CONCEPTUAL WETLAND MITIGATION REPORT

Pacific Mountain Energy Center
Kalama, Washington

Prepared for

Energy Northwest

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URS

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Exhibit____(ADE-2)

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1. PROJECT DESCRIPTION

The Pacific Mountain Energy Center (PMEC) is proposing to construct an Integrated Gasification Combined Cycle (IGCC) power generating facility that applies state-of-the-art fuel flexible gasification technology and process optimization to generate competitive base-load electrical power. This facility would have the capacity to generate up to 680 Megawatts of low cost, reliable base load electrical power.

The proposed PMEC would be constructed within the North Port Marine Industrial Park at the Port of Kalama (Port). The Port is located north of the City of Kalama, within Cowlitz County, Washington (Figure 1). The site is located on the east bank of the Columbia River and both the Burlington Northern Santa Fe (BNSF) Railway and Interstate 5 (I-5) lie immediately to the east. The site can be accessed from I-5 via Exit 32.

The PMEC site is an approximately 95-acre vacant property used historically for the deposition of Columbia River dredge spoils. Final preparation of the site would be permitted and provided by the Port of Kalama. The PMEC would construct a modern, enclosed fuel handling and storage terminal that has access to a deep water dock terminal, a regional natural gas pipeline, and multiple railroad systems to achieve superior fuel supply and transportation flexibility (Figure 2). To deliver electricity to the power grid, the Bonneville Power Administration (BPA) and Cowlitz County Public Utility District (PUD) would upgrade approximately twelve miles of an existing high voltage transmission line corridor. The PMEC would utilize the Port-owned deep water dock, providing access to the Columbia River. The Port has received the permits, Corps No. 199600782 (June 2005) and Cowlitz County Application No. SL 04-0846 (November 2004) to extend the existing 600-foot dock north for a total length of approximately 1,600 feet. The transmission line upgrade would be administered and permitted by the BPA and PUD. No wetland fill associated with the Port site or dock or with the transmission line upgrade (if any) is part of the PMEC permit or mitigation plan.

An arterial natural gas pipeline would be constructed from an existing natural gas metering station owned by Williams Pipeline at the south end of the Port's properties to the PMEC facility (Figure 1). The gas pipeline would be buried mostly under Hendrickson Drive, the primary Port access road. The pipeline would be constructed wholly in uplands within an existing pipeline right-of-way and would be horizontal directionally drilled (HDD) under the Kalama River in the vicinity of the Hendrickson Drive bridge. The pipeline would be approximately 5 miles in length and would extend from the plant site near Exit 32 south to Exit 27 on the west side of I-5. The pipeline would have no wetland impacts to be mitigated.

The PMEC proposes to construct a railroad spur that would exit the BNSF railroad mainline at West Kalama River Road and enter the site about one half mile to the north (Figure 2). This spur line would allow a train to completely exit the BNSF mainline, thereby reducing railroad traffic congestion during delivery of coal or petroleum coke feed stock. Existing site constraints coupled with established railroad design guidelines create a railroad spur layout that would cross an 8.86 acre palustrine wetland (Wetland A), requiring wetland fill.

2. EXISTING WETLAND CONDITIONS

The wetland proposed to be partially filled is an 8.86-acre Category II palustrine wetland (Wetland A) located between the heavily used BNSF railroad mainline and the Port of Kalama North Port Industrial Park zoned for heavy industry (Figure 3; URS 2007). This seasonally to permanently flooded palustrine wetland (Cowardin 1979) contains forested, scrub-shrub, emergent, aquatic bed, and open water communities. It is characterized as a depressional wetland using the hydrogeomorphic (HGM) classification system. Based on its position in the landscape, Wetland A probably historically functioned as a palustrine depressional or palustrine riverine wetland on the Columbia and/or Kalama River floodplain. A portion of the wetland is currently set aside in an existing wetland mitigation conservation easement for previous Port land development (Figure 4). The conservation easement is located outside the proposed PMEC wetland impact footprint.

2.1. HYDROLOGY

Hydrology originates from a seasonally high groundwater table and two culverts that drain to Wetland A from upstream wetlands and uplands, including Interstate 5 and adjacent local access roads. Wetland A fills with between 1 foot and greater than 4 feet of standing water, depending on location, during the wet season. About one-half of the wetland dries out during the summer season with only the palustrine open water community containing standing water by September. Based on the very large volumes of water in the wetland relative to the size of the contributing basin, the hydrology of Wetland A appears to be dominated by a very high seasonally exposed groundwater table. Wetland A drains via a partially blocked culvert to the Columbia River floodplain wetlands north of the site (Figure 3).

2.2. SOILS

The proposed development site is part of a historic Columbia River dredge spoils disposal area. Existing soil survey data is based on historic soil surveys. Most of the proposed development site is classified as moderately well drained Maytown silt loams and Caples silty clay loams (Figure 3). These floodplain derived soils have distinct horizon profiles containing silt or silty clay loams. These soils are not included on the hydric soils list for Cowlitz County (NRCS 2001).

Soils sampled on the proposed railroad spur site more closely match the colors and textures of Pilchuck loamy fine sand or Riverwash soil series mapped for this area, but do not display any soil horizons. Two sample plots were dug in Wetland A and one in the upland (Figure 4). All three soil pits contained very dark gray (10YR 3/1) loamy sands greater than 12 and 17 inches deep. The very dark gray color represents the parent material color of the sand particles and not hydric soil conditions. Sample plot three in the south central part of the wetland, inundated by at least eighteen inches of water in April 2006, had 2 inches of fibrous organic material above the mineral soil and few coarse prominent redoximorphic features with a strong brown color (7.5YR 5/8) in the soils.

2.3. VEGETATION

Current hydrologic conditions have created five wetland communities in Wetland A. The open water and aquatic bed communities extend the full length of the wetland from the north end of the wetland south to where the culvert extends under the railroad. They are interspersed with one another and lie immediately adjacent to the railroad grade. These two communities contain such aquatic plants as lesser duckweed (*Lemna minor*/OBL), greater duckweed (*Spirodela polyrhiza*/OBL), common bladderwort (*Utricularia macrorhiza/*OBL), waterfern (*Azolla mexicana/*OBL), pondweed (*Potamogeton* sp.), and western water-milfoil (*Myriophyllum hippuroides/*OBL). They also contain non-native wildlife such as bullfrogs (*Rana catesbeiana*) and mosquito fish (*Gambusia affinis*).

The narrow emergent community lies between the open water and scrub-shrub communities. This community was completely inundated during the April 2006 site visit. However, it was mapped during the August 2006 site visit and was found in some places to be only 2 feet wide. The emergent community contains reed canarygrass (*Phalaris arundinacea*/FACW), floating water pennywort (*Hydrocotyle ranunculoides*/OBL), marsh speedwell (*Veronica scutellata*/OBL), and yellow flag (*Iris pseudacorus*/OBL).

