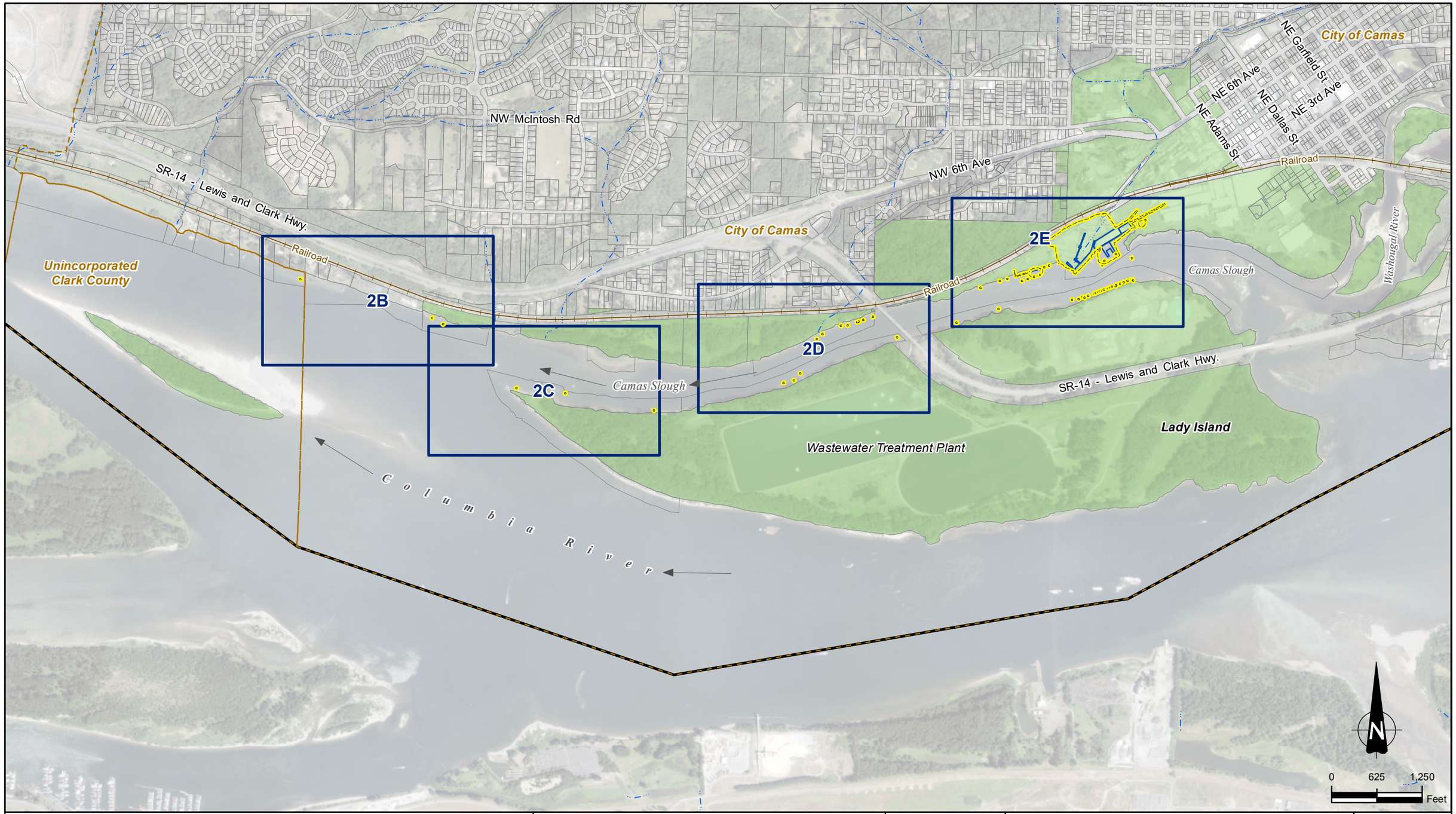

Project Limits
Structure To Be Removed
Dolphin To Be Removed
Stream/River
Tax Lot
Tax Lot Owned by Georgia-Pacific
City Boundary
County Boundary

GEORGIA-PACIFIC
CONSUMER OPERATIONS LLC

Tetra Tech

TETRA TECH

IN-WATER & OVERWATER
STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED
AND STUDY AREA MAP
OVERVIEW

DATE
OCTOBER 2022

SCALE
1 " = 1,250 '

PROJECT NO.

