

## Condit Hydroelectric Project Decommissioning FERC Project No. 2342

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# RECREATION FACILITY REMOVAL AND IMPROVEMENTS PLAN



Prepared by



And



Prepared for



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## **1 INTRODUCTION**

### **1.1 PROJECT DESCRIPTION**

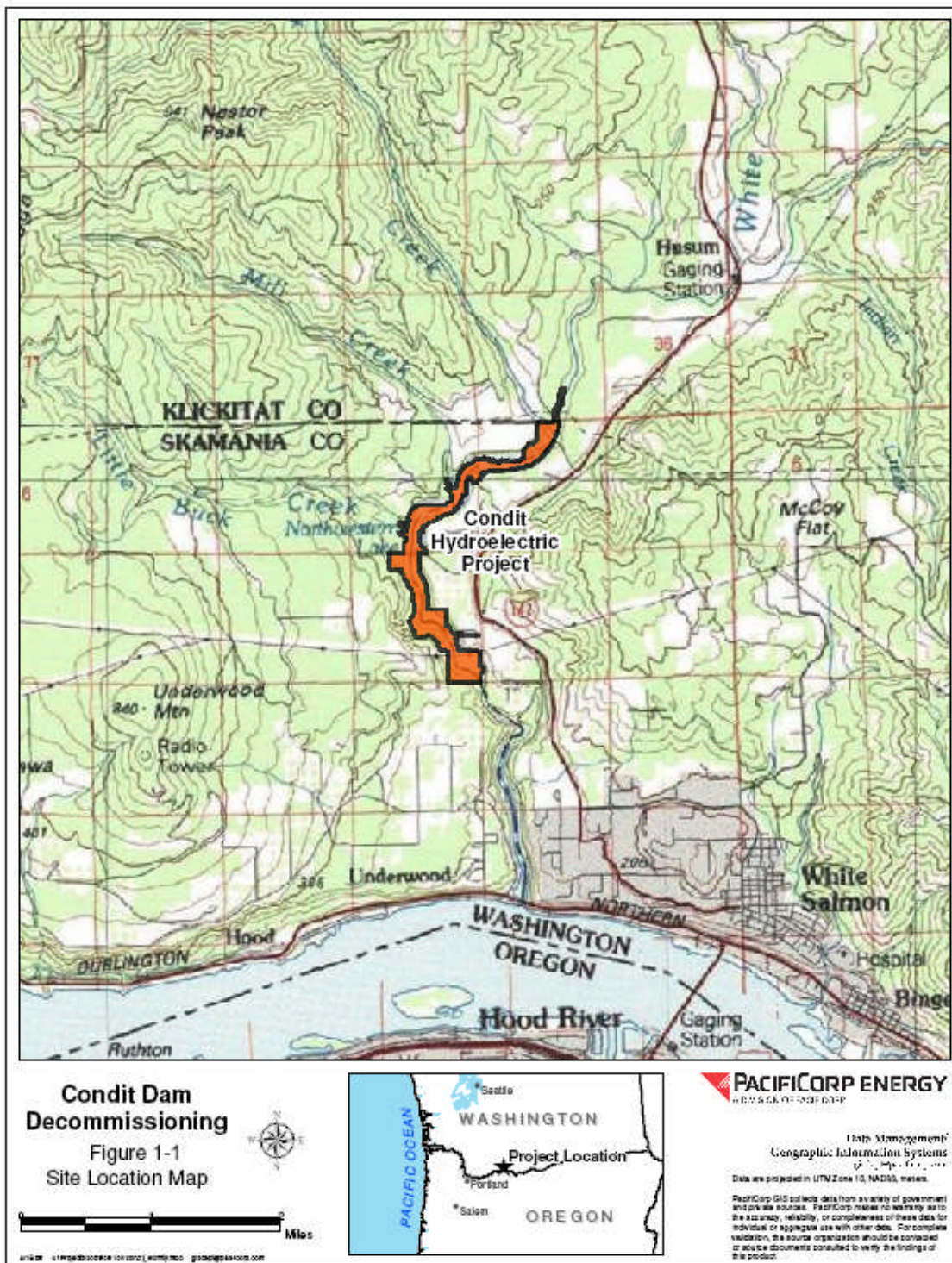
PacifiCorp Energy owns and operates the Condit Hydroelectric Project, which was completed in 1913 on the White Salmon River in Skamania County and Klickitat County, Washington. The project is regulated by the Federal Energy Regulatory Commission (FERC) as project number 2342. The project is located approximately 3.3-miles upstream from the confluence of the White Salmon and Columbia Rivers. Project facilities consist of a 125-foot high, 471-foot long concrete gravity diversion dam, an intake structure that directs water into a 13.5-foot diameter by 5,100-foot long wood stave flowline, and through a 40-foot diameter concrete surge tank. The flowline bifurcates inside the surge tank into two 9-foot diameter penstocks that supply water to the powerhouse. The powerhouse contains two double horizontal Francis turbines with an installed capacity of 14,700 kilowatts. The project creates a reservoir, Northwestern Lake, which extends 1.8-miles upstream of the dam and covers approximately 92 acres. The project area is shown in Figure 1-1.

### **1.2 BACKGROUND**

In 1968, a new license was issued by the Federal Energy Regulatory Commission for a 25-year term, which expired on December 31, 1993. In 1991, PacifiCorp Energy filed an application with the FERC for a new license authorizing the continued operation and maintenance of the project. PacifiCorp Energy has since been operating the project pursuant to annual licenses, pending determination by the FERC on the status of PacifiCorp Energy's new license issuance. In 1996, the FERC issued a Final Environmental Impact Statement (FEIS) that analyzed the environmental and economic effects of various relicensing alternatives for the project. The FEIS included a recommendation to approve licensing with mandatory conditions, including provisions for establishing fish passage facilities at the project.

PacifiCorp Energy evaluated the economic impacts of the FERC recommendations contained within the FEIS and determined that the mandatory conditions would render the project uneconomic to operate. In 1997, PacifiCorp Energy requested a temporary abeyance of the relicensing procedure in order to investigate the feasibility of various removal alternatives in collaboration with project stakeholders. PacifiCorp Energy and project stakeholders then commissioned the consulting firm of R.W. Beck, Incorporated, to evaluate removal alternatives. In 1998, R.W. Beck, Incorporated, prepared a summary report of project removal engineering considerations that identified the preferred method and schedule for project removal as well as the expected costs and associated environmental and permit issues. In 1999, the Condit Settlement Agreement was signed by PacifiCorp Energy and project stakeholders. The settlement agreement provides for project removal upon the expiration of an extended license term in accordance with the preferred method identified in the R.W. Beck, Incorporated, summary report. The settlement agreement was amended in 2005 to extend the dates for project removal.





In 2002, the FERC prepared a Final Supplemental FEIS addressing project removal, which updated the 1996 FEIS and assessed the effects associated with approval and implementation of the Condit Settlement Agreement. In March 2007, the Washington Department of Ecology (Ecology) issued the Final SEPA Supplemental Environmental Impact Statement (FSEIS) for the project.

In September 2002, the U.S. Fish and Wildlife Service issued a Biological Opinion finding no jeopardy to bull trout for ongoing project operations and implementation of the Condit Settlement Agreement. In October 2006, the National Marine Fisheries Services issued a Biological Opinion finding that the proposed dam removal action is not likely to jeopardize the continued existence of salmon and steelhead or destroy or adversely modify designated critical habitat.

### **1.3 PROJECT REMOVAL DESCRIPTION**

PacifiCorp Energy proposes to remove the project in accordance with the amended Condit Settlement Agreement and the Project Removal Design Report. Prior to removing the dam, the City of White Salmon's water supply line that crosses the reservoir needs to be relocated and potential impacts to the Northwestern Lake Bridge which is owned by Klickitat County and is at the upper end of the reservoir need to be addressed.

The proposed method for dam removal involves clearing sediment and debris immediately upstream from the tunnel and then drilling and blasting a 12-foot by 18-foot drain tunnel in the base of the dam to within a few feet of the dam's face. During the month of October, sediment and debris immediately upstream from the dam will be cleared to form a pathway and then the remainder of the tunnel will be blasted to drain the reservoir and flush impounded sediments out of the reservoir as rapidly as possible. Following the final tunnel blast, the drain tunnel will discharge at a rate of 10,000 cubic feet-per-second – approximately 25 percent of the estimated peak discharge during the February 1996 flood event on the White Salmon River. This will drain the reservoir in approximately six hours. Rapid draining of the reservoir is expected to mobilize much of the estimated 2.3-million cubic yards of sediment that have accumulated behind the dam since its construction. Previous modeling has indicated that between 1.6 million to 2.2-million cubic yards of sediment will be discharged into the White Salmon River immediately following dam removal and over a number of years as successive high flow events mobilize overbank sediments.

Once the reservoir is drained, the dam will then be excavated and removed along with the flowline, surge tank, and penstocks. Concrete from the dam will either be buried onsite or removed from the site for recycling or disposal. The powerhouse will be left intact. The upstream cofferdam in the White Salmon River present from original dam construction will be removed from the river as soon as practicable after the breach. PacifiCorp Energy expects to complete the dam removal process within one year.

Following project removal, the irrigation water supply intake for the Mount Adams Orchard to the east of the dam will be reconfigured to accommodate a new intake.

Removal of Condit dam is expected to provide the following benefits:

- Anadromous salmonids will be provided access of up to 18 miles of White Salmon River mainstem and tributary habitats that have been inaccessible since the early 1900s. Restoration of natural runs of anadromous fish upstream of the project dam is consistent with the fishery management goals of the National Marine Fisheries Service, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, and the Yakama Nation.
- Dam removal offers the greatest potential for full utilization of anadromous fish habitat, including habitat inundated by Northwestern Lake and, therefore, full restoration of anadromous salmonids within the White Salmon River basin.
- Dam removal will benefit wildlife dependent upon anadromous fish in the area of the river reach upstream of river mile (RM) 3.3.
- Dam removal will provide increased whitewater recreation opportunities. Whitewater recreation is an important and popular use of the White Salmon River and provides income for the local area.

#### **1.4 MANAGEMENT PLAN BACKGROUND**

The Condit Dam Project Description identified two requisite mitigation tasks related to public recreation and Northwestern Lake Park within Section 2.12, Other Mitigation Measures:

- Remove the existing boat dock at Northwestern Lake Park, and once the reservoir is drained, extend the boat launch to the river channel. In addition, there are four additional community docks owned by PacifiCorp Energy that will be removed prior to the deconstruction of the Condit dam. Specific information regarding the removal of PacifiCorp Energy-owned community docks will be cited in the bid package documents for the Condit dam deconstruction.
- Post additional signs and an interpretative display at Northwestern Lake Park. Additional signage information is cited below and in the Public Safety and Traffic Control Plan.