A scrub-shrub community grows along the wetland edge around the open water community. This community expands in the south central section of the wetland from where the wetland begins expanding in width to the south wetland boundary and west to the forested wetland community. The dominant plant species in the scrub-shrub community include reed canarygrass, red-osier dogwood (*Cornus sericea*/FACW), Sitka willow (*Salix sitchensis*/FAC+), and Pacific willow (*Salix lucida* ssp. *lasiandra*/FACW).

The forest community comprises the south and southwest corner of Wetland A. Dominant species in the forested community include species present in the scrub-shrub community, black cottonwood (*Populus balsamifera* ssp. *trichocarpa/FAC*), and Oregon ash (*Fraxinus latifolia*). Several standing snags indicate that the forested portion of the wetland was recently at least double its current size.

2.4. FUNCTIONS

Existing conditions in Wetland A provide multiple functions and values. The hydrologic functions performed by the wetland include water quality improvements that offset upstream human activities (roads and railroad), and groundwater discharge capacity and storage. Wetland A may provide some potential downstream erosion or flood flow reductions, but its location below several dams and within the tidally influenced portion of the Columbia River limits the opportunity of these functions (Walker 2007).

Potential habitat functions performed by Wetland A are affected by structural complexity and habitat interspersion. A permanent open water community connected with forested and scrub-shrub communities provides diverse opportunities for shelter, foraging, and rearing by waterfowl (particularly cavity nesters), other guilds of birds, and wetland mammals. Disconnected from nearby wetlands and open spaces because of the surrounding built environment and a partially blocked outlet culvert, Wetland A provides little potential or opportunity for access and use by amphibians or salmonids. However, mosquito fish (*Gambusia affinis*) has been identified in the wetland. This wetland provides little to no opportunity as a recreational, educational, or scientific resource

because of its location within a heavily used transportation corridor and industrial complex.

Wetland A is described in greater detail in the *Pacific Mountain Energy Center Wetland Delineation Report* (URS 2007).

3. PROJECT IMPACTS

The wetland area proposed to be filled by the railroad spur for PMEC would include approximately 1.3 acres of Category II palustrine open water and scrub-shrub habitat in the southeast corner of Wetland A adjacent to the BNSF railroad (Figure 4). The wetland impacts would be located about fifty to one hundred feet east of an existing Port of Kalama wetland mitigation conservation easement. Material being placed in the wetland would consist of clean fill material and railroad ballast rock. It is expected that all vegetation and one to two feet of the surface soils within the railroad spur alignment would need to be excavated from the wetland to create a stable foundation for the rail bed.

Hydrology of Wetland A would be slightly altered as a result of the proposed project. Wetland hydrologic volume and storage would be displaced as a result of placing fill material in 1.3 acres of the seasonally flooded wetland. By not altering the wetland outlet and by placing appropriately sized and positioned culverts between the resultant two sections of Wetland A, the proposed construction would not be expected to impact existing wetland water quality, wetland water elevations, or hydraulic patterns. While the water quality opportunity function may be slightly reduced because of the decreased wetland area, the overall reduction would be negligible because the remaining 7.56 acres of Wetland A would continue to provide the same level of water quality improvement as prior to construction. Due to a partially blocked culvert and its location below dams and within the tidally influenced portion of the Columbia River, the proposed hydrologic impacts to Wetland A would result in minimal adverse increases in downstream erosion or flooding (Walker 2007).

The PMEC railroad spur would impact about 1.3 acres of the palustrine open water, aquatic bed, emergent, and scrub-shrub communities. Most habitat functions are expected to be affected only minimally by the proposed construction. The palustrine forested and most of the palustrine scrub-shrub and open water communities used by foraging and rearing waterfowl (particularly cavity nesters), other guilds of birds, and wetland mammals are not expected to be impacted (Figure 4). Habitat functions that may be reduced, but not necessarily eliminated, include connectivity and habitat interspersion. Connections between the two remaining sections of the wetland would be maintained by large oversized culverts that would allow passage by waterfowl and aquatic mammals.

4. MITIGATION SEQUENCING

Several alternative sites throughout western Washington were evaluated for sufficient acreage, security, proximity to railroad and shipping ports, and avoidance or minimization of environmental impacts. Relative to other sites considered for building the proposed PMEC, the proposed Port of Kalama location avoids and minimizes wetland and environmental impacts and best meets the siting criteria of all the sites considered. A

more detailed discussion on siting alternatives can be found in the *404(b)1 Alternatives Analysis: Pacific Mountain Energy Center* (URS 2007).

At the Port of Kalama site, Energy Northwest designed the PMEC to avoid and minimize, to the maximum extent possible, the amount of impacts to waters of the U.S. and associated biota. The railroad spur layout was redesigned to affect less wetland than the original plan (1.3 acres vs. 3.3 acres).

The proposed conceptual mitigation plan is designed to mitigate wetland impacts by following the standard mitigation sequence as outlined in the Memorandum of Agreement between the Environmental Protection Agency (EPA) and the US Army Corps of Engineers (Corps). This sequence and a brief summary of how each mitigation component will be accomplished are provided below:

1. **Avoidance:** As discussed above, the site chosen for construction avoids wetland impacts to the greatest extent practicable. Completely avoiding wetland impacts is not feasible.
2. **Minimization:** Within the construction site design, impacts to wetlands were minimized by shaping the railroad spur layout to cross the wetland using the shortest distance possible given established railroad design specifications. The proposed construction would avoid the higher value palustrine forested and most scrub-shrub wetland habitat by crossing through the lower value palustrine open water, emergent fringe, and some scrub-shrub communities. In addition, a project-specific Construction Storm Water Pollution Prevention Plan (SWPPP) would be prepared to provide guidelines for preventing the discharge of excess fill material or pollutants into the remaining portions of Wetland A during construction. Best management practices for working in and near wetlands and waterways would be adhered to, including placing construction limits fencing and siltation barriers around the perimeter of the proposed work area.
3. **Restoration:** Any temporary or inadvertent impacts to wetlands that may occur during construction would be repaired and rehabilitated as appropriate.
4. **Compensation:** Unavoidable impacts to wetlands and fisheries would be compensated by creating new wetland and converting a small existing degraded wetland from isolated to connected with the river at an off-site wetland mitigation site along the Coweeman River floodplain in Kelso, Washington. The plan for compensation would incorporate recommendations from Ecology's *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1)* (Washington Dept. of Ecology 2006). Nearby floodplain wetlands and uplands along the Coweeman River were used in part as reference sites for the PMEC conceptual wetland mitigation project.

5. MITIGATION SITE SELECTION

Potential mitigation sites in the general area were investigated. During the pre-application meeting on September 6, 2005, the agencies voiced concerns that the initial list of potential mitigation sites would not meet their requirements. The requirements included appropriate compensation for wetland area and function losses and a fisheries component to compensate for the mosquito fish presence. It was also determined at that

meeting that locating an on-site or local mitigation site likely would not be a reasonably available option and that Energy Northwest was allowed to search outside the watershed for a suitable mitigation site.