FIGURE
2A

R:\PROJECTS\CAMAS_0117-0064\FIGURES_UPDATE\MAPS\Figure 2A - Study Area Map - Overview.mxd - sierra.marrs - 10/19/2022 - 3:36:05 PM

Project Limits
Structure To Be Removed
Dolphin To Be Removed
Tax Lot
Tax Lot Owned by Georgia-Pacific
City Boundary
Action Area:
Vibratory Pile Removal Underwater Action Area
Dredging Water Quality Action Area

GEORGIA-PACIFIC CONSUMER OPERATIONS LLC

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IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED AND STUDY AREA MAP

DATE: APRIL 2023
SCALE: 1 " = 200 '
PROJECT NO.
FIGURE: 2B

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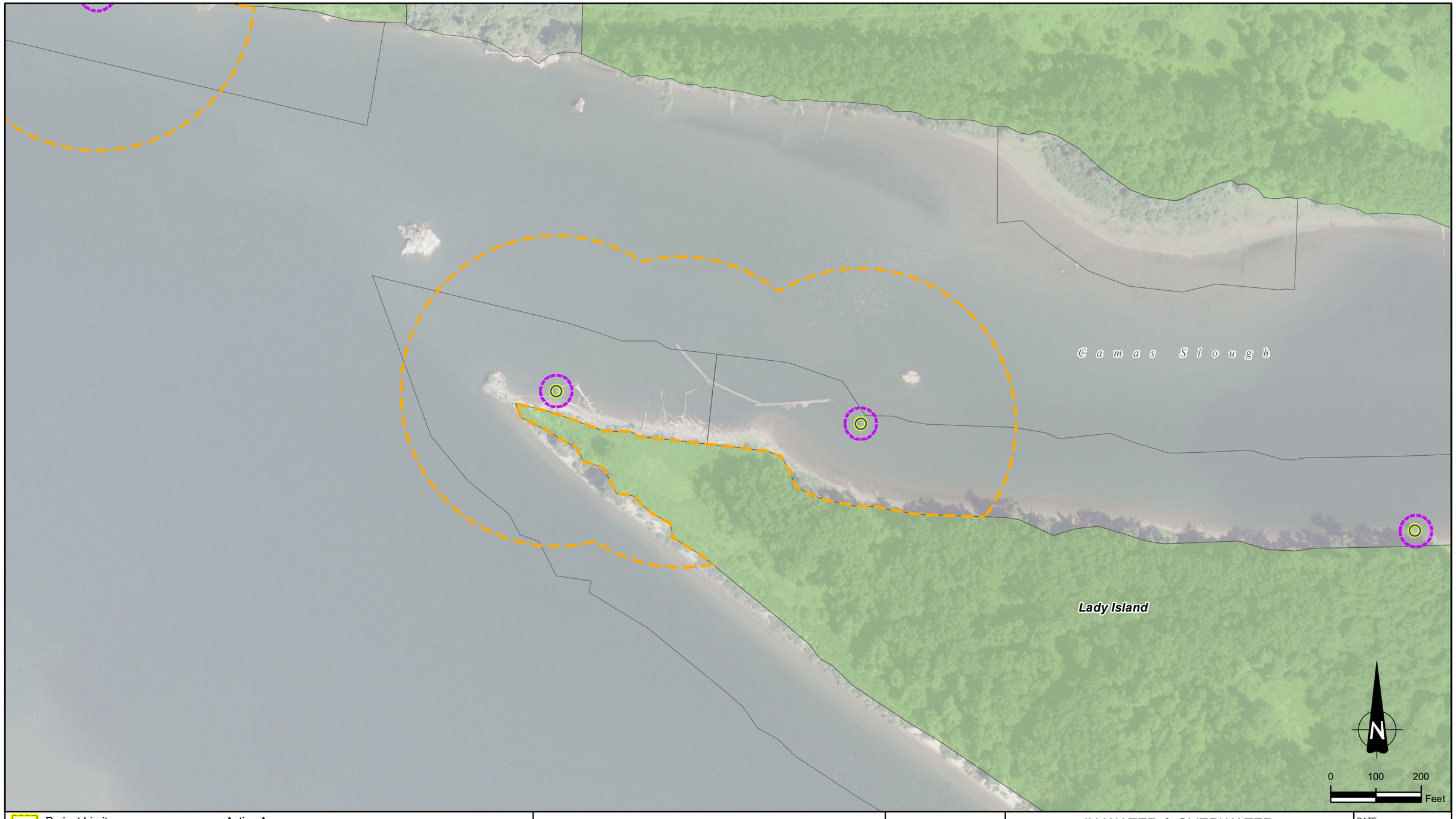

Project Limits
Structure To Be Removed
Dolphin To Be Removed
Tax Lot
Tax Lot Owned by Georgia-Pacific

Action Area:
Vibratory Pile Removal Underwater Action Area
Dredging Water Quality Action Area

GEORGIA-PACIFIC CONSUMER OPERATIONS LLC

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IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED AND STUDY AREA MAP