#### **1.5 REGULATORY AND OTHER REQUIREMENTS (SECTION TO BE COMPLETED UPON ISSUANCE OF DOCUMENTS)**

Clean Water Act Section 401 Certification

Clean Water Act Section 404 Permit

Federal Energy Regulatory Commission Surrender Order

#### **1.6 PLAN OBJECTIVES**

The Condit Dam Supplementary Environmental Impact Statement prepared by the State of Washington Department of Ecology (2007) states that the purpose of these tasks are to: “Provide post-dam public recreation and education opportunities to mitigate for loss of



aesthetic/scenic resources” (4.10.1). Research of other completed dam removal projects have confirmed the need to mitigate for the public sense of loss of scenic and aesthetic resources:

“One of the most consistent issues raised in discussions of dam removal is concern about the appearance of a drained reservoir after dam removal. Some of these concerns reflect personal preference — one person’s appreciation of still water views over a flowing river or vice versa. Other concerns may reflect a lack of understanding about how river systems - function....These concerns can be addressed by developing restoration options and public education efforts as part of the removal planning process (Lane, 2006).”

Additional task goals include ensuring public safety within and near park areas during the deconstruction and sediment removal process in conjunction with the Public Safety and Traffic Control Plan.

## **1.7 RELATIONSHIP WITH OTHER MANAGEMENT PLANS**

### **1.7.1 Project Removal Design Report**

The specific scope and impact of the project removal will have impacts on the overall direction and detail of recreation strategies – determining the amount and location of particular recreation elements. This also impacts the overall timeline and use of Northwestern Lake Park as a construction staging area.

### **1.7.2 Public Safety and Traffic Control Plan**

This task is related due to the need for interim signage during construction that will provide safe access to available areas and eliminate access to recreation areas that were previously accessible. In addition, the final location of warning and access signage is related to public safety and traffic for the ongoing and completed project.

## **2 RECREATION SITE MODIFICATIONS DURING REMOVAL**

### **2.1 SUMMARY**

Both prior to and during the transitional period of dam removal, a set of actions will be carried out to ensure public safety and the success of the decommissioning project. These actions include the removal of existing boat docks along the reservoir, partial closure of Powerhouse Road, site alterations and partial closure of Northwestern Park, and the removal and addition of area signage. All signage related to public safety should be coordinated with the Public Safety and Traffic Control Plan.

### **2.2 POWERHOUSE ROAD**

Powerhouse Road will be closed off near its juncture with the dam and the boat launch site to allow for deconstruction activities. It is recommended that Powerhouse Road be closed at or before its junction with the boat launch area in order to keep the public and passers-by away from potential hazards associated with the deconstruction site. A sign reading "Road Closed Ahead" should be posted approximately 100 to 200 feet prior to the road closure, with another sign at the road's new termination point. The content of the second sign should include "Road Closed Due To Construction" (or dam deconstruction) with explanatory text describing the deconstruction project. Adequate space should be provided at the termination point to enable cars and trucks to easily turn around. (Refer to Public Safety and Traffic Control Plan for specific language and location of signage.)

### **2.3 NORTHWESTERN PARK**

There are several components that should be removed from the park during deconstruction. Two signs located within Northwestern Park will be made obsolete by dam removal activities. The first is adjacent to the current boat launch site and includes a PacifiCorp Energy "Notice of Warning" and a posting of a "10 MPH Speed Limit" on the reservoir. This sign will be permanently removed as the posted information will no longer apply. The concrete boat launch will also be removed. This boat launch is used for motorized and flat water boats and will be obsolete after the dam is removed. The floating dock will also be removed. Post decommissioning appropriate signs will be placed in the park. Example 'mock-ups' of permanent signage incorporating concrete monoliths is shown on Figures A-1 and A-9 (Appendix A). (Refer to Section 6 of the Public Safety and Traffic Control Plan for specific language and location of signage during dam removal.)

#### **2.3.1 Access During Construction**

During decommissioning, public access to Northwestern Park will be minimal and only for boating takeout purposes. A temporary boat launch for white water rafts and kayaks may be installed in the park that extends to the new waterline, thus avoiding the need to install a new boat launch at a different site upstream from the park. The feasibility of installing the temporary boat launch is partially dependent upon river channel conditions and the amount of sediment that will need to be removed after the reservoir is drawn down, and the time

required to complete these activities (see Sediment Assessment, Stabilization, and Management Plan).

The road access to the park will be left open and Northwestern Park will be divided with a temporary fencing with gate, accessible to authorized personnel only (Figure A-5, Appendix A). The construction staging area at the park will remain fenced and gated until sediment removal efforts have been completed, and a new boat launch is installed. This option allows for Northwestern Park to remain partially accessible due to its roadway proximity and requirement to allow for boaters to safely exit the river prior to encountering the deconstruction site.

Warning signs will be placed at the park entry and within the park near the water's edge (see Public Safety and Traffic Control Plan for all signage related to public safety during decommissioning). The content of these signs will describe the dangers associated with the altered reservoir landscape after the drawdown, including the potential collapse of unstable slopes, ongoing deconstruction activities, and potentially dangerous debris that could be encountered. Signs will direct visitors to stay out of areas that are fenced off or currently closed. Additional text that briefly describes the efforts, goals, and outcomes of the project and a contact number for questions and potential concerns will also be supplied, given the park is closed or partially closed during deconstruction. Signage and/or barricades pertaining to deconstruction activities are further described in the Public Safety and Traffic Control Plan.

### **2.3.2 Access Post Construction**

It is expected that Northwestern Park will continue to function in much the same capacity after deconstruction efforts have been completed. If a new launch is not feasible at the park, a new location will be considered. The selection of a future, new, boat access point will be based on availability of a suitable location after construction activities cease. However, a new launch will not be considered until after the dam is removed, the sediment removal process is completed, and is shown to be needed. The purpose for the new boat launch is to provide both take out and launch capability for white water boats.

## **2.4 OTHER LOCATIONS**

Northwestern Lake has two public boat launching areas: one adjacent to the east end of the dam along Powerhouse Road and the other in Northwestern Park near the upstream end of the reservoir. The boat launch adjacent to the east end of the dam will be closed during and after the deconstruction of Condit dam. Two existing signs will be removed from this site at the beginning of deconstruction efforts: A "No Camping" sign and a "PacifiCorp Energy Notice of Warning" sign. The existing PacifiCorp Energy sign describes the hazards involved in fluctuating water levels associated with normal dam operation and thus will no longer be applicable. (Refer to Public Safety and Traffic Control Plan for specific language and location of signage.)

All existing boat docks along Northwestern Lake (which have been indicated on the project's current survey) will be noted and removed prior to the drawdown of the reservoir. Any

signage associated with these dock facilities should be removed as well. PacifiCorp Energy will contact dock owners and provide a two-month period to remove docks and signs. Any docks remaining will be removed, after the two-month period, by PacifiCorp Energy.

### 3 INTERPRETIVE AND RECREATIONAL STRATEGIES

The goals of the interpretive and recreational strategies strive to:

- Adapt to a changed environment by providing new recreational opportunities.
- Retain and highlight traces of the past rather than entirely remove them.
- Provide a transitional environment for the time between the removal of Condit dam and the establishment of the future riparian and upland environment.
- Engage visitors with the restorative processes occurring in the landscape.
- Reuse and adapt on-site structures and materials as much as possible. This effort will allow for the use of historical remnants, maximize deconstruction savings, and provide sustainable opportunities for new park construction.
- Provide cohesion between interpretive sites and elements.
- Adapt Northwestern Park to a changing environment and provide park upgrades.

#### 3.1 INTERPRETIVE THEMES

The proposed interpretive concepts focus on time and processes of landscape transformation, with attention to beneficial effects and regenerative processes that will occur both on-site and beyond the project boundaries. The overall conceptual framework for specific interpretation includes the following themes:

- Processes of landscape change: Accumulation and Dispersal. The Condit dam has acted as a landscape accumulative process (approximately 96 years) through the build up of concrete, reservoir water, and sediments. The removal of the dam initiates a dispersal process through the breaking apart of the concrete structure, the redistribution of river sediments, and the return of salmon and steelhead to areas upstream from the dam.
- Renewal: the return and recovery of anadromous fish species
- Restoration processes: wetland, riparian, and upland forest
- Energy production (electricity) and everyday energy use
- Transformative process of creating hydroelectric power
- Historic regional importance of the dam
- Off-site replacement energy for the dam (coal, natural gas, wind, etc.)

### **3.2 OVERALL INTERPRETIVE SITE LINKAGE**

The Condit Dam Project Description calls for the demolition of the dam through the blasting apart of the concrete structure into 4-foot by 6-foot by 10-foot blocks. Some of these monolithic blocks will be salvaged and can be reused for all signage kiosks and for benches adjacent to the kiosks (Figure A-2, Appendix A). Relatively indestructible, these monoliths will also serve as datum, or markers of change in the landscape. The nearly 100-year old concrete speaks of the history and multiple transformations that have occurred on the site.

All proposed interpretive elements are given cohesion and unity through the selective choice of similar recycled materials, and through similarity in styling and scale.

#### **3.2.1 Road Markers**

The concrete blocks can be combined with steel and wood elements recovered from the site to form roadway markers and signage to direct users to recreation area locations. As noted on Figure A-1 (Appendix A), the potential locations of these markers are at the entry to Northwestern Lake Park and the entry to the parking area for the Dam Overlook. Signs will adhere to standards similar to recreation areas in the region to avoid confusion (refer to Figure A-2 (Appendix A) for a typical sign mockup).

#### **3.2.2 Interpretive Kiosks and Benches**

The concrete monoliths can be combined with other steel and wood elements recovered from the site to form seating features and small overhead elements. Smaller concrete rubble will be recycled to form gabion structures used in a manner similar to the concrete monoliths. The added benefit of gabion structures is that they will transform over time as vegetation works its way through them. (Refer to Figure A-2 (Appendix A) for typical kiosk and bench mockups.)

#### **3.2.3 Park Features**

Not as directly interpretive in nature, the use of concrete remnants in the re-design of Northwestern Lake Park will connect the dam removal to the use of the park and surrounding areas as well as providing a range of readily accessible building materials. (Figures A-6 through A-8, Appendix A)

### **3.3 INTERPRETIVE SITES AND POTENTIAL NARRATIVES**

There are two main areas that will be the focus of interpretation for the overall site, Condit Dam Overlook and Northwestern Lake Park. In addition, dam remnants will be used in the re-design of Northwestern Lake Park and for roadside signage markers, as noted in Section 3.2 above.