Energy Northwest and URS used the parameters above and identified three additional new sites and continued to research one of the original five options. Two of the sites are the Johnson Farm property just north of Kalama, Washington and the Coweeman River property east of Kelso, Washington. A third possible site at Paradise Point State Park, though a viable option with an enthusiastic landowner, is not being considered at this time because it is located outside Cowlitz County. The only original option researched further was an ownership at the mouth of Spencer Creek at about river mile 4 on the Kalama River. The Lower Columbia Fisheries Enhancement Group is working with this landowner, but the project timing would be much slower than is anticipated to occur for the PMEC permitting. Though the Johnson Farm property had a good location near the PMEC, various constraints (actively managed hydrology, four landowners, and ecological challenges to success) eliminated the Johnson Farm property. The nearest appropriate and viable mitigation site is the Coweeman River property. It is a floodplain peninsula just upstream of river mile 4 with about 11 acres of land surrounded by the Coweeman River on three sides. The existing conditions and surrounding landscape make improving this site as wetland mitigation very valuable. There are few constraints to creating wetland mitigation at this site except for the amount of earthwork and soil removal required.

6. MITIGATION GOALS

The proposed PMEC wetland impacts would be mitigated with a wetland and fisheries project that as close as reasonably possible replaces or exceeds the area, type, functions, and landscape position of the affected wetland. The mitigation project would be a self-sustaining wetland and wetland buffer ecosystem using a measurable and achievable set of performance standards.

Several characteristics make the proposed Coweeman River parcel a suitable mitigation option. The Kelso area, especially east along the Coweeman River, is beginning to receive development pressures. The Coweeman River floodplain has been identified by various state agencies as important for fisheries and hydrologic restoration. The site is owned by one landowner with plans to eventually develop part of the site but is open to discussing other options. No structures exist on the proposed mitigation site. No information could be acquired from the Cowlitz County tax assessor as no street address is readily available. The development potential for this site is low and the land value is low to moderate because of its location in a floodplain. The FEMA floodplain maps identify the whole area around the potential project site as being within the 100-year floodplain as is evident by the high levee that terminates just downstream of this parcel.

Goals for this mitigation would include creating new wetland, improving the habitat structure and complexity by establishing scrub-shrub and forested areas, rehabilitating the existing emergent wetland to replace reed canarygrass with native grasses, sedges, and rushes and change the hydrology, and establishing off-river habitat for fish during the higher winter and spring flows.

7. MITIGATION SITE EXISTING CONDITIONS

The proposed mitigation property is an approximately 15 acre bottomland parcel (11 acres land and 4 acres river) in the lower floodplain of the Coweeman River. The surrounding landscape is dominated by forest land to the south, undeveloped floodplain to the east, and upslope developed land to the north and west. The proposed mitigation property is situated on a relatively flat bend in the Coweeman River with the river surrounding three and a half sides of the parcel (Figure 6).

7.1. HYDROLOGY

Hydrology is strongly influenced by the river. According to the landowner, the proposed mitigation site contains standing water during the wet season when river levels are highest and dries out as river flows subside. Periodic high water events overtop the river's banks and flood the parcel, most recently occurring during the heavy precipitation events of early November 2006. A historic river flow gauge recorded Coweeman River flows at river mile 7.5 for almost fifty years before being destroyed by flooding in the 1990s. These records showed that the Coweeman River typically averaged about 1000 to 1300 cubic feet per second (cfs) in December and January with flows diminishing slowly through the remainder of the year with the lowest flows in August and September averaging as low as 50 to 100 cfs. Flows in April and May typically averaged 400 to 700 cfs during that period. No stage discharge information is available to correlate the historic flows at river mile 7.5 with river flow depths at other locations along the river. The Cowlitz County Planning Department explained that the Coweeman River nearly dries up in the summer time and the backwater channel adjacent to and directly north of the proposed mitigation site does drain down to a muddy bottom during the summer. Reports indicate, though, that the river continues to flow because the height of tide crests at river mile 4, which is marked at the northwest corner of the proposed mitigation site at the confluence of the river and the backwater channel.

The site contains about four feet of elevation difference between the center of the site and the south and west boundary. There is about one foot of elevation difference between the center of the site and the north boundary adjacent to the backwater channel (Figure 7). This topography has created a shallow bowl that captures some subsiding floodwaters and exposes the seasonally high groundwater table. During a December 13, 2006 field visit, there was less than one quarter acre of standing water at the soil surface at the lowest elevations in the middle of the proposed mitigation site. Approximately one acre of standing water up to 1.5 feet deep was present on the proposed mitigation site during a second site visit on December 28, 2006.

7.2. SOILS

Several exploratory holes were dug across the proposed mitigation site to assess the soils and extent of possible wetland conditions. Soils tended to be very dark grayish brown (10YR3/2) to brown 10YR4/3 silty clay loams. Faint yellowish brown (10YR5/8) redoximorphic features were found in only two or three holes in the center of the site corresponding with the lowest site elevations. Initial inspection indicates that the site contains mostly upland with less than an acre of palustrine emergent wetland in the center of the site.

7.3. VEGETATION

The proposed mitigation site has been cultivated for hay for some years. The vegetation present during the December 28, 2006 field visit was dominated by herbaceous vegetation, including tall fescue (*Festuca arundinacea*), bentgrasses (*Agrostis* sp.), reed canarygrass (*Phalaris arundinacea*), and scattered creeping buttercup (*Ranunculus repens*) with scattered Oregon ash (*Fraxinus latifolia*). Reed canarygrass is present along the riverbanks and in a small area at the center of the site where surface water collects, but it does not dominate the site. Other tree and shrub vegetation observed along the edges of the proposed mitigation site include red alder (*Alnus rubra*), Himalayan blackberry (*Rubus armeniacus*), snowberry (*Symphoricarpos albus*), Douglas spiraea (*Spiraea douglasii*), and rose (*Rosa* sp.). Other herbaceous vegetation present includes meadow foxtail (*Alepocurus pratense*), sheep sorrel (*Rumex acetosella*), clover (*Trifolium* sp.), thistle (*Cirsium* sp.), horsetail (*Equisetum* sp.), orchard grass (*Dactylis glomerata*), and vetch (*Vicia* sp.). The site historically was used for cattle grazing, but is now only mowed by the landowner.

7.4. FUNCTIONS

The small existing wetland on the PMEC proposed wetland mitigation site currently provides a low level of hydrologic and habitat function. It retains flood waters only during the highest flood events, but drains quickly as a flood subsides. A low potential to improve water quality exists with the presence of rigid thin stem herbaceous vegetation, but the wetland is not positioned in the landscape to receive waters having toxins, chemicals, heavy sediments, or other pollutants. Because of its location in an active hay field, the wetland provides relatively low habitat functions. It lacks structural complexity and contains only a palustrine emergent vegetation community dominated by reed canarygrass that gets mowed during the growing season. It does rate high for buffers and connectivity due to its location in a large partially protected floodplain corridor. It currently provides minimum cultural, scientific, or educational value because of its small size, low quality, and limited access.

