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Portland, Oregon 97232

March 30, 2007

***VIA ELECTRONIC FILING  
AND OVERNIGHT DELIVERY***

Washington Utilities and Transportation Commission  
1300 S. Evergreen Park Drive SW  
PO Box 47250  
Olympia, WA 98504-7250

Attention: Carole Washburn  
Executive Secretary

Re: Docket No. UE-07\_\_\_\_  
In the Matter of the Petition for Accounting Order Regarding Closure of the  
Powerdale Hydro Generation Plant

PacifiCorp hereby submits for filing an Accounting Order regarding Closure of the Powerdale Hydro Generation Plant. In addition to PacifiCorp's Petition are Exhibits 1-5. A signed original letter, application and two (2) copies will be provided via overnight delivery.

It is respectfully requested that all formal correspondence and Staff requests regarding this material be addressed to:

By E-Mail (preferred): [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)

By regular mail: Data Request Response Center  
PacifiCorp  
825 NE Multnomah, Suite 2000  
Portland, Oregon, 97232

By fax: (503) 813-6060

Informal questions should be directed to Shay LaBray at (503)-813-6176.

Sincerely,

Andrea L. Kelly  
Vice President, Regulation

Enclosure





**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of the Petition of

PACIFICORP

for Accounting Order Regarding  
Closure of the Powerdale Hydroelectric  
Generation Plant.

DOCKET NO. UE-07\_\_\_\_\_

**PETITION OF PACIFICORP**

**FOR ACCOUNTING ORDER**

**I. INTRODUCTION**

On November 7, 2006, the 6-MW Powerdale hydroelectric generation facility (the "Powerdale Plant"), operated by PacifiCorp d/b/a Pacific Power and Light Company ("PacifiCorp" or the "Company") and located on the Hood River in Oregon, sustained severe damage by flooding and debris flow. Exhibit 1 to this Petition contains photographs showing the extent and severity of the damage. The Powerdale Plant is interconnected to the PacifiCorp electric grid and has been included in Washington customer rates since PacifiCorp's first Washington general rate case following commencement of service. PacifiCorp has analyzed the relative cost-effectiveness of repairing the flood damage to the Powerdale Plant now or retiring the plant before its current decommissioning date of April 1, 2010. PacifiCorp's economic analysis demonstrates that early retirement is the most cost-effective option. This Petition seeks authorization for accounting treatment of these costs, reserving any issues associated with the amortization period and rate treatment for these amounts for a future proceeding.

1. PacifiCorp is an electrical company and a public service company in the state of Washington under RCW 80.04.010 and is subject to the jurisdiction of the Washington Utilities and Transportation Commission ("Commission") with respect to its retail rates, service and



accounting practices. PacifiCorp's principal place of business is 825 N.E. Multnomah, Portland, Oregon 97232. PacifiCorp serves approximately 127,000 customers in Washington. PacifiCorp also provides retail electricity service in the states of California, Idaho, Oregon, Utah, and Wyoming.

2. This Petition is filed pursuant to RCW 80.01.040(3), which authorizes the Commission to regulate in the public interest the rates, service, facilities, and practices of electrical companies; RCW 80.04.090, which authorizes the Commission to prescribe the forms of account to be kept by public service companies; and WAC 480-100-203, pertaining to the accounting requirements applicable to electric utilities in the state of Washington.

## II. NOTICE

3. Communications regarding this Petition should be addressed to:

PacifiCorp Washington Dockets Pacific Power 825 NE Multnomah, Suite 2000 Portland, OR 97232 Telephone: (503) 813-6711 Email: <a href="mailto:washingtondockets@pacificcorp.com">washingtondockets@pacificcorp.com</a>	Natalie Hocken Vice President and General Counsel Pacific Power 825 NE Multnomah, Suite 2000 Portland, OR 97232 Telephone: (503) 813-7205 Email: <a href="mailto:natalie.hocken@pacificcorp.com">natalie.hocken@pacificcorp.com</a>
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In addition, PacifiCorp respectfully requests that all data requests regarding this matter be addressed to:

By email (preferred)	<a href="mailto:datarequest@pacificcorp.com">datarequest@pacificcorp.com</a>
By regular mail	Data Request Response Center PacifiCorp 825 NE Multnomah, Suite 2000 Portland, OR 97232
By facsimile	(503) 813-6060

Any informal inquires may be directed to Shayleah LaBray, Washington Regulatory Affairs Manager, at (503) 813-6176.

### III. BACKGROUND

4. Pursuant to WAC 480-07-370(b), PacifiCorp petitions the Commission for an order authorizing the Company to record its undepreciated investment in the Powerdale Plant, approximately \$8.9 million upon the transfer of this balance from Federal Energy Regulatory Commission ("FERC") Account 101, "Electric Plant in Service," to FERC Account 182.2, "Unrecovered Plant and Regulatory Study Costs." The actual amount moved to Account 182.2 will be the Powerdale undepreciated net book value on the date of the transfer. Additionally, PacifiCorp seeks an accounting order permitting it to record approximately \$6.3 million of decommissioning costs to FERC Account 182.2 with provision for final true up for final actual expenditure. The Company requests amortization of these costs over a suitable amortization period to be established in a future rate proceeding.

5. The Powerdale Plant is located in north central Oregon on the Hood River, south of its confluence with the Columbia River, in Hood River County. Constructed in 1922 and 1923, the major components of the plant include a small diversion dam and reservoir (with less than five acre-ft of storage capacity), a three-mile-long water conveyance system, and a single-unit 6,000 kW powerhouse. Additional components include five vertical traveling fish screens located at the intake structure of the conveyance system at the west abutment of the dam and a 19-pool fish ladder located at the east abutment of the dam.

6. PacifiCorp initiated the relicensing process for the Powerdale Plant in 1995. On February 27, 1998, PacifiCorp filed an application with FERC for a new license to continue operating the project. In December 2001, FERC released an Environmental Assessment ("EA") discussing the effects of the project. On February 1, 2002, PacifiCorp filed a Motion to Abey License Proceedings with FERC, after reaching the conclusion that operation of the project under

terms and conditions set forth in the EA would be uneconomical. PacifiCorp released a draft decommissioning plan in July 2002.

7. In 2003, PacifiCorp filed with FERC a settlement agreement among PacifiCorp and many other parties addressing the interim operation and decommissioning of the Powerdale Plant. In November 2005, FERC adopted this settlement agreement and issued a Removal Order for the Powerdale plant, which: (1) amended the project's annual license to permit continued generation and incorporate proposed protection, mitigation and enhancement ("PM&E") measures for a period lasting until April 1, 2010; (2) required PacifiCorp to cease generation of power at Powerdale on April 1, 2010; (3) provided for the removal of the project and implementation of associated PM&E measures by February 29, 2012; and, (4) dismissed the application for relicensure. Copies of the Removal Order and the Settlement Agreement Concerning the Interim Operation and Decommissioning of the Powerdale Hydroelectric Project (the "Settlement Agreement") are provided as Exhibit 2.

8. Pursuant to the FERC Removal Order, the Company formulated a plan to commence decommissioning of the Powerdale Plant in April 2010. Section 5 of the Settlement Agreement approved in the Removal Order, however, addressed the possibility that a catastrophic event could render continued operation of the plant uneconomic before April 2010. The November 7, 2006 flood meets the definition of catastrophic event. Under Section 5, entitled "Early Cessation of Generation; Early Decommissioning" upon the occurrence of a catastrophic event, PacifiCorp may cease generating power with notice to the parties and necessary FERC approvals. Such a decision limits PacifiCorp's interim operation responsibilities under the Removal Order and permits PacifiCorp to commence decommissioning prior to April 2010. On February 1, 2007, the Company sent its letter to the FERC describing the flooding event,

requesting to cease generation immediately and affirming that PacifiCorp will defer consideration of beginning formal decommissioning activities prior to April 2010 until it has consulted with the settlement parties identified in Exhibit 2 Part 2. On February 8, 2007, the FERC issued an approval letter stating, "In light of the reasons stated in your letter, your request to cease generation at the Powerdale Project is granted." Copies of the Company's February 1 letter to the FERC and the FERC February 8 approval letter are provided as Exhibit 3.

9. As shown in Exhibit 1, the Powerdale Plant sustained considerable damage during the November 7, 2006 flood, including failure of the ten-foot diameter flowline in two locations and flooding of the powerhouse, switch yard, and garage/shop area. As a result of the flooding, the river channel shifted substantially, isolating the tailrace from the river channel. The tailrace channel cannot be effectively dredged as the elevation of the river channel is now higher than the tailrace elevation due to significant sediment deposition in the river.

10. PacifiCorp has and will continue to incur project stabilization costs and replacement power costs associated with the flooding of the Powerdale Plant, neither of which are covered by this Petition.

#### **IV. ANALYSIS**

11. PacifiCorp conducted an economic analysis to determine whether to repair and operate the plant until 2010 or retire it now. This analysis is based on a comparison of the total costs required to retire the Powerdale Plant versus total costs to repair and operate it. The analysis demonstrates that retirement produces an overall lower cost-to-customers alternative than repairing and returning to operation. The difference is approximately \$1.611 million. Because the retirement option results in the lowest long-term cost to customers, PacifiCorp intends to retire the plant now.

PacifiCorp compared the following two options:

1. Repair/Operation ("Option 1"): Repair and reconstruct the Powerdale Plant and operate it until decommissioning in April 2010 according to the terms of the FERC Removal Order. This analysis assumed that the total capital cost to repair the plant was approximately \$3.7 million; that an additional \$20,000 O&M cost would be incurred for tailrace dredging; that the plant would operate from July 2007 to April 2010 and produce 5,426 MWh in 2007, 16,189 MWh in 2008 and 2009 and 9,231 MWh in 2010.
2. Retirement ("Option 2"): Stabilize the flooded area for public safety, keep the plant shut down until final decommissioning while providing the foregone power from other sources. This analysis assumed a \$69,000 saving in O&M cost relative to Option 1 and replacement power priced according to the September 30, 2006 Company Official Market Price Projection.

12. For each option, PacifiCorp calculated the present value of the revenue requirement ("PVRR") of the option over the period until the planned decommissioning in April 2010. Analyses of both options included assumed receipt by the Company of the maximum estimated property insurance payment of approximately \$745,000. The difference between the present values of these two PVRR streams (the "PVRR(d)") established the option with the lowest long-term cost to customers.

13. The results of this analysis are summarized in Exhibit 4 which shows that the PVRR of Option 1 is approximately \$4.046 million and of Option 2 is \$2.435 million producing the PVRR(d) favorable to Option 2 of \$1.611 million stated above. The cost assumptions upon

which this analysis is based, as well as other Powerdale Plant costs, are detailed in Exhibit 5. Exhibit 5 details assumptions based on total plant costs.

14. PacifiCorp's Petition proposes retirement of the Powerdale Plant based upon the outcome of its cost-effectiveness analysis. PacifiCorp's decision to retire the plant could potentially impair the Powerdale Plant physical and intangible assets in accordance with FAS 90, "Regulated Enterprises-Accounting for Abandonments and Disallowances of Plant Costs," as a result of the project no longer being used and useful. This accounting treatment will require PacifiCorp to write-off its undepreciated plant investment in the absence of the requested accounting order from the Commission.

#### **V. REQUESTED RELIEF**

15. PacifiCorp seeks an accounting order permitting it to record approximately \$6.3 million of decommissioning costs to FERC Account 182.2 with provision for final true up for final actual expenditures. This amount costs represents PacifiCorp's current best estimate of the costs of complying with FERC's Removal Order in light of the Powerdale Plant flood.

16. The net book value of the tangible and intangible Powerdale Plant assets at December 31, 2006 equals approximately \$8.9 million. The actual amount transferred to FERC Account 182.2 will be the remaining undepreciated net book value as of the date of the transfer. Absent Commission authority, the Company would need to recognize these costs as a current period expense.

If this application is approved as submitted by the Company, Powerdale decommissioning costs will be accounted for as follows (all dollar figures are approximate):

- An additional liability of approximately \$6.3 million will be recognized on the Company's books reflecting the Company's best estimate of the total costs to be

incurred in complying with FERC's Removal Order in light of the Powerdale Plant flood.

- The \$6.3 million expense associated with the recognition of the liability will be deferred as a regulatory asset in FERC account 182.2, rather than being recognized as a current period expense.
- As decommissioning occurs, the costs will be accounted for as a reduction in cash and a corresponding offsetting reduction in the decommissioning liability.

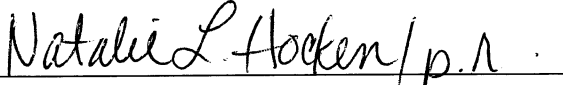
17. The Company requests that the costs described in this Petition be amortized in rates over a suitable time period to be determined in a future rate proceeding. A three-year amortization period appears suitable in light of the Company's plan to decommission the plant beginning in April 2010, but the amortization period can be determined in a future proceeding.

18. Under the West Control Area allocation methodology ("WCA Methodology"), as proposed by the Company in Docket UE-061546 (which allocates costs to Washington customers based on the costs and resources serving the Company's west control area), the Washington-allocated share of the undepreciated investment in the Powerdale Plant is approximately \$2.0 million. The Washington-allocated share of the Powerdale Plant decommissioning costs under the WCA Methodology is approximately \$1.4 million. Using the Revised Protocol allocation methodology, the Washington-allocated share of the undepreciated investment in the Powerdale Plant is approximately \$0.9 million. The Washington-allocated share of the Powerdale Plant decommissioning costs under the Revised Protocol allocation methodology is approximately \$500,000. These Washington share estimates are calculated based on conditions as of the Company's current Washington General Rate Case filing (Docket No. UE-061546) and will change over time as allocation factors change.

WHEREFORE, PacifiCorp respectfully requests that the Commission issue the requested accounting order approving the accounting treatment described in this Petition of costs related to the catastrophic flooding of the Company's Powerdale Plant.

DATED: March 30, 2007

Respectfully submitted,

  
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Natalie L. Hocken, WSB #26258  
Vice President and General Counsel  
Pacific Power





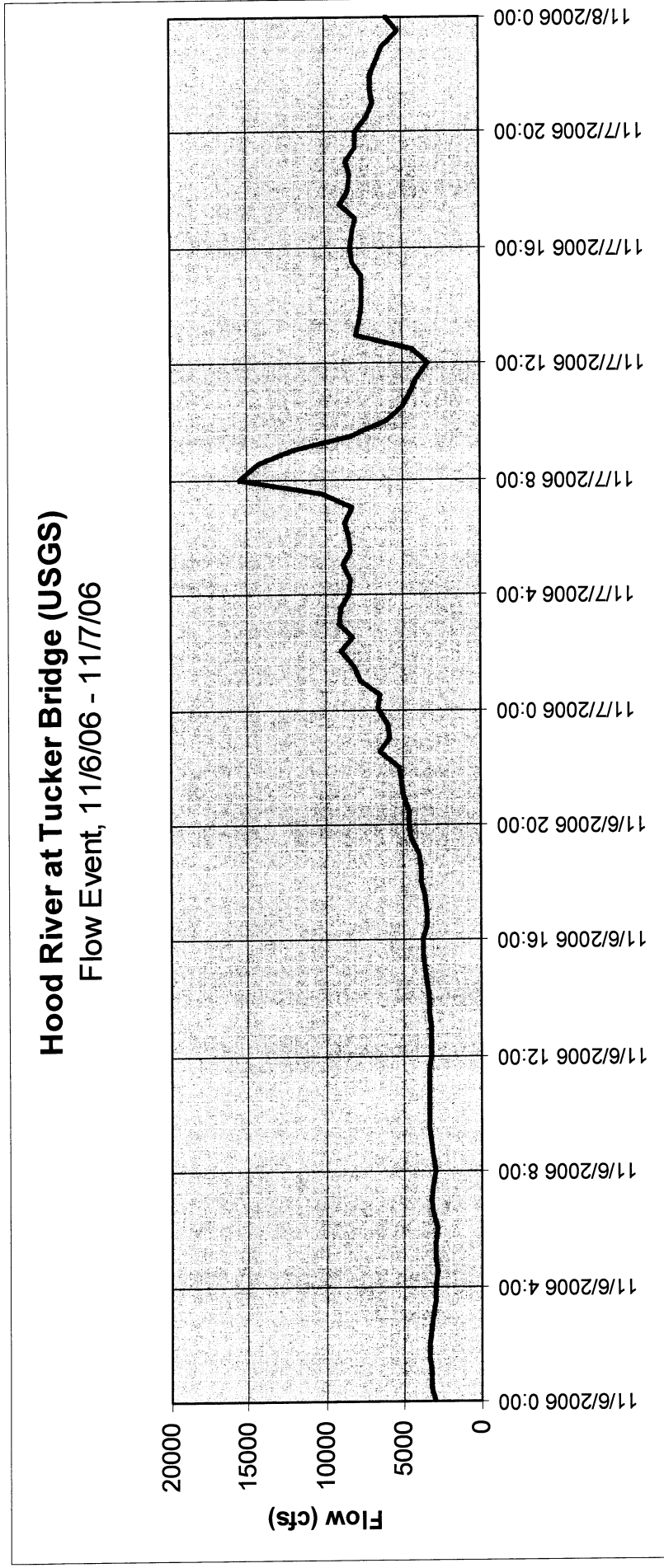
# **EXHIBIT 1**

## **POWERDALE DAMAGE ASSESSMENT**

# Powerdale Damage Assessment

November 14, 2006

## 2 - Powerdale Flood Damage 11/9/2006



Based on Provisional Data. Gaging equipment suffered some malfunction during this event so hydrograph likely does not resemble rising limb. USGS is in the process of reconstructing this event.



Entrance to  
fish ladder

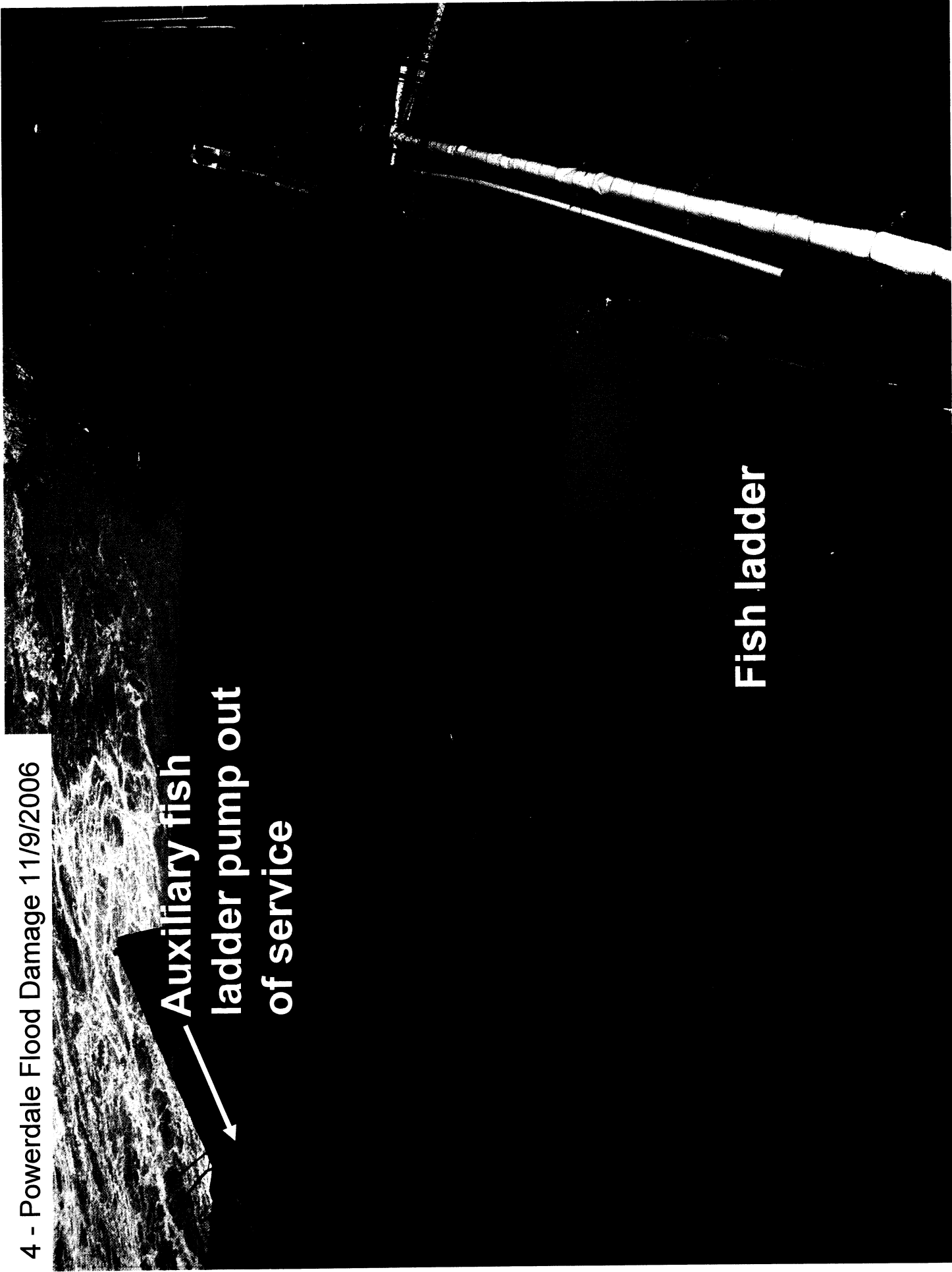
Sorting facility  
fish return pipes

Silt at fish ladder

4 - Powerdale Flood Damage 11/9/2006

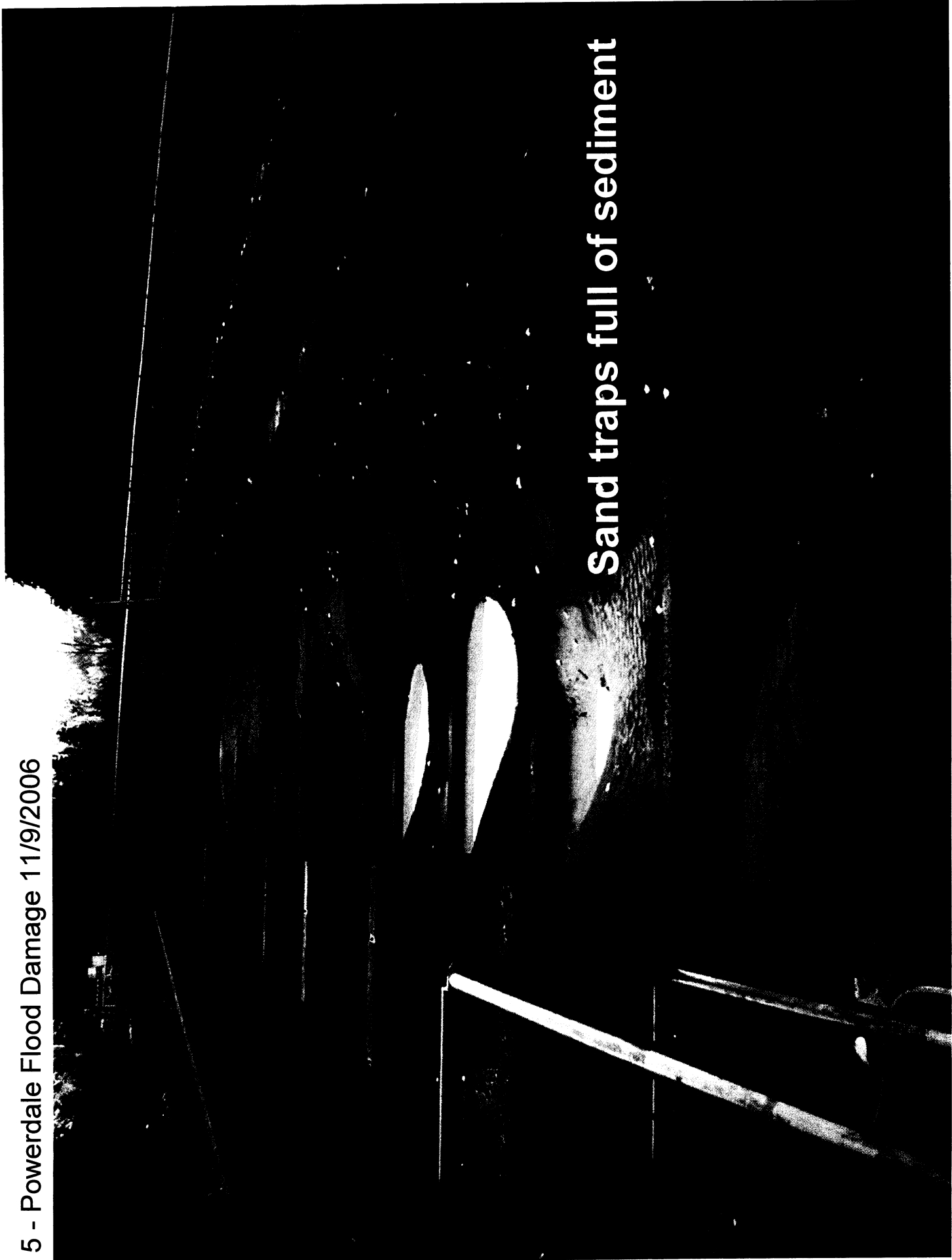
Auxiliary fish  
ladder pump out  
of service