DATE: APRIL 2023
SCALE: 1 " = 200 '
PROJECT NO.
FIGURE: 2C

R:\PROJECTS\CAMAS_0117-0064\FIGURES_UPDATE\MAPS\Figure 2B-2E - Study Area Map - Mapbook.mxd - sierra.marrs - 4/19/2023 - 2:34:48 PM

Project Limits
Structure To Be Removed
Dolphin To Be Removed
Tax Lot
Tax Lot Owned by Georgia-Pacific
OHWM (elevation: 16.05 ft., CRD)
Action Area:
Dredging Water Quality Action Area

GEORGIA-PACIFIC
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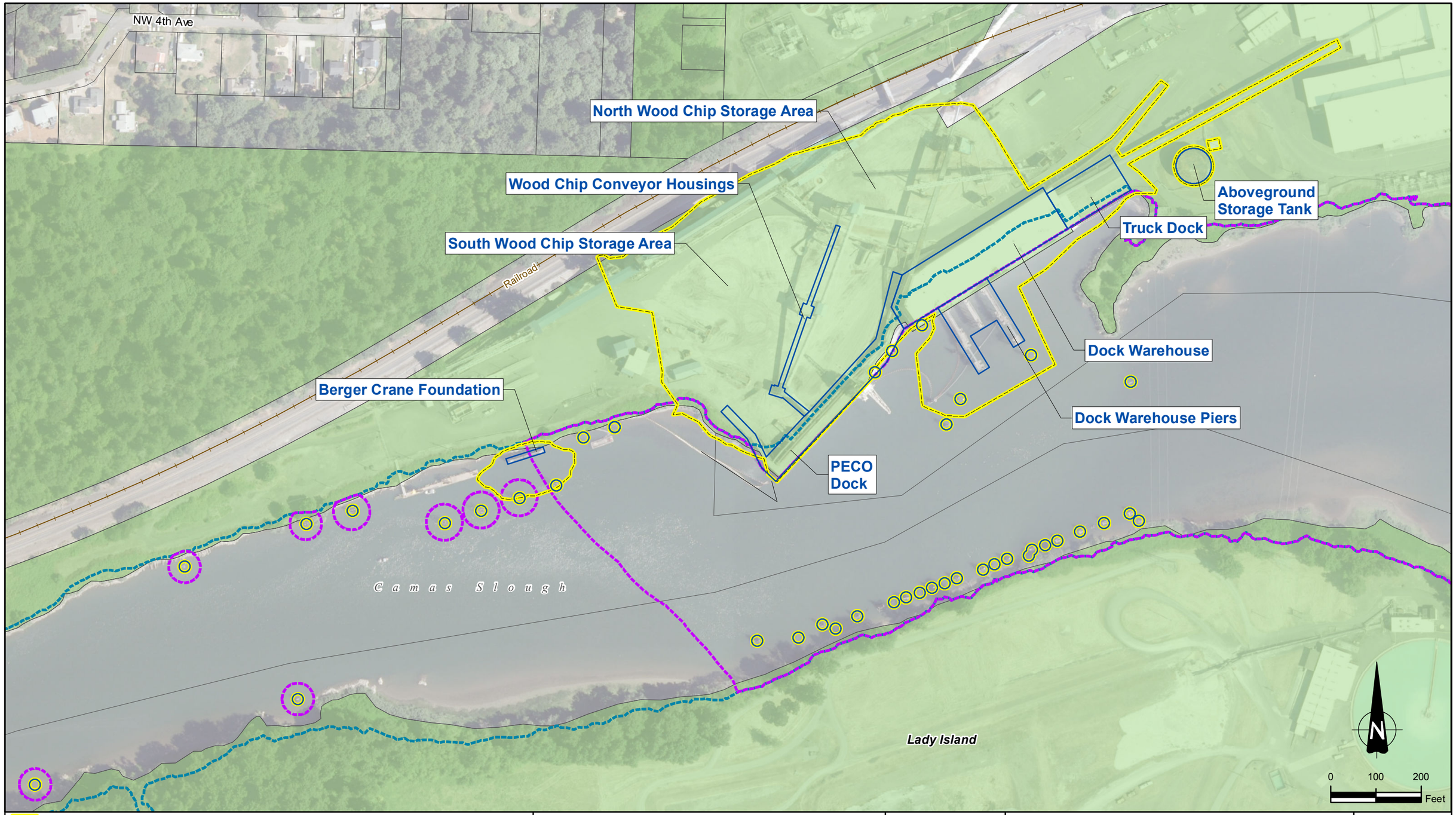
IN-WATER & OVERWATER
STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED
AND STUDY AREA MAP

DATE: APRIL 2023
SCALE: 1 " = 200 '
PROJECT NO.
FIGURE: 2D

R:\PROJECTS\CAMAS_0117-0064\FIGURES_UPDATE\MAPS\Figure 2B-2E - Study Area Map - Mapbook.mxd - sierra.marrs - 4/19/2023 - 2:34:51 PM