#### **3.3.1 Condit Dam Overlook**

The dam site offers the opportunity to create an interpretive overlook into the drained reservoir. This will be the location of the most dramatic landscape transformation and offers



the potential for reuse of remnant dam infrastructure. (Refer to Figure A-3 (Appendix A) for location and concept plan layout; Figure A-4 (Appendix A) for additional information.)

Possible narratives for the interpretive kiosks may include:

- A marker of where the dam and the reservoir height used to be, and a future indicator of naturally fluctuating stream levels.
- A ready-made overlook (with some modifications). An ideal location from which to view the restorative process.
- A display of photographs from before or during construction of Condit dam, another photograph taken just before its decommissioning, and another photograph taken just after the reservoir drawdown. The photograph of the current reservoir and the photograph taken just after drawdown will be taken from the proposed location of the kiosk site to allow for comparison to the landscape's ever-evolving state. This display allows visitors to see the transformations that have occurred in the landscape in the past and present.
- Collection and display of various objects recovered in the former reservoir, including remnants such as parts of the original coffer dam, the concrete truck that accidentally fell into the reservoir, and mysterious other items that have yet to be discovered.
- A display of images illustrating how the river and upland areas will gradually form a riparian and upland forest over time. The images would include information about plant associations, such as wetland, riparian, and upland forest.
- Discussion of replacement energy challenges. With the decommissioning of Condit dam, the power that the dam produced will need to be generated by other sources (such as wind, coal, solar, natural gas, etc.) in another, as yet undefined off-site landscape. Growing energy usage in the Northwest adds to the complexity of this issue.
  - i. Discuss other sources of power generation and potential environmental tradeoffs.
- Connect people to the site by linking power source (dam infrastructure) to output uses associated with lifestyles and the home environment.
  - i. Demonstrate power required to run household items, such as large screen televisions, microwaves, dish washers, etc. These elements could also be included along the flowline trail (see overall linkage).
- Illustrate the process of how hydroelectric power was generated at the site.
- Potential new fishing area/access.
  - i. Bull Trout and other fish identification images.

### **3.3.2 Northwestern Lake Park**

The drawdown of the White Salmon River water level will extend the eastern edge of the park that borders the river and offers the opportunity for interpretive signage related to the revegetation efforts that will occur here. The restoration in this particular area will be significant and easily accessible due to the relatively flat terrain.

After the dam is removed, water craft will largely be confined to inflatable rafts, canoes, and kayaks, thus eliminating the need to provide access for flat-water or engine-powered boats.

Therefore, the concrete boat ramp will no longer be needed and will be removed. Park improvements will include a shallow, semi-circular boat launch and exit area that extends to the new waterline, surfaced with river pebbles or gravel. The new boat launch area may be encircled by concrete benches and interpretive elements (Figures A-6 through A-8, Appendix A).

The interpretive design for Northwestern Lake Park may make use of concrete monoliths for seating and delineation of areas such as vehicle access and fishing platforms. Specific informational interpretation will be minimal and limited to restoration efforts.

Interpretive design narratives:

- Reveal the return of salmon for the first time since 1913 (approximately 96 years) and efforts that have gone into ensuring their survival. Kiosk signage would detail this story.
- Incorporate Bull Trout identification signs.

## **4 NORTHWESTERN LAKE PARK IMPROVEMENTS**

### **4.1 SUMMARY**

As noted in Section 2.3.1, Northwestern Lake Park is expected to remain partially open as a boater take-out during dam removal operations. The final use of the park is undetermined at this point, but will likely contain a mix of water-based recreational opportunities as well as picnic use (Figures A-6 through A-8, Appendix A). Phase I will include the preliminary implementation to allow for boater take-out as well as access to construction staging. Phase II identifies full future park improvements based on the assumptions that the park will continue to be used for boater take-out and launch, picnic, and water-based recreation uses, and that such improvements can be completed within the decommissioning cost cap as identified in the Condit Settlement Agreement.

### **4.2 PRELIMINARY IMPROVEMENTS (PHASE I)**

Due to the expected combined use of the park for construction staging and boater take-out, a preliminary plan has been provided that will address Phase I improvements to occur concurrent with construction activities. This section outlines the scope of these improvements. (Refer to Figure A-5 (Appendix A) for base plan and additional information on extent of concept.)

#### **4.2.1 Boater Take-out and Trail**

Due to the drawdown and additional distance from developed park zone to new water edge, a small, shallow water cove will be provided to allow for safe boater take-out from upstream locations.

#### **4.2.2 Designated Parking for Boater Shuttle Cars**

The area currently used for parking and roadway will be configured for temporary parking of boater shuttle cars. Due to reduction in day-use activities, the current area should be sufficient to accommodate the amount of use predicted during normal usage periods.

#### **4.2.3 Signage for Traffic Management**

The park will likely continue to be used for boater take-out and will need to allow safe access to the parts that are open for public use. Areas to be used for construction staging will be completely fenced along the entire width of the park and have a gate at the primary access point to control access to restricted areas to authorized personnel only. (Refer to Public Safety and Traffic Control Plan for additional information.)

#### **4.2.4 Fenced Construction/Staging Area**

The exact configuration of the construction staging area is currently undetermined and will be up to the Contractor. The installation and signage of fencing will be coordinated with the Public Safety and Traffic Control Plan as well as improvements to the remainder of the park. Contractor will be responsible for Best Management Practices (BMPs) to prevent erosion and

damage to existing areas. Areas within driplines of existing trees to remain shall be protected with temporary tree protection fencing to avoid compaction and damage during construction. Upon completion of construction activities, fencing will be removed, and the area will be prepped for any future park improvements.

### **4.3 POST-CONSTRUCTION IMPROVEMENTS (PHASE II)**

The final use of the park is undetermined at this point, but will likely contain a mix of water-based recreational opportunities as well as picnic use. The boater take-out point in Phase II may remain and be designed as a permanent feature. Another location along the river may be designated as more appropriate for this use, changing the nature of Northwestern Lake Park.

Upon completion of the construction activities, Phase II will be considered based on a final determination of use. This may include the interpretive features and the new boat launch area proposed, as well several improvement options for Northwestern Park that have been proposed (Figures A-6 through A-8, Appendix A) and includes the following items.

#### **4.3.1 Upgrade and Improve Existing Changing Rooms**

The two existing structures on-site show signs of wear and tear. There are changing rooms at the eastern end of the site with two porta-potties placed outside. The condition of the changing rooms should be assessed and verified. As it is anticipated that the park will potentially experience more white water usage after the dam removal, having both changing rooms and restrooms at this facility would be useful site amenities. Existing structures could be demolished and replaced upon renovation of the park. The future replacement should include a CXT double vault ADA accessible Unisex facility that can double as toilet and changing room.

#### **4.3.2 Maintain Vehicular Circulation**

General roadway circulation within the park works well and does not require modification. Some edges of the roadway are not clearly defined and could benefit from enhanced demarcation of the edges of the road to encourage site users to keep vehicles limited to roadways and parking areas. The steeper portions of the existing entry circle are currently surfaced in asphalt paving, with the remaining portion surfaced with gravel. If park usage dramatically increases after the Condit dam has been removed (due to increased white water opportunities, for example), the entire entry circle may need to be paved.

#### **4.3.3 Demarcating Parking Areas**

Currently, parking areas lack clear definition or edges, often blending into planted areas and leading to the compaction of soil around existing trees. The existing parking areas could be made more efficient to provide for more parking spaces within the same amount of space. The aerial photograph taken of the site shows that several vehicles were parked along the northern edge of the park adjacent to the main access road. This area is currently a grass-covered surface. Depending on post-dam site usage, this location could be resurfaced as a secondary parking area should the need arise.

#### **4.3.4 Enhance Park Understory Plantings**

The majority of the park is characterized by large coniferous tree cover with relatively bare ground underneath. A few isolated plants (Mahonia spp. – Oregon grape) occur near the base of some of these trees. Additional planting of pockets of small shrubs and groundcover would help to guide visitor circulation through the park and add more definition to the different picnic areas—creating the feeling of smaller scaled rooms, rather than a completely open, undefined space. Native, low growing shrubs (less than 3 feet in height) can be planted to assure that overall visibility in the park is maintained and to minimize maintenance and irrigation requirements (some irrigation will be required for these plantings). The revegetation of these areas will generate continuity with the revegetation efforts occurring on the extended bank area along the White Salmon River.

#### **4.3.5 Furnishings**

Picnic Tables. There appears to be an adequate number of picnic tables currently placed within the park. The arrangement of these tables may need to be modified and new tables may need to be added to the park after deconstruction activities are complete, depending upon future conditions and future park use.

Enclosures for Trash Receptacles. In the summer months, several dumpsters are placed on site for trash disposal. Enclosures could be designed for the dumpsters to enhance their appearance. Additional smaller trash receptacles could be placed closer to picnic areas to assist park users in properly disposing of their trash.

Barbeque/Fire Pit Maintenance. Several of the barbeque pits have been bent or damaged and would benefit from repair or replacement.