Fish ladder



5 - Powerdale Flood Damage 11/9/2006

Sand traps full of sediment



6 - Powerdale Flood Damage 11/9/2006



**Collapsed 10' dia. wood stave  
flowline - 490'**



7 - Powerdale Flood Damage 11/9/2006

**Foundation washed 1/4 mile downriver**

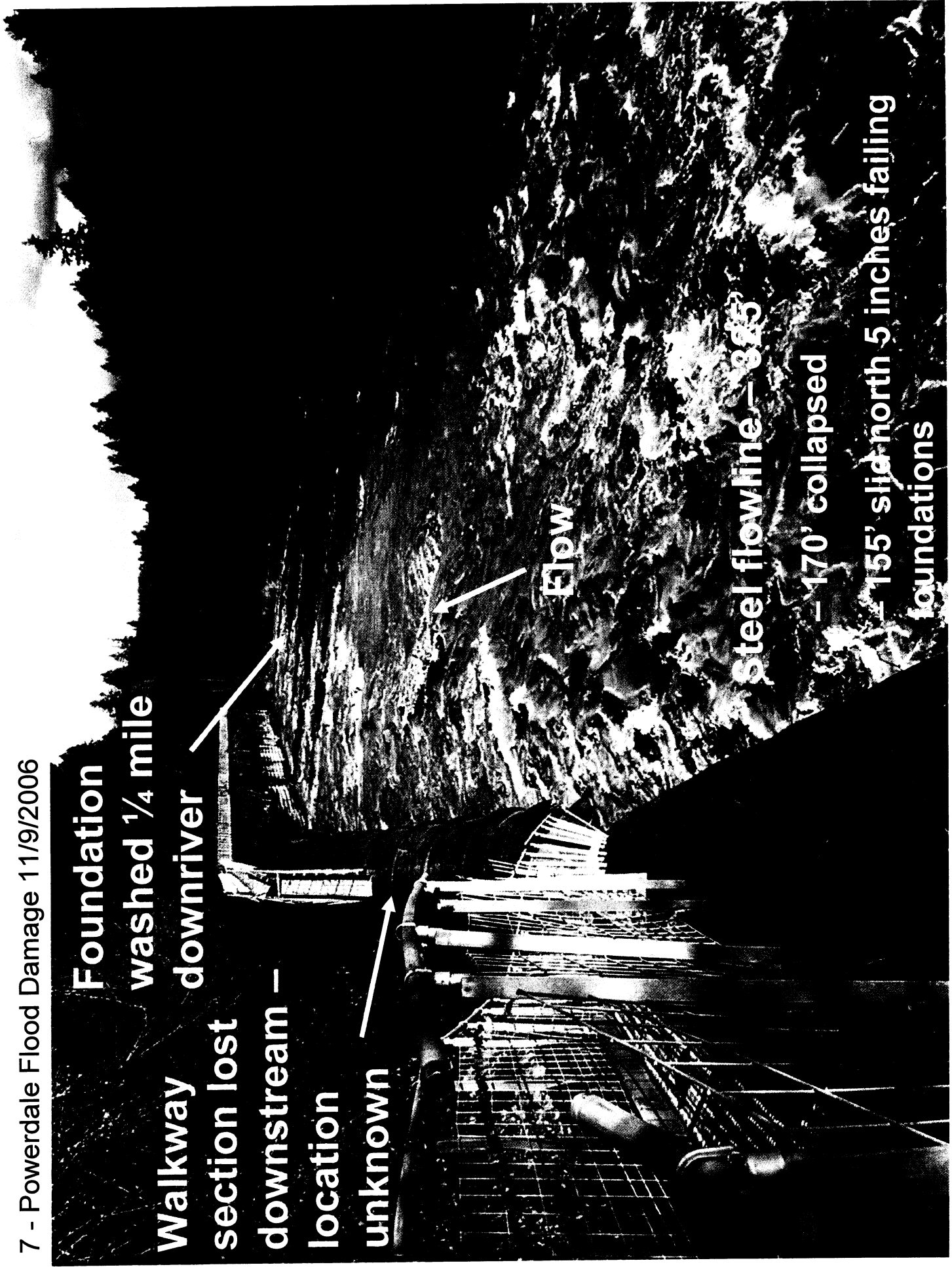
**Walkway section lost downstream - location unknown**

**Flow**

**Steel flowline - 3 ft**

**- 170' collapsed**

**- 155' slid north 5 inches failing foundations**



# Collapsed steel flowline – 325' requiring replacement

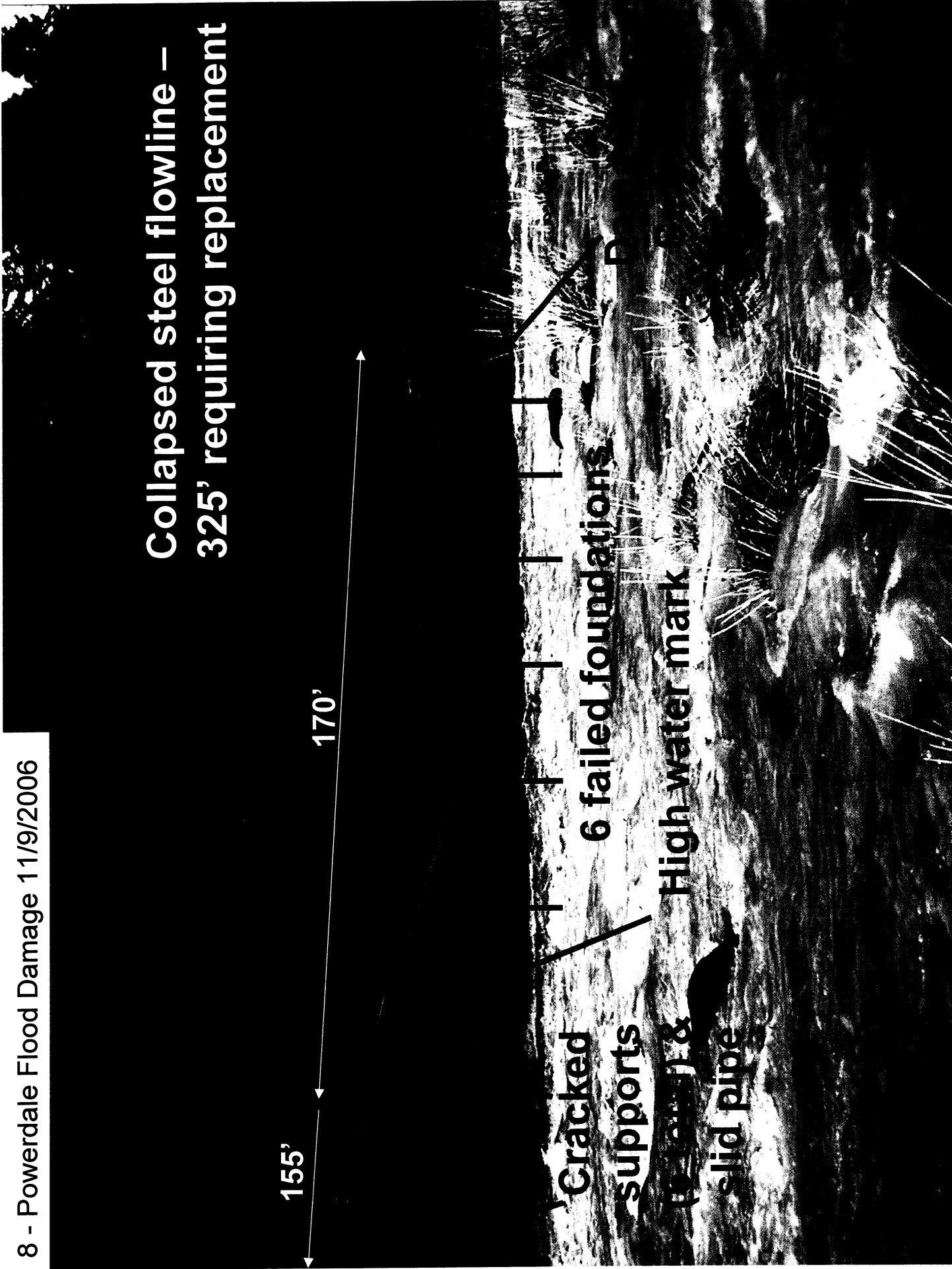
155'

170'

Cracked  
supports  
(6 total) &  
slid pipe

6 failed foundations

High water mark

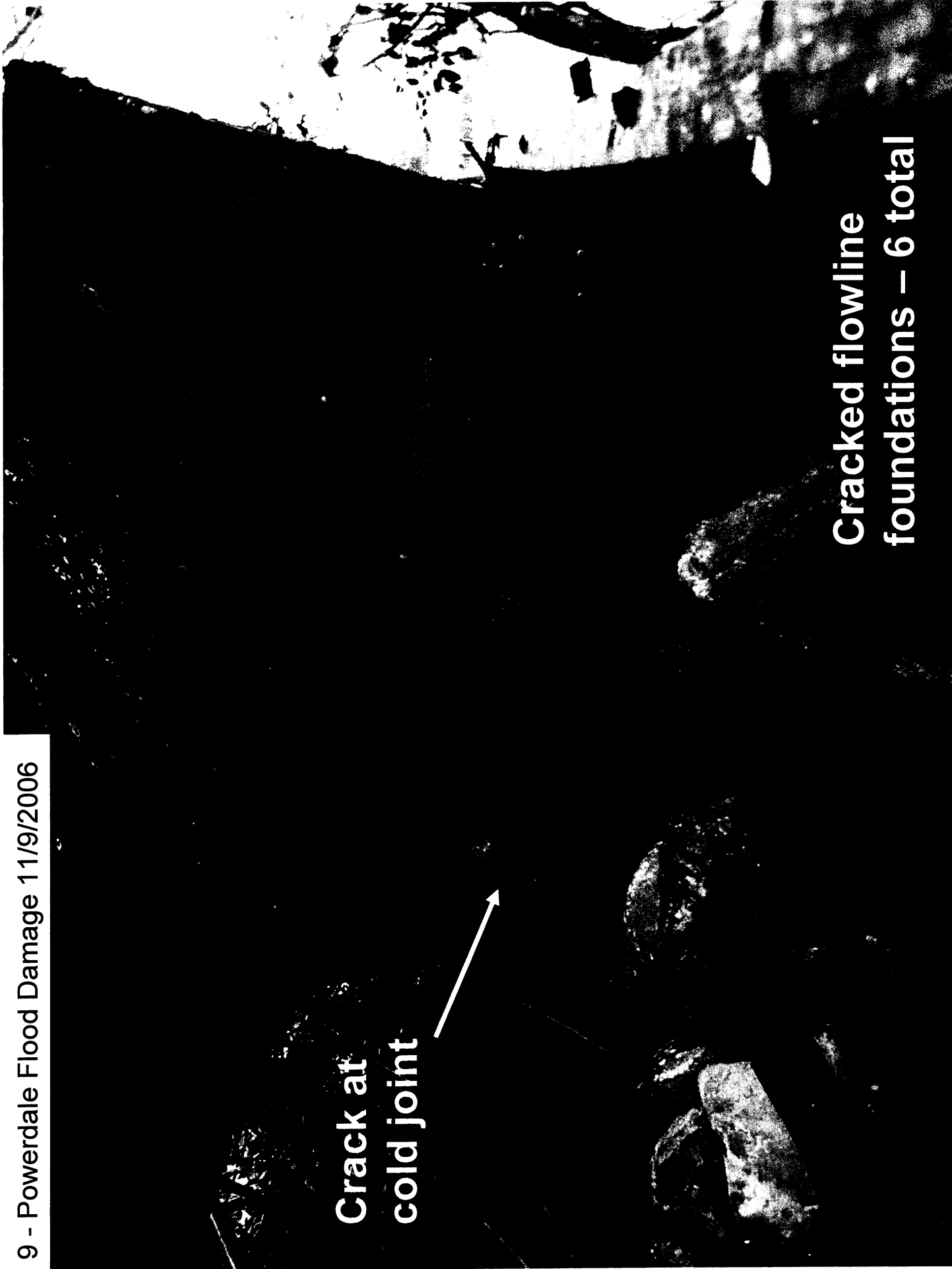


9 - Powerdale Flood Damage 11/9/2006

Crack at  
cold joint



Cracked flowline  
foundations – 6 total



10 - Powerdale Flood Damage 11/9/2006

Sediment deposit at  
tailrace

Sediment  
deposit 6' - 10'  
above normal

Tailrace

River

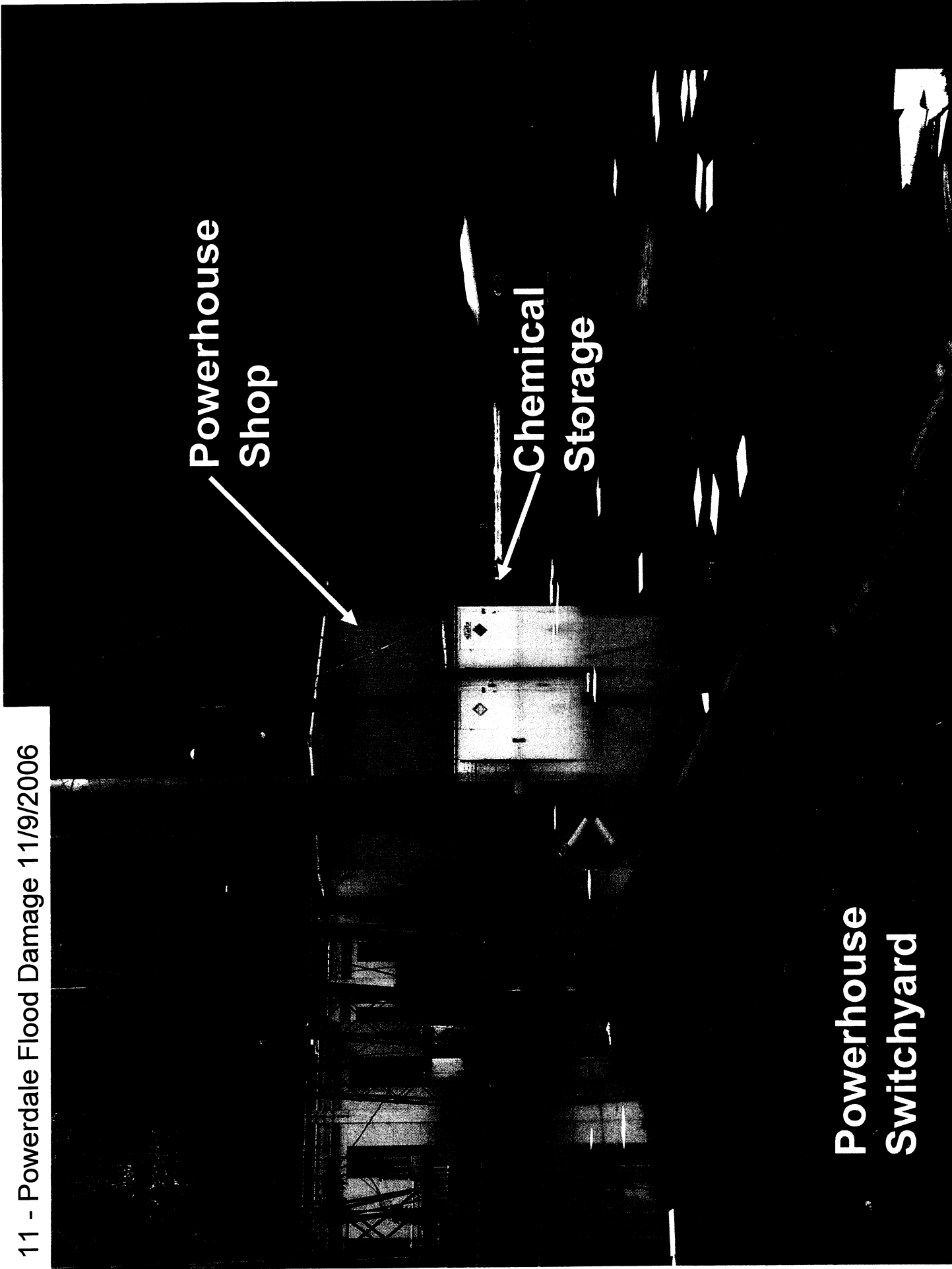


11 - Powerdale Flood Damage 11/9/2006

Powerhouse  
Shop

Chemical  
Storage

Powerhouse  
Switchyard

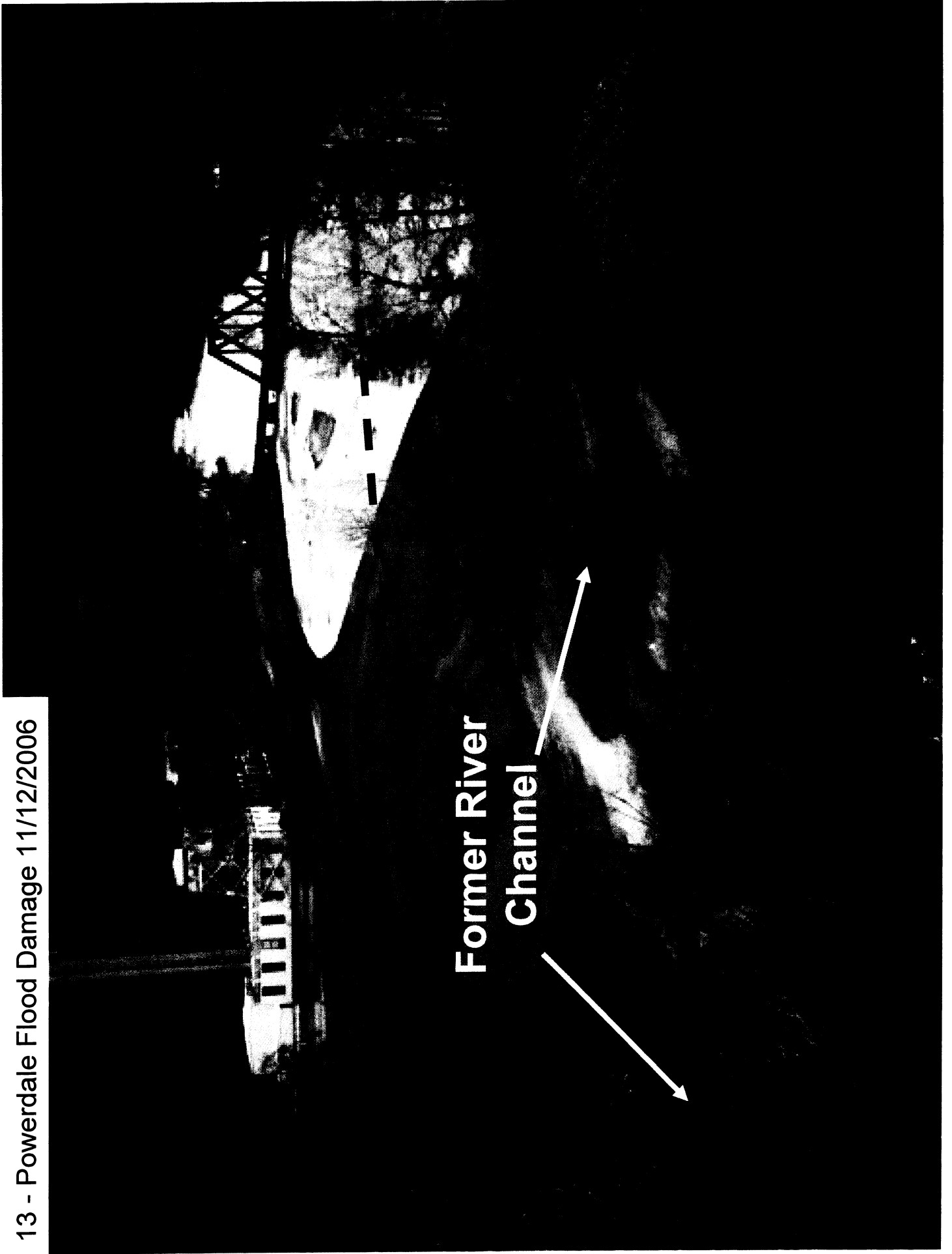


12 - Powerdale Flood Damage 11/9/2006

# Powerhouse Shop



13 - Powerdale Flood Damage 11/12/2006







**EXHIBIT 2**

**(Part 1)**

**POWERDALE LICENSE  
SURRENDER ORDER**

113 FERC ¶62,148  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp

Project No. 2659-011  
and -016

ORDER AMENDING LICENSE, ACCEPTING SURRENDER, AND DISMISSING  
APPLICATION FOR NEW LICENSE

November 22, 2005

**INTRODUCTION**

1. This order amends PacifiCorp's current license for the 6-megawatt (MW) Powerdale Hydroelectric Project No. 2659 (Powerdale Project) and accepts surrender, with a delayed effective date, of the project's license, in keeping with the proposals in a settlement agreement PacifiCorp filed on June 16, 2003. The order also dismisses PacifiCorp's application for a new license for the project.