8. PROPOSED MITIGATION STRATEGY

The proposed mitigation property provides attractive opportunities to improve fish and wildlife habitat, to maintain habitat connectivity, to provide additional flood attenuation through wetland creation and conversion that would replace a cultivated field situation with native wetland vegetation and structure as well as buffer enhancements. It appears that more than adequate mitigation area is available for the project's needs, since only 1.3 acres of wetland would be filled by the railroad spur. It appears that at least 8 or 9 acres would be available for wetlands and buffers.

The proposed plan would be designed to create a new wetland that simulates a historic river channel or remnant meander. The layout would create a wetland by excavating one to four feet of soil material from the lowest part of the field, including the existing wetland. The wetland would connect with the backwater channel north of the proposed mitigation site (Figure 6) to provide seasonal off-channel fish habitat when salmonids most commonly use the Coweeman River. The proposed wetland design would be

designed to drain as tides and river levels recede so as not to trap fish, thus protecting listed species that may use the site (Figures 8 and 9).

The proposed scheme would require excavating 1.5 to 4 feet of soil, depending on location. This action would cause part of the area to intercept the seasonal groundwater and to connect the wetland with the river's backwater channel to provide unmanaged hydrology to the new wetlands. Therefore, the wetland's hydrology would approximately match the river's hydrology. The greatest hydrologic functional benefits would occur during the winter and spring when higher river flows occur. This is also when salmonids and waterfowl would most commonly use the site.

Wetland would be created or replaced by excavating an unconstrained or very shallowly constrained connection with a back channel of the river that marks the upstream limit of tidal influence. Available information indicates that the Coweeman River flow hydrograph can provide unmanaged wetland hydrology into the early to mid growing season for such a project.

The site contains a somewhat homogenous plant community that can be modified into a structurally diverse fish and wildlife habitat. The non-native and invasive grasses that dominate the proposed mitigation area would be replaced with a larger diversity of native grasses, sedges, and rushes. Scrub-shrub and forested communities would be established to provide structural diversity and shelter that would allow a greater variety of bird, mammal, and amphibian species to use the mitigation site. Greater diversity and added presence of deciduous woody plants would also provide added exported organic matter to the river that would be used by invertebrates that are eaten by fish.

9. PROTECTIONS

The proposed PMEC mitigation site would be protected in perpetuity through a conservation easement attached to the property deed.

10. CONSTRUCTION TIMING

Construction timing would avoid threatened and endangered species impacts by constructing the project during the low flow summer months when water is not present in the backwater channel and listed fish species are least likely to be in this reach of the Coweeman River. Such timing would also reduce or eliminate sediment runoff and other water quality issues because the mitigation site and the backwater channel would be dry.

11. REFERENCES

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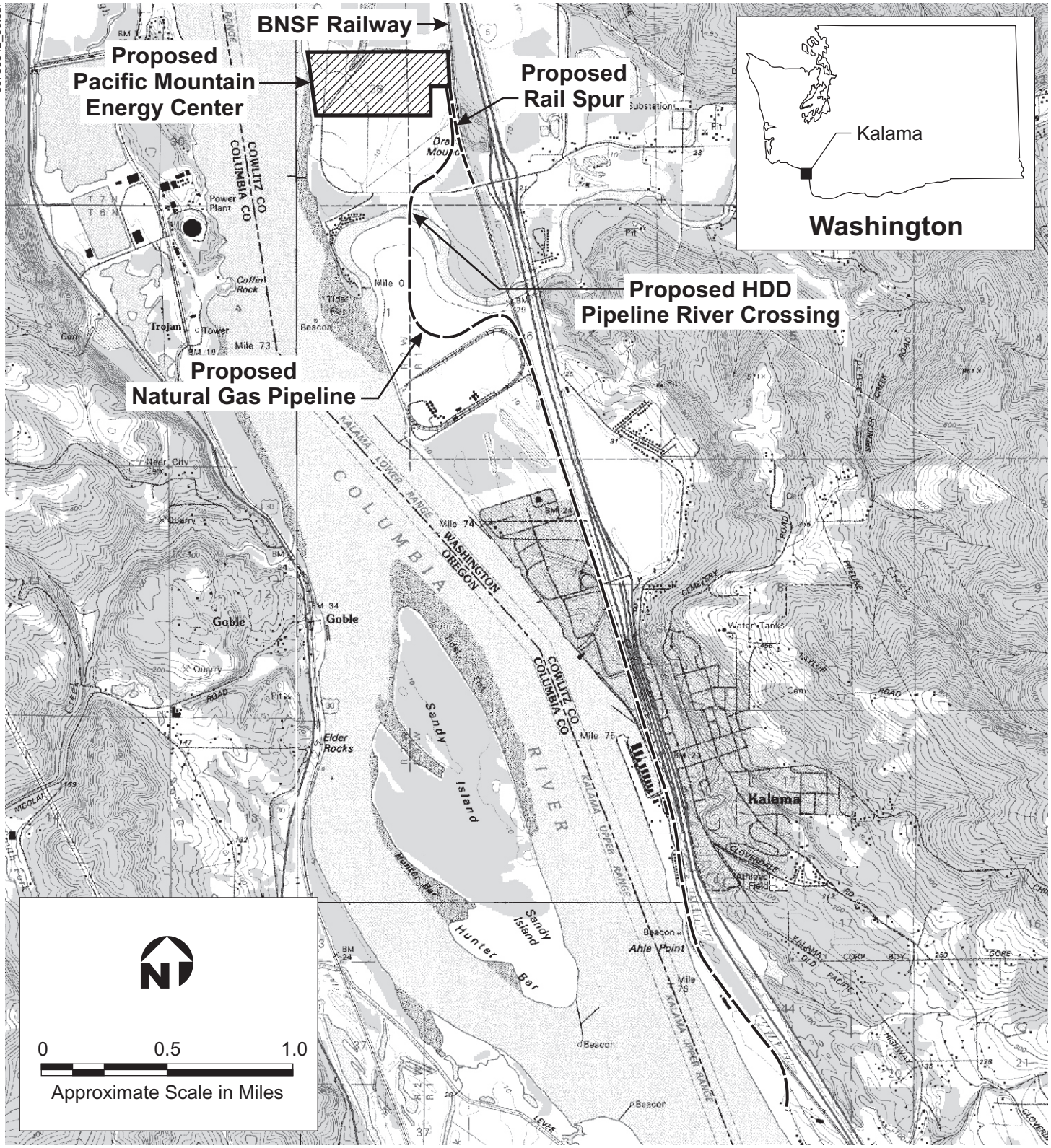
Figures



SOURCE: USGS 7.5-minute topographic quadrangle, Rainier and Kalama, Washington, 1990