#### **4.3.6 Park Signage**

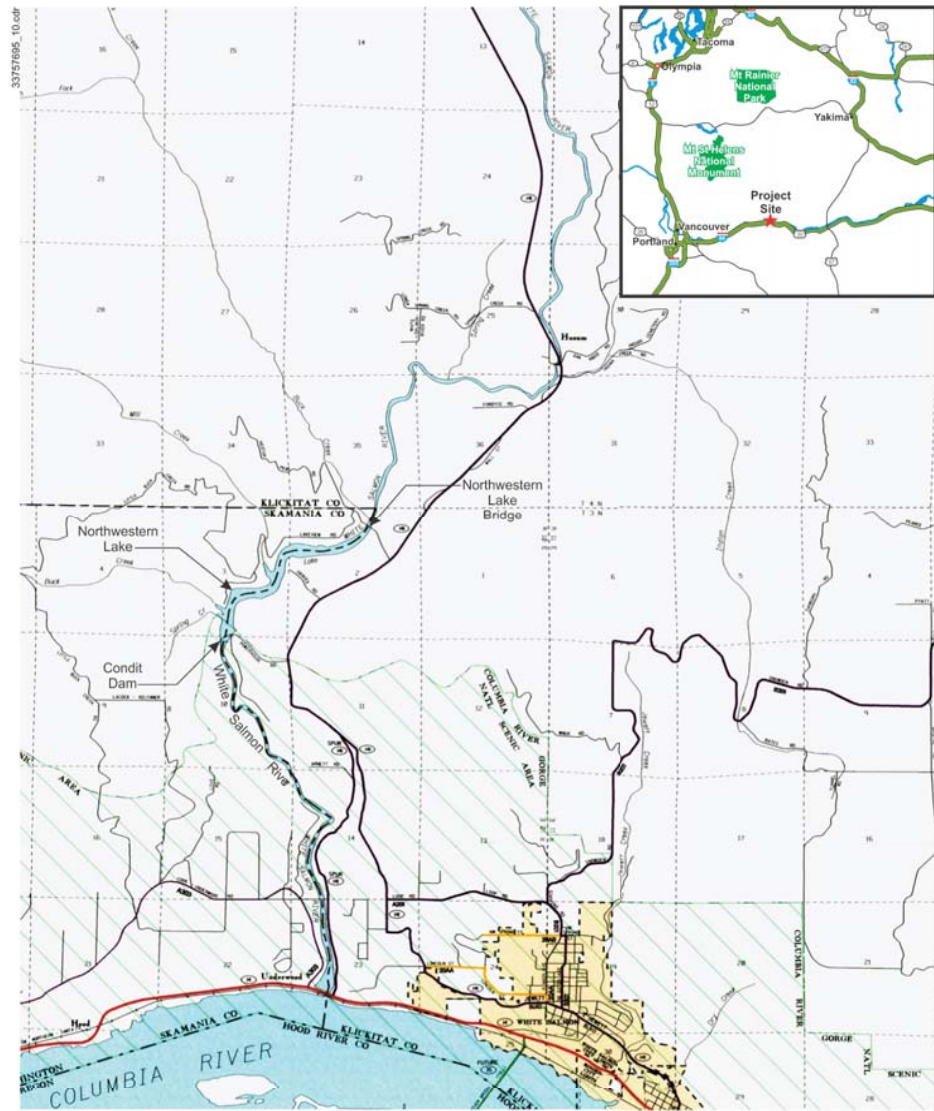
All existing wood signs for the park should be removed and updated. The wood signs will be replaced by new concrete signs consisting of reclaimed 4-foot by 6-foot by 10-foot concrete slabs from the dam removal that would match the overall interpretive concrete elements incorporated into the new park improvements (Refer to Figure A-2 (Appendix A) for interpretive signage examples and Figure A-9 (Appendix A) for a mockup of the proposed park entry sign.).

The content of park signage will be updated to reflect current conditions. The entry sign to the park currently states “Northwestern Lake Resort - Boat Ramp.” This text will be changed to state “Northwestern Park - White Salmon River Access.” Similarly, the Northwestern Park sign located on Route 141 reads “Northwestern Lake Resort.” This language should be altered to read “Northwestern Park – White Salmon River Access” (Refer to Figure A-9 (Appendix A) for a mockup of the proposed park entry sign.).

## 5 REFERENCES

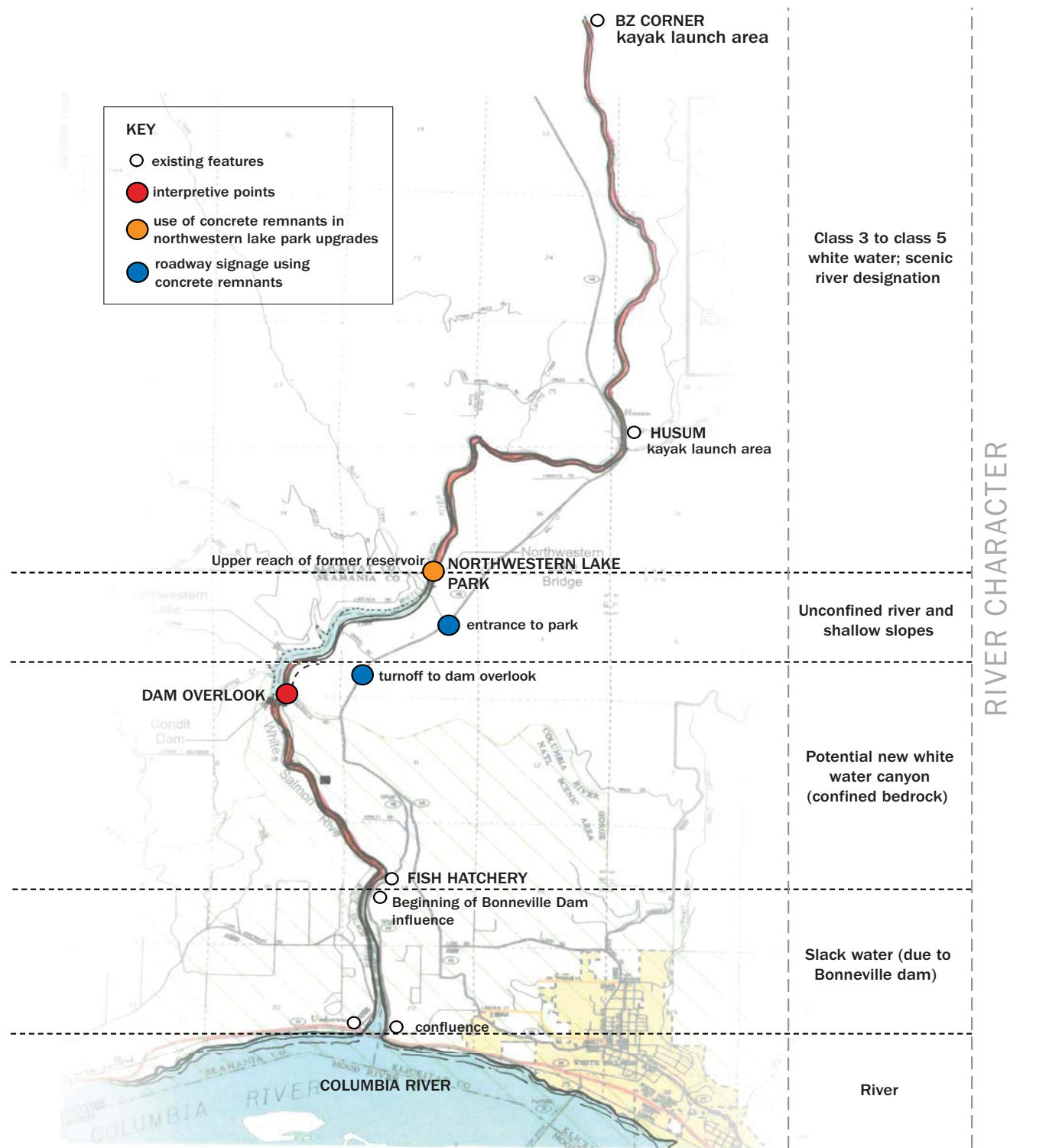
- Federal Energy Regulatory Commission, 2002. Final Supplemental Final Environmental Impact Statement - Condit Hydroelectric Project, Washington (FERC Project No. 2342).
- Lane, Nic, 2006. Dam removal: Issues, Considerations, Controversies. The Library of Congress Congressional Research Service.
- National Marine Fisheries Service, 2006. Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Consultation. Interim Operation, Decommissioning, and Removal of the Condit Hydroelectric Project FERC No. 2342, Skamania and Klickitat Counties, Washington. NMFS Log Number: 2002/00977, US Government Printing Office. Washington, D.C., October.
- R. W. Beck, 1998. Condit Hydroelectric Project Removal, Summary Report Engineering Considerations.
- Washington State Department of Ecology, 2007. Condit Dam Removal Final SEPA Supplemental Environmental Impact Statement. Ecology Publication # 07-06-012.
- Washington State Department of Ecology, 2004. Stormwater Management Manual for Eastern Washington. Ecology Publication # 04-10-0.





Job No. 33757695 **URS** Figure 1-1 **Location Map**  
 Condit Dam Removal Project  
 White Salmon, Washington

① CONDIT DAM SITE AND CONTEXT MAP

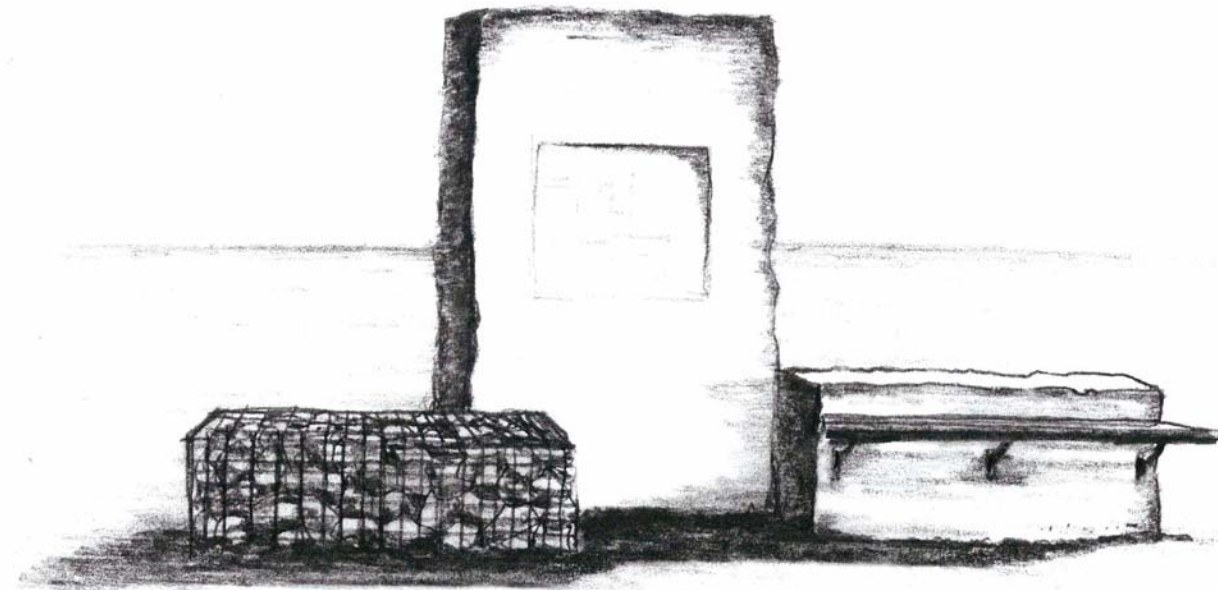


Job No. 33757695 **URS** Figure 1-2 **CONDIT DAM CONTEXT MAP WITH POST DAM WATER CONDITIONS AND POTENTIAL INTERPRETIVE POINTS**