**PROJECT DESCRIPTION**

2. The Powerdale Project is located on the Hood River in Hood River County, Oregon.<sup>1</sup> The project has an installed capacity of six megawatts (MW), and includes: (1) a 10-foot-high, 206-foot-long concrete diversion dam; (2) an 80-foot by 60-foot concrete intake structure; (3) a reservoir with a storage capacity of approximately 5 acre-feet at the normal pool elevation of 292 feet National Geodetic Vertical Datum (NGVD); (4) a 16,000-foot-long water conveyance system consisting of a concrete canal, steel flume, settling basin, penstock intake, wood stave and steel penstock, and surge tank; (5) an 86-foot-wide, 51-foot-long

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<sup>1</sup> Powerdale is located on a segment of the Hood River that has been determined to be a navigable waterway of the United States. *See* 10 FERC ¶ 62,216 (1980).

concrete powerhouse with a 6-MW turbine-generator unit; (6) a 15-foot-long rock-lined tailrace; and (7) upstream and downstream fish passage facilities.<sup>2</sup>

3. There are no federal lands within the project boundary, but the powerhouse and the lower half of the penstock are located in the Columbia River Gorge National Scenic Area, which is managed by the U.S. Forest Service. The project is operated in a run-of-river mode.

## BACKGROUND

4. The original license for the Powerdale Project was issued March 14, 1980, with an effective date of April 1, 1962, and a termination date of March 1, 2000, for a license term of 37 years and 11 months.<sup>3</sup>

5. Pursuant to Part I of the Federal Power Act (FPA),<sup>4</sup> PacifiCorp filed an application for new license on February 25, 1998. No competing applications were filed. Since expiration of the original license, project operations have continued pursuant to annual licenses, pending disposition of PacifiCorp's application for a new license.<sup>5</sup>

6. Commission staff issued a draft Environmental Assessment (EA) on March 2, 2001, and a final EA on December 26, 2001, addressing PacifiCorp's relicensing proposal. On February 1, 2002, PacifiCorp informed the Commission that it considered the costs of project operation with the recommended terms and

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<sup>2</sup> The existing ladder for upstream passage is located on the eastern side of the dam. It operates with a 15 cubic foot per second (cfs) conveyance flow and an additional 70-cfs auxiliary attraction flow. Downstream passage is provided through the combination of five vertical traveling belt screens located in front of the intakes to the flowline and releases to the bypassed reach.

<sup>3</sup> *Pacific Power & Light Company* 10 FERC ¶ 62, 216 (1980). The license was transferred to PacifiCorp in 1988. 45 FERC ¶ 62,146 (1988). The license term was set under the then-applicable license term policy for operating projects that the owners knew or should have known were required to be licensed. See *Bangor Hydro-Electric Company*, 6 FERC ¶ 61,287 (1979).

<sup>4</sup> 16 U.S.C. § 808.

<sup>5</sup> 16 U.S.C. § 808(a)(1).

conditions set forth in the final EA to be economically unacceptable, and it was entering into discussions with other interested entities with a view to surrendering its license and retiring the project.

7. PacifiCorp and most of the entities involved in the relicense proceeding conducted settlement negotiations, and on June 16, 2003, PacifiCorp filed a settlement agreement (agreement) proposing to: (1) amend its original license to extend the project's license term to February 12, 2012; (2) permit operation of the project, along with implementation of environmental protection, mitigation, and enhancement measures, until 2010; and (3) between 2010 and 2012, remove most project works<sup>6</sup> and secure the rest.<sup>7</sup>

8. A public notice of PacifiCorp's offer of settlement and application for surrender was issued on June 26, 2003,<sup>8</sup> and timely interventions were filed by the National Marine Fisheries Service (NMFS), the U.S. Department of the Interior (Interior), and American Rivers. The State of Oregon filed a motion for late intervention which was granted.<sup>9</sup> These four entities filed comments in support of the settlement agreement and application for surrender of the license. The

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<sup>6</sup> PacifiCorp refers to "decommissioning" of the project, and submits a "project decommissioning plan" (see Appendix B of the Agreement), but what it actually proposes is removal of various project works. The term "decommission" has no designated meaning in the context of Part I of the FPA, which governs hydropower licensing. In various proceedings, parties, as well as the Commission, have used the term as short-hand both for the cessation of hydroelectric generation and for the removal of project works. For clarity, it is preferable to refer to project removal or the removal of project works, where that is the intended meaning. *Portland General Electric Company*, 107 FERC ¶ 61,158 at 61,519 n.11 (2004).

<sup>7</sup>The agreement was signed by PacifiCorp; United States Fish and Wildlife Service; National Marine Fisheries Service; Oregon Department of Fish and Wildlife; Oregon Department of Environmental Quality; Oregon Water Resources Department; Confederated Tribes of the Warm Springs Reservation of Oregon; American Rivers; and the Hood River Watershed Group. In addition, the Hood River Valley Parks and Recreation District signed as a non-party supporting the Agreement.

<sup>8</sup> See Notice of Offer of Settlement, Application for Surrender of License, and Soliciting Comments, Motions to Intervene and Protests, issued June 26, 2003.

<sup>9</sup> See unpublished notice of December 3, 2003.

Commission issued an EA of the agreement and surrender proposal on December 5, 2003.

9. Amendment/removal agreements like this one are, in effect, applications to surrender an existing license with a future effectiveness date, and PacifiCorp's request has been treated as such here.<sup>10</sup> For the reasons discussed below, the surrender of PacifiCorp's license with a delayed effective date of February 29, 2012, is accepted. The terms of the project's annual license<sup>11</sup> are amended to: (1) permit continued generation until April 1, 2010,<sup>12</sup> and (2) incorporate, with minor modifications, the agreement's proposed protection, mitigation, and enhancement measures for that period of time. The agreement's proposals concerning removal of project works and associated protection and mitigation measures are also adopted, with minor modifications, as requirements of the surrender. Because PacifiCorp's surrender of its license is accepted, its application for a new license is dismissed.

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<sup>10</sup> With respect to PacifiCorp's request to extend the term of its license, the standard basis for extending a license term is the licensee's need for additional years over which it can amortize the cost of a substantial increase in generation capacity and/or substantial new environmental measures. These bases are not present here. In *PacifiCorp*, 97 FERC ¶ 61,348 at 62,626 (2001), the Commission stated that, by proposing, through amendment, to embed a retirement and removal requirement in the then-current license for the Condit Project No. 2342, PacifiCorp was, in different packaging, proposing to surrender that license, but delay effectiveness of the surrender for a period of years. Here, as in *PacifiCorp*, the ultimate purpose of the proposed amendment and settlement is project retirement and removal.

<sup>11</sup> Pursuant to section 15(a)(1) of the FPA, 16 U.S.C. § 808(a)(1), the terms of an annual license are the terms of the prior license. Furthermore, under the annual licenses issued for a project, the terms of an existing license remain in effect pending relicense or surrender, and are subject to amendment. See, *Central Nebraska Public Power and Irrigation District*, 50 FERC ¶ 61,180 (1990); and *Central Nebraska Public Power and Irrigation District*, 56 FERC ¶ 61,059 (1991).

<sup>12</sup> The agreement does not appear to specify a particular date in April. In the absence of such specification, we assume that PacifiCorp is proposing to cease generation and commence retirement activities on April 1, 2010.

## DISCUSSION

### A. Delayed Effective Date of Surrender

10. The determination that a license ought to be surrendered and/or removed does not *per se* mean that the public interest requires immediate cessation of project operations. In some instances, it may be in the public interest for generation to continue for some period before project removal begins.<sup>13</sup> In this instance, PacifiCorp and the settlement parties propose to commence project retirement -- with its associated removal and securing of project works -- in approximately 4.5 years after the Commission's acceptance of surrender, and complete it approximately 7 years after acceptance.

11. PacifiCorp has proposed to surrender its license based on its determination that the likely cost of environmental protection, mitigation, and enhancement measures associated with relicensing the project, along with projected capital expenses necessary to keep the project operating for a full new license term, would make continued operation uneconomical.<sup>14</sup> It has proposed to delay effectiveness of the surrender and to operate for an interim period in order to permit completion of fisheries studies being conducted by Oregon Department of Fish and Wildlife (Oregon DFW) and Confederated Tribes of the Warm Springs Reservation of Oregon (Confederated Tribes).<sup>15</sup> Because these studies involve sorting and collecting fish at a collection facility located adjacent to the existing fish ladder at the Powerdale project's dam, their successful completion is dependent on the operation of the project's fish ladder until 2010. In addition, continued generation of electricity during the interim period will maximize the value of all resources associated with the project. On the facts of this case, I conclude that the proposed delay is reasonable and supported by the record.<sup>16</sup>

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<sup>13</sup> *Arizona Public Service Co.*, 97 FERC ¶ 61,315 at 62,456 (2001).

<sup>14</sup> PacifiCorp's decision to surrender the project is also based in part on the fact that a debris flow triggered by heavy rainfall resulted in a nearly six-month project shutdown in September 2000, and its concern about the possibility of similar debilitating debris flows in the future.

<sup>15</sup> Oregon DFW and Confederated Tribes are undertaking fish studies in the Hood River basin as part of an effort to rebuild anadromous fish populations in the Hood River.

<sup>16</sup> See *PacifiCorp*, 97 FERC ¶ 61,348 at 62,626; *Arizona Public Service Co.*, 97 FERC ¶ 61,315 at 62,456 (2001).

## **B. Interim Operating Period Requirements**

12. PacifiCorp and the settlement parties have proposed the following protection, mitigation and enhancement measures to apply during the interim operating period (that is, until April 1, 2010):<sup>17</sup> (1) ramping rate requirements; (2) minimum instream flow requirements;<sup>18</sup> (3) cessation of generation between April 15 and June 30 of each year, during which period diversion flow will be reduced to a maximum of 25 cubic feet per second (cfs);<sup>19</sup> (4) water quality sampling and monitoring requirements related to the yearly resumption of power generation in July; (5) restriction of flushing of the sand settling basin; (6) operation and maintenance of existing intake screens (including regular inspections, repair, and rehabilitation, or replacement); (7) maintenance of the project's fish ladder auxiliary attraction water bar rack; (8) limitation of ground-disturbing activities that would affect terrestrial and wetland habitat; (9) cooperation with agencies in the monitoring of endangered species; (10) revision of the project's cultural resources management plan (CRMP) to reflect the actions proposed in the agreement, and issuance of a new programmatic agreement; (11) continued maintenance of existing recreation facilities; (12) information sharing with agencies and project access to agencies; and (13) continued ownership and maintenance of certain specified lands.<sup>20</sup>

13. Based on staff's analysis in the EA, I find that these proposals for measures to be implemented during the interim operating period will adequately protect the

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<sup>17</sup> See Agreement, Section 3.

<sup>18</sup> PacifiCorp will also develop standard operating procedures to meet the ramping rate and instream flow requirements, as well as monitoring plans and reports to ensure compliance and assess any need for changes.

<sup>19</sup> The cessation of diversion flow is intended to facilitate safe and effective downstream passage of juvenile salmon and steelhead.

<sup>20</sup> The lands described in the agreement appear to include lands outside the project boundary as well as lands within it. See discussion, *infra*. The Commission lacks jurisdiction to require ownership and maintenance of lands not within the project boundary although it may require that lands serving a project purpose be brought within the project boundary.

environment. PacifiCorp's license will be amended to include these provisions except as discussed *infra*.<sup>21</sup>

### **C. Project Surrender Requirements**

14. PacifiCorp and the settlement parties have proposed that, between April 1, 2010, and February 29, 2012, PacifiCorp will remove the diversion dam, intake, power canal, steel flume and sand-settling basin, flowline pipe, and surge tank.<sup>22</sup> PacifiCorp will leave in place the flowline bridge and associated access to the steel catwalk. It will also leave in place the concrete powerhouse, although it will remove various structures within the powerhouse (equipment located in the interior of the powerhouse, loose equipment, parts and materials, and the internal rotating generator and turbine components), as well as the maintenance garage connected to it. It will drain all oil and hydraulic fluids from equipment located inside the powerhouse, seal the turbine pit with concrete, re-grade areas surrounding the surge tank and maintenance garage, and secure the powerhouse building, all remaining equipment and adjacent remaining facilities.

15. For environmental protection and mitigation in connection with the removal and/or securing of project works, PacifiCorp has proposed measures to: (1) develop and implement an erosion and sediment control plan to protect the Hood River from unplanned releases of sediment and debris, (2) conduct in-water work<sup>23</sup> between July 15 and August 31 (unless a time period outside of that is approved by Oregon DFW, NMFS, and FWS); (3) extend the existing fish ladder return channel, and construct an artificial channel, to provide fish continued access to the existing fish ladder entrance for downstream passage (unless NMFS, FWS,

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<sup>21</sup> Measures (1) through (9), above, are also applicable to the project pursuant to conditions 1 and 2 of the water quality certification issued by the Oregon DEQ, and are contained in Appendix A to this order. *See* discussion, *infra*. Requirements for measures related to recreation facilities and information sharing and access are set out in ordering paragraphs J and K, respectively. Requirements concerning cultural resources are set out in ordering paragraph M.

<sup>22</sup> PacifiCorp will also remove a fish sorting and trapping facility, constructed by Oregon DFW and Confederated Tribes, that is attached to and contiguous with the project's fish ladder.

<sup>23</sup> "In-water work" refers to construction-related activities occurring within the wetted portion of the stream channel.



Oregon DFW, and Confederated Tribes agree such passage is not necessary); (4) prepare final fish passage design and construction plans for the changes to the fish passage facilities; and (5) develop and implement a fish passage monitoring and mitigation plan.

16. PacifiCorp also proposes to: (1) complete surveys for threatened and endangered species in areas planned for construction, and plan and design removal activities to minimize impacts on wildlife species and habitats; (2) prepare and implement a revegetation and mitigation plan; and (3) reach a draft memorandum of agreement with the Oregon SHPO concerning cultural resources.<sup>24</sup>

17. The surrender of a license for an existing project is conditioned, at a minimum, on the licensee disconnecting the generating equipment and taking measures to ensure public safety. The issue of whether to authorize or require the removal of some or all project works requires additional analysis, such as that conducted in an EA.

18. Based on staff's analysis in the EA,<sup>25</sup> I find that project retirement will benefit the environment, and that implementation of PacifiCorp's proposed protection and mitigation measures for project removal will adequately protect the environment.<sup>26</sup>

19. Finally, PacifiCorp also requests adoption of the Decommissioning Plan contained in Appendix B to the agreement.<sup>27</sup> While the Decommissioning Plan provides an acceptable general scheme for project removal and its application is not objectionable, it does not contain adequate engineering detail. To ensure that the removal is adequately and safely conducted, this order requires PacifiCorp to

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<sup>24</sup> See Agreement, Sections 4.1 and 4.2.

<sup>25</sup> Staff concluded that project removal would be beneficial to environmental resources by restoring natural conditions within the lower Hood River and eliminating project-related effects on resources in the project area.

<sup>26</sup> The measures discussed above are also applicable to the project pursuant to condition 3 of the water quality certification issued by Oregon DEQ, and they are contained in Appendix A to this order.

<sup>27</sup> The water quality certification requires compliance with the Decommissioning Plan.

file with the Commission detailed plans and specifications and other preconstruction documents before commencing removal of project works. Removal activities may not begin until the Commission's Division of Dam Safety and Inspection, Portland Regional Office, has reviewed and commented on the plans and specifications and determined that all preconstruction requirements have been satisfied.<sup>28</sup>

#### **D. Other Matters**

20. While the proposed amendment and surrender requirements are acceptable overall, there are some aspects of the agreement that cannot be adopted as submitted.

##### **1. Commission Oversight**

21. The proposed amendment and surrender terms provide for consultation and approval by a variety of federal and state agencies; they do not, for the most part, provide for the Commission's oversight or require its approval.

22. Section 6 of the FPA provides that hydropower licenses "may be altered or surrendered only upon mutual agreement between the licensee and the Commission after 30 days public notice."<sup>29</sup> Our regulations provide that licenses may be surrendered only upon the licensee's fulfillment of such obligations under the license as the Commission may prescribe, as well as "upon such conditions with respect to the disposition of [project] works as may be determined by the Commission."<sup>30</sup>

23. The Commission has both authority and responsibility to enforce its licenses, and this authority does not end, nor does a surrender become effective, until the licensee satisfies all conditions required by the Commission. Although it is appropriate for PacifiCorp to consult with federal and state environmental agencies concerning matters such as ramping, instream flows, etc., ultimately, it is the Commission's approval PacifiCorp must obtain before it may implement either

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<sup>28</sup> See ordering paragraphs (G) through (I).

<sup>29</sup> 16 U.S.C. § 799.

<sup>30</sup> 18 C.F.R. § 6(2) (2005).

the license amendment or surrender conditions. Accordingly, we have added a requirement for the Commission's approval to the appropriate conditions.

## 2. Schedules

24. Appendix A to the agreement purports to set out a schedule for implementation of protection, mitigation and enhancement measures during the interim operating period (Appendix A, Table A), and a schedule for implementation of the project's retirement (Appendix A, Table B). The agreement proposes that the Commission adopt the deadlines set out in these schedules.<sup>31</sup>

25. Some of the Appendix A, Table A deadlines are tied to the effective date of a "final" order in the proceeding.<sup>32</sup> The agreement defines a "final" order as one for which all administrative and judicial appeals relating to the order have been finally adjudicated or dismissed.<sup>33</sup> However, Commission orders are final unless a request for rehearing is filed within 30 days from the date of the order's issuance, as provided in Section 313(a) of the FPA. Furthermore, filing a request for rehearing during the 30-day period does not operate as a stay of the effective date of an order except as specifically ordered by the Commission. Thus, the deadlines for actions occurring during the interim operating period and for implementation of the project's retirement are tied to the date of issuance of this order.<sup>34</sup>

26. Appendix A, Table B is a bar chart that appears to set out approximate months in which various project retirement activities will begin and end. While the periods of time provided for the activities are generally satisfactory, Table B does not provide date-specific deadlines for commencing and completing

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<sup>31</sup> Agreement, Sections 3.1 and 4.1, respectively.

<sup>32</sup> Specifically, Appendix A, Table A, provides that requirements concerning ramping, instream flows, recreation facilities, and information sharing shall be implemented 30 days after a "Final FERC Order." Sections 3.2.2, 3.3.2, and 3.13.2 of the Agreement also tie required action to that deadline.

<sup>33</sup> See Agreement, Definitions.

<sup>34</sup> See ordering paragraphs, *infra*.

retirement activities. Ordering paragraph G of this order requires PacifiCorp to do so.<sup>35</sup>

### 3. Early Project Retirement

27. PacifiCorp and the settlement parties have requested that the Commission incorporate Section 5 of the agreement in its amendment/surrender requirements. Section 5 of the agreement provides that PacifiCorp may, subject to Commission approval, cease generation and associated protection, mitigation, and enhancement measures, and proceed with project retirement prior to 2010.<sup>36</sup> Section 5 also sets out protection and mitigation measures PacifiCorp would take after such early cessation of generation (maintenance of facilities until removal, operation of dam to allow operation of the Fish Trapping Facility),<sup>37</sup> as well as to complete early project retirement.

28. Adoption of the Section 5 language is not necessary to permit PacifiCorp, at some future date, to file a request to cease generation and retire the project earlier than the deadlines adopted by this order. However, the propriety of early cessation of generation and project retirement must be determined based on the circumstances presented at the time of the request. To approve terms for early cessation of generation and project retirement as provided by Section 5 would be to prejudge the issue. Accordingly, the requirements of Section 5 will not be adopted.

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<sup>35</sup> Under Section 4.1 of the Agreement, the requirement for completion of project retirement actions is subject to sections 2.2 and 7.3 of the agreement. Section 2.2 provides that PacifiCorp may not be required to implement any action under the agreement until all applicable permits required for the action are obtained in a form that does not conflict with the agreement, and any administrative or judicial review has been completed. Section 7.3 of the agreement states that no party shall be liable for breach of the agreement as a result of failure to perform or delay in performance, if it is delayed or prevented by *force majeure*. This order deletes the section 2.2 and 7.3 caveats. If PacifiCorp cannot meet a deadline set out in this order, it may file a request for an extension. Section 7.3 anticipates a dispute amongst the parties concerning the agreement.

<sup>36</sup> Section 5.1.

<sup>37</sup> Section 5.2.

#### 4. Land Conveyances

29. Section 3.14 of the agreement states that PacifiCorp shall continue to own certain lands identified in the agreement's Appendix D until March 29, 2012, and shall not dispose of, encumber, or initiate changes in the character of those lands, except for conveyances conducted in accordance with section 4.4 and Appendix E of the agreement.

30. To the degree that Section 3.14 requires PacifiCorp to hold until February 29, 2012, (*i.e.*, the effective date of the license surrender) any project lands identified in the agreement's Appendix D in the form they are currently owned (that is, with any currently approved encumbrances, etc.), the requirement in Section 3.14 will be adopted.

31. However, the Commission has no jurisdiction over project lands after the license has been surrendered; therefore, the portion of Section 3.14 that addresses post-surrender conveyances will not be adopted.<sup>38</sup>

32. Nor will the language in Section 3.14 permitting actions and conveyances specified in the agreement's Appendix E be adopted. Appendix E specifies five actions and encumbrances to be permitted during the interim operating period, but does not supply sufficient identification and description to permit a determination of whether the proposed actions are within the project boundary and/or come within the terms of the project's existing land use article, let alone make a finding that they are reasonable, and in the public interest.<sup>39</sup>

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<sup>38</sup> Section 3.14 purports to permit post-surrender conveyances pursuant to Section 4.4 of the agreement.

<sup>39</sup> While we will not adopt this provision in this proceeding, PacifiCorp is free to request a further amendment to the annual license, supported by information that will permit us to make a determination.