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Figure 1
Site Vicinity

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Conceptual Wetland Mitigation Plan
Pacific Mountain Energy Center
Kalama, Washington

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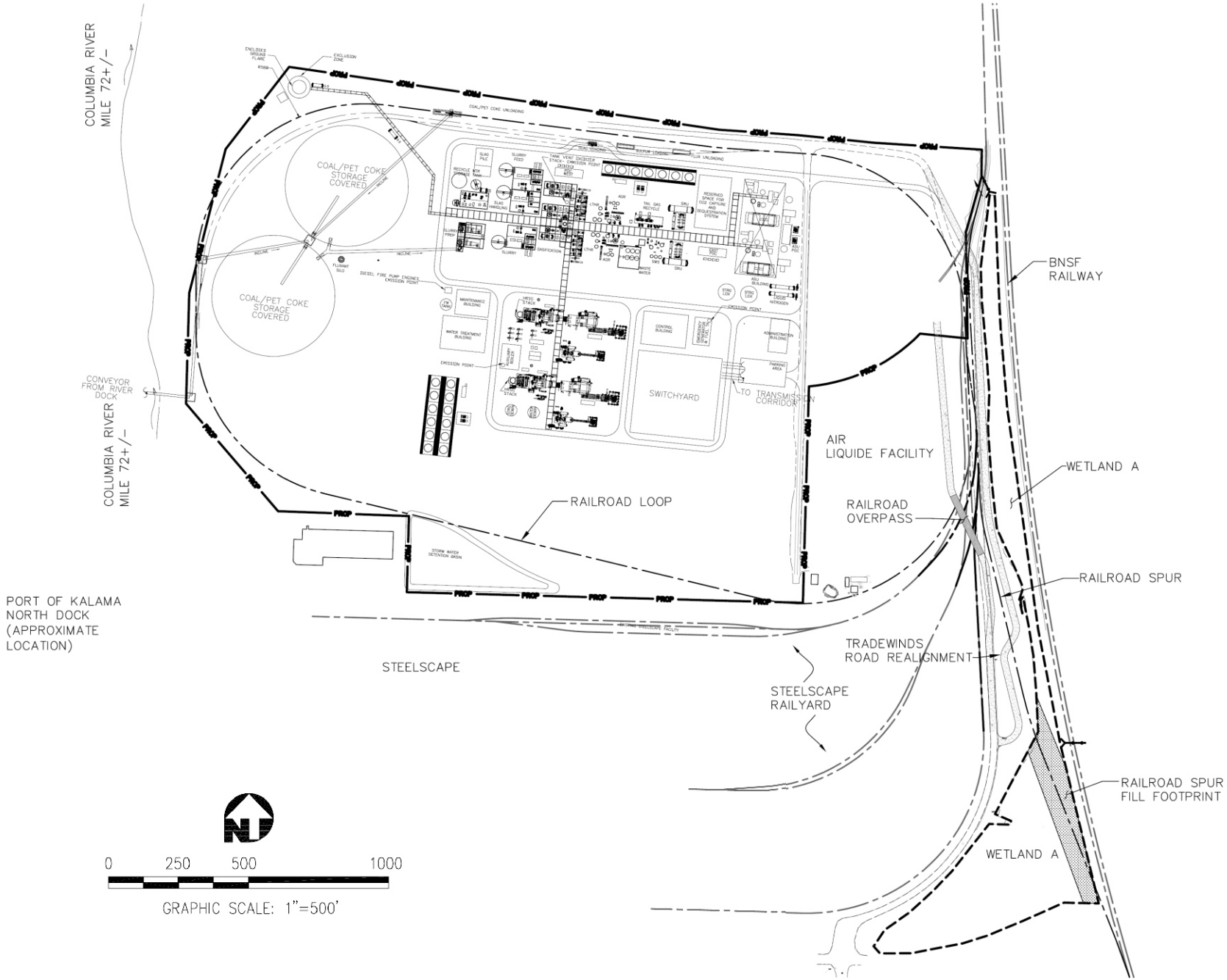

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Figure 2
Proposed Project Site Layout

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Conceptual Wetland Mitigation Plan
Pacific Mountain Energy Center
Kalama, Washington

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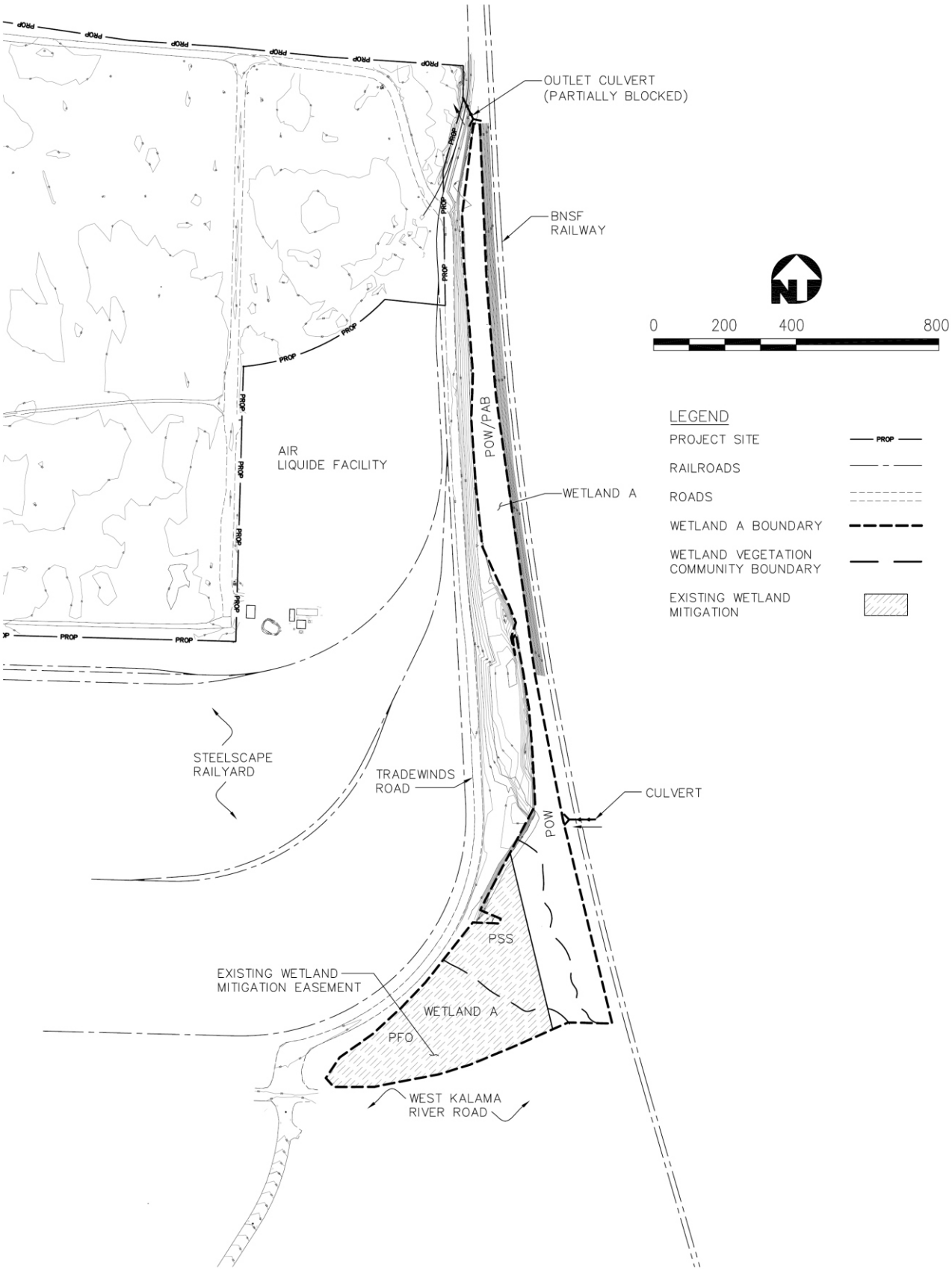