	<p><b>90% PRELIMINARY: NOT FOR CONSTRUCTION</b> 2-01-09</p>		<p>CONDIT DAM DECOMMISSIONING RECREATION FACILITY REMOVAL AND IMPROVEMENTS RECREATION &amp; INTERPRETIVE LOCATIONS A - 1</p>		
			<p>SCALE: NTS SHEET REV.</p>	<p>CAD No: PROJ# 1148075 ERM DATE ENG DR</p>	

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# Linkage Element: Interpretive Monuments

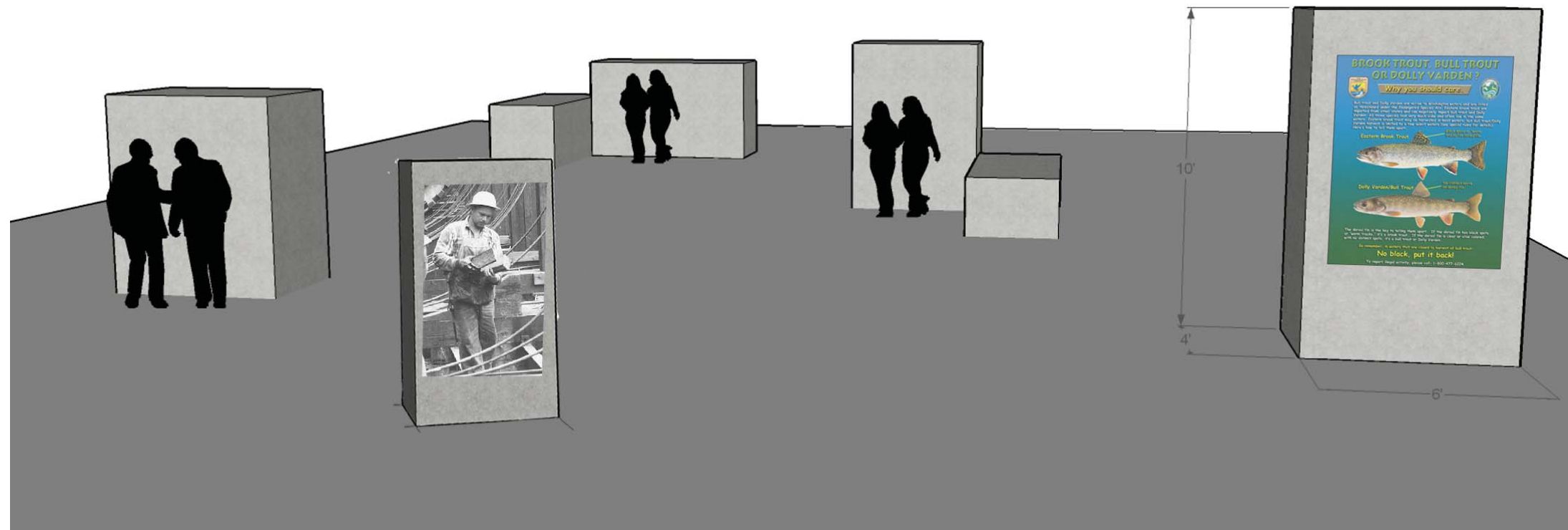


① ELEVATION: RECYCLED CONCRETE MONOLITH AND CONCRETE GABION

Condit dam will be dismantled in concrete blocks approximately 4' x 6' x 10'. These blocks provide an opportunity to link interpretive and recreational features on all proposed sites. The nearly 100 year-old blocks provide a free (nearly), relatively indestructible, moldable element that can be used for roadway signage, interpretive kiosks and benches. The concrete can be molded and adapted as necessary, and serves as a dated reminder of the history of Condit Dam. Concrete rubble could also be used to form stylized gabion features. Reuse of these elements reduces burial requirements at the dam disposal site.



② SAMPLE: RECYCLED CONCRETE

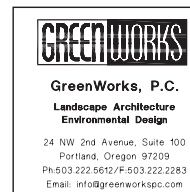


③ CONCRETE MONOLITH INTERPRETIVE AREA WITH HISTORIC IMAGES

\*See sheet L 6.4 for Northwestern Park and other signage design\*



90% PRELIMINARY:  
NOT FOR CONSTRUCTION  
2-04-09

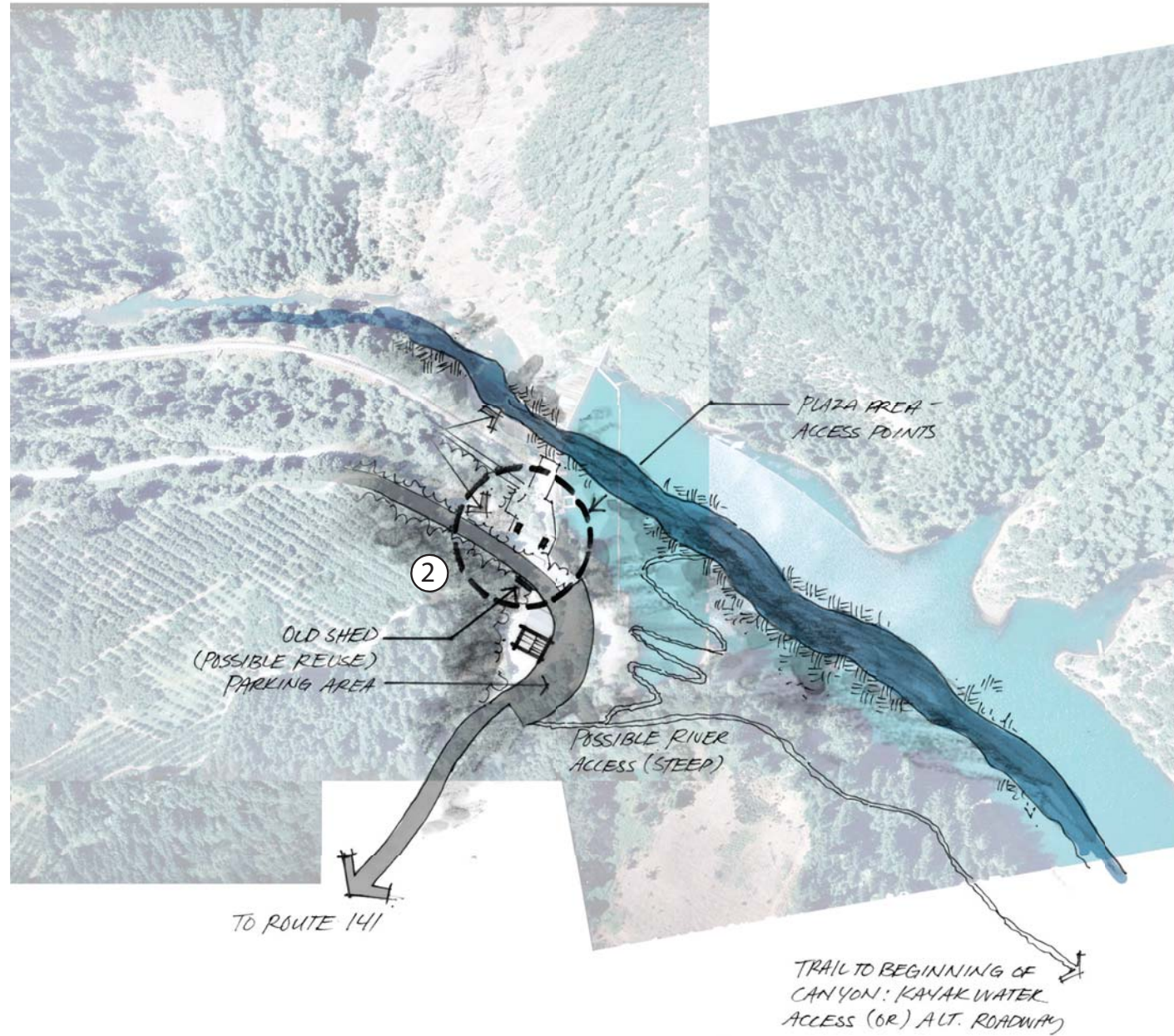


CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS  
INTERPRETIVE THEME & CONTINUITY  
A - 2  
PACIFICORP ENERGY  
A DIVISION OF PACIFICORP

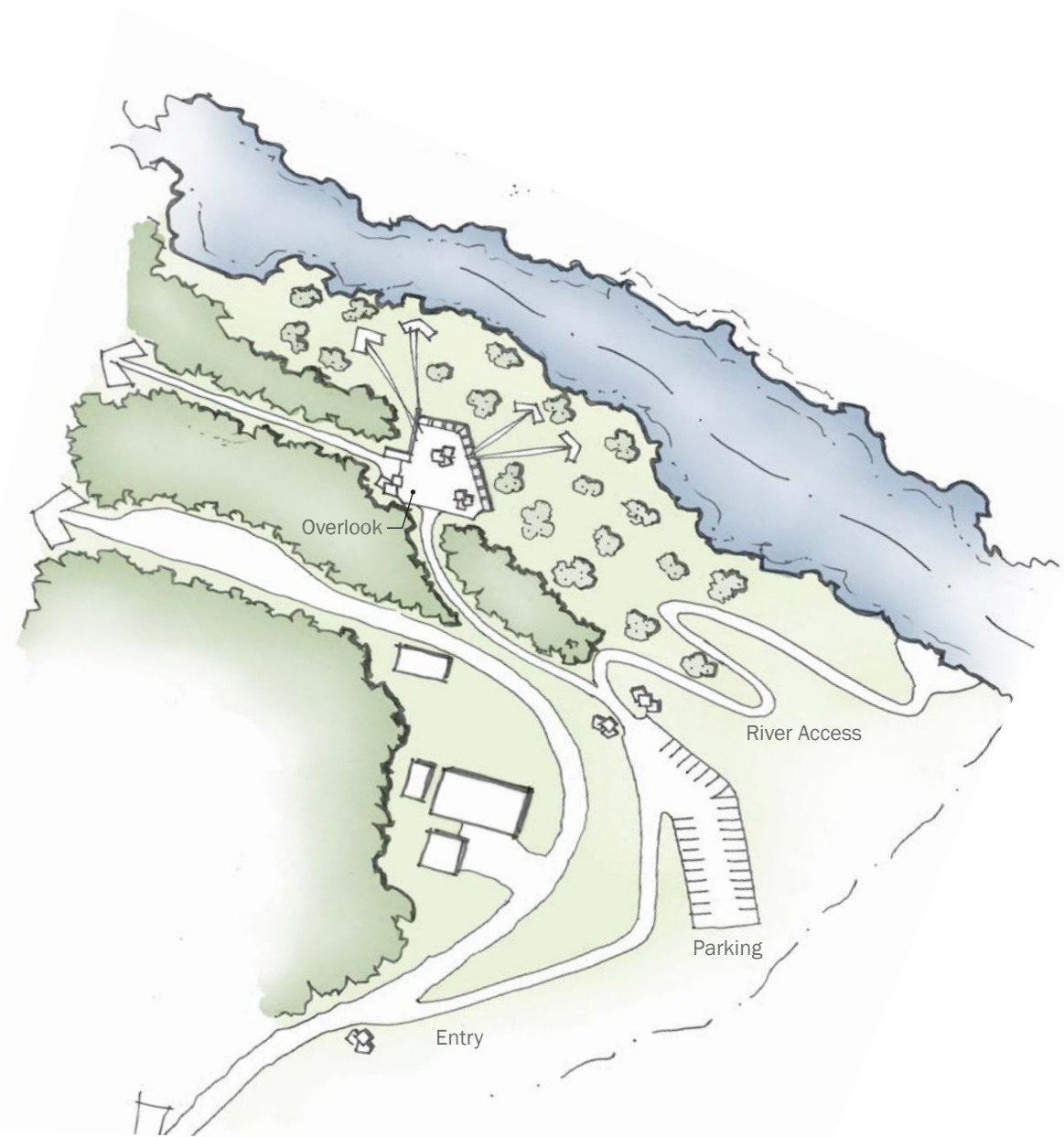
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① PLAN: DAM OVERLOOK AREA