## STATUTORY REQUIREMENTS

### A. Water Quality Certification

33. Under section 401(a)(1) of the Clean Water Act (CWA),<sup>40</sup> any applicant for a federal license or permit for an activity that may result in a discharge into United States waters must obtain from the state in which the discharge originates certification that the discharge will comply with applicable water standards. Removal of the Powerdale diversion dam could result in a discharge under section 401 of the CWA. The Commission may therefore not approve the surrender unless and until the state certifying agency has either issued water quality certification for the action or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year.

34. In this instance, the certifying agency is the Oregon Department of Environmental Quality (Oregon DEQ). On June 13, 2003, PacifiCorp applied to the Oregon DEQ for water quality certification. The Oregon DEQ's certification was issued on June 11, 2004.<sup>41</sup>

35. The certification includes conditions: (1) addressing the continued operation of the project through 2010; and (2) for the removal of project facilities by 2012. Specific conditions related to the continued operation of the project include minimum flows, ramping rates, an April 15 to June 30 reduction in diversion flows, project startup operations, sand settling basin flushing, maintenance of the intake screens, maintenance of the fish ladder auxiliary water intake, water temperature monitoring and reporting, flow monitoring and reporting, and specifications for ground-disturbing activities.

36. Specific conditions related to the removal of project facilities include compliance with the settlement agreement and decommissioning plan, development and implementation of a sediment and erosion control plan, timing and notification of in-water work, and providing for fish passage during dam removal.

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<sup>40</sup> 33 U.S.C. § 1341(a)(1).

<sup>41</sup> The certification was filed with the Commission on July 28, 2004, but contained only even pages, and the complete certification was refiled on August 25, 2004.

37. The water quality certification conditions are set out in Appendix A. Compliance with Appendix A is required by ordering paragraph (E).

**B. Endangered Species Act**

38. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)<sup>42</sup> requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.<sup>43</sup>

39. Based on its biological assessment conducted in the EA, Commission staff concluded that the continued operation of the project and eventual project removal would not be likely to adversely affect the bald eagle but would adversely affect bull trout, Lower Columbia River (LCR) Chinook salmon, LCR coho salmon, and LCR steelhead. Accordingly, on December 17, 2003, staff sent its biological assessment to FWS, requesting concurrence in its determination that continued project operation would not adversely affect the bald eagle, and requesting formal consultation under section 7(a)(2) of the ESA on bull trout. Also, on December 17, 2003, Commission staff sent its biological assessment to NMFS, requesting formal consultation under section 7(a)(2) on LCR Chinook salmon and LCR steelhead. Commission staff did not request consultation on LCR Coho salmon because it was not proposed or listed under the Endangered Species Act at that time.

40. On June 14, 2004, NMFS issued a notice proposing to list LCR coho salmon as threatened, and on August 17, 2004, Commission staff issued an addendum to its biological assessment, indicating that while the proposed action would adversely affect LCR coho salmon, the action would not jeopardize the continued existence of the species.

41. Subsequently, NMFS listed LCR coho salmon as threatened (June 28, 2005) and designated critical habitat in the project area for LCR Chinook salmon and LCR steelhead (August 12, 2005).

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<sup>42</sup> 16 U.S.C. § 1536(a)(2).

<sup>43</sup> 50 U.S.C. § 402.02(d).

42. FWS's Biological and Conference Opinions, filed June 28, 2004, concurred with the Commission's determination that the proposed action would not adversely affect the bald eagle. FWS's opinion also indicated that the proposed action would not jeopardize the continued existence of Columbia River distinct population segment of bull trout, nor adversely modify or destroy proposed bull trout critical habitat, but contained incidental take terms and conditions to implement two reasonable and prudent measures necessary to minimize the take of bull trout.

43. Subsequently, on October 6, 2004, the FWS designated the Hood River in the project area as critical habitat for bull trout. There have been no changes to the proposed action or new information that would alter the analysis of project effects on critical habitat as it is presented in the December 5, 2003 EA. Based on that information and analysis, I conclude that the proposed action will not adversely modify or destroy critical habitat for bull trout and there is no need to reinstate consultation with FWS regarding the newly designated critical habitat for bull trout.

44. NMFS issued both a draft<sup>44</sup> and final Biological Opinion. Its final Biological Opinion, filed September 22, 2005, concludes that the proposed action will not jeopardize the continued existence of LCR Chinook salmon, LCR coho salmon, or LCR steelhead, nor adversely modify or destroy proposed critical habitat for LCR Chinook salmon or LCR steelhead, but contains terms and conditions to implement reasonable and prudent measures necessary to minimize the take of LCR Chinook salmon, LCR coho salmon, and LCR steelhead.

45. The terms and conditions of the biological opinions of FWS and NMFS are set out in Appendices B and C, respectively, and are adopted as conditions of this order by ordering paragraph L, which also requires PacifiCorp to file with the Commission an endangered species protection plan to include the measures required by FWS and NMFS. Ordering paragraph L requires PacifiCorp to file a plan before commencing any construction in or near project waters.

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<sup>44</sup> The draft biological opinion was issued November 19, 2004.



### **C. Magnuson-Stevens Act**

46. Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act<sup>45</sup> requires federal agencies to consult with the Secretary of Commerce on proposed actions which, if authorized by the agency, may adversely affect Essential Fish Habitat (EFH). The Pacific Fisheries Management Council designated essential fish habitat for two species of Pacific salmon that are known to occur within the project area: Chinook salmon and coho salmon. Freshwater EFH for these salmon include all those streams, lakes, ponds, wetlands, and other bodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable artificial barriers and longstanding, naturally impassable barriers.

47. Based on EFH consultation, NMFS concluded that the proposed action will adversely affect designated EFH for Chinook and coho salmon,<sup>46</sup> and has adopted the incidental take terms and conditions in the incidental take statement of its biological opinion as its recommendations for conservation measures to avoid, minimize, or otherwise offset such adverse effects.<sup>47</sup>

### **D. Section 106 of the National Historic Preservation Act**

48. Under Section 106 of the National Historic Preservation Act (NHPA),<sup>48</sup> the Commission must take into account the effects of its actions on properties included in or eligible for the National Register of Historic Places (National Register) and, prior to taking action on a proposed undertaking, afford the Advisory Council on Historic Preservation (Council) a reasonable opportunity to comment.<sup>49</sup> Such comment generally entails consultation with the State Historic Preservation Officer (SHPO), the Advisory Council, and additional consulting

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<sup>45</sup> 16 U.S.C. § 1855(b)(2).

<sup>46</sup> See NMFS's Biological Opinion, Section 11.

<sup>47</sup> See Appendix C.

<sup>48</sup> 16 U.S.C. § 470f.

<sup>49</sup> See 36 C.F.R. §800.1(a).

entities, including the license applicant, affected Indian tribes,<sup>50</sup> local governments, and members of the public.

49. If a federal agency determines that the undertaking will have an adverse effect on historic properties, and the federal agency and the SHPO agree on how adverse effects will be resolved, they typically execute a Memorandum of Agreement (MOA) addressing potential adverse effects and the actions to be taken to mitigate them, and submit a copy of their executed agreement, along with documentation, to the Council before approving the undertaking.<sup>51</sup>

50. The Powerdale Project contains five historic properties: (1) the diversion dam, (2) the intake and gatehouse, (3) the water conveyance system (flow line), (4) the powerhouse, and (5) the operator's house; together, these facilities comprise the National Register-eligible Powerdale Hydroelectric Project Historic District. As identified in Appendix A to the MOA, the proposed undertaking is the removal of the diversion dam; the intake and gatehouse; the operator's house (unless otherwise agreed with a future landowner); portions of the flowline (wood stave pipeline and surge tank); and portions of the powerhouse (crane, turbines, generators and other equipment). Demolition of these historic buildings and structures that contribute to the Powerdale Hydroelectric Project Historic District would adversely affect the integrity of the Historic District.<sup>52</sup> In addition, the NHPA also applies to properties as yet undiscovered. Ground-disturbing activities could have the potential to affect buried archaeological deposits.

51. The Commission's Office of Energy Projects and the SHPO developed an MOA setting out requirements to address the adverse effects. During the consultation process, PacifiCorp developed a draft cultural resources management plan (CRMP), which incorporated comments received from the Council, the SHPO, and the Commission staff. A draft of the MOA was submitted to the

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<sup>50</sup> Confederated Tribes, the Yakima Indian Nation, the Confederated Tribes of the Umatilla Reservation, and the Nez Perce Tribe participated in the consultation in this proceeding.

<sup>51</sup> 36 C.F.R. § 800.6(b)(1)(2003).

<sup>52</sup> See EA, Section K. The powerhouse structure and sections of the flowline (including two sections of wood stave pipe) will remain in place. The status of each remaining facility, individually, as eligible for listing under the NHPA may be retained; however, they will no longer meet the criteria of a Historic District.

Council, which concluded that its participation in the consultation to resolve adverse effects was not needed.<sup>53</sup> The Commission and the SHPO executed the MOA on July 2, 2004, and PacifiCorp signed as a concurring party. A copy of the executed MOA and relevant documentation were submitted to the Council.

52. The MOA requires PacifiCorp to complete a final Historic Properties Management Plan and file it for Commission approval within six months from the issuance of this order. The MOA also stipulates terms for the treatment of historic properties during the interim operating period for the project. The MOA is adopted by ordering paragraph (M).

The Director orders:

(A) PacifiCorp's application for amendment of its annual license and surrender of the license for the Powerdale Hydroelectric Project No. 2659, filed June 16, 2003, is granted as indicated in this order. The surrender shall become effective upon issuance of a Commission notice that all the surrender conditions specified below have been satisfied.

(B) The licensee shall commence dam and facility removal after April 1, 2010. By February 29, 2012, and consistent with Appendix B of the settlement agreement filed with the Commission on June 16, 2003, the licensee shall complete: (1) removal of project dam, intake structure, power canal, steel flume, sand settling basin, transition structure, portions of the flowline, turbine, generator, and appurtenant facilities; (2) the securing of the powerhouse superstructure, powerhouse substructure, portions of the flowline, tailrace, and switchyard; and (3) all post-removal activities to restore the site.

(C) The licensee shall cease generation of power on April 1, 2010.

(D) Effective upon issuance of this order, and continuing through February 29, 2012, the licensee shall continue to own the project lands identified in the Appendix D of the settlement agreement filed with the Commission on June 16, 2003, and shall not dispose of, encumber, or initiate changes in the character of such lands.

Within 90 days of issuance of this order, the licensee shall file, for Commission approval, revised Exhibit G drawings that: (1) enclose all principal project works necessary for operation and maintenance of the project within the project boundary line;

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<sup>53</sup> See letter filed July 2, 2004.

and (2) delineate the location of the lands referenced in section 3.14 of the settlement agreement filed June 16, 2003. The project boundary shall have three control points with latitude and longitude or state plane coordinates, and be stamped by a registered land surveyor pursuant to 18 C.F.R. §§ 4.39 and 4.41.

(E) Effective upon issuance of this order, the license for the Powerdale Hydroelectric Project No. 2659 is amended to adopt the conditions of the water quality certification issued by the Oregon Department of Environmental Quality, which are set forth in Appendix A of this order.

(F) For the period prior to the commencement of dam and facility removal, the license is amended to include the following requirements:

(1) Requirement to File Plans for Commission Approval and Requirement to Consult

Various conditions set forth in Appendix A of this order require the licensee to prepare plans for approval by Oregon Department of Environmental Quality. Each such plan shall also be submitted to the Commission for approval and include an implementation schedule. These plans are listed below.

Condition	Plan	Due Date
Appendix A, Condition 1(a)	Surface Water Temperature Management Plan	Within 90 days of the issuance date of this order
Appendix A, Condition 2(c)(1)	Standard Operating Procedures and Monitoring Plan	Within 90 days of the issuance date of this order
Appendix A, Condition 3(b)(2)	Erosion and Sediment Control Plan	Within 90 days of the issuance date of this order

The licensee shall prepare the plans after consultation with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Water Resources Department, Confederated Tribes of the Warm Springs Reservation, American Rivers, and Hood River Watershed Group. The licensee shall include with the plan, documentation of its consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval, the plan becomes a requirement of the license, and the licensee

shall implement the plan, including any changes required by the Commission.

(2) Requirement to File Documentation of Completion

The licensee shall file with the Commission documentation of completion of the following activities.

Condition No.	Activity	Due Date
Appendix A, Condition 1(d)(1)	Annual Temperature and Flow Monitoring Report	By December 31 each year

(3) Requirement to File Amendment Applications

Certain conditions in Appendix A contemplate unspecified long-term changes to project operations, requirements, or facilities for the purpose of protecting and enhancing environmental resources. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. The conditions are listed below:

Condition No.	Modification
Appendix A, Condition 1(d)(2)	Changes in operations or project facilities intended to prevent project-related warming from exceeding 0.25 °C
Appendix A, Condition 1(d)(3)(b) or Condition 1(k)	Modification of instream flow requirements
Appendix A, Condition 1(j)	Modification of temperature monitoring required by Appendix A, Condition 1(g)
Appendix A, Condition 2(b)(3)	Changes in operations or project facilities intended to prevent flowline water from causing exceedance of water quality standards
Appendix A, Condition 2(c)(1)	Modification of the ramping rate requirements

(G) At least 60 days before starting removal of the project features, the licensee shall submit one copy of the following documents to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Office and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI): (1) a detailed description of the sequencing of activities and schedule for removing the project features and restoring the site; (2) final contract plans and specifications; (3) Quality Control and Inspection Program; (4) Temporary Construction Emergency Action Plan; (5) a blasting

plan, if necessary; (6) a public safety plan for the period during removal activities; and (7) a detailed erosion and sediment control plan. The licensee may not begin removal activities until the D2SI-Portland Regional Office has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of removal activities.

(H) Before starting removal of the project features, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's D2SI-Portland Regional Office and two copies to the Commission (one of these copies shall be a courtesy copy to the Director, D2SI), of the approved cofferdam construction drawings and specifications and the letters of approval.

(I) Within 90 days of completing project removal and site restoration, the licensee shall submit one copy to the D2SI – Portland Regional Office and two copies to the Commission (one of these copies shall be a courtesy copy to the Director, D2SI), of a final report which demonstrates that the project facilities have been removed and the project site restored in accordance with the approved plans. The surrender of license shall not be effective until the Regional Engineer has issued a letter stating that all terms and conditions of the surrender order have been satisfied.

(J) Within 90 days from the issuance of this order, the licensee shall file, for Commission approval, a recreation plan to provide for the following items: (1) at Powerdale Park (a) replace the existing toilet facility, when necessary, with a barrier-free accessible toilet facility; (b) provide two picnic tables; and (c) install trail directional sign(s) and a project interpretive sign; (2) at the Powerhouse Day-use Site (a) install a barrier-free toilet facility and construct a pathway to that facility; (b) install warning sign(s) about fluctuating water levels, and (c) install a trail directional sign(s) and an interpretive sign about salmon.

The recreation plan shall address public access at the Powerdale Hydroelectric Project both before and during project removal operations. The licensee shall, at a minimum, provide appropriate sign(s) and notification prior to demolition and restoration activities to inform the public of planned activities at and associated temporary restrictions to the existing day-use sites and bypassed reach; and, where feasible, restore trails, access roads and parking areas to pre-construction conditions after completing the removal of project works.

The licensee shall prepare the recreation plan in consultation with the Oregon

Department of Fish and Wildlife, Oregon State Parks and Recreation Department, and Confederated Tribes of the Warm Springs Reservation of Oregon. The licensee shall include with the plan a map that clearly identifies the location of the recreation facilities in relation to the existing project boundary; documentation of agency and tribe consultation; copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and tribe; and specific descriptions of how the agencies' and tribe's comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies and tribe to comment prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

(K) Within 60 days from the issuance of this order, PacifiCorp shall make powerhouse records, including planned and unplanned outages, instream flow releases, ramping conditions, and temperature monitoring available to National Marine Fisheries Service, U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Water Resources Department, Confederated Tribes of the Warm Springs Reservation, American Rivers, and Hood River Watershed Group. Additionally, beginning in January 2007, and annually thereafter, PacifiCorp shall file an annual report summarizing fish and wildlife mitigation and monitoring activities for the previous year and conduct a meeting with the entities listed above to discuss the report. Within 60 days of the annual meeting, the licensee shall file a consultation report with the Commission that contains meeting minutes or another form of documentation along with any proposals to change project structures or operations based on the results of this consultation.

(L) In all proposed actions involving construction in or near waterways, the licensee shall follow the construction practices contained in Appendices (B) and (C) of this order, which set out the incidental take terms and conditions to implement reasonable and prudent measures of the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS), respectively. At least ninety (90) days before the start of any proposed action involving construction in or near waterways, the licensee shall file, for Commission approval, an endangered species protection plan that describes how the licensee will implement the measures included in Appendices (B) and (C).

The licensee shall prepare the endangered species protection plan in consultation with the FWS and NMFS. The licensee shall include with the plan, documentation of FWS and NMFS consultation; copies of comments and recommendations on the plan

after it has been prepared and provided to FWS and NMFS; and specific descriptions of how the FWS's and NMFS's comments are addressed by the plan. The licensee shall allow a minimum of 30 days for the FWS and NMFS to comment prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until after the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

(M) The licensee shall implement the *Memorandum of Agreement between the Federal Energy Regulatory Commission and the Oregon State Historic Preservation Officer for Managing Historic Properties that may be Affected by PacifiCorp's Surrender of License for the Powerdale Hydroelectric Power Project in Hood River County, Oregon, FERC No. 2659-016* (executed on July 2, 2004), including but not limited to the Historic Properties Management Plan (HPMP) for the project.

Within six months from the issuance of this order, the licensee shall file for Commission approval an HPMP as stipulated in the Memorandum of Agreement. In the event that the Memorandum of Agreement is terminated prior to Commission approval of the HPMP, the licensee shall obtain Commission approval before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect. In the event that the Memorandum of Agreement is terminated after Commission approval of the HPMP, the licensee shall implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license surrender.

(N) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. proof of service on these entities must accompany the filing with the Commission.

(O) PacifiCorp's application for a new license for the Powerdale Hydroelectric Project No. 2659, filed February 25, 1998, is dismissed.



(P) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. The licensee's failure to file a request for rehearing shall constitute acceptance of the terms of the surrender.

By the Director.

J. Mark Robinson  
Director, OEP

**APPENDIX A**

**CLEAN WATER ACT SECTION 401 CERTIFICATION CONDITIONS  
FOR INTERIM OPERATION AND DECOMMISSIONING  
OF THE POWERDALE HYDROELECTRIC PROJECT**

Unless otherwise specifically provided, the following certification conditions are effective 30 days after incorporation into a FERC license or order or other federal license or permit for interim operation and decommissioning of the Powerdale Hydroelectric Project. The conditions are in addition to certain rights and obligations of PacifiCorp and other parties set forth in the June 6, 2003 Settlement Agreement Concerning the Interim Operation and Decommissioning of the Powerdale Hydroelectric Project (Settlement Agreement), specifically PacifiCorp’s obligations under the Settlement Agreement to implement certain measures at an earlier date, or to continue measures commenced at an earlier date, and including other parties’ review and approval of certain activities under the Settlement Agreement.

1. Interim Operation: Conditions for Compliance with the Temperature Water Quality Standard and Total Maximum Daily Loads (TMDLs).

- a. *Temperature Management Plan.* In accordance with OAR 340-041-0028 (12)(h) PacifiCorp shall implement the Surface Water Temperature Management Plan approved by the Oregon Department of Environmental Quality (ODEQ) in conjunction with this certification and set forth in Conditions 1.b, 1.c, 1.d., 1.f., 1.g., 1.h., 1.i, 1.j., and 2.b.
- b. *Flows.* Subject to Condition 1.d., PacifiCorp shall implement in the bypass reach on an average hourly basis either the Hood River flow immediately upstream of the Project (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), or the minimum instream flows set forth in the following table, whichever is less. Minimum instream flow requirements may be met using a combination of flows from the fish ladder, fish screen bypass flow, trash sluice, and spillway gates.

January	140 cfs
February	220 cfs
March	220 cfs
April*	220 cfs
May*	250 cfs
June*	250 cfs

July	250 cfs
August	250 cfs
September	250 cfs
October	250 cfs
November	220 cfs
December	140 cfs

\*Minimum instream flows for temperature specified in this table for April 15 through June 30 are superseded by higher minimum instream flows provided in accordance with Conditions 2.a. and 2.b. for the same period.

- c. *Powerhouse Discharge.* Heat discharged to the Hood River through powerhouse cooling water may not exceed 19.31 million kilocalories per day.
- d. *TMDLs September 15-October 15.* To meet its load allocation (LA) under the TMDL from September 15 through October 15, PacifiCorp shall undertake the following measures:

(1) PacifiCorp shall provide ODEQ with an annual temperature and flow monitoring report by December 31 of each year. The annual monitoring report shall include the required hourly temperature and flow data, pre- and post-deployment data, and monthly field audit data required by Condition 1.g. for that calendar year. The annual report shall identify any instances in which the seven-day moving average of daily maximum temperatures measured at the downstream end of the bypass reach exceeded 55°F during the period from September 15 through October 15. If any such instances are identified in the first three years of monitoring, PacifiCorp shall conduct and submit in the third annual temperature and flow monitoring report to ODEQ an evaluation of whether the temperature increase in the bypass reach was 0.25°F (as a seven-day moving average) more than the increase that would have occurred had the Project not diverted water from the bypass reach. In lieu of conducting this evaluation, PacifiCorp may assume that any temperature increase between the upstream and downstream ends of the bypass reach is due to Project diversions.

(2) If, based on the evaluation or assumed Project impact described in the preceding paragraph, ODEQ determines that the stream warming that occurred in the bypass reach was 0.25°F more than would have occurred had there been no Project diversions,

PacifiCorp shall, within 90 days from written notification from ODEQ, submit to ODEQ a written proposal for measures that PacifiCorp will take to ensure that the Project-related warming in the bypass reach is not more than 0.25°F (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15. The measures may include, but are not limited to, the following:

(a) Temperature modeling for the period September 15 through October 15 to determine what minimum instream flows would be necessary to reduce Project-related warming to 0.25°F or less (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures at the downstream end of the bypass reach exceeds 55°F. If increased minimum flows are necessary and feasible, PacifiCorp shall provide the increased flows for the necessary period, subject to the limits set forth in Condition 1.d.(3).

(b) In the alternative, PacifiCorp may elect not to divert water (except for amounts required to compensate for flowline leakage up to 25 cfs) whenever and so long as the river temperature exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15.

(3) The following limitations apply to modifications of minimum instream flows under this Condition 1.d:

(a) ODEQ will not require modification of flows beyond those reasonably necessary to prevent a Project-related instream temperature increase of 0.25°F or more. This limitation will only apply upon ODEQ's determination that PacifiCorp has satisfactorily demonstrated under prevailing conditions that any such modification would result in a Project-related temperature increase of less than 0.25°F.