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Figure 3
Existing Conditions – Wetland A

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Conceptual Wetland Mitigation Plan
Pacific Mountain Energy Center
Kalama, Washington

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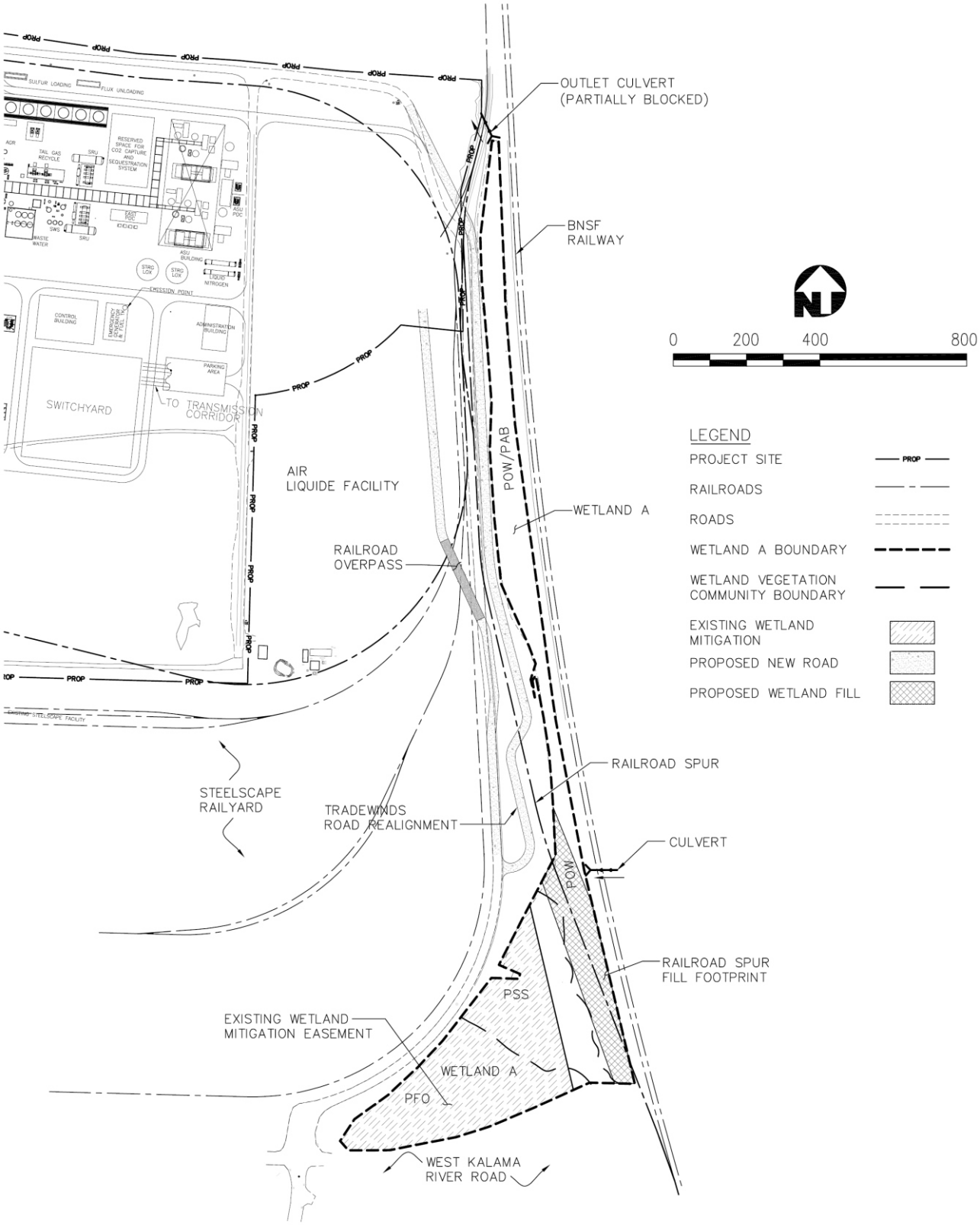

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Figure 4

Proposed Wetland Impact Area – Wetland A

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Conceptual Wetland Mitigation Plan
Pacific Mountain Energy Center
Kalama, Washington