② PLAN: DAM OVERLOOK DETAIL

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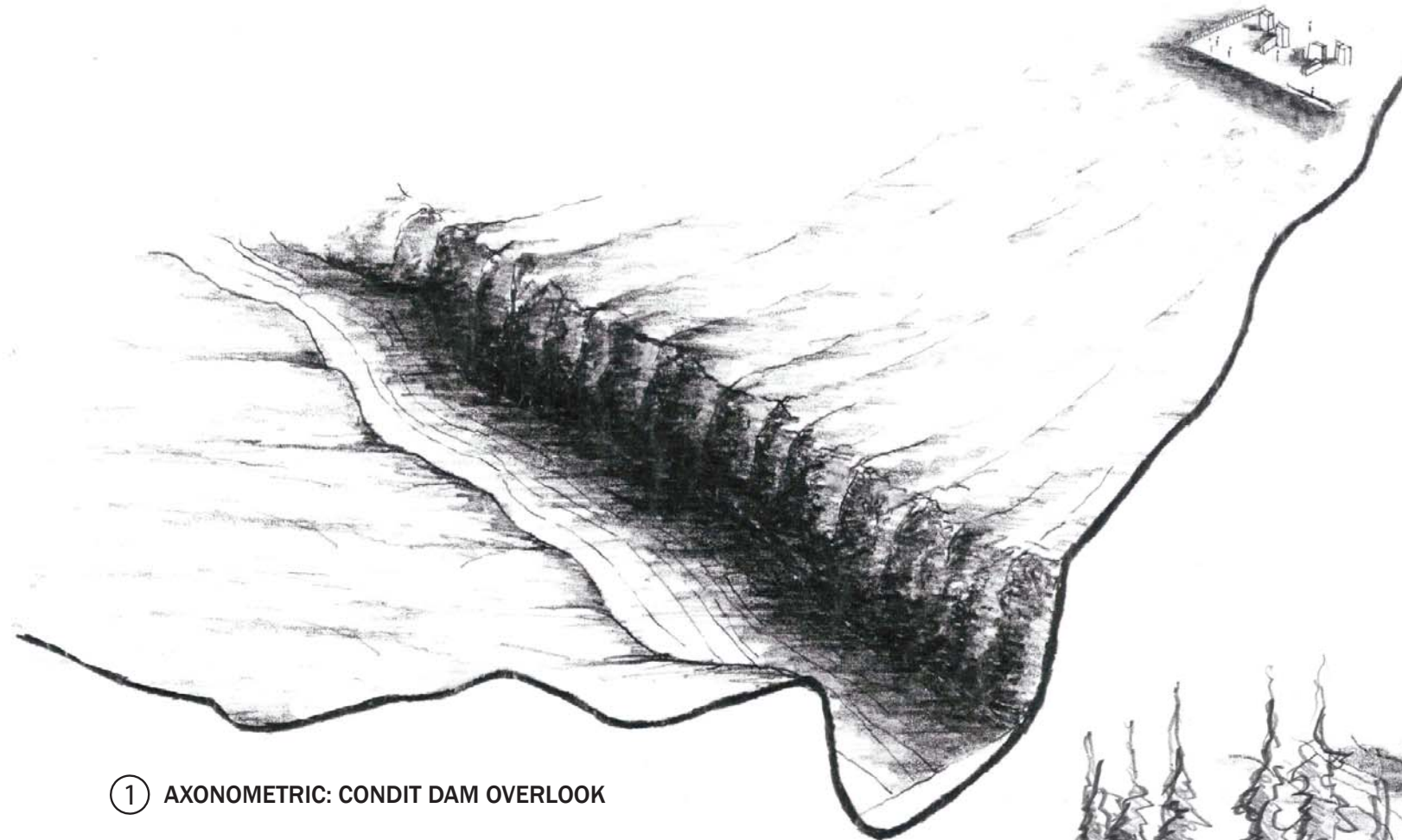
**CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS**

**CONDIT DAM OVERLOOK CONCEPT**  
A - 3

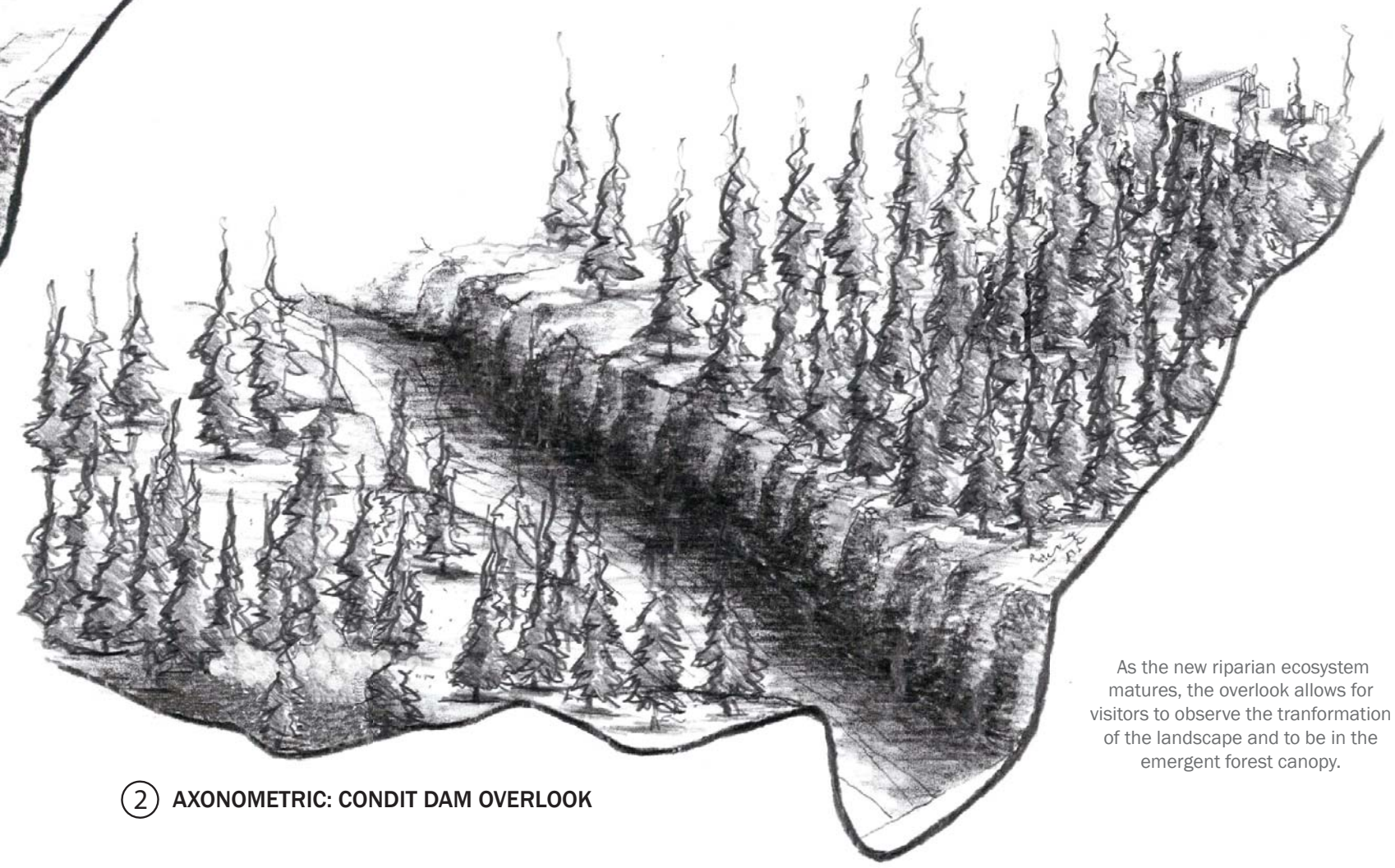
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① AXONOMETRIC: CONDIT DAM OVERLOOK



② AXONOMETRIC: CONDIT DAM OVERLOOK

As the new riparian ecosystem matures, the overlook allows for visitors to observe the tranformation of the landscape and to be in the emergent forest canopy.