(b) Modification of minimum instream flows shall be limited to no more than a 50 cfs increase in any two-year period.

(c) PacifiCorp's responsibility to fulfill minimum instream flow requirements shall be limited to reducing Project diversions from the bypass reach.

(d) No increase in minimum instream flows shall be required before September 15, 2006.

e. *TMDLs Reservation.* In the event the Project continues to divert water for power generation or Project maintenance during and after 2012, ODEQ reserves the right to modify these certification conditions, in accordance with OAR Chapter 340, Division 48, as necessary to ensure implementation of TMDLs for any applicable period.

f. *Resumption of Power Generation.* Following the period of temporary reduction of flow in the flowline (April 15 to June 30), PacifiCorp shall resume power generation in accordance with Condition 2.b.

g. *Temperature Monitoring.* PacifiCorp shall monitor stream temperatures hourly from July 1 through October 15 each year at the sites PDBUP (upstream end of the bypass reach, approximately 50 meters downstream of the dam) and PDBDN (downstream end of the bypass reach, approximately 250 meters upstream of the powerhouse). The accuracy of temperature recorders shall be tested before and after field deployment to ensure that they are operating within their designated range of accuracy. In addition to pre- and post-deployment checks, the temperature recorders shall be audited monthly during the field measurement period. The pre- and post-deployment and monthly field audit checks shall be made using a National Institute of Standards and Technology (NIST) traceable (calibrated and maintained) thermometer accurate to  $\pm 0.2^{\circ}\text{C}$  or better, which has been checked against an NIST traceable thermometer. PacifiCorp shall also record average hourly flows released from the diversion dam into the bypass reach for the period July 1 through October 15. These flows shall be measured in accordance with Condition 1.h.

h. *Flow Monitoring.*

(1) PacifiCorp shall measure instream flows by a Programmable Logic Control or alternative method for monitoring compliance with minimum instream flows, consistent with standard operating procedures developed by PacifiCorp in consultation with ODEQ, the Oregon Department of Fish and Wildlife (ODFW), the National Marine Fisheries Service (NMFS), the U.S.

Fish and Wildlife Service (USFWS), and the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWS).

(2) PacifiCorp shall publicly post hourly flow data on the Internet. The Internet posting shall clearly display the total average hourly river flow being released into the bypass reach directly downstream of the diversion dam. The Internet posting shall also display the average hourly flow being diverted to the flow conveyance system. Flows shall be reported in cfs. PacifiCorp shall post hourly flow measurements as timely as possible but no more than 24 hours after such measurements are taken.

(3) Unless otherwise agreed upon in writing by ODEQ and PacifiCorp in consultation with ODFW, OWRD, NMFS, USFWS, and CTWS, the following flow verification requirements shall apply: For the first two years, rating tables, including any discharge coefficients used to calculate the gaged flows being tracked by the PLC system, shall be verified at least once every six weeks during the periods when flows at the Tucker Bridge Gage are less than the sum of the minimum instream flow plus the power claim flow (generally about July through November); Rating tables shall be set-up to cover a range of operation settings; If after the initial two-year period a control structure demonstrates instability, or when maintenance changes flow conditions through a control structure, then more frequent than once-per-year verification measurements shall be conducted on an as-needed basis to re-establish a stable rating table for the particular control structure.

i. *Measurable Increase.* Any Project-related instream temperature increase of 0.25°F or less above the relevant criterion shall not be deemed to contribute to an exceedance of the temperature criterion or to a violation of the temperature water quality standard.

j. *Monitoring Modifications.* ODEQ may make modifications to temperature monitoring required under Condition 1.g. that ODEQ considers to be reasonable and feasible, or, after consultation with ODFW, OWRD, NMFS, USFWS, and CTWS, make reasonable and feasible modifications to flow monitoring required under Condition 1.h, if:

(1) The monitoring requirements prove to be insufficient to provide the necessary data; or,

(2) Modifications to minimum instream flow requirements require

modifications to monitoring requirements.

k. *Temperature Flow Modifications.* With the approval of ODEQ, PacifiCorp may cease implementing or may implement modified flows under the Temperature Management Plan. ODEQ may approve cessation or modification if ODEQ determines that it will not impair the achievement of any TMDL or LA for the Project for temperature and will not contribute to the exceedance of the relevant temperature criterion in waters affected by the Project.

1. *Duration of Conditions.* The above conditions in this section will cease to be effective upon commencement of removal of the dam structure.

2. Interim Operation: Conditions for Compliance with the Biological Criteria, pH, Dissolved Oxygen, and Turbidity Water Quality Standards, Protection of Beneficial Uses, and Compliance with Other Appropriate State Laws.

a. *Flows.* Subject to Condition 1.d, PacifiCorp shall implement in the bypass reach either the Hood River flow immediately upstream of the Project (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), or the following minimum instream flows, whichever is less:

February 1 to April 14: 220 cfs

April 15 to June 30: manage flows as set forth in Condition 2.b

July 1 to October 31: 250 cfs

November 1 to November 30: 220 cfs

December 1 to January 31: 140 cfs

Minimum instream flow requirements may be met using a combination of flows from the fish ladder, fish screen bypass flow, trash sluice, and spillway gates.

b. *Temporary Reduction in Diversion Flow.*

(1) From April 15 to June 30 each year, PacifiCorp shall reduce diversion flow to a maximum of 25 cfs. All flows in excess of the amount required to compensate for flowline leakage up to the maximum of 25 cfs shall be passed by the dam.

(2) PacifiCorp may resume power generation of July 1 of each year. For the 96 hours prior to the start-up of the turbine unit,

PacifiCorp shall use multiparameter continuous monitoring devices approved by ODEQ to sample water quality at two sites in the river agreed upon by ODEQ. One site shall be just upstream of the powerhouse tailrace at site PDBDN as defined in Condition 1.g; the other shall be approximately 30 meters downstream of the powerhouse tailrace confluence with the river along the east bank. The continuous sampling devices shall sample and record hourly stream temperature, dissolved oxygen, pH, and turbidity. At least 72 hours prior to the start-up of the turbine unit, but not less than 24 hours after commencing the continuous monitoring, PacifiCorp shall open a 10-inch drain valve in the powerhouse near the tailrace to provide a slow exchange of flowline water. Upon beginning generation on July 1, PacifiCorp shall set the turbine generator unit on the minimum wicket gate setting required to synchronize the turbine generator. PacifiCorp shall then ramp the turbine generator load in sufficiently small increments to the extent feasible to maintain the ramping requirements set forth in Condition 2.c. Monitoring under this Condition 2.b.(2) at the two sampling sites may cease 24 hours after beginning generation. The multiparameter devices shall be calibrated for each parameter according to the manufacturer's specifications prior to deployment. At the time the instruments are deployed in the water and when they are retrieved at each site, PacifiCorp shall audit the multiparameter devices by measuring stream temperature with an NIST traceable thermometer accurate to  $\pm 0.2^{\circ}\text{C}$  and measure stream dissolved oxygen via Winkler titration. Within 30 days after the instruments are retrieved, PacifiCorp shall forward ODEQ the electronic files of the continuous sampling, audit, and calibration data.

- (3) The procedure set forth in Condition 2.b.(2) might provide dilution of flowline water in excess of that necessary to comply with water quality standards. PacifiCorp may reduce or cease its monitoring effort under Condition 2.b.(2) following three consecutive years of monitoring data, of quality considered accurate and reliable by ODEQ, demonstrating that the flowline water does not contribute to an exceedance of a water quality standard at the downstream monitoring site described in that condition. In the absence of



three years of such data, PacifiCorp may reduce or cease its monitoring effort under Condition 2.b.(2) if ODEQ provides written approval based upon an ODEQ determination that there is no reasonable potential for the flowline water to contribute to an exceedance of one or more water quality standards at the downstream monitoring site. If, notwithstanding use of the procedure described in Condition 2.b.(2), the flowline water causes an exceedance of water quality standards at the downstream monitoring site, ODEQ may direct PacifiCorp to develop and propose, within a reasonable time specified by ODEQ, alternative measures for ensuring that the flowline water does not cause an exceedance of water quality standards at the downstream monitoring site upon beginning generation. Upon approval by ODEQ, PacifiCorp shall implement the alternative measures, which may include increased diversion flow during the period April 15 through June 30.

*c. Ramping.*

(1) PacifiCorp shall make reasonable efforts to limit the ramping rates in the bypass reach to no more than two inches per hour, and in any event such rates shall not exceed three inches per hour. In addition, PacifiCorp shall complete and implement standard operation procedures and a monitoring plan, developed in consultation with ODEQ, ODFW, NMFS, USFWS, and CTWS, for meeting and documenting compliance with the ramping limits. Should development or implementation of the monitoring plan, or the resulting data, show that a different ramping rate will result in the same protections for aquatic species (for example, when river flows into the Project are already high), PacifiCorp may propose such a different ramping requirement. Upon the approval of ODEQ in consultation with ODFW, NMFS, USFWS, and CTWS, the approved variation shall be substituted for the ramping requirements set forth in this condition.

(2) "Ramping" means those Project-induced increases (up-ramping) and decreases (down-ramping) in river discharge and associated changes in water surface elevation over time resulting from generation of electricity by Project facilities, Project

maintenance activities (i.e., planned outages) and unplanned (forced) outages. Ramping does not include changes in flows and change in river stage resulting from increases or decreases in stream flow unrelated to the Project. Ramping rates in this certification are stated in inches of change per hour. Ramping is measured as the distance between the maximum and minimum water level measured at a specified location over the applicable period of time; variation in water levels within the maximum and minimum water level during that period are not considered for purposes of measuring ramping. For example, if the relevant ramping limitation is one inch per hour, and the river gage is at four feet at noon, then during the next hour the water elevation may vary no more than between three feet eleven inches and four feet; between four feet and four feet one inch; et cetera. In each example, the amount of change between the minimum and maximum gage readings in a one-hour time period is not more than one inch, but could vary within that range more than once during the hour.

(3) Following an unplanned outage, PacifiCorp shall observe conditions directly downstream of the Project dam and powerhouse. Should PacifiCorp, ODFW, CTWS, NMFS, or USFWS identify a fish stranding problem, PacifiCorp shall use its best reasonable efforts to minimize the impacts of such stranding by relocating such fish to the river in consultation with ODFW, CTWS, NMFS and USFWS.

- d. *Flow Monitoring.* PacifiCorp shall measure and report flows in accordance with Condition 1.h.
- e. *Planned Outages.* PacifiCorp shall, to the extent feasible, limit planned outages to April 15 to June 30 to coincide with the temporary reduction of diversion flow required under Condition 2.b., or with the summer, and shall limit planned non-summer outages to 24 hours to the extent reasonably feasible. PacifiCorp shall notify ODFW, NMFS, USFWS, and CTWS of planned outages and subsequent start up periods to allow for monitoring of those areas with the greatest possibility for fish stranding.
- f. *Flushing.* PacifiCorp shall restrict flushing of the sand settling basin to periods when bypass reach instream flows are at least 500 cfs, and preferably greater than 1,000 cfs.

- g. *Intake Screens.* PacifiCorp shall continue to operate and maintain existing intake screens in working order. The maintenance shall include regular inspections and the repair, rehabilitation, or replacement, as needed, of seals and moving components such as chain drives, sprockets, screen baskets, motors, and screen wash equipment. If a screen is damaged beyond repair, PacifiCorp shall replace it with a screen of similar design; however, PacifiCorp shall not be required to design or install an upgraded fish screen or otherwise make technological or other major improvements.
- h. *Fishway Auxiliary Water Intake.* PacifiCorp shall identify and obtain NMFS, USFWS, ODFW and CTWS written approval of a method for maintaining the fish ladder auxiliary attraction water bar rack within the ladder sufficiently free of debris to allow adequate attraction flows. Alternatives to be considered shall be limited to the following unless PacifiCorp and the aforementioned agencies agree otherwise: frequent manual cleaning, modification of the bar spacing on the existing intake trash rack, installation of an intake device incorporating v-bar screen technology, or changing the spacing of the bars on the rack within the ladder. Recommendations and supporting documentation shall be shared with NMFS, USFWS, ODFW and CTWS. No later than the first in-water work opportunity, PacifiCorp shall obtain approval and implement the approved method identified in this condition.
- i. *Ground-Disturbing Activities.* Unless emergency conditions exist that require immediate action, PacifiCorp shall limit adverse effects on stream and wetland habitat from any ground-disturbing activities by (i) minimizing the area of disturbance; (ii) adhering to conditions in any applicable U.S. Army Corps of Engineers and Oregon Division of State Lands wetlands permits; (iii) consulting with state and federal wildlife agencies, CTWS, and, when necessary, the Columbia River Gorge Commission prior to carrying out the work to determine appropriate protection measures; (iv) limiting construction to the summer and fall; (v) revegetating disturbed areas with native vegetation to the extent feasible; and (vi) controlling sedimentation of aquatic habitat through erosion control measures contained in the applicable permits. PacifiCorp shall conduct a survey before the initial ground-breaking activities for rare, threatened and endangered species in areas planned for significant construction activities, and shall coordinate with the USFWS, ODFW, the Oregon Department of Agriculture, and the Oregon Natural Heritage Program to ensure that the target species list is current.

- j. *Duration of Conditions.* The above conditions in this section will cease to be effective upon commencement of removal of the dam structure.
3. Decommissioning: Conditions for Compliance with Water Quality Standards, Protection of Beneficial Uses, and Compliance with Other Appropriate State Laws.
- a. Upon applying for a federal permit or permits for decommissioning activities, including a dredge and fill permit from the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (§ 404 permit), PacifiCorp shall provide written notice to ODEQ of such application and of any proposed changes in decommissioning activities since the date of issuance of this certification. Within 60 days of ODEQ's receipt of notice from the Corps or other federal permitting agency that it is processing PacifiCorp's application, ODEQ will notify the federal agency and PacifiCorp either (i) that this certification is sufficient for purposes of the federal permit and permit conditions, or (ii) that, in light of new information related to the water quality impacts of decommissioning activities since issuance of this certification, there is no longer reasonable assurance of compliance with state water quality standards. In the latter event, ODEQ will consider the new information, solicit and consider public and agency comment as required by law, and issue a Section 401 certification determination for purposes of the federal permit and decommissioning activities.
- b. In the event ODEQ determines that this certification is sufficient for purposes of a federal permit or permits for decommissioning activities, PacifiCorp shall comply with the following conditions:
- (1) *Decommissioning.* Unless otherwise approved by ODEQ in consultation with ODFW, NMFS, USFWS, and CTWS, PacifiCorp shall perform decommissioning in accordance with the Settlement Agreement and the Decommissioning Plan attached to and incorporated by reference into the Settlement Agreement.
- (2) *Erosion and Sediment Control Plan.* Before commencement of any in-water decommissioning activities, PacifiCorp shall develop and submit to ODEQ for approval, in consultation with ODFW, NMFS, USFWS, and CTWS, an Erosion and Sediment Control Plan (ESCP) that identifies specific methods that will be implemented at each work area to protect water quality and aquatic habitat. The ESCP shall address (i) protection of the Hood River from unplanned releases of sediment and debris during decommissioning activities; (ii) disposition of sediment and decommissioning debris in accordance with

applicable law, PacifiCorp's Spill Prevention, Control and Countermeasure Plan (SPCC Plan), and public health and safety; (iii) implementation of permanent revegetation measures consistent with best management practices; and (iv) dam removal, which shall be conducted in dry conditions using a coffer dam and artificial channel to divert flows from work areas. In addition, the ESCP shall specify measures such as berms, ditches, sediment retention basins, silt fencing, and site restoration to be undertaken by PacifiCorp. Upon ODEQ approval of the ESCP in consultation with ODFW, NMFS, USFWS, and CTWS, PacifiCorp shall implement the ESCP during decommissioning activities.

(3) *Timing and Notification of In-Water Work.* For all in-water decommissioning work, PacifiCorp shall conduct such work between July 15 and August 31, or outside of that time period with the approval of ODFW, NMFS, and USFWS. Actions that are likely to occur outside of the July 15 to August 31 period include the following decommissioning actions:

- (a) Construction and removal of upstream and downstream cofferdams, cofferdam materials and culverts;
- (b) Removal of the artificial upstream fish passage channel and bypass flume;
- (c) Placement of materials (relocated cofferdam materials and available streambed materials) along the river to create access for removal of remaining portions of dam and fish ladder;
- (d) Placement of materials to regrade and armor the east and west banks of the river to harden the disturbed areas; and
- (e) Regrading of the streambed above and below the dam as necessary to assist with removal of any barriers to fish passage created as a result of decommissioning activities.

PacifiCorp shall provide NMFS, USFWS, ODFW, and CTWS reasonable notice before initiating any in-water work, regardless of when it occurs, to enable them to view the work and recommend fish salvage or other immediate measures to avoid fish stranding or delay. PacifiCorp shall undertake such measures with the assistance of ODFW and CTWS. For purposes of this requirement, "in-water work" does not include dam removal or other decommissioning actions performed in areas that have been dewatered for purposes of decommissioning actions.

(4) *Fish Passage During Dam Removal.*

(a) *Manner of Fish Passage.* During construction of the cofferdams associated with dam removal activities, PacifiCorp shall extend the existing fish ladder return channel upstream of the dam to above the upstream cofferdam work, and shall install culverts through the downstream cofferdam to provide continued access to the existing fish ladder entrance; provided that PacifiCorp shall not provide such fish passage through the cofferdam culvert if NMFS, USFWS, ODFW and CTWS agree that such passage is not necessary. Coincidental to the construction of the cofferdams, PacifiCorp shall construct an artificial channel extending from a mid-point on the existing fish ladder to a location immediately downstream of the downstream cofferdam. Upon completion of this channel and the bypass channel (described below), PacifiCorp shall close the fish access through the downstream cofferdam, allowing upstream migrants to enter the existing fish ladder structure through a newly constructed access. PacifiCorp shall place rock between the upstream return channel and water bypass intake to minimize upstream migrant entrainment into the downstream bypass flume. During dam removal, PacifiCorp shall divert river flow past the work zone using portions of the existing water conveyance system's steel flume by installing removed sections of the steel flume from above the upstream cofferdam to below the downstream cofferdam, passing over the overflow section and existing fish ladder. This will provide downstream fish passage. PacifiCorp shall position the bypass flume to discharge directly into a pool constructed at the entrance of the upstream passage channel to attract upstream migrants to the channel. The discharge area shall be designed with adequate pool area and depth to minimize impingement of downstream migrants on the bottom or sides of the pool. The requirements of this condition may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

(b) *Final Fish Passage Design and Construction Plans.* Prior to changing any of the existing fish passage facilities or constructing any new fish passage facilities associated with dam removal, PacifiCorp shall prepare final fish passage design and construction plans in consultation with NMFS, USFWS, ODFW and CTWS. The final design and construction plans shall be

consistent with Condition 3.b.(4)(a) and the following criteria, which may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

- (i) The outfall from the flume shall be designed in accordance with, appropriate, sections 7.4.1, 7.4.2, 7.4.3, 13.10.4, 13.10.5 and 13.10.6 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the pool volume and depth will be designed to minimize pool bottom surface velocities and injury to fish. For purposes of section 13.10.5, the design will minimize, but may not completely avoid, creation of false attraction flows. The outfall shall have a 10-foot minimum drop to the pool below (to prevent adults from entering the pipe), and shall be designed to provide smooth, rounded edges and surfaces, using materials similar to the flume, to minimize injury to fish exiting the pipe and to jumping adults;
- (ii) The pipe/flume shall be designed in accordance with, as appropriate, sections 13.9.3.1, 13.9.3.4, 13.9.3.5, 13.9.3.6, 13.9.3.9, 13.9.3.11, 13.9.3.13 and 13.9.3.14 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. Weathered steel surfaces presently existing on the steel flume sections, or alternatively the galvanized surfaces of standard culvert material, shall be considered acceptable for this application, provided that, if the interior surfaces of the existing steel flume are considered to be too rough to meet NMFS' Passage Facility Guidelines and Criteria, PacifiCorp shall install a liner or conduct sand blasting of the interior surfaces;
- (iii) The temporary approach channel to the fishway entrance shall be constructed with "field placed" structure materials to optimize local hydraulic conditions. PacifiCorp shall provide NMFS, USFWS, ODFW and CTWS a minimum of seven days notice prior to the placement of these

materials to allow their on-site participation in field direction of this placement work on-site;

- (iv) The control structures within the temporary approach channel to the fishway entrance shall be placed at least one channel width apart. These structures shall have less than one foot of head differential (measured from upstream of the boulder control structures to the downstream water surface elevation), and shall not span the entire width of the approach channel (unless the depth provided over the channel-spanning structure is at least one foot);
- (v) If fish will be passing through the temporary culvert(s) installed in the downstream coffer dam, such culverts shall meet, as appropriate, sections 9.7.5, 9.7.8 and 9.7.9 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the bypass shall be designed in accordance with, as appropriate, sections 9.3.2 and 9.3.3 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement;
- (vi) The design shall provide supplemental flow to the fishway discharge to allow optimal operation of the fish ladder and temporary approach channel; and
- (vii) The design shall be developed such that flow conveyed in the bypass flume is delivered below the temporary approach channel in a manner that will maximize both upstream and downstream passage. The design shall be developed such that the bypass flume and the upstream temporary approach channel work together to both attract adult fish to the temporary approach channel, minimize delay of both upstream and downstream migrants, and minimize injury to fish passing



downstream.

(c) *Fish Passage Monitoring and Contingency Plan.* By October 1, 2004, PacifiCorp shall conduct a geomorphology survey consistent with the scope of work attached as Exhibit 2 to the Settlement Agreement. PacifiCorp shall provide a final geomorphology report to NMFS, USFWS, ODFW, ODEQ and CTWS. The report shall describe: (i) current geomorphic conditions beginning 2200 feet below the dam (near the stream gage) to 1,000 feet upstream of the dam, or above the vegetated island (whichever is farther); and (ii) the anticipated impact of sediment released from dam removal on fish passage and aquatic habitat downstream of the dam removal site. PacifiCorp shall develop and implement a fish passage monitoring and mitigation plan, in consultation with NMFS, USFWS, ODFW, ODEQ and CTWS, and approved by NMFS, USFWS, and ODFW. In the event a fish passage obstruction, as defined by the plan, is caused or exacerbated by dam removal, PacifiCorp shall restore adequate fish passage by implementing mitigation measures set forth in the plan. PacifiCorp shall have no obligation to monitor or mitigate under this condition for more than one cycle of seasons beyond the return of the river to natural conditions, as determined by a team composed of representatives of NMFS, USFWS, ODFW, CTWS and PacifiCorp, in accordance with the geomorphology report.