Project Limits
Structure To Be Removed
Dolphin To Be Removed
Tax Lot
Tax Lot Owned by Georgia-Pacific
OHWM (elevation: 16.05 ft., CRD)
Action Area:
Dredging Water Quality Action Area

GEORGIA-PACIFIC
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Tetra Tech

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IN-WATER & OVERWATER
STRUCTURES REMOVAL PROJECT
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED
AND STUDY AREA MAP

DATE: APRIL 2023
SCALE: 1 " = 200 '
PROJECT NO.
FIGURE: 2E

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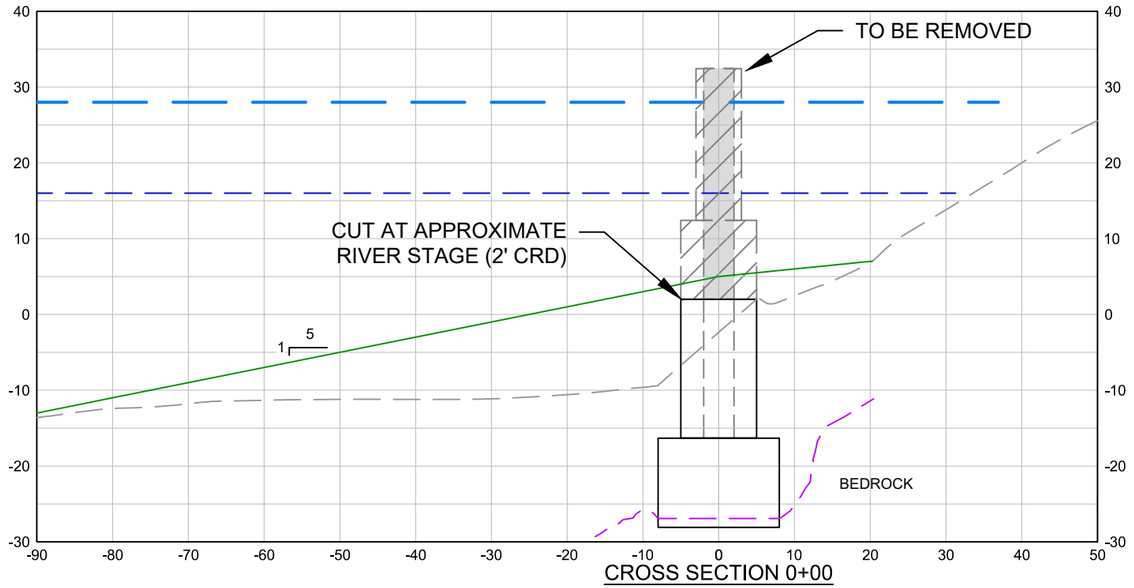
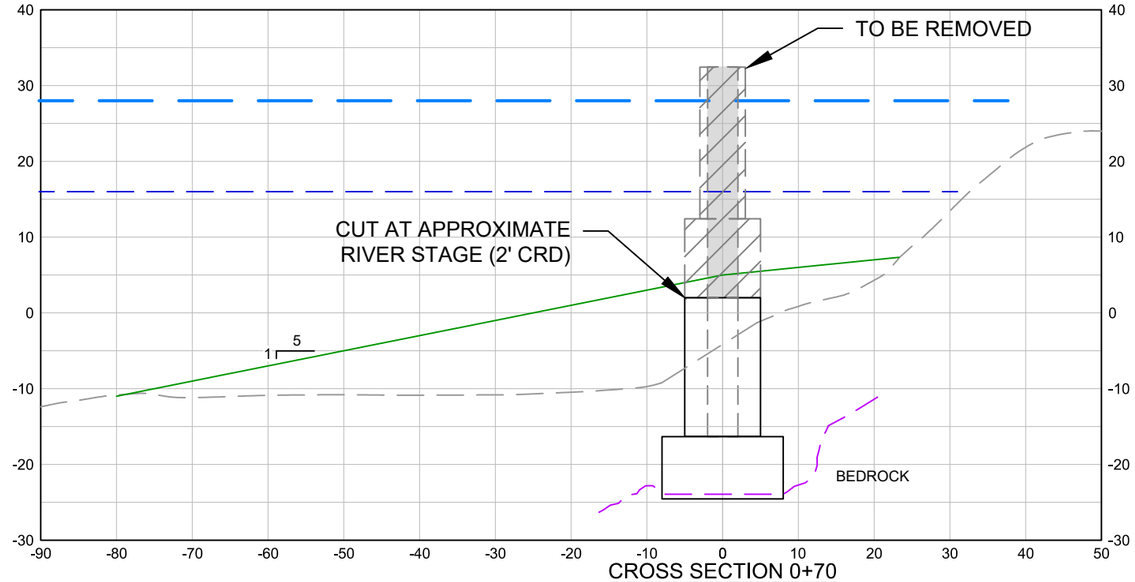