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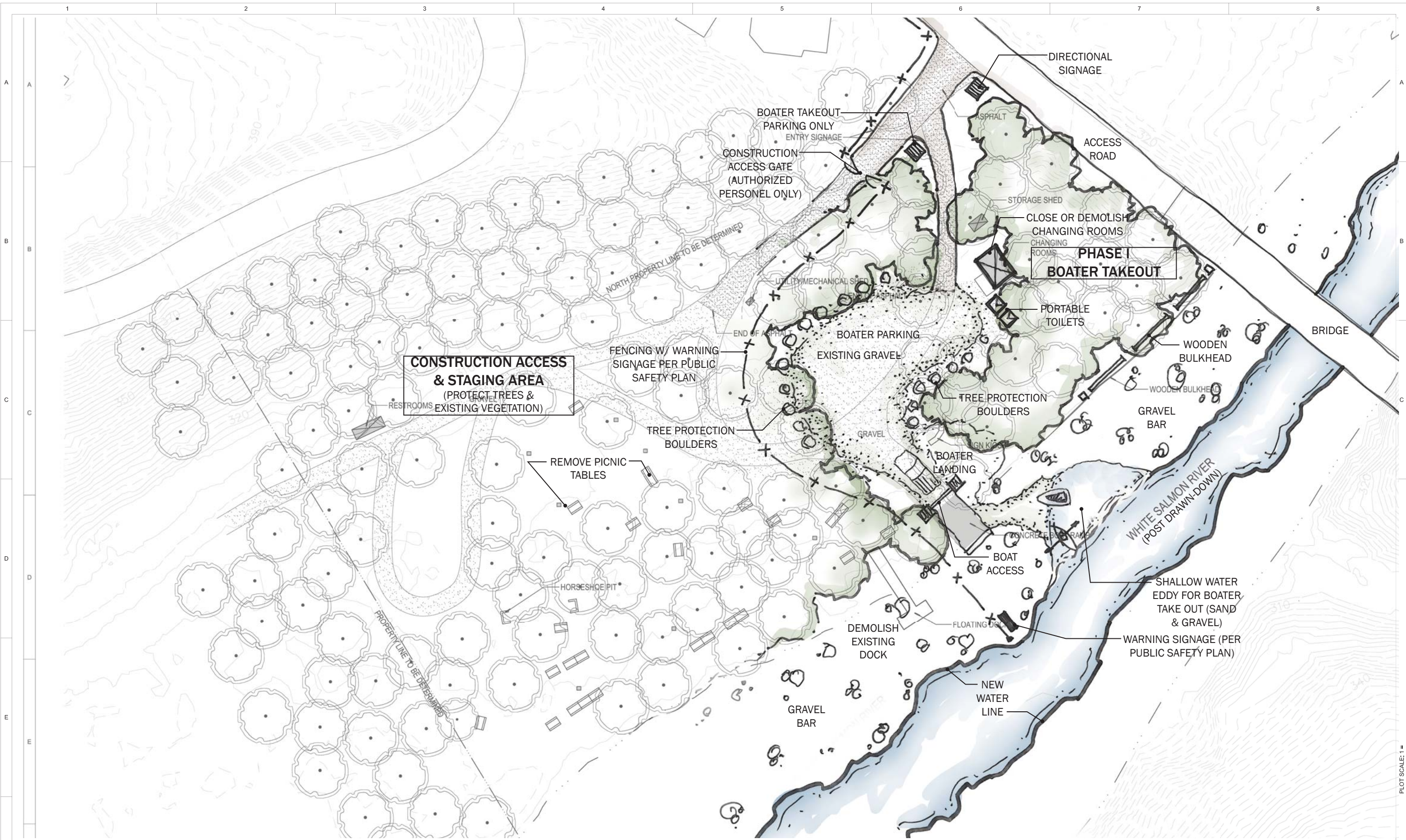
**CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS**

**CONDIT DAM OVERLOOK CONCEPT  
A - 4**

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SCALE: NTS      SHEET      REV.





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2-01-09



**CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS  
NORTHWESTERN PARK IMPROVEMENTS: PHASE I  
A - 5**

SCALE: NTS SHEET REV.

PLOT SCALE: 1" =





1 Location for potential secondary parking area north of the main park access road should additional parking be required.



2 Restrooms at the west end of the park. Potential improvements to structure and signage.



3 Current picnic areas with limited understory vegetation.



4 Entry signage that will require modification.



5 Changing rooms near park entrance. Potential improvements to structure and signage.



6 Existing wooden bulkhead (to be removed).



7 Existing parking area with indistinct boundaries.



90% PRELIMINARY:  
NOT FOR CONSTRUCTION  
2-04-09

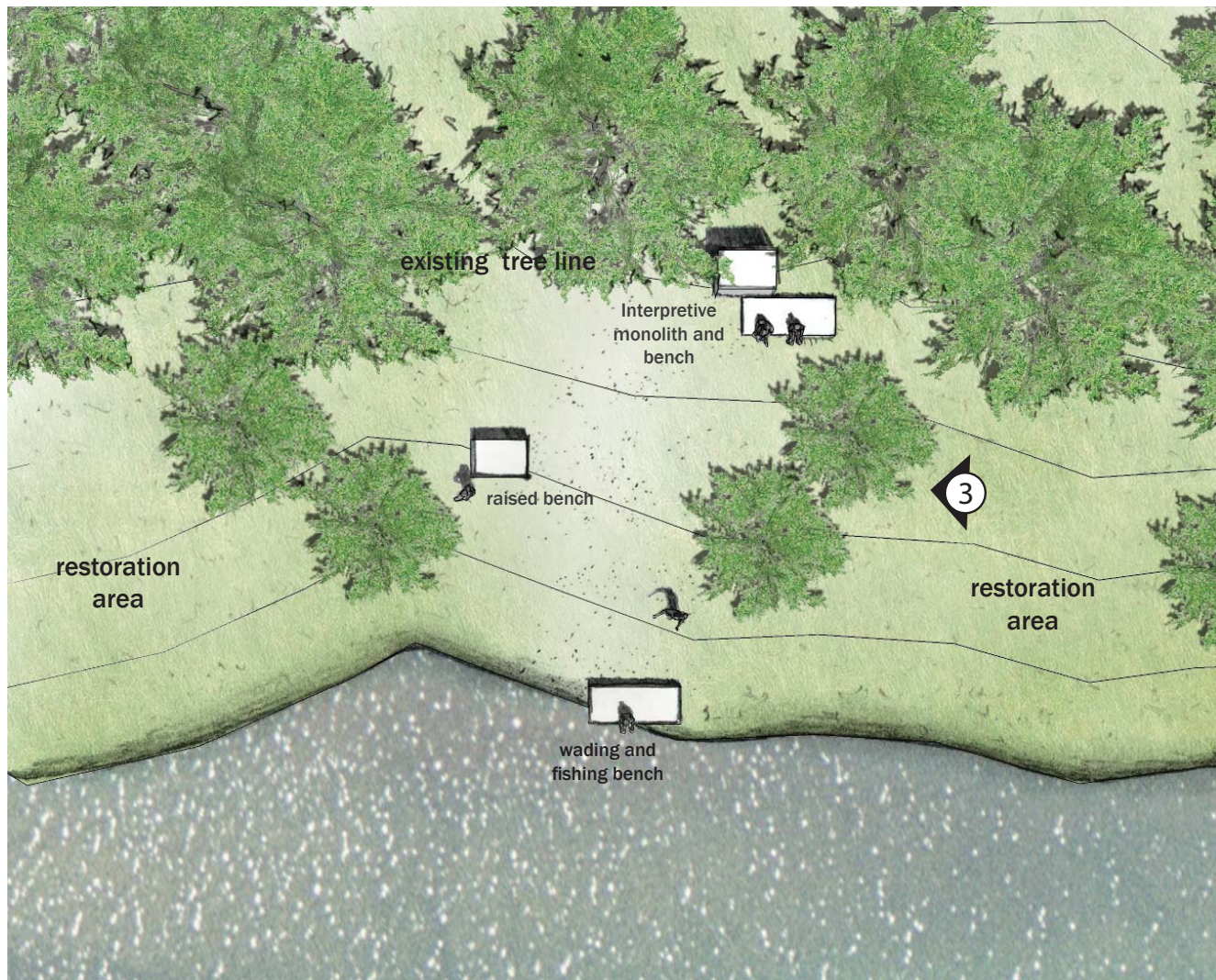
**GreenWorks**  
GreenWorks, P.C.  
Landscape Architecture  
Environmental Design  
24 NW 2nd Avenue, Suite 100  
Portland, Oregon 97209  
Ph: 503.222.5612 / F: 503.222.2283  
Email: info@greenworkspc.com

**CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS  
NORTHWESTERN PARK IMPROVEMENTS: PHASE II  
A - 6**

**PACIFICORP ENERGY**  
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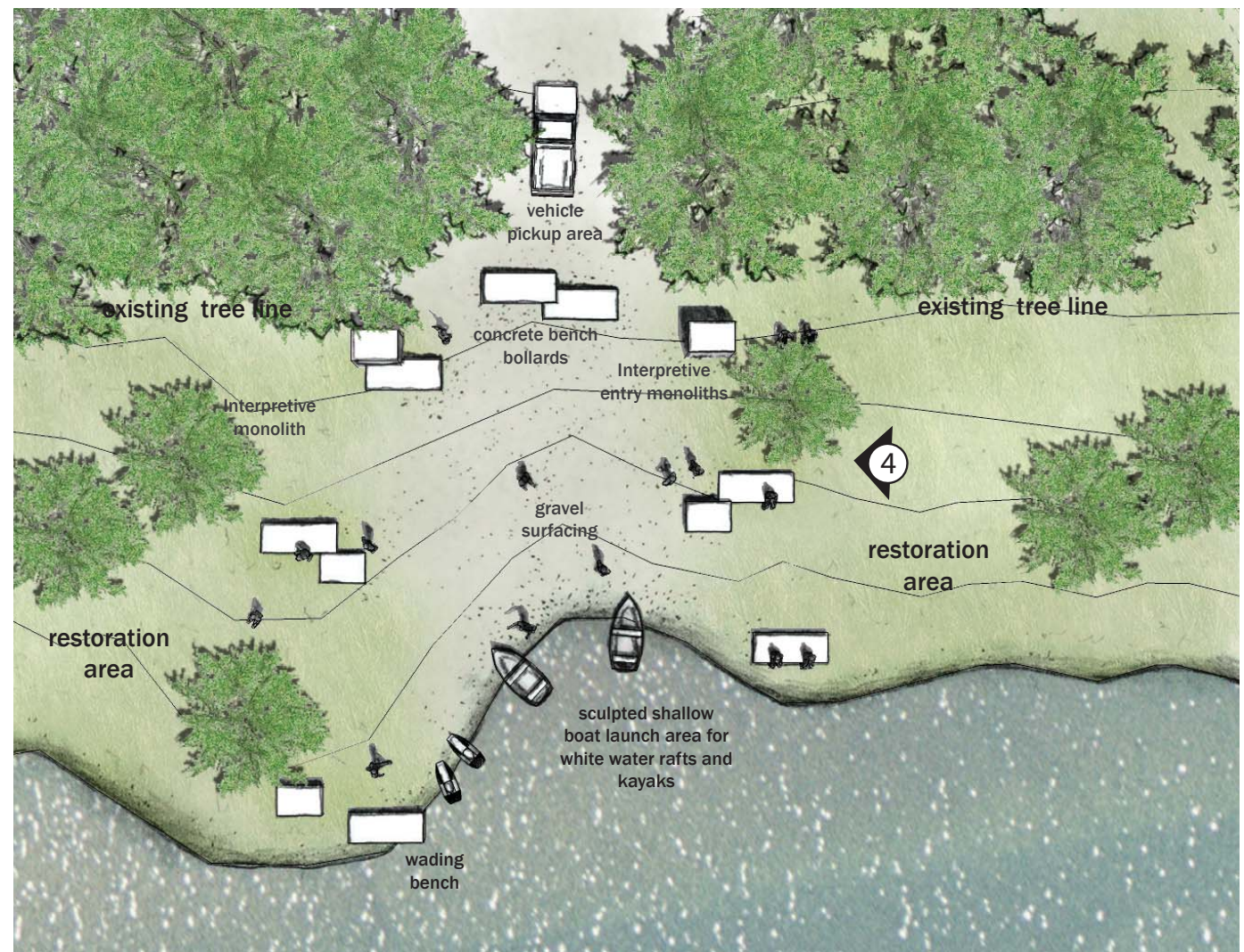


1 PLAN: SECONDARY WATER ACCESS



3 PERSPECTIVE: SECONDARY WATER ACCESS

In these preliminary scenarios, the new shoreline is expected to extend outward approximately 50', with a 5'-6' drop in elevation. The exact depth and location of the future shoreline cannot be fully determined until after dam removal. Minor modifications in the placement of concrete elements will be made based on eventual site conditions.