4. General Conditions for Compliance with Water Quality Standards and Certification.

- a. *Fees.* PacifiCorp shall pay a fee for ODEQ's costs of overseeing implementation of this certification. The fee shall be \$5,000 (2003 dollars) annually, made payable to "State of Oregon, Department of Environmental Quality," and due on July 1 of each year after FERC approval of interim operation and decommissioning. The fee shall expire six years after the first July 1 following FERC approval of interim operation and decommissioning, unless terminated earlier by ODEQ because oversight of this certification is no longer necessary. One year before the sixth-anniversary expiration of the fee, ODEQ and PacifiCorp will review the need, if any, to modify, extend, or terminate the fee. PacifiCorp shall continue to pay any fee required after such review.

- b. *Spill and Waste Management.* PacifiCorp shall implement its SPCC Plan and Waste Management Guidelines. The SPCC Plan and Waste Management Guidelines must be kept current. In the event of a spill or release or threatened spill or release of oil or waste to state waters, PacifiCorp shall immediately implement the site's SPCC Plan, modified SPCC Plan, or other applicable contingency plan and notify the Oregon Emergency Response System at 1-800-452-0311.
- c. *Certification Modification.* Subject to the provisions of OAR Chapter 340 Division 48, and, as applicable, 33 USC § 1341, ODEQ may reconsider, and add, delete, or alter, conditions to this certification as necessary to address changes in resource conditions or knowledge or to address any failure of certification conditions to protect water quality and beneficial uses. In accordance with 33 USC § 1341, any modification to conditions shall, so long as it is in effect, become a condition of any federal license or permit subsequently issued for the Project. With respect to a federal license or permit for the Project existing at the time of the modification to certification conditions, ODEQ may petition the federal agency to incorporate the modification into the federal license or permit.
- d. *Project Changes.* PacifiCorp shall obtain ODEQ review and approval before undertaking any change to the Project that might significantly affect water quality and that was not evaluated in connection with this certification, including changes to Project operation and flows.
- e. *Project Repair or Maintenance.* PacifiCorp shall obtain ODEQ review and approval before undertaking any Project repair or maintenance activity that might significantly affect water quality and that was not evaluated in connection with this certification.
- f. *Access.* PacifiCorp shall allow ODEQ reasonable access to Project records and the Project area as necessary to monitor compliance with certification conditions.
- g. *Posting of Certification.* PacifiCorp shall post a copy of this certification at a prominent location at the Project powerhouse.

## APPENDIX B

### U.S. FISH AND WILDLIFE'S REASONABLE AND PRUDENT MEASURES AND IMPLEMENTING TERMS AND CONDITIONS

#### Reasonable and Prudent Measures (RPM)

1. Prior to dam removal, review best available science and, if necessary, modify dam removal activity protocols to minimize effects from incidental take of bull trout.
2. Ensure all dam removal and other decommissioning in-water and near-water construction activities are conducted in a fashion that further minimizes impacts to aquatic and riparian resources.

#### Terms and Conditions

To Implement RPM 1, above, PacifiCorp must comply with the following:

- a. Prior to dam removal (currently scheduled for spring, 2010), prepare final fish passage design and construction plans in consultation with USFWS, NMFS, ODFW and CTWS and consistent with sections 4.2.2.2.1 and 4.2.2.2.2 of the Settlement Agreement. Implement measures required by USFWS and NMFS to minimize the effect of any incidental take of listed species expected to occur during dam removal, provided that such recommendations do not require more than a minor change to the design or construction plans, or alter the basic design, location, scope, duration or timing of such plans.
- b. In addition, develop a fish passage monitoring and mitigation plan, in consultation with USFWS, NMFS, ODFW, ODEQ and CTWS, and approved by USFWS, NMFS, and ODFW, consistent with Section 4.2.2.2.4 of the Settlement Agreement. In the event a fish passage obstruction (as defined by the plan) is caused or exacerbated by dam removal, restore adequate fish passage by implementing mitigation measures set forth in the plan.
  - i. Changes to this Incidental Take Statement required by USFWS and NMFS to minimize the effect of any incidental take of listed species

expected to occur during dam removal will be completed via simple amendment of this Incidental Take Statement. Additional modifications to fish passage and dam removal design and construction plans will be made consistent with Sections 4.2.2.2.1, 4.2.2.2.2, and 6.13 of the Settlement Agreement, and may require additional amendments of this Biological Opinion and Incidental Take Statement, as appropriate.

To Implement RPM 2, above, PacifiCorp must comply with the following:

- a. Best management practices to prevent concrete products (dust, chips, larger chunks), mobilized by dam removal activities, from entering flowing or standing waters. Concrete-tainted waste water will be disposed of away from flowing or standing water. Best practicable efforts will be made to collect and remove all concrete products prior to re-watering of construction areas. All concrete and materials containing concrete removed from the dam removal site will be disposed of away from flowing or standing water.
- b. Erosion control and sediment containment devices will be employed at the Project site prior to the onset of construction. All erosion control and sediment containment devices will be inspected weekly, at a minimum, during dam removal to ensure that they are working adequately. Any erosion control or sediment containment inadequacies will be immediately addressed until properly functioning.
- c. Erosion control and sediment containment materials (e.g., silt fence, straw bales, aggregate) in excess of those installed will be available on site for immediate use during emergency erosion control needs.
- d. Vehicles operated within 150 ft of the construction site waterways will be inspected on a daily basis for fluid leaks during periods when such vehicles are operated within or above the waterway. Any fluid leaks identified during the inspection will be repaired prior to the vehicle's use within or above the waterway.
- e. Best management practices will be used during construction activities, to prevent the discharge of pollutants of any kind (sewage, waste spoils, petroleum products, etc.) into the water body and the substrate below the mean high-high water elevation or 10-year flood elevation, whichever is greater.

- f. Upon learning that imminent flooding is expected, areas subject to such flooding that are used for staging, access roads, or storage will be evacuated of all materials, equipment, and fuel.
- g. Vehicle and equipment maintenance, re-fueling of vehicles and equipment, and storage of fuel will be done at least 150 feet from the waterway. Non- or semi-mobile vehicles (e.g., cranes) and equipment may be refueled in place.
- h. At the end of each work shift efforts will be made to remove operating equipment from areas outside of the dewatered work zone.
- i. Prior to operating within the waterway, all equipment will be cleaned of external oil, grease, dirt or caked mud. Any washing of equipment will be conducted in a location that will not contribute untreated wastewater to any flowing stream or drainage area.
- j. Material removed during excavation will only be placed in locations where it cannot enter water.
- k. All existing native vegetation within 150 ft of the edge of bank should be retained to the greatest extent practicable.

## APPENDIX C

### NMFS'S REASONABLE AND PRUDENT MEASURES AND IMPLEMENTING TERMS AND CONDITIONS

#### Reasonable and Prudent Measures (RPM)

1. Prior to dam removal, review and use best available science to adaptively manage the dam removal and Project feature removal protocol to incorporate any new practices which will minimize impacts to LCR Chinook salmon, LCR coho salmon, and LCR steelhead in the course of removing Project features.
2. Conduct all operational, dam removal, and any other in-water and near-water construction activities in a manner that minimizes incidental take of ESA-listed or proposed species, minimizes the likelihood of adverse modification of proposed or designated critical habitat, and conserves the aquatic resources on which ESA-listed species depend.

#### Terms and Conditions

To implement RPM 1, PacifiCorp must comply with the following:

- a. Prior to dam removal (currently scheduled to begin in spring 2010), PacifiCorp shall prepare a Final Fish Passage Design and Dam Removal Construction Plan (Construction Plan) in collaboration with NMFS, USFWS, ODFW, and CTWS, consistent with sections 4.2.2.2.1 and 4.2.2.2.2 of the Settlement Agreement. PacifiCorp shall carry out measures in the plan required by USFWS and NMFS to minimize the effect of any incidental take of listed species expected to occur during dam removal, provided that such recommendations do not require more than a minor change to the design or construction plans, or alter the basic design, location, scope, duration or timing of such plans. NMFS must approve in writing the Final Fish Passage Design and Construction Plan and any deviations from the components of NMFS' "Anadromous Salmonid Passage Facility Guidelines and Criteria" (NMFS 2004f) described in section 4.2.2.2.2 of the Settlement Agreement.
- b. PacifiCorp shall develop and carry out a Fish Passage Monitoring and Mitigation Plan (Passage Plan), in consultation with NMFS, USFWS,

ODFW, ODEQ, and CTWS, and approved by USFWS, NMFS, and ODFW, consistent with section 4.2.2.2.4 of the Settlement Agreement, that includes methods for identifying potential fish passage impediments and suggests methods for removing them. PacifiCorp shall incorporate the findings of the Final Geomorphic Report into the Passage Plan and carry out measures suggested in the report (if approved by NMFS in the Passage Plan) to minimize the likelihood of fish passage obstructions forming. In the event a fish passage obstruction (as defined by the plan) is caused or exacerbated by dam removal, restore adequate fish passage by carrying out mitigation measures set forth in the plan.

- c. PacifiCorp shall develop a Fish Salvage Plan that describes, in detail, protocol for promptly and safely removing listed fish from any areas that will be isolated and/or dewatered during decommissioning. The Fish Salvage Plan must be approved in writing by NMFS prior to commencing any fish salvage.
  - i. The entire capture and release operation will be conducted or supervised by a fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish.
  - ii. If electrofishing equipment is used to capture fish, comply with NMFS' electrofishing guidelines, listed below.
    - 1) Do not electrofish near adult salmon in spawning condition or near redds containing eggs.
    - 2) Keep equipment in good working condition. Complete manufacturers' pre-season checks, follow all provisions, and record major maintenance work in a log.
    - 3) Train the crew by a crew leader with at least 100 hours of experience in the field using similar equipment. Document the crew leader's experience in a logbook. Complete training in waters that do not contain listed fish before an inexperienced crew begins any electrofishing.
    - 4) Measure conductivity and set voltage as follows:
 

<u>Conductivity (umhos/cm)</u>	<u>Voltage</u>
Less than 100	900 to 1100
100 to 300	500 to 800
Greater than 300	150 to 400
    - 5) Use direct current (DC) at all times.
    - 6) Begin each session with pulse width and rate set to the minimum needed to capture fish. These settings should be

- gradually increased only to the point where fish are immobilized and captured. Start with pulse width of 500us and do not exceed 5 milliseconds. Pulse rate should start at 30Hz and work carefully upwards. In general, pulse rate should not exceed 40Hz, to avoid unnecessary injury to the fish.
- 7) The zone of potential fish injury is 0.5m from the anode. Care should be taken in shallow waters, undercut banks, or where fish can be concentrated, because in such areas the fish are more likely to come into close contact with the anode.
  - 8) Work the monitoring area systematically, moving the anode continuously in a herringbone pattern through the water. Do not electrofish one area for an extended period.
  - 9) Have crew members carefully observe the condition of the sampled fish. Dark bands on the body and longer recovery times are signs of injury or handling stress. When such signs are noted, the settings for the electrofishing unit may need adjusting. End sampling if injuries occur or abnormally long recovery times persist.
  - 10) Whenever possible, place a block net below the area being sampled to capture stunned fish that may drift downstream.
  - 11) Record the electrofishing settings in a logbook along with conductivity, temperature, and other variables affecting efficiency. These notes, with observations on fish condition, will improve technique and form the basis for training new operators.
- iii. Develop specific salvage procedures to carry out when water temperatures exceed 18°C (i.e., when fish are particularly susceptible to stress caused by salvage). These high-temperature salvage procedures must be developed in collaboration with NMFS, USFWS, and ODFW and must be approved in writing by NMFS as a component of the Fish Salvage Plan.
  - iv. Handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures, to prevent the added stress of out-of-water handling.
  - v. Transport fish in aerated buckets or tanks. Release fish into a safe release site as quickly as possible, and as near as possible to capture sites.
  - vi. If a listed fish is injured or killed at any point during the salvage operation, contact the NMFS Law Enforcement Office will be contacted (360-418- 4248).



- vii. Do not transfer ESA-listed fish to anyone except NMFS or USFWS personnel, unless otherwise approved in writing by them.
- viii. Obtain all other Federal, State, and local permits necessary to conduct the capture and release activity.
- ix. Allow NMFS or the USFWS or its designated representative to accompany the capture team during the capture and release activity, and to inspect the teams capture and release records and facilities.

To implement RPM 2, PacifiCorp shall ensure that in all actions involving construction near waterways it will carry out BMPs to control sediment, minimize riparian disturbance, and minimize the risk of contaminants entering the waterway. Prior to completing the Final Fish Passage Design and Construction Plan required by the Term and Condition, PacifiCorp shall discuss and adopt current BMPs with NMFS. PacifiCorp shall adopt BMPs that include at least the following:

- a. Minimum area. Construction impacts will be confined to the minimum area necessary to complete the project.
  - i. Alteration or disturbance of the streambanks and existing riparian vegetation will be minimized to the greatest extent possible.
  - ii. No herbicide application should occur as part of this action. Mechanical removal of undesired vegetation and root nodes is permitted.
  - iii. All existing vegetation within 150 ft of the edge of bank should be retained to the greatest extent possible.
- b. Timing of in-water work. Work below the bankfull elevation will be completed during the State of Oregon's preferred in-water work period (between July 15 and August 31), or outside that time period with the written approval of NMFS.)
- c. Cessation of work. Project operations will cease under high flow conditions that may result in inundation of the Project area, except for efforts to avoid or minimize resource damage. All materials, equipment, and fuel must be removed if flooding of the area is expected to occur within 24 hours.
- d. Fish screens. All water intakes used for a Project, including pumps used to isolate an in-water work area, will have a fish screen installed, operated, and maintained according to NMFS' fish screen criteria. After fish salvage has been completed, dewatering pumps do not need fish screens, unless it is likely that fish have re-entered the area (e.g., if the cofferdam was

breached). The term “water intakes” does not apply to the fish bypass channel/facility.

- e. Construction activities associated with habitat enhancement and erosion control measures must meet or exceed BMPs and other performance standards contained in the applicable State and Federal permits.
- f. Pollution and Erosion Control Plan. Prepare, in consultation with NMFS, and carry out a Pollution and Erosion Control Plan to prevent pollution caused by survey, construction, operation, and maintenance activities. The Plan will be available for inspection upon request by FERC or NMFS.
  - i. Plan Contents. The Pollution and Erosion Control Plan will contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
    - 1) The name and address of the party(s) responsible for accomplishment of the Pollution and Erosion Control Plan.
    - 2) Practices to prevent erosion and sedimentation associated with access roads, decommissioned roads, stream crossings, drilling sites, construction sites, borrow pit operations, haul roads, equipment and material storage sites, fueling operations, and staging areas.
    - 3) Practices to confine, remove, and dispose of excess concrete, cement, and other mortars or bonding agents, including measures for washout facilities.
    - 4) A description of any regulated or hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.
    - 5) A spill containment and control plan with notification procedures, specific cleanup and disposal instructions for different products, quick response containment, and cleanup measures that will be available on the site; proposed methods for disposal of spilled materials; and employee training for spill containment.
    - 6) Practices to prevent construction debris from dropping into any stream or water body, and, to the extent feasible, to remove any material that does drop with a minimum disturbance to the streambed and water quality.
    - 7) Erosion control materials (e.g., silt fence, straw bales, aggregate) in excess of those installed must be available on site for immediate use during emergency erosion control needs.

- 8) Temporary erosion and sediment controls will be used on all exposed slopes during any hiatus in work exceeding 7 days.
- ii. Inspection of erosion controls. During construction, the operator must visually monitor instream turbidity and inspect all erosion controls daily during the rainy season and weekly during the dry season, or more often if necessary (i.e., after significant rainfall events), to ensure they are working adequately.
  - 1) If monitoring or inspection shows that the erosion controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
  - 2) Remove sediment from erosion controls once it has reached one-third of the exposed height of the control.
  - 3) Results of visual monitoring and inspection of erosion controls should be summarized in the weekly construction monitoring reports, as described in term and condition 8.4. l.2.p.
- g. Construction discharge water. Treat all discharge water created by construction (e.g., concrete washout, pumping for work area isolation, vehicle wash water, drilling fluids) as follows:
  - i. Water quality. Design, build, and maintain facilities to collect and treat all construction discharge water using the best available technology applicable to site conditions. Provide treatment to remove debris, nutrients, sediment, petroleum hydrocarbons, metals, and other pollutants likely to be present. Treatment may consist of a small holding or settling pond with a straw bale dam that is regularly cleaned. The final design of the facility should be described in the Construction Plan, which will be approved in writing by NMFS.
  - ii. Discharge velocity. If construction discharge water is released using an outfall or diffuser port, velocities will not exceed 4 ft per second. For clarity, releases from the construction bypass (fish bypass channel) are not considered construction discharges.
  - iii. Spawning areas. To the extent feasible, do not release construction discharge water within 300 ft upstream of spawning areas.
  - iv. Pollutants. To the extent feasible, do not allow pollutants, including green concrete, contaminated water, silt, welding slag, or sandblasting abrasive to contact any wetland or the 2-year floodplain, except cement or grout when abandoning a drill boring or installing instrumentation in the boring.

- h. During completion of habitat enhancement activities, to the extent feasible, limit the contact of all pollutants (sewage, waste spoils, petroleum products, etc.) with the water body or wetlands or their substrate below the mean high-high water elevation or 10-year flood elevation, whichever is greater.
- i. Treated wood.
  - i. Projects using treated wood that may contact flowing water or that will be placed over water where it will be exposed to mechanical abrasion or where leachate may enter flowing water will not be used, except for pilings installed following NMFS' guidelines.
  - ii. Projects that require removal of treated wood will use the following precautions:
    - 1) Treated wood debris. Use the containment necessary to prevent treated wood debris from falling into the water. If treated wood debris does fall into the water, remove it immediately.
    - 2) Disposal of treated wood debris. Dispose of all treated wood debris removed during a project, including treated wood pilings, at an upland facility approved for hazardous materials of this classification. Do not leave treated wood pilings in the water or stacked on the streambank.
- j. Preconstruction activity. Complete the following actions before significant alteration of the project area:
  - i. Marking. Flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands, and other sensitive sites beyond the flagged boundary. Construction activity or movement of equipment into existing vegetated areas must not begin until clearing limits are marked.
  - ii. Emergency erosion controls. Ensure that the following materials for emergency erosion control are on site: A supply of sediment control materials (e.g., silt fence, straw bales), and an oil-absorbing, floating boom whenever surface water is present.
  - iii. Temporary erosion controls. All temporary erosion controls will be in place and appropriately installed downslope of project activity within the riparian buffer area until site rehabilitation is complete.
- k. Temporary access roads.
  - i. Steep slopes. To the extent feasible, do not build temporary roads mid-slope or on slopes steeper than 30%.
  - ii. Minimizing soil disturbance and compaction. Low-impact, tracked

drills will be walked to a survey site without the need for an access road. Minimize soil disturbance and compaction for other types of access whenever a new temporary road is necessary within 150 ft of a stream, water body, or wetland by clearing vegetation to ground level and placing clean gravel over geotextile fabric, unless otherwise approved in writing by NMFS.

iii. Temporary stream crossings.

- 1) To the extent feasible, do not allow equipment in the flowing water portion of the stream channel where equipment activity could release sediment downstream, except at designated stream crossings and as necessary during cofferdam construction and removal.
- 2) Minimize the number of temporary stream crossings.
- 3) Design new temporary stream crossings as follows:
  - a) Survey and map any potential spawning habitat within 300 ft downstream of a proposed crossing.
  - b) To the extent feasible, do not place stream crossings at known or suspected spawning areas, or within 300 ft upstream of such areas if spawning areas may be affected.
  - c) Design the crossing to provide for foreseeable risks (e.g., flooding and associated bedload and debris) to prevent the diversion of stream flow out of the channel and down the road if the crossing fails.
  - d) Vehicles and machinery will cross riparian buffer areas and streams at right angles to the main channel wherever possible.
- 4) Obliteration. When the project is completed, obliterate all temporary access roads, stabilize the soil, and revegetate the site. Abandon and restore temporary roads in wet or flooded areas by the end of the in-water work period.

i. Vehicles.

- i. Choice of equipment. When heavy equipment will be used, the equipment selected will have the least adverse effects on the environment (e.g., minimally sized, low ground pressure equipment).
- ii. Vehicle staging. Fuel, operate, maintain, and store vehicles as follows:
  - 1) Complete vehicle staging, cleaning, maintenance, refueling, and fuel storage, except for that needed to service boats, in a vehicle staging area placed 150 ft or more from any stream,

- water body, or wetland, unless otherwise approved in writing by NMFS.
- 2) Inspect all vehicles operated within 150 ft of any stream, water body, or wetland daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation. Document inspections in a record that is available for review on request by FERC or NMFS.
  - 3) Before operations begin and as often as necessary during operation, steam clean all equipment that will be used below the bankfull elevation until all visible external oil, grease, mud, and other visible contaminants are removed. Any washing of equipment must be conducted in a location that will not contribute untreated wastewater to any flowing stream or drainage area.
  - 4) Diaper all stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 ft of any stream, waterbody, or wetland to prevent leaks, unless suitable containment is provided to prevent potential spills from entering any stream or water body.
  - 5) At the end of each work shift, vehicles must not be stored within or over the waterway. If necessary, vehicles may remain in the dewatered area between the cofferdams for longer periods during dam removal or other decommissioning actions. The contractor should remove all equipment from the 2-year floodplain if there is imminent threat of a high-water event that could affect cofferdam integrity or cause water to contact construction equipment.
- m. Site preparation. Conserve native materials for site rehabilitation.
- i. If possible, leave native materials where they are found.
  - ii. If materials are moved, damaged, or destroyed, replace them with a functional equivalent during site rehabilitation.
  - iii. Stockpile any large wood, native vegetation, weed-free topsoil, and native channel material displaced by construction for use during site rehabilitation.
- n. Isolation of in-water work area. If adult or juvenile fish are reasonably certain to be present, or if the work area is less than 300 ft upstream of spawning habitats, completely isolate the work area from the active flowing stream using inflatable bags, sandbags, sheet pilings, similar materials, or

natural materials, unless otherwise approved in writing by NMFS.