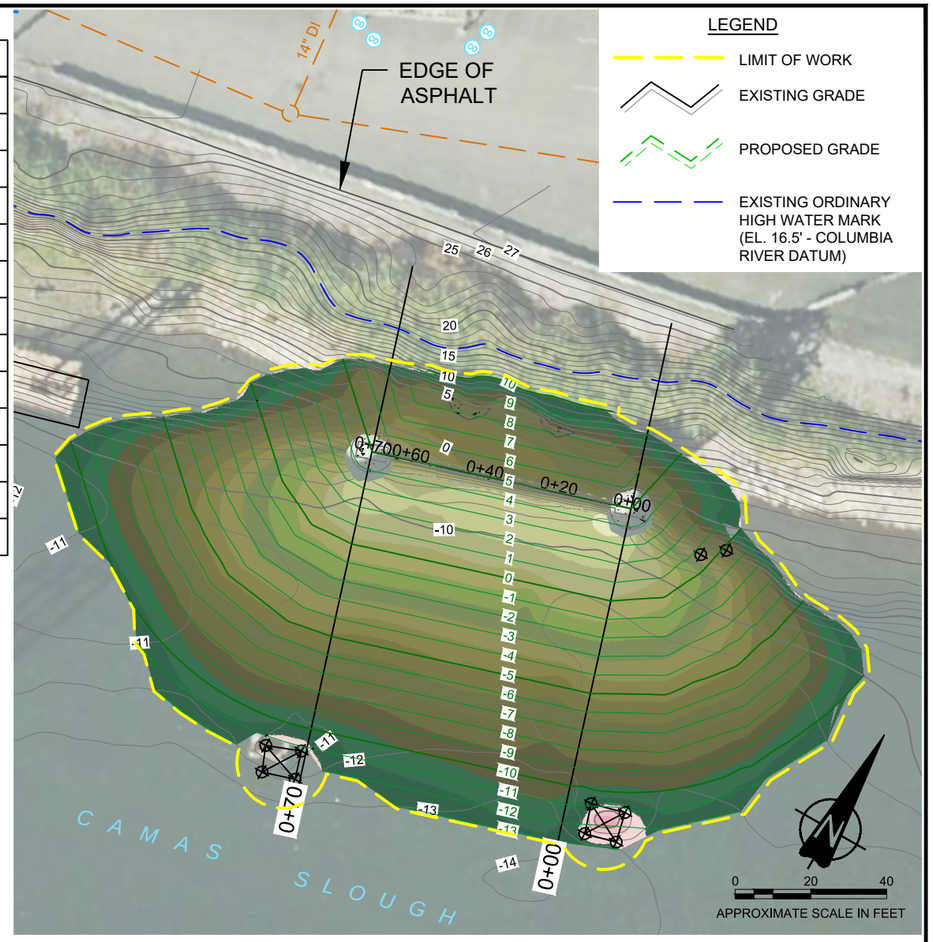
CROSS SECTION 0+00

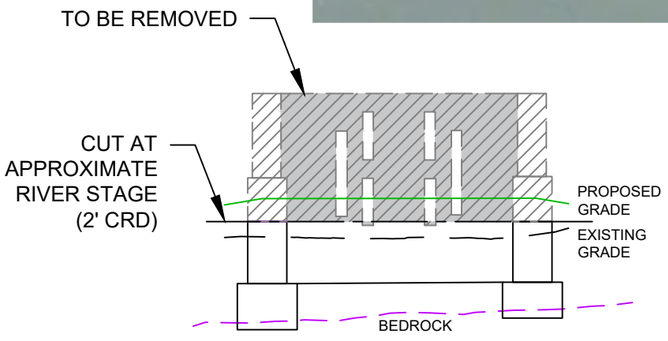


CROSS SECTION 0+70

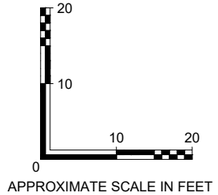
Depth Thickness Table in Ft		
MIN	MAX	Color
0	+1	
+1	+2	
+2	+3	
+3	+4	
+4	+5	
+5	+6	
+6	+7	
+7	+8	
+8	+9	
+9	+10	
+10	+11	
+11	+12	