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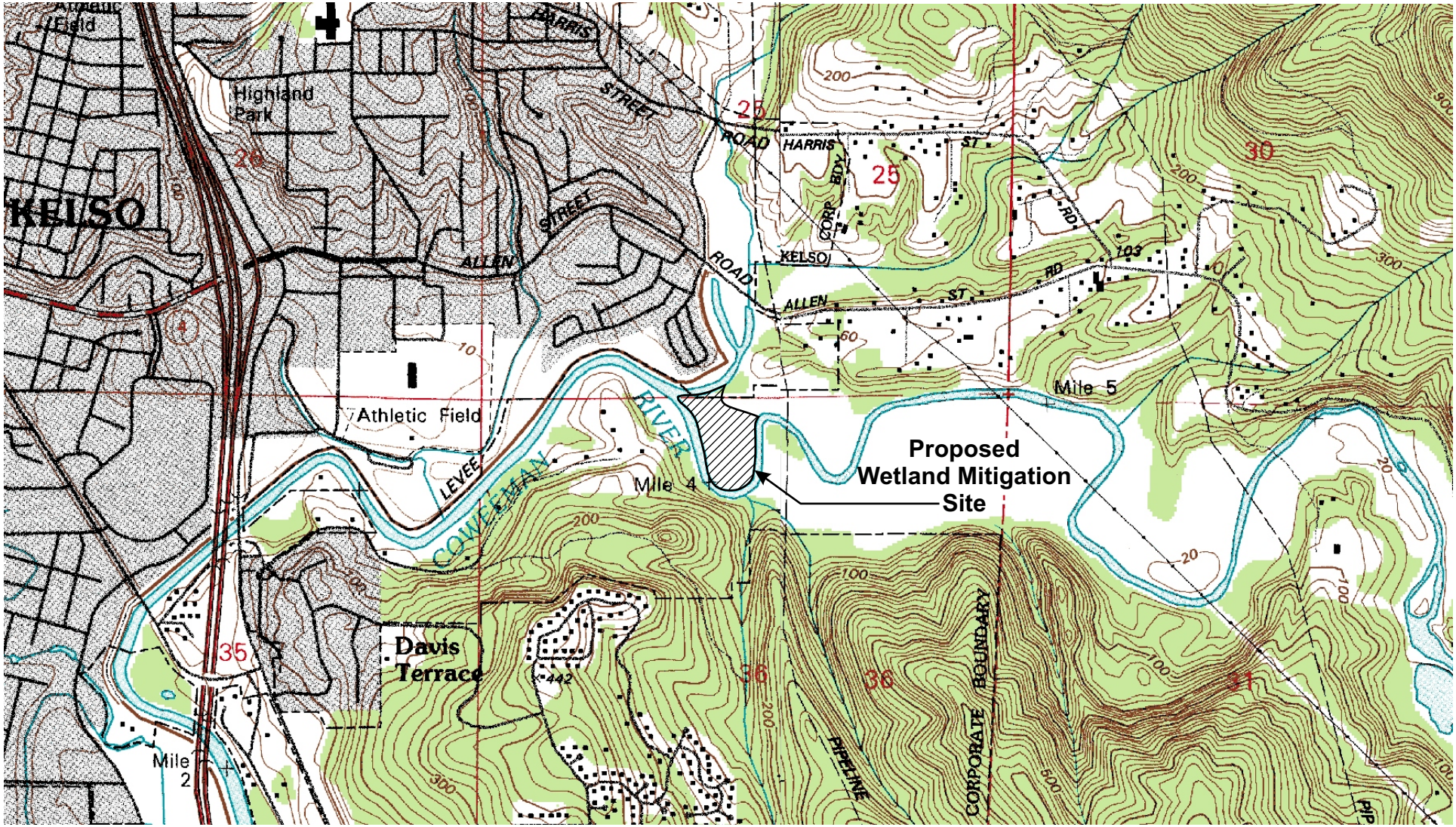

SOURCE: USGS 7.5-minute topographic quadrangle, Kelso and Mount Brynion, Washington, 1990

0 0.25 0.5

Approximate Scale in Miles

N

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Figure 5

Mitigation Site Vicinity

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Conceptual Wetland Mitigation Plan
Pacific Mountain Energy Center
Kalama, Washington

SOURCE: U.S. Geological Survey 2000, http://terraserver.microsift.com, 2004

0 300 600

Approximate Scale in Feet

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Figure 6

Mitigation Site Existing Conditions

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Conceptual Wetland Mitigation Plan
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Kalama, Washington

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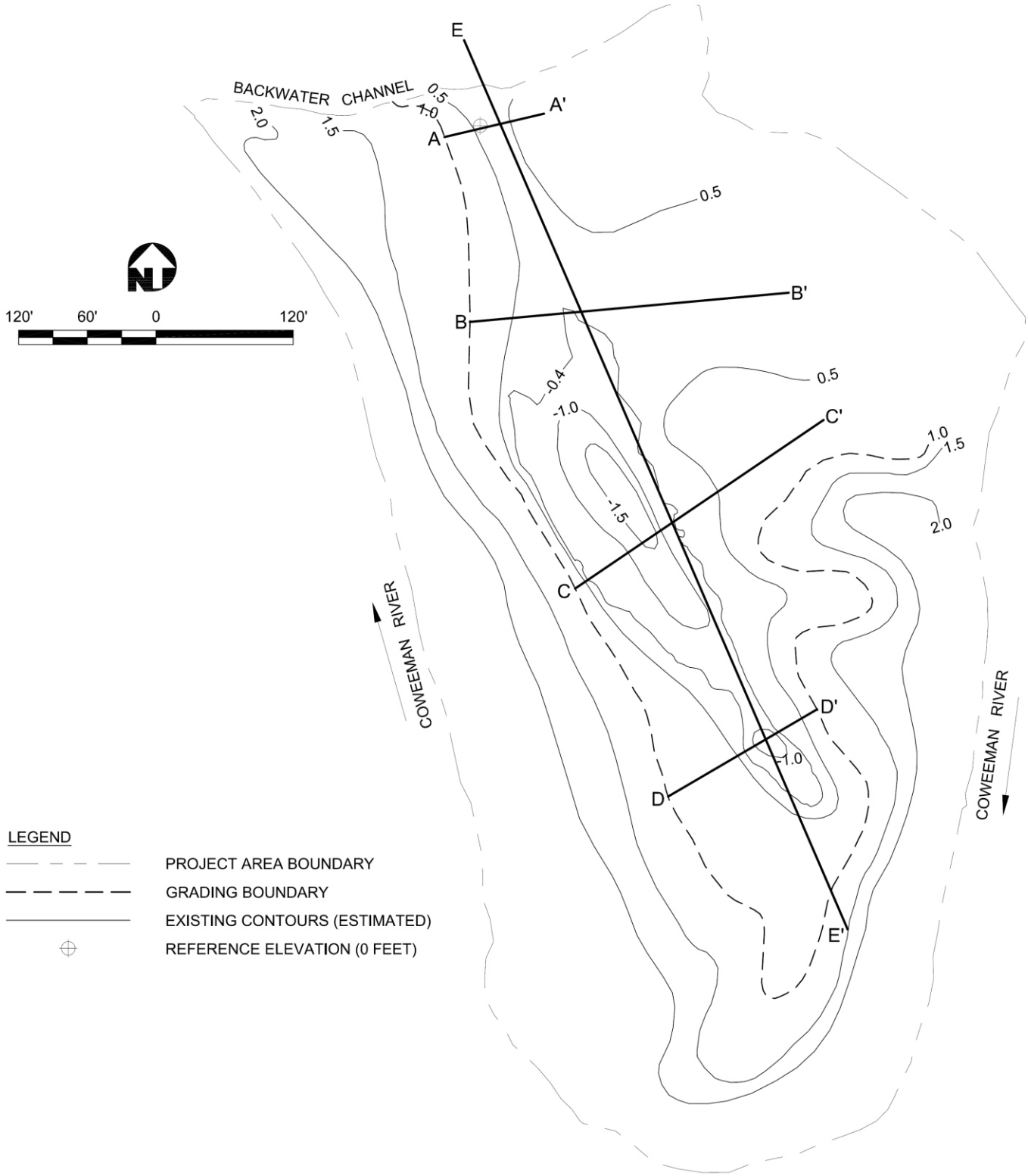

Figure 7

Proposed Mitigation Site Existing Conditions

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Conceptual Wetland Mitigation Plan
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Kalama, Washington