- o. Earthwork. Complete earthwork (including drilling, excavation, dredging, filling, and compacting) as quickly as possible.
  - i. Excavation. Material removed during excavation will only be placed in locations where it cannot enter sensitive aquatic resources. Whenever topsoil is removed, it must be stored and reused on site to the greatest extent possible. If culvert inlet/outlet protecting riprap is used, it will be class 350 metric or larger, unless otherwise approved in the Construction Plan. In addition, to the extent possible, PacifiCorp will revegetate riprap areas in accordance with the Revegetation and Mitigation Plan referenced in section 3.4 of Appendix B of the Settlement Agreement.
  - ii. Drilling and sampling. If drilling, boring, or jacking is used, the following conditions apply.
    - 1) Isolate drilling operations in wetted stream channels using a steel pile, sleeve, or other appropriate isolation method to prevent drilling fluids from contacting water.
    - 2) If it is necessary to drill through a bridge deck, use containment measures to prevent drilling debris from entering the channel.
    - 3) If directional drilling is used, the drill, bore, or jack hole will span the channel migration zone and any associated wetland.
    - 4) Sampling and directional drill recovery/recycling pits, and any associated waste or spoils, will be completely isolated from surface waters, off-channel habitats, and wetlands. All drilling fluids and waste will be recovered and recycled or disposed to prevent entry into flowing water.
    - 5) If a drill boring conductor breaks and drilling fluid or waste is visible in water or a wetland, all drilling activity will cease, pending written approval from NMFS to resume drilling.
  - iii. Source of materials. Obtain boulders, rock, woody materials, and other natural construction materials used for the project outside the riparian buffer area.
- p. Construction Monitoring Reporting. Include in the Final Fish Passage and Construction Plan a protocol for submitting weekly construction site monitoring summaries to NMFS that describe the quality and effectiveness of the erosion control and other environmental protection measures, including the following: discussion of erosion control and other measures and their effectiveness, discussion of any instances where sediment or other

construction discharges entered the stream, the extent of the discharges, an assessment of any damage to the stream or aquatic resources, and corrective actions taken, including measures to prevent further problems.

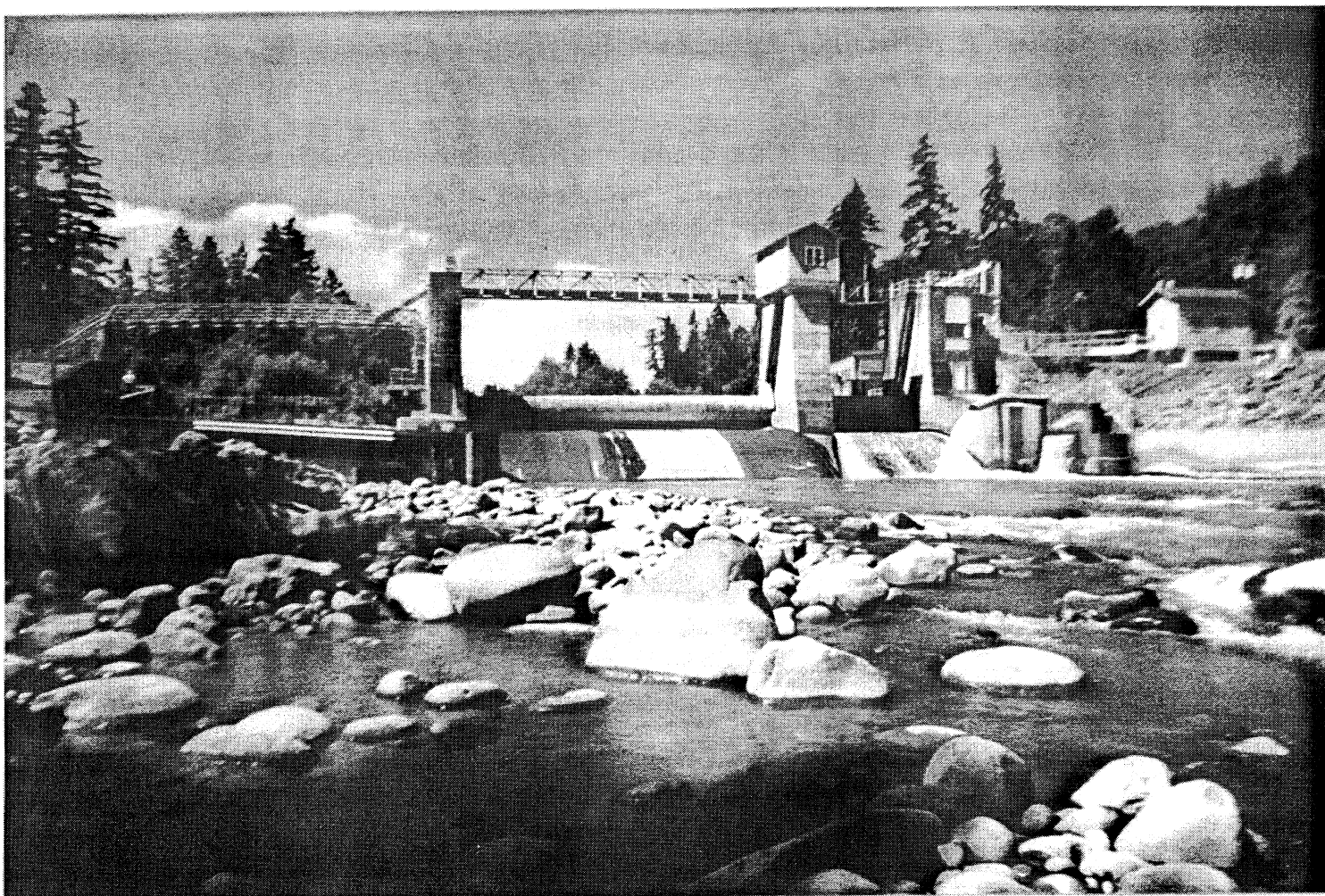
The licensee shall solicit NMFS' review of the detailed construction plans to advise the licensee regarding whether or not those plans are likely to meet the BMPs articulated in these Incidental Take Statement terms and conditions, or such additional BMPs that NMFS deems appropriate.





**EXHIBIT 2**  
**(Part 2)**

**SETTLEMENT AGREEMENT**



**SETTLEMENT AGREEMENT**

**CONCERNING THE INTERIM OPERATION  
AND DECOMMISSIONING OF THE POWERDALE  
HYDROELECTRIC PROJECT, FERC PROJECT NO. 2659**

**DATED**

**JUNE 6, 2003**

SETTLEMENT AGREEMENT

AMONG  
PACIFICORP  
NATIONAL MARINE FISHERIES SERVICE  
UNITED STATES FISH AND WILDLIFE SERVICE  
OREGON DEPARTMENT OF FISH AND WILDLIFE  
OREGON WATER RESOURCES DEPARTMENT  
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON  
AMERICAN RIVERS  
HOOD RIVER WATERSHED GROUP

DATED  
JUNE 6, 2003

CONCERNING THE INTERIM OPERATION AND DECOMMISSIONING OF  
THE POWERDALE HYDROELECTRIC PROJECT, FERC PROJECT NO. 2659  
HOOD RIVER COUNTY, OREGON

Powerdale Hydroelectric Project Settlement Agreement

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### PARTIES TO THE AGREEMENT

This Settlement Agreement (the "Agreement") is made pursuant to Federal Energy Regulatory Commission ("FERC") Rule 602, 18 C.F.R. § 385.602, by and among PacifiCorp, an Oregon corporation; National Marine Fisheries Service ("NMFS"); United States Fish and Wildlife Service ("USFWS"); Oregon Department of Fish and Wildlife ("ODFW"); Oregon Water Resources Department ("OWRD"); Oregon Department of Environmental Quality ("ODEQ"); Confederated Tribes of the Warm Springs Reservation of Oregon ("CTWS"); American Rivers ("AR"); and Hood River Watershed Group ("HRWG"), each referred to individually as a "Party" and collectively as the "Parties." The NMFS, USFWS, CTWS, ODFW, OWRD and ODEQ are also each a "Governmental Party" and are referred to collectively as the "Governmental Parties." The "Effective Date" is the day that the last of the Parties executes the Agreement.

### RECITALS

A. PacifiCorp is the licensee for the Powerdale Hydroelectric Project (FERC No. 2659) (the "Project"). The Project is located on the Hood River in Hood River County, Oregon. The Project is operated as a run-of-river project, and consists of a concrete diversion dam 206 feet long and 10 feet high, a water conveyance system approximately 16,000 feet long, a powerhouse, a turbine generator with a nameplate rating of 6,000 kW, and appurtenant facilities.

B. The initial 38-year term of the FERC license for the Project expired on March 1, 2000. PacifiCorp submitted an application for a new license to continue operating the Project to FERC on February 23, 1998. On June 9, 2000, ODEQ issued a Clean Water Act ("CWA") Section 401 Certification for the Project based on a relicensing proposal that did not contemplate temporary suspension of generation from April 15 to June 30 each year or decommissioning of the Project ("June 2000 Certification"). In December 2001, ODEQ issued the Western Hood River Subbasin Total Maximum Daily Load ("TMDL") for temperature, which then was approved by the U.S. Environmental Protection Agency on January 30, 2002. On March 28, 2002, PacifiCorp submitted an Operational Plan to address Project-related warming of the Hood River ("TMDL Operational Plan"); this TMDL Operational Plan was approved by ODEQ on January 16, 2003.

C. In its December 26, 2001 Environmental Assessment, FERC determined that relicensing (protection, mitigation and enhancement) measures proposed by PacifiCorp and recommended by FERC staff and state and federal resource agencies would reduce the Project's net annual benefit to -\$207,576. On February 1, 2002, in consideration of this finding, PacifiCorp requested that FERC abey the license proceedings to allow PacifiCorp to develop a decommissioning plan for the Project. PacifiCorp and federal, state, tribal and non-governmental stakeholders entered into discussions to determine the feasibility of identifying a mutually-acceptable approach to decommissioning. On September 26, 2002, several Parties executed an Agreement in Principle on the interim operation and decommissioning of the Project. Subsequently, on September 30, 2002, several of the Parties to this Agreement submitted to

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FERC a Joint Motion to Abey Licensing Proceedings to allow the Parties to continue negotiating toward settlement on such issues. FERC has yet to take final action on PacifiCorp's license application, and PacifiCorp continues to operate the Project under an annual license.

D. In addition to other aquatic and terrestrial species, the following fish species occur in the Project area during some portion of their life cycle: spring and fall chinook salmon, coho salmon, winter and summer steelhead, rainbow trout, bull trout, cutthroat trout, mountain whitefish, largescale sucker and Pacific lamprey. Of these, the Lower Columbia River chinook salmon, Lower Columbia River steelhead, and bull trout have been listed as threatened pursuant to the Endangered Species Act ("ESA").

E. ODFW and CTWS are currently undertaking fish studies in the Hood River basin as part of an effort to rebuild anadromous fish populations in the Hood River. These efforts, which began in 1988, rely on the ability to sort and collect fish at a collection facility located adjacent to the existing fish ladder at the Project dam. One of the objectives of the studies is to collect life history and production information for hatchery and wild fish to allow fish managers to determine the success of various techniques to rebuild native fish stocks. The federal and state fisheries agencies and CTWS anticipate that the results of these studies will not only affect fish management in the Hood River basin, but will also provide critical information for anadromous fish managers throughout the Northwest region. The continued use of the Project until approximately June 2010 is necessary to complete these studies. Thereafter, Project decommissioning and dam removal will allow the free migration of aquatic species referred to in Recital D.

F. In 1978, OWRD issued a certificate of water right (Certificate No. 46965) to PacifiCorp for the Powerdale Project, which authorizes a total diversion of 500 cubic feet per second (cfs), with a priority date of 1901 for 140 cfs and a priority date of 1911 for the remaining 360 cfs (hereinafter referred to as the "PacifiCorp Hydroelectric Water Right").

NOW, THEREFORE, in consideration of their mutual covenants in this Agreement, the Parties agree as follows:

### DEFINITIONS

"Alternative Dispute Resolution Procedures" or "ADR Procedures" refers to the dispute resolution process set forth in Section 6.14.

"American Rivers" or "AR" is a District of Columbia corporation and is listed as a Party in the first paragraph of this Agreement, entitled "Parties to the Agreement."

"Decommission," as used in this Agreement, refers to the commitments made by PacifiCorp in Section 4.1 and Appendices A and B of this Agreement to leave, modify or remove Project facilities and structures.

"FERC Order" is defined in Section 1.1 of this Agreement.

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“Final FERC Order” means that FERC has issued the FERC Order and that all administrative and judicial appeals relating to the FERC Order have been finally adjudicated or dismissed.

“Hood River Watershed Group” or “HRWG” is a voluntary watershed council organization recognized under Hood River County Board of Commissioners’ Ordinance No. 204, and is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Inflow” means the flow in the Hood River immediately upstream of the Project, and does not include water diverted or otherwise used or lost upstream of the Project.

“Protection, Mitigation and Enhancement measures,” or “PM&E measures,” refers to the measures set forth in Sections 3.2 through 3.14 and 4.2.1 through 4.4 and 5.2.2.

“Ramping” means those Project-induced increases (“up-ramping”) and decreases (“down-ramping”) in river discharge and associated changes in water surface elevation over time resulting from generation of electricity by Project facilities, Project maintenance activities (i.e., planned outages) and unplanned (forced) outages. Ramping does not include changes in flows and change in river stage resulting from increases or decreases in stream flow unrelated to the Project. Ramping rates in this Agreement are stated in inches of change per hour. Ramping is measured as the distance between the maximum and minimum water level measured at a specified location over the applicable period of time; variation in water level within the maximum and minimum water level during that period are not considered for purposes of measuring ramping. For example, if the relevant ramping limitation is one inch per hour, and the river gage is at four feet at noon, then during the next hour the water elevation may vary no more than between three feet eleven inches and four feet, between four feet and four feet one inch, et cetera. In each example, the amount of change between the maximum and minimum gage readings in a one-hour time period is not more than one inch, but could vary within that range more than once during the hour.

### SECTION 1: PURPOSE AND EFFECT OF THIS AGREEMENT

1.1 Purpose of Agreement. The Parties have entered into this Agreement to resolve all issues regarding the interim operation and decommissioning of the Project, and for the purpose of obtaining a Final FERC Order that approves the interim operation and decommissioning of the Project in a manner that does not conflict with, add to or omit measures required by this Agreement. For this purpose, the Parties agree that the Agreement is fair and reasonable and in the public interest within the meaning of FERC Rule 602 governing offers of settlement. 18C.F.R. § 385.602(g)(3). For purposes of implementing this Agreement, the Parties agree to support PacifiCorp’s request that FERC:

- (i) retroactively extend the previous Project license, which expired on March 1, 2000, to February 29, 2012, giving the license an effective term of fifty years; and

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- (ii) incorporate, without material modification, as license articles in the extended license, all of the measures set forth in Section 3; and
- (iii) approve and authorize, without material modification, the decommissioning measures and associated PM&E measures set forth in Sections 4.1, 4.2 and 5 and Appendix B to this Agreement; and
- (iv) allow PacifiCorp the opportunity, after all appeals of the FERC Order, to accept or reject the Final FERC Order as provided in Section 6.3 of this Agreement.

FERC's actions extending and amending the Project license and approving Project decommissioning as described above in (i) through (iii) are hereinafter referred to collectively as the "FERC Order."

The Parties shall request that FERC include in the FERC Order articles that are consistent with and that do not conflict with, add to or omit measures required by this Agreement, except as may be necessary to enable FERC to ascertain and monitor PacifiCorp's compliance with the FERC Order and its rules and regulations under the Federal Power Act ("FPA") and other federal and state laws. Each of the Parties agree, except as provided below, that PacifiCorp's performance of its obligations under this Agreement will be consistent with and will fulfill PacifiCorp's existing statutory and regulatory obligations as to each Party relating to the interim operation and decommissioning of the Project. The Parties further agree, except as provided below, that if any Party submits comments, recommendations, terms, conditions, or prescriptions that conflict with or add to the measures required by this Agreement, or takes other action in this proceeding inconsistent with this Agreement, such inconsistency shall be resolved in accordance with Section 6 of this Agreement. Without limiting the generality of the preceding sentence, the Parties agree that PacifiCorp's performance of its covenants in this Agreement will be consistent with and will fulfill all obligations under the following statutory provisions, except as specifically provided:

1.1.1 Federal Power Act Sections 10(a), 10(j) and 18. The provisions of this Agreement are intended to satisfy the Governmental Parties' exercise of authority under the FPA Sections 10(a), 10(j) and 18. 16 U.S.C. §§ 703(a), (j) and 811. The Parties intend, subject to Section 1.4 of this Agreement, that any future comments, recommendations, terms, conditions or prescriptions, to the extent applicable to this proceeding, will not add to or conflict with the measures required by this Agreement and that any inconsistency shall be resolved in accordance with Section 6 of this Agreement. Each Governmental Party reserves the right to exercise any authority it may otherwise have under the FPA in the event such Governmental Party withdraws in accordance with Section 6.16 of this Agreement.

1.1.2 Clean Water Act. Section 401 of the CWA, 33 U.S.C. § 1341, requires that any applicant for a federal license or permit to conduct any activity that may result in a discharge into navigable waters provide the licensing or permitting agency with a certification from the state that the discharge will comply with the applicable provisions of CWA sections 301, 302, 303,

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306, and 307, including applicable state water quality standards (“Section 401 Certification”). ODEQ anticipates that interim operation and decommissioning activities required by this Agreement, including Appendix B, will comply with the applicable provisions of CWA sections 301, 302, 303, 306, and 307, as well as with “any other appropriate requirement of State law” referenced in CWA subsection 401(d), 33 U.S.C. § 1341(d), including, as applicable, water quality standards, TMDLs, and requirements to protect designated beneficial uses. However, ODEQ does not intend to predetermine the outcome of its evaluation of the interim operation and decommissioning activities under the CWA and state law, and, consistent with Section 1.4 of this Agreement, reserves its right to take all actions necessary to comply with the CWA and state law. The Parties’ agreement with regard to the process for obtaining a Section 401 Certification is described in Section 2.5, below. If ODEQ issues a Section 401 Certification that requires measures that conflict with, add to or are otherwise inconsistent with those water-quality-related measures required by this Agreement, as set forth in Exhibit 1, the Parties shall address any such inconsistency in accordance with Section 6 of this Agreement.

1.1.3 Endangered Species Act Section 7(a)(2) and Magnuson-Stevens Fishery Conservation and Management Act Section 305(b). Section 7(a)(2) of the ESA requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally-listed threatened and endangered species or to result in the destruction or adverse modification of designated critical habitat. 16 U.S.C. § 1536(a)(2). The Parties acknowledge that FERC may not issue the FERC Order until it has completed consultation with NMFS and USFWS with respect to threatened and endangered species affected by the Project. The Parties reserve the right to request rehearing in the event that the FERC Order is issued prior to completion of Section 7(a)(2) consultation. If FERC approves interim operation and decommissioning of the Project in a manner that does not conflict with, add to, or omit measures required by this Agreement, the proposed action for purposes of ESA section 7(a)(2) consultation would be the operation of the Project for an interim period with the PM&E measures set forth in Section 3, and the subsequent decommissioning of the Project and implementation of associated PM&E measures in accordance with Section 4. NMFS and USFWS anticipate that the measures contained in this Agreement will be adequate to minimize any incidental take occurring as a result of interim Project operations, decommissioning, and related PM&E measures; however, NMFS and USFWS do not intend to predetermine the outcome of any consultation under the ESA and reserve their right to take all actions required to comply with the ESA. Additionally, Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act requires federal agencies to consult with NMFS regarding actions that may adversely affect essential fish habitat (“EFH”). NMFS will combine its EFH consultation with its ESA consultation. If, as an outcome of ESA or EFH consultation, NMFS or USFWS require measures that conflict with, add to or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, the Parties shall address any such inconsistency in accordance with Section 6 of this Agreement.

1.1.4 Treaty and Other Authorities. CTWS holds and exercises off-reservation treaty rights, including fishing, hunting and gathering rights, in the Hood River basin pursuant to the Treaty with the Tribes of Middle Oregon, June 25, 1855, 12 Stat. 963 (the “Treaty”). In addition, the Project is located within lands ceded to the United States in the Treaty. CTWS agrees that

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the measures contained in this Agreement will fulfill any obligations that PacifiCorp may have in regard to the interim operation and decommissioning of the Project pursuant to the Treaty and other federal and tribal laws and regulations. The Project is not located within tribal reservations for purposes of Section 4(e) of the FPA.

1.1.5 Oregon Fish Passage and Screening Statute. Interim operation PM&E measures and decommissioning measures to be performed under this Agreement serve as fish passage under Oregon Revised Statutes (“ORS”) 509.585. In addition, this Agreement is intended to satisfy the requirements of ORS 498.311 regarding game fish, to the extent applicable.

1.2 NEPA Analysis. In connection with a FERC Order, the Parties anticipate that FERC will complete an environmental analysis pursuant to the National Environmental Policy Act (“NEPA”). The Parties shall request that FERC incorporate interim operation and decommissioning measures described in this Agreement into the proposed action described and evaluated in its NEPA environmental analysis.

1.3 Limitations. This Agreement establishes no principle or precedent with regard to any issue addressed in this Agreement or with regard to any Party’s participation in any other pending or future licensing or decommissioning proceeding. Further, no Party to this Agreement shall be deemed to have approved, accepted, agreed to, or otherwise consented to any operation, management, valuation or other principle underlying any of the matters covered by this Agreement, except as expressly provided in this Agreement. By entering into this Agreement, no Party shall be deemed to have made any admission or waived any contention of fact or law that it did make or could have made in FERC proceedings related to this Project. This Agreement shall not be offered in evidence or cited as precedent by any Party to this Agreement in any administrative or judicial litigation, arbitration, or other adjudicative proceeding, except in a proceeding to establish the existence of or to enforce or implement this Agreement. This Section 1.3 shall survive any termination of this Agreement.

1.4 Representations Regarding Consistency and Compliance with Statutory Obligations. Except as provided herein, the Governmental Parties believe their statutory and other legal obligations are, or can be, met through implementation of this Agreement; provided, nothing in this Agreement may be construed to limit any Governmental Party from complying with its obligations under applicable laws and regulations or from considering public comments received in any environmental review or regulatory process related to the Project in accordance with this Agreement. This Agreement may not be interpreted to predetermine the outcome of any environmental or administrative review or appeal process.

1.5 Conditions Precedent and Conditions Subsequent. The Parties’ respective obligations under this Agreement are subject to conditions precedent and conditions subsequent, as more fully set forth in Section 6 below.

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### SECTION 2: ACTIONS UPON EXECUTION OF THIS AGREEMENT

2.1 FERC Filings. Following the Effective Date, but no later than May 15, 2003, PacifiCorp shall file with FERC a fully executed copy of this Agreement and its appendices and exhibits in accordance with FERC regulations at 18 C.F.R. § 385.602. Concurrent with that filing, PacifiCorp shall file a request to extend and amend the Project license and decommission the Project in accordance with this Agreement.