3,500 c□ FILL





BERGER CRANE FOUNDATION PHOTO

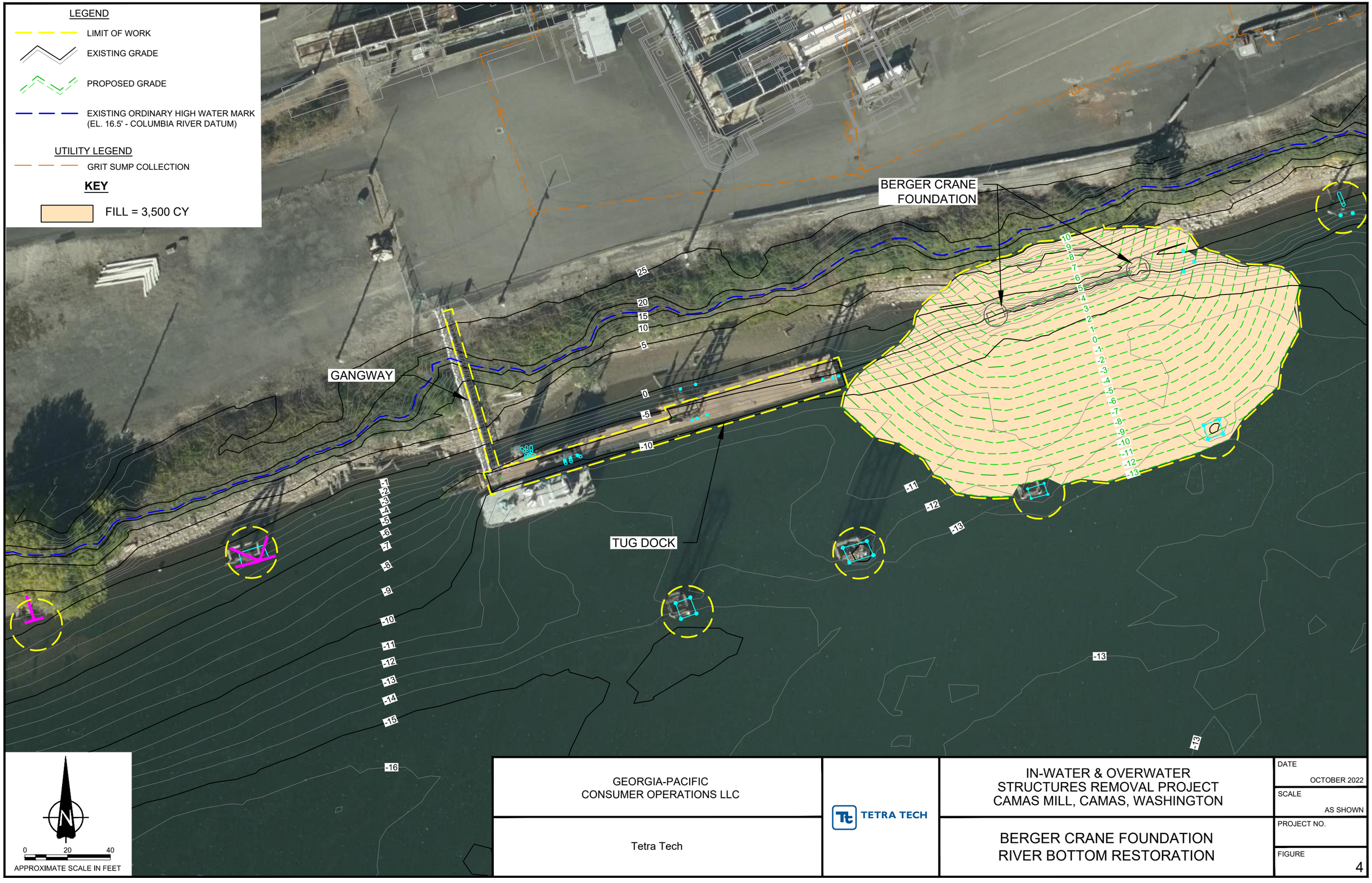


APPROXIMATE SCALE IN FEET

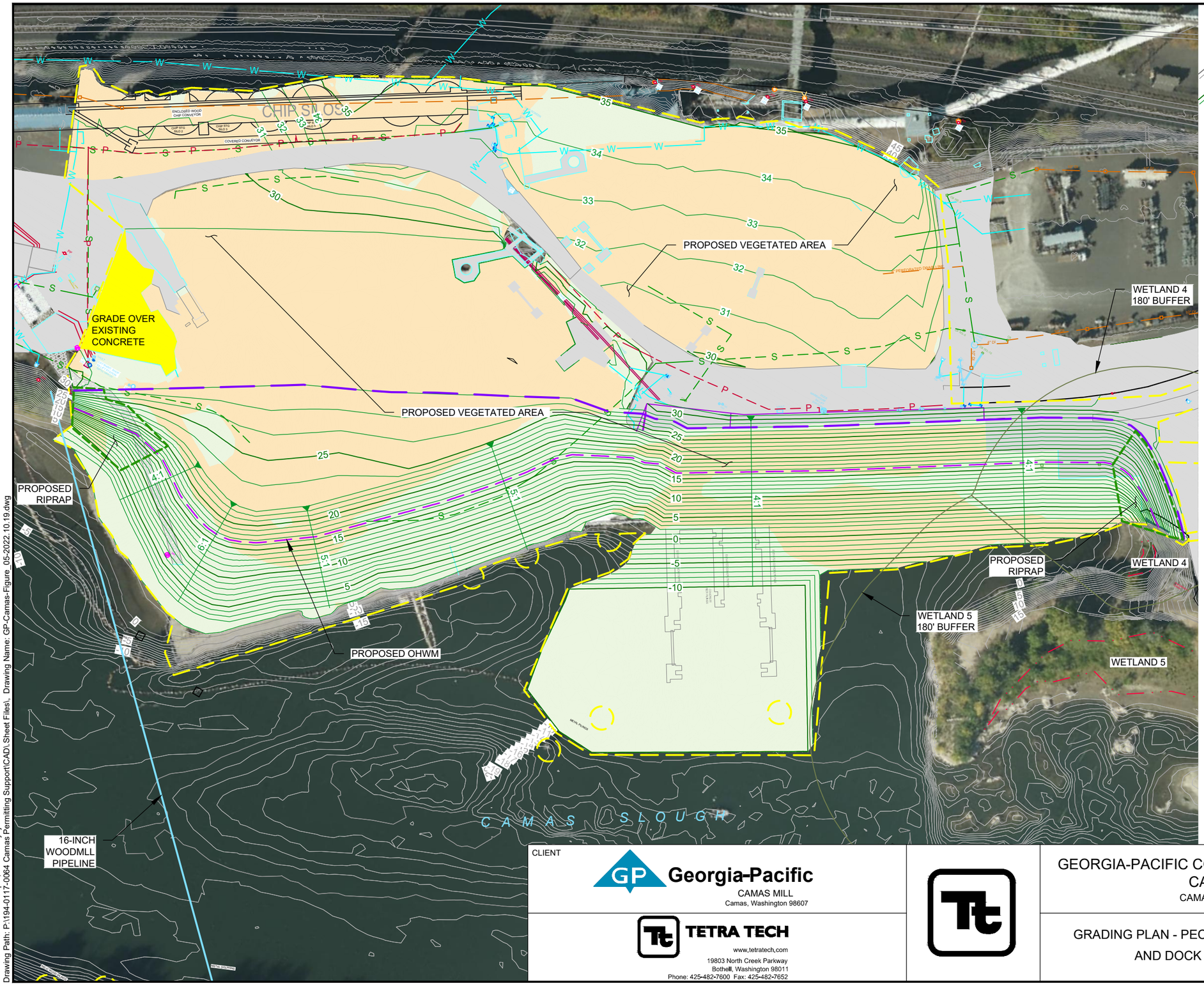
CROSS SECTION LEGEND

- ORDINARY HIGH WATER MARK (EL. 16.5' - COLUMBIA RIVER DATUM)
- 100-YEAR FLOOD PLAIN (EL. 28' - COLUMBIA RIVER DATUM)
- EXISTING GRADE
- PROPOSED FINAL GRADE

GEORGIA-PACIFIC CONSUMER OPERATIONS LLC	TETRA TECH	IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON	DATE: OCTOBER 2022
			SCALE: AS SHOWN
Tetra Tech		GRADING PLAN BERGER CRANE FOUNDATION	PROJECT NO.
			FIGURE: 3



GEORGIA-PACIFIC CONSUMER OPERATIONS LLC	TETRA TECH	IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON	DATE OCTOBER 2022
Tetra Tech		BERGER CRANE FOUNDATION RIVER BOTTOM RESTORATION	SCALE AS SHOWN PROJECT NO. FIGURE 4



LEGEND

- LIMIT OF WORK
- EXISTING GRADE CONTOURS (SITEWIDE LAND SURVEYING 7/07/20)
- PROPOSED FINAL GRADE CONTOURS
- PROPOSED ORDINARY HIGH WATER MARK (OHWM) (EL. 16.5' - COLUMBIA RIVER DATUM)
- PROPOSED 100-YEAR FLOOD PLAIN (EL. 28' - COLUMBIA RIVER DATUM)
- EXISTING WETLAND

UTILITY LEGEND

- FIRE MAIN
- W — WATER
- S — PROCESS SEWER
- GRIT SUMP COLLECTION
- OL — OVERHEAD POWER LINE
- P — UNDERGROUND POWER LINE
- NATURAL GAS

EARTHWORK QUANTITIES

NORTH WOOD CHIP AREA:
130,730 SF (3.00 ACRE)