↑  
anticipated  
change in  
shore line  
↓

2 PLAN: PRIMARY WATER ACCESS



4 PERSPECTIVE: PRIMARY WATER ACCESS



90% PRELIMINARY:  
NOT FOR CONSTRUCTION  
2-01-09



CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS  
NORTHWESTERN PARK WATER ACCESS: PHASE II  
A - 7

**PACIFICORP ENERGY**  
A DIVISION OF PACIFICORP

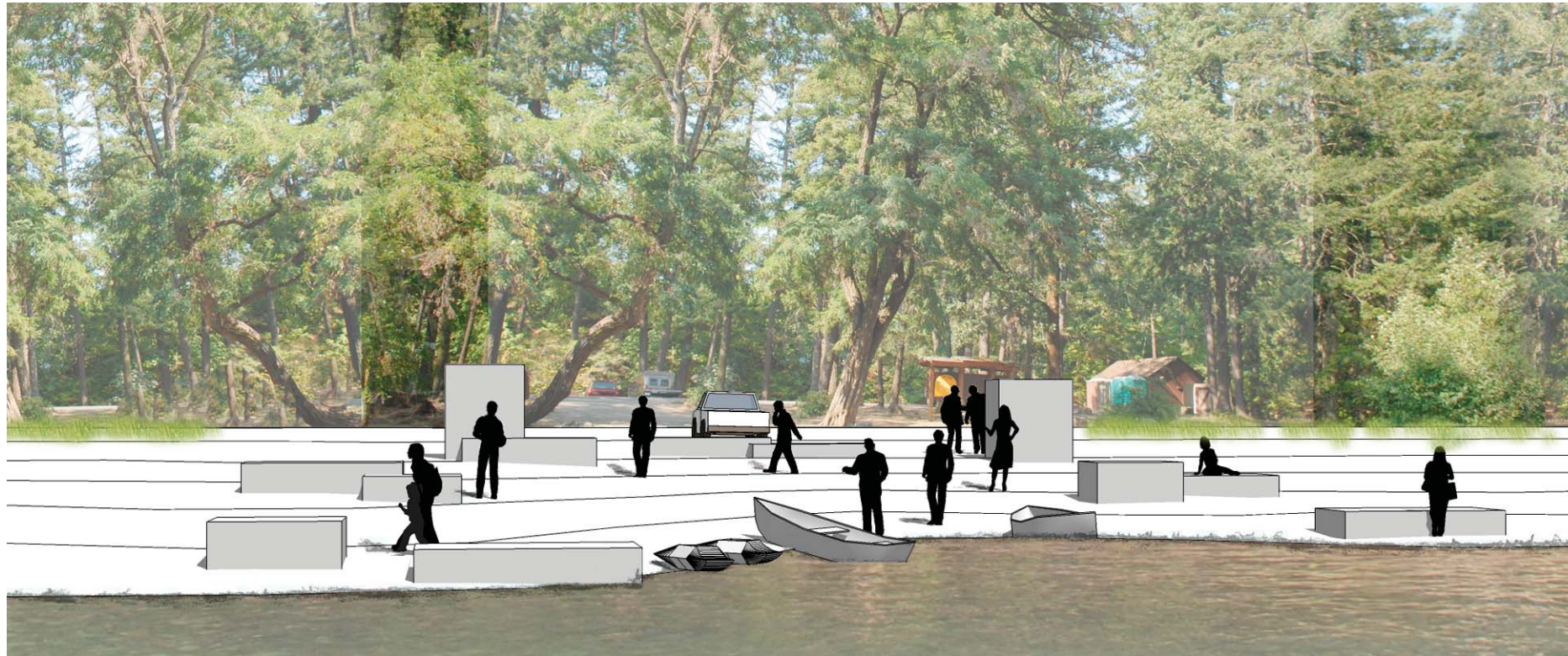
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APPROVAL





① PERSPECTIVE: BOAT LAUNCH AREA AND NEW BANK

The concrete remnants from the dam mark the changed river shoreline as well as providing seating and interpretive features. Over time the remnants recede into the restored landscape



② AUTOMOBILE BARRIER OPTIONS: CONCRETE BENCH OR BOLLARD

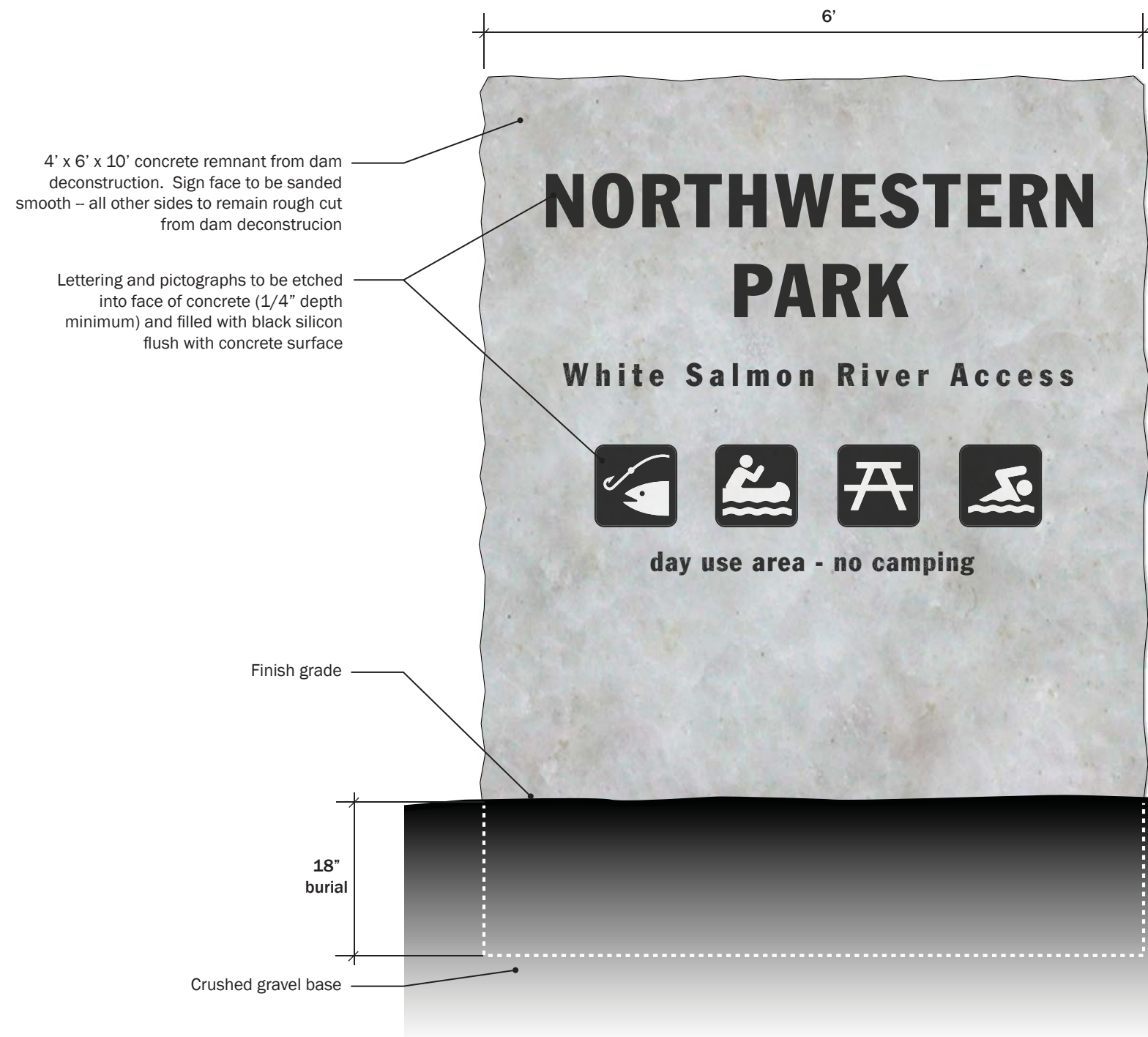


③ PERSPECTIVE: BOAT LAUNCH AREA AND NEW BANK 1-2 YEARS AFTER INITIAL REVEGETATION

	<p><b>90% PRELIMINARY: NOT FOR CONSTRUCTION</b> 2-04-09</p>		<p>CONDIT DAM DECOMMISSIONING RECREATION FACILITY REMOVAL AND IMPROVEMENTS NORTHWESTERN PARK BOAT ACCESS: PHASE II A - 8</p>		<p>SCALE: NTS SHEET REV.</p>
<p>CAD No: PROJ# 116076</p>			<p>PLLOT SCALE: 1 =</p>		<p>APPROVAL</p>

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The recycled concrete signs proposed for Norhtwestern Park (and all benches and interpretive kiosks) are vandal resistant. The concrete monolith is extremely sturdy and the engraved, flush lettering is not prone to theft. The consistent use of the concrete blocks connects the park with all interpretive elements and trails proposed for the project.

① ELEVATION: PROPOSED PARK SIGNAGE



90% PRELIMINARY:  
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2-01-09



CONDIT DAM DECOMMISSIONING  
RECREATION FACILITY REMOVAL AND IMPROVEMENTS  
NORTHWESTERN PARK SIGNAGE  
A - 9

**PACIFICORP ENERGY**  
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