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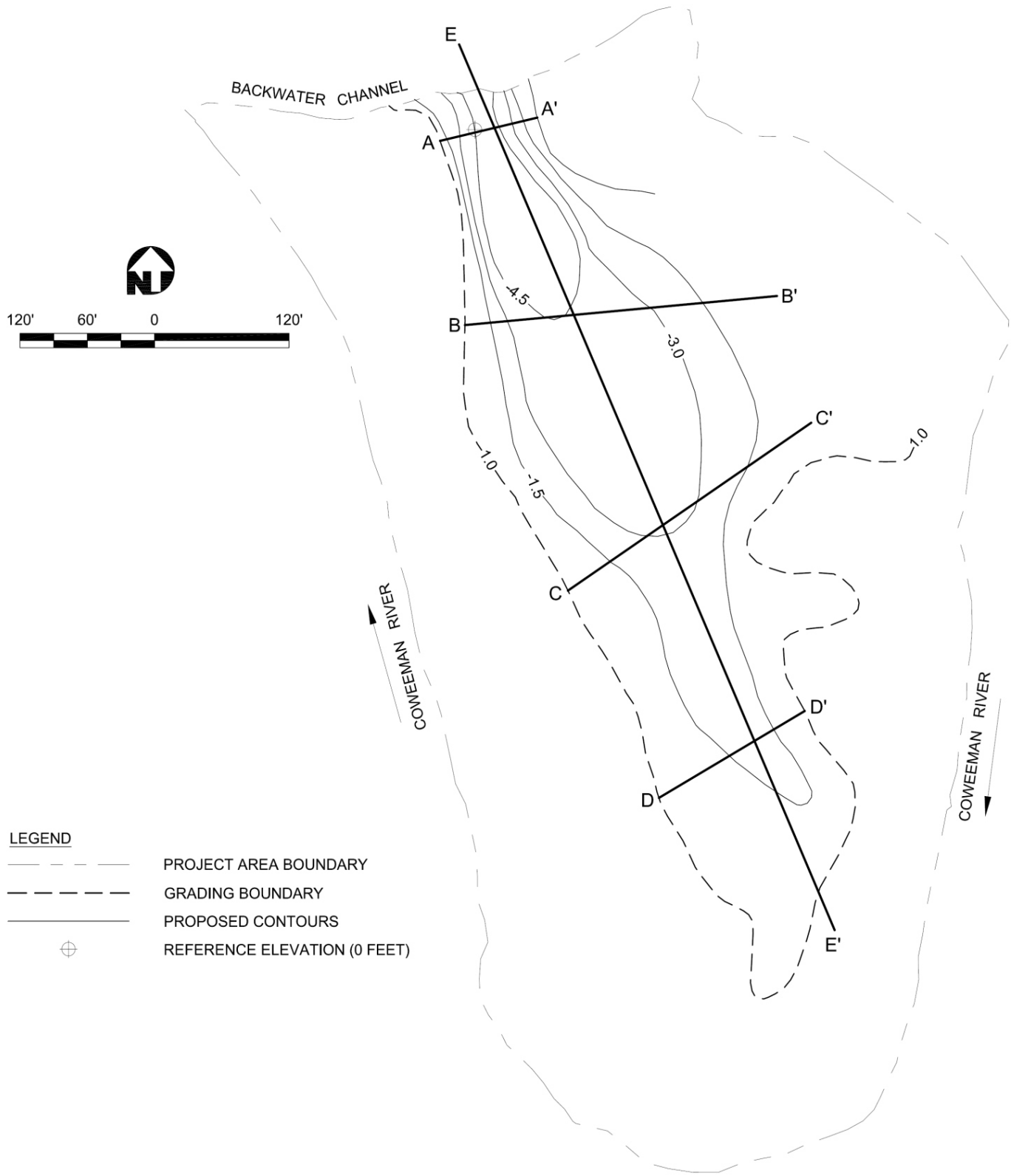

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Figure 8

Proposed Mitigation Site Grading Plan

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Conceptual Wetland Mitigation Plan
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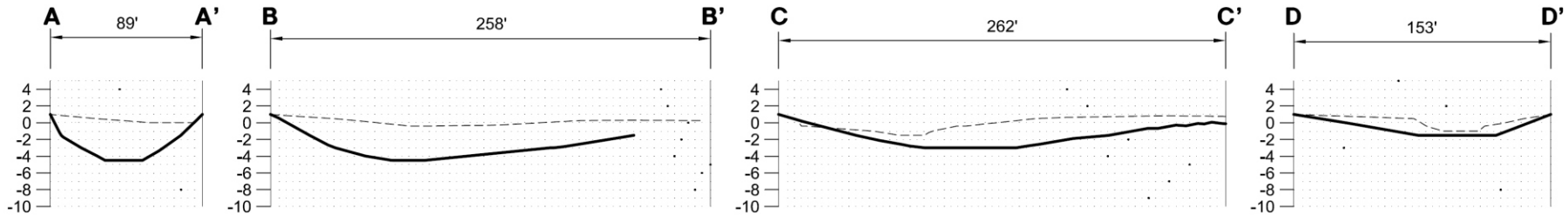
Kalama, Washington

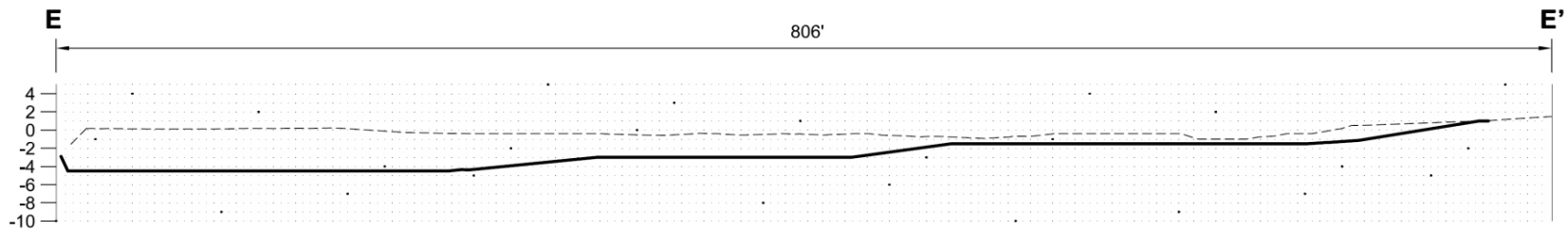


SECTION A

SECTION B

SECTION C

SECTION D



SECTION E

SCALE:

HOR.: 1"=100'
VER. : 1"=20'

LEGEND

EXISTING SURFACE

PROPOSED SURFACE

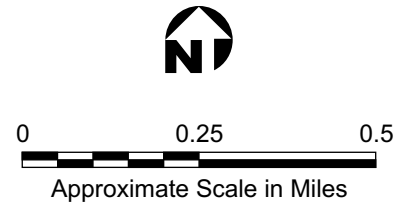


Figure 9

Job No. 33758342

Proposed Mitigation Site Existing and Proposed Cross Sections

URS

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