CUT =	5,678 CY
FILL =	32,943 CY

SOUTH WOOD CHIP AREA, PECO DOCK, WAREHOUSE, AND PIERS:
340,088 SF (7.81 ACRE)

CUT =	32,676 CY
FILL =	20,788 CY

DRAFT

0 50 100
APPROXIMATE SCALE IN FEET

CLIENT
Georgia-Pacific
CAMAS MILL
Camas, Washington 98607

TETRA TECH
www.tetratech.com
19803 North Creek Parkway
Bothell, Washington 98011
Phone: 425-482-7600 Fax: 425-482-7652

GEORGIA-PACIFIC CONSUMER OPERATIONS LLC
CAMAS MILL
CAMAS, WASHINGTON

GRADING PLAN - PECO DOCK, DOCK WAREHOUSE, AND DOCK WAREHOUSE PIERS

DATE 10/19/22
SCALE AS SHOWN
PROJECT No. 194-0117
FIGURE 5

Plot Date: 10/19/22 - 5:03pm, Plotted by: joel.cameron
Drawing Path: P:\194-0117-0064 Camas Permitting Support\CAD\ Sheet Files\, Drawing Name: GP-Camas-Figure_05-2022.10.19.dwg

APPENDIX A: SITE AND STRUCTURE PHOTOGRAPHS

Appendix A

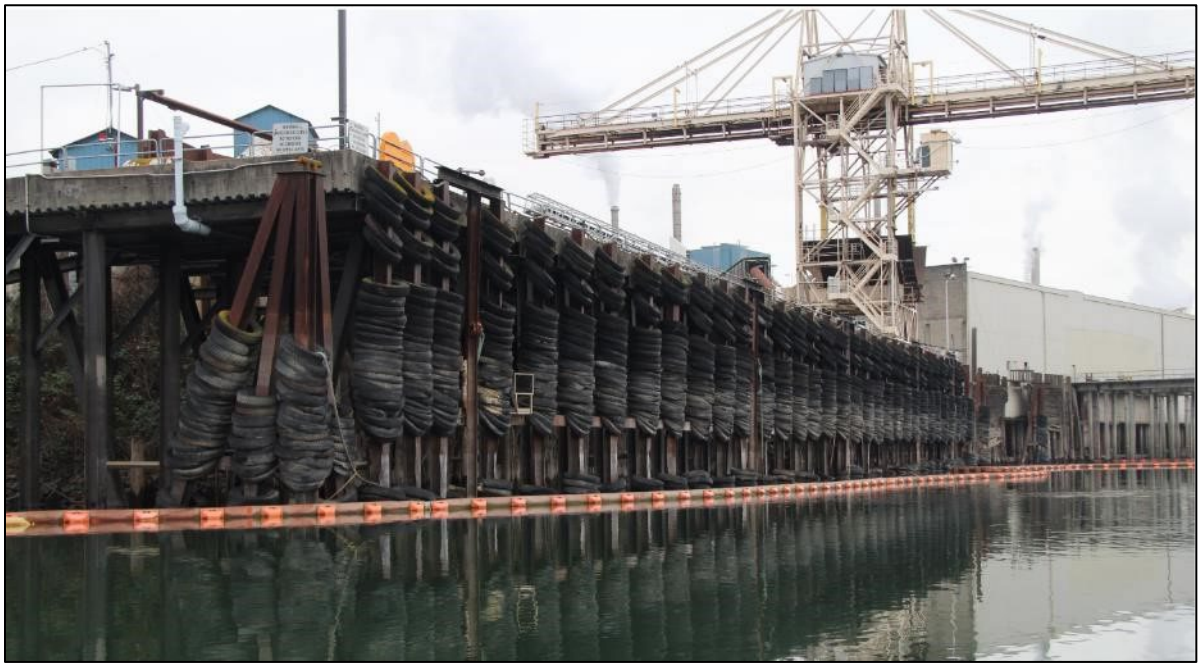
Site and Structure Photographs

Photograph 1. Truck Dock which is supported by approximately 220 pilings constructed from wood and pipe.

Photograph 2. Conveyer housing in the vicinity of the Truck Dock, PECO Dock, and Dock Warehouse

Photograph 3. Dock Warehouse situated between the Truck Dock and PECO Dock and supported by approximately 800 piles, with foundations on the riverbank side.

Photograph 4. Three piers extend from the Dock Warehouse that are supported by 54 concrete piles along with 21 carbon steel pipe piles. Three guidance dolphins are arranged at the end of the piers.



Photograph 5. The PECO Dock, supported by approximately 400 wood piles.

Photograph 6. Concrete footing from the Berger Crane gantry.

Photograph 7. Typical HP pile dolphin with tire bumpers attached.

Photograph 8. Typical timber head dolphin.

Photograph 9. Aboveground storage tank, a 40,000-gallon steel oil tank that has been previously cleaned and disconnected.