2.2 Permits. In accordance with this Agreement, PacifiCorp shall apply for and use reasonable efforts to obtain in a timely manner and in final form all applicable federal, state, regional, and local permits, licenses, authorizations, certifications (including a Section 401 Certification), determinations, and other governmental approvals for purposes of implementing this Agreement ("Permits"). PacifiCorp shall likewise use reasonable best efforts to obtain a FERC Order in a timely manner. The Parties shall cooperate during the permitting, environmental review, and implementation of this Agreement. Each Party, upon PacifiCorp's request, shall use its best reasonable efforts to support PacifiCorp's applications for Permits, provided that this sentence shall not apply to a Party that is the agency issuing the requested Permit. Except as expressly provided in this Agreement, PacifiCorp may not be required by this Agreement to implement any action under this Agreement until all applicable Permits required for that action are obtained in a form that does not conflict with or add to measures required by this Agreement and any and all applicable, prescribed periods for a petition for administrative or judicial review or appeal or any similar proceeding relating to any Permit ("Proceeding") have expired without any such Proceeding having been commenced or, in the event any such Proceeding is commenced, until any such Proceeding is terminated on terms and conditions that do not conflict with or add to measures required by this Agreement. Each Party shall bear its own costs of participating in any Proceeding. In the event any Proceeding is commenced, the Parties shall confer to evaluate the effect of such Proceeding on implementation of this Agreement. Nothing in this Section 2.2 shall be construed to limit PacifiCorp's ability to apply for a Permit before issuance of the FERC Order.

2.3 Communications with FERC and Other Government Agencies. Except as required to comply with applicable law, the Parties shall (i) make comments and respond to comments or responses to comments filed by them in the context of a FERC Order, Permit or TMDL proceeding only in a manner that is consistent with and that does not recommend conflicting or additional measures from those required by this Agreement; and (ii) to the extent they participate in relevant regulatory proceedings, actively support this Agreement and the incorporation of terms that are consistent with and that do not conflict with or add to measures required by this Agreement into Permits and TMDLs. If any Party advocates, after the Effective Date, to FERC or in any other forum, conditions that conflict with, add to or are otherwise inconsistent with this Agreement, the matter shall be addressed in accordance with Section 6 of this Agreement.

2.4 Timing of Obligations. The implementation schedule attached to and incorporated by reference into this Agreement as Appendix A specifies the schedule for implementation of Protection, Mitigation and Enhancement ("PM&E") measures during the interim operating period (Table A), and implementation of decommissioning and related PM&E measures

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(Table B). If there is a specific provision of this Agreement relating to the schedule for implementation of a particular measure and that provision conflicts with Appendix A, the specific provision in this Agreement controls. If there is no specific provision in this Agreement relating to the schedule for implementation of a particular measure, the schedule for implementation set forth in Appendix A controls. The schedule may be modified only with the written consent of all Parties, which modification shall constitute an amendment of this Agreement.

### 2.5 Section 401 Certification Procedures.

2.5.1 Section 401 Certification Upon Application to FERC. Concurrent with PacifiCorp's request for a FERC Order, PacifiCorp shall file with ODEQ an application for Section 401 Certification of interim operation and decommissioning of the Project that is consistent with this Agreement. The Section 401 Certification application shall consist of applicable information required under Oregon Administrative Rule 340-048-0020(2), this Agreement (with Appendices and Exhibits), and any other appropriate information. PacifiCorp shall pay ODEQ an application fee in accordance with ORS 468.065(3) upon invoice from ODEQ or other mutual arrangement. In evaluating PacifiCorp's Section 401 Certification application, ODEQ shall incorporate and rely on the ODEQ "Evaluation and Findings Report" dated May 26, 2000, to the extent applicable to interim operation and decommissioning activities, as well as consider any other relevant information, including but not limited to data generated in connection with the TMDL Operational Plan. ODEQ shall provide public notice and an opportunity to comment on a proposed Section 401 Certification decision that is consistent with the proposed Section 401 Certification conditions set forth in Exhibit 1 to this Agreement. If, as a result of consideration of public comment and any new information, ODEQ issues a Section 401 Certification that requires measures that conflict with, add to, or are otherwise inconsistent with those water-quality-related measures required by this Agreement, as set forth in Exhibit 1, the Parties shall address any such inconsistency in accordance with Section 6 of this Agreement. ODEQ shall endeavor to issue this Section 401 Certification within four months of receiving the application.

2.5.2 Effect on June 2000 Certification. For purposes of the interim operation and decommissioning for which PacifiCorp shall request FERC approval pursuant to this Agreement, the Section 401 Certification issued by ODEQ under Section 2.5.1 above shall supersede the June 2000 Certification. The June 2000 Certification shall be effective only in the event (i) FERC issues a new license for the Project as requested by PacifiCorp in June 1999, and (ii) PacifiCorp accepts the new license. ODEQ and PacifiCorp agree that the agreement between ODEQ and PacifiCorp dated June 9, 2000 for implementation of the June 2000 Certification shall terminate upon PacifiCorp's acceptance of a Final FERC Order.

2.5.3 Section 401 Certification for Federal Permits for Decommissioning Activities. Upon applying for a federal permit or permits for decommissioning activities required by this Agreement, including a dredge and fill permit from the U.S. Army Corps of Engineers ("Corps") pursuant to CWA Section 404 ("Section 404 Permit"), PacifiCorp shall provide written notice of such application and of any proposed changes in decommissioning activities since the date of



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issuance of ODEQ's Section 401 Certification under Section 2.5.1 above. Within 60 days of ODEQ's receipt of notice from the Corps or other federal permitting agency that it is processing PacifiCorp's application, ODEQ, consistently with 33 U.S.C. § 1341(a)(3), shall notify the federal agency and PacifiCorp either (i) that the Section 401 Certification issued by ODEQ under Section 2.5.1 above is sufficient for purposes of the federal permit and permit conditions, or (ii) that, in light of new information related to the water quality impacts of decommissioning activities since issuance of the Section 401 Certification under Section 2.5.1, there is no longer reasonable assurance of compliance with state water quality standards. In the latter event, ODEQ shall consider the new information, solicit and consider public and agency comment as required by law, and issue a Section 401 Certification determination for purposes of the federal permit and decommissioning activities. If, as a result of consideration of public comment and any new information, ODEQ issues a Section 401 Certification that requires measures that conflict with, add to, or are otherwise inconsistent with those water-quality-related measures required by this Agreement, as set forth in Exhibit 1, the Parties shall address any such inconsistency in accordance with Section 6 of this Agreement.

2.5.4 Application for Delegated State Section 404 Permit for Decommissioning Activities. In the event the Oregon Division of State Lands ("ODSL") assumes authority to administer a dredge and fill permit program under CWA Section 404 by the time a Section 404 Permit is required for Project decommissioning activities, PacifiCorp shall apply for such a Section 404 Permit from ODSL. ODEQ, ODFW and OWRD shall provide comments to ODSL in accordance with ORS 196.825 or successor statutes in effect at that time. Subject to consideration of any new information at the time of the application for the Section 404 Permit and consideration of any public comment as may be required by law, ODEQ, ODFW and OWRD shall provide ODSL with comments or proposed conditions that are consistent with and that do not conflict with or add to measures required by this Agreement. If ODEQ, ODFW or OWRD provide comments or proposed conditions that would require PacifiCorp to undertake measures that conflict with, add to, or are otherwise inconsistent with those measures required by this Agreement or Exhibit 1, the Parties shall address any such inconsistency in accordance with Section 6 of this Agreement.

### SECTION 3: INTERIM OPERATING PERIOD

3.1 Interim Operating PM&E Measures. PacifiCorp shall implement the PM&E measures set forth in Sections 3.2 through 3.14, beginning at the time designated for each measure in this Section and Appendix A, Table A, and continuing until decommissioning begins in accordance with the schedule in Appendix A, Table B, or until notification pursuant to Section 5.1, whichever happens first.

3.2 Ramping Rate. The following ramping rates apply to all ramping at the Project but do not apply to forced outages, except that they shall apply to Project start-up after such an outage.

3.2.1 Requirements After Effective Date. Upon the Effective Date, PacifiCorp shall commence development, in consultation with NMFS, USFWS, ODFW, ODEQ and CTWS, of standard operating procedures for meeting the ramping requirements described in this Section

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3.2.1 and Section 3.2.2. In addition, upon the Effective Date, PacifiCorp shall commence development of a monitoring plan in consultation with NMFS, USFWS, ODEQ, ODFW and CTWS to document the rate of change in water level or stage in the river. Beginning 30 days after the Effective Date and continuing through commencement of ramping requirements under Section 3.2.2, PacifiCorp shall make reasonable efforts, using existing equipment, to limit the ramping rates in the bypass reach to three inches per hour, with a preferred target of two inches per hour. PacifiCorp shall make a reasonable effort to complete the standard operating procedures and monitoring plan prior to the FERC Order.

3.2.2 Requirements After FERC Order and Final FERC Order. Upon the FERC Order, if not already completed, PacifiCorp shall complete the standard operating procedures and monitoring plan referred to in Section 3.2.1. Beginning 30 days after the Final FERC Order, PacifiCorp shall make reasonable efforts to limit the ramping rates in the bypass reach to no more than two inches per hour, and in any event such rates shall not exceed three inches per hour, in accordance with the standard operating procedures and monitoring plan.

3.2.3 Response to Monitoring. Should development or implementation of the monitoring plan referred to in Sections 3.2.1 and 3.2.2, or the resulting data, show that a different ramping rate will result in the same protections for aquatic species (for example, when Inflows are already high), PacifiCorp may propose such a different ramping requirement. Upon the written approval of NMFS, USFWS, ODFW, ODEQ and CTWS, the approved variation shall be substituted for the above ramping requirements, without requiring amendment of this Agreement.

3.2.4 Unplanned Outages. Following an unplanned outage, PacifiCorp shall observe conditions directly downstream of the Project dam and powerhouse. Should PacifiCorp or another Party identify a fish stranding problem, PacifiCorp shall use its best reasonable efforts to minimize the impacts of such stranding by relocating such fish to the river in consultation with ODFW, CTWS, NMFS and USFWS.

3.3 Instream Flows and Temperature. The minimum instream flow requirements set forth in this Section 3.3 shall be met using a combination of flows from the fish ladder, fish screen bypass flow, trash sluice, and spillway gates.

3.3.1 Requirements After Effective Date. Upon the Effective Date and continuing through commencement of minimum instream flow requirements under Section 3.3.2, PacifiCorp shall make reasonable efforts, using existing equipment, to implement in the bypass reach either the following minimum instream flows, or Inflow (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), whichever is less:

- (i) February 1 to April 14: 220 cubic feet per second (“cfs”);
- (ii) April 15 to June 30: manage flows as set forth in Section 3.4 below;
- (iii) July 1 to October 31: 250 cfs;
- (iv) November 1 to November 30: 220 cfs;
- (v) December 1 to January 31: 140 cfs.

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Upon the Effective Date, PacifiCorp shall commence development of standard operating procedures in consultation with ODFW, ODEQ, NMFS, USFWS and CTWS, to determine the accuracy of the existing Programmable Logic Control or alternative method for monitoring compliance with minimum instream flows. PacifiCorp shall make a reasonable effort to complete the standard operating procedures prior to the FERC Order.

**3.3.2 Requirements After FERC Order and Final FERC Order.** Upon the FERC Order, if it is not already completed, PacifiCorp shall complete the standard operating procedures referred to in Section 3.3.1. Beginning 30 days after the Final FERC Order, PacifiCorp shall implement in the bypass reach either the minimum instream flows set forth in Section 3.3.1(i)-(v), or Inflow (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), whichever is less. Instream flows shall be measured by a Programmable Logic Control or alternative method for monitoring compliance with minimum instream flows, consistent with the standard operating procedures developed pursuant to Section 3.3.1. Instream flows shall be maintained on an average hourly basis. Once the standard operating procedures are implemented, PacifiCorp shall publicly post hourly flow data on the Internet. The Internet posting shall clearly display the total average hourly river flow being released into the bypass reach directly downstream of the diversion dam. The Internet posting shall also display the average hourly flow being diverted to the flow conveyance system. Flows shall be reported in cfs. PacifiCorp shall post hourly flow measurements as timely as possible but no more than 24 hours after such measurements are taken.

**3.3.3 Temperature Monitoring.** After the Effective Date, PacifiCorp shall monitor stream temperatures hourly from July 1 through October 15 each year at sites PDBUP (upstream end of the bypass reach, approximately 50 meters downstream of the dam) and PDBDN (downstream end of the bypass reach, approximately 250 meters upstream of the powerhouse). The accuracy of temperature recorders shall be tested before and after field deployment to ensure that they are operating within their designated range of accuracy. In addition to pre- and post-deployment checks, the temperature recorders shall be audited monthly during the field measurement period. The pre- and post-deployment and monthly field audit checks shall be made using a National Institute of Standards and Technology ("NIST") traceable (calibrated and maintained) thermometer accurate to  $\pm 0.2^{\circ}\text{C}$  or better, which has been checked against an NIST traceable thermometer. In addition, for the period July 1 through October 15, PacifiCorp, upon the Effective Date, shall record existing data on flows released into the bypass reach, and upon the Final FERC Order, shall record average hourly flows released into the bypass reach. These flows shall be measured in accordance with Section 3.3.1 or Section 3.3.2, whichever is applicable. ODEQ may make reasonable and feasible modifications to the temperature and monitoring requirements of this Section 3.3.3, and, in consultation with ODFW, OWRD, NMFS, USFWS and CTWS, may make reasonable and feasible modifications to the flow monitoring requirements of this Section 3.3.3 if (i) the monitoring requirements prove to be insufficient to provide the necessary data or (ii) modifications to minimum instream flow requirements require modifications to monitoring requirements.

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3.3.4 Response to TMDL Temperature Monitoring. In order to meet its TMDL load allocation from September 15 to October 15, PacifiCorp shall undertake the following measures:

3.3.4.1 Annual Temperature and Flow Monitoring Report. After the Effective Date, PacifiCorp shall provide ODEQ with an annual temperature and flow monitoring report by December 31 of each year. The annual monitoring report shall include flow data and hourly temperature data, pre- and post-deployment data, and monthly field audit data required by Section 3.3.3 for that calendar year. The annual report shall identify any instances in which the seven-day moving average of daily maximum temperatures measured at the downstream end of the bypass reach exceeded 55°F during the period from September 15 through October 15. If any such instances are identified in the first three years of monitoring, PacifiCorp shall submit in the third annual temperature and flow monitoring report to ODEQ an evaluation of whether the temperature increase in the bypass reach was 0.25°F (as a seven-day moving average) more than the increase that would have occurred had the Project not diverted water from the bypass reach. In lieu of conducting this evaluation, PacifiCorp may assume that any temperature increase between the upstream and downstream ends of the bypass reach is due to Project diversions.

3.3.4.2 Measures to Reduce Stream Warming from September 15 through October 15. If, based on the evaluation or assumed Project impact described in Section 3.3.4.1, ODEQ determines that the stream warming that occurred in the bypass reach was 0.25°F more than would have occurred had there been no Project diversions, PacifiCorp shall, within 90 days after written notification from ODEQ, submit to ODEQ a written proposal for measures that PacifiCorp will take to ensure that the Project-related warming in the bypass reach is not more than 0.25°F (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15. The proposal shall include a proposed schedule for implementing the measures. The measures may include, but are not limited to, the following:

(i) Temperature modeling for the period September 15 through October 15 to determine what minimum instream flows would be necessary to reduce Project-related warming to 0.25°F or less (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures at the downstream end of the bypass reach exceeds 55°F. If increased minimum flows are necessary and feasible, PacifiCorp shall provide the increased flows for the necessary period, subject to the limits set forth in Section 3.3.4.3.

(ii) In the alternative, PacifiCorp may elect not to divert water (except for amounts required to compensate for flowline leakage up to 25 cfs) whenever and so long as the river temperature exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15.

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3.3.4.3 Limits on Minimum Instream Flow Modifications. The following limitations apply to modifications of minimum instream flows under this Section 3.3:

(i) ODEQ shall not require modification of flows beyond those reasonably necessary to prevent a Project-related instream temperature increase of 0.25°F or more. This limitation shall only apply upon ODEQ's determination that PacifiCorp has satisfactorily demonstrated under prevailing conditions that any such modification would result in a Project-related temperature increase of less than 0.25°F.

(ii) Modification of minimum instream flows shall be limited to no more than a 50 cfs increase in any two-year period.

(iii) PacifiCorp's responsibility to fulfill minimum instream flow requirements shall be limited to reducing Project diversions from the bypass reach.

(iv) No increase in minimum instream flows shall be required before September 15, 2006.

3.3.5 Powerhouse Cooling Water Discharge. Heat discharged to the Hood River through powerhouse cooling water shall not exceed 19.31 million kilocalories per day.

3.3.6 TMDL Reservation. In the event that the Project continues to divert water for power generation or Project maintenance during and after 2012, ODEQ reserves the right to modify the Section 401 Certification for the Project, in accordance with OAR Chapter 340, Division 48, as needed to ensure implementation of TMDLs for any applicable period.

### 3.4 Temporary Reduction in Diversion Flow.

3.4.1 General. From April 15 to June 30 each year, PacifiCorp shall reduce diversion flow to a maximum of 25 cfs. All flows in excess of the amount required to compensate for flowline leakage up to 25 cfs shall be passed by the dam.

3.4.2 Resuming Power Generation. PacifiCorp may resume power generation on July 1 of each year. For the 96 hours prior to the start-up of the turbine unit, PacifiCorp shall use multiparameter continuous monitoring devices approved by ODEQ to sample water quality at two sites in the river agreed upon by ODEQ. One site shall be approximately 250 meters upstream of the powerhouse tailrace in the river along the east bank; the other shall be approximately 30 meters downstream of the powerhouse tailrace's confluence with the river along the east bank. The continuous sampling devices shall sample and record hourly stream temperature, dissolved oxygen, pH, and turbidity. At least 72 hours prior to the start-up of the turbine unit, but not less than 24 hours after commencing the continuous monitoring, PacifiCorp shall open a 10-inch drain valve in the powerhouse near the tailrace to provide a slow exchange of flowline water. Upon beginning generation on July 1, PacifiCorp shall set the turbine generator unit on the minimum wicket gate setting required to synchronize the turbine generator.

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PacifiCorp shall then ramp the turbine generator load in sufficiently small increments to the extent feasible to maintain the ramping requirements set forth in Section 3.2. Monitoring under this Section 3.4.2 at the two sampling sites may cease 24 hours after beginning generation. The multiparameter devices shall be calibrated for each parameter according to the manufacturer's specifications prior to deployment. At the time the instruments are placed in the water and when they are retrieved at each site, PacifiCorp shall measure stream temperature with a certified NIST thermometer and collect a sample for a Winkler titration for dissolved oxygen at each site. Within 30 days after the instruments are retrieved, PacifiCorp shall forward ODEQ the electronic files of the continuous sampling and calibration data.

3.4.3 Alternative Measures. The procedure outlined in Section 3.4.2 may provide dilution of flowline water in excess of that necessary to comply with water quality standards. PacifiCorp may reduce or cease its monitoring effort under Section 3.4.2 following three consecutive years of monitoring data, of quality considered accurate and reliable to ODEQ, demonstrating that the flowline water does not contribute to an exceedance of a water quality standard at the downstream monitoring site described in that Section. In the absence of three years of such data, PacifiCorp may reduce or cease its monitoring effort under Section 3.4.2 if ODEQ provides written approval based upon an ODEQ determination that there is no reasonable potential for the flowline water to contribute to exceedance of one or more water quality standards at the downstream monitoring site. If, notwithstanding use of the procedure described in Section 3.4.2, the flowline water causes an exceedance of water quality standards at the downstream monitoring site, ODEQ may direct PacifiCorp to develop and propose, within a reasonable time specified by ODEQ, alternative measures for ensuring that the flowline water does not cause an exceedance of water quality standards at the downstream monitoring site upon beginning generation. Upon approval by ODEQ, PacifiCorp shall implement the alternative measures, which may include increased diversion flow during the period April 15 through June 30.

3.5 Planned Outages. Beginning 30 days after the Effective Date, PacifiCorp shall, to the extent feasible, limit planned outages to coincide with the temporary reduction of diversion flow provided in Section 3.4 or with the summer, and shall limit planned non-summer outages to 24 hours to the extent reasonably feasible. PacifiCorp shall notify ODFW, NMFS, USFWS, and CTWS of planned outages and subsequent start-up periods to allow for monitoring of those areas with the greatest possibility for fish stranding.

3.6 Flushing. Beginning 30 days after the Effective Date, PacifiCorp shall restrict flushing of the sand settling basin to periods when bypass reach instream flows are at least 500 cfs, and preferably greater than 1,000 cfs.

3.7 Intake Screens. Upon the Effective Date, PacifiCorp shall continue to operate and maintain existing intake screens in working order. This work shall include regular inspections and the repair, rehabilitation or replacement, as needed, of seals and moving components such as chain drives, sprockets, screen baskets, motors and screen wash equipment. If a screen is damaged beyond repair, PacifiCorp shall replace it with a screen of similar design; however,

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PacifiCorp shall not be required to design or install an upgraded fish screen or otherwise make technological or other major improvements.

3.8 Fishway Auxiliary Water Intake. On or before the FERC Order, PacifiCorp shall identify and obtain NMFS, USFWS, ODFW and CTWS written approval of a method for maintaining the fish ladder auxiliary attraction water bar rack within the ladder sufficiently free of debris to allow adequate attraction flows. Alternatives to be considered shall be limited to the following unless the Parties agree otherwise: frequent manual cleaning, modification of the bar spacing on the existing intake trash rack, installation of an intake device incorporating v-bar screen technology, or changing the spacing of the bars on the rack within the ladder. Recommendations and supporting documentation shall be shared with NMFS, USFWS, ODFW and CTWS. No later than the first in-water work opportunity following the Final FERC Order, PacifiCorp shall implement the approved method for maintaining the fish ladder auxiliary attraction water bar rack sufficiently free of debris.

3.9 Ground-Disturbing Activities. Unless emergency conditions exist that require immediate actions, beginning 30 days after the Effective Date PacifiCorp shall limit impacts to terrestrial and wetland habitat from any ground-disturbing activities by (i) minimizing the area of disturbance; (ii) adhering to conditions in any applicable U.S. Army Corps of Engineers or Oregon Division of State Lands wetlands permit(s); (iii) consulting with state and federal wildlife agencies, CTWS, and, when necessary, the Columbia River Gorge Commission prior to carrying out the work to determine appropriate protection measures; (iv) limiting construction to the summer and fall; (v) revegetating disturbed areas with native vegetation to the extent feasible; and (vi) controlling sedimentation of aquatic habitat through the erosion control measures contained in the applicable permit(s). PacifiCorp shall conduct a survey before the initial ground-breaking activity for rare, threatened and endangered species in areas planned for significant construction activities, and shall coordinate with the USFWS, ODFW, Oregon Department of Agriculture and Oregon Natural Heritage Program to ensure that the target species list is current.

3.10 Rare, Threatened and Endangered Terrestrial Species. Beginning 30 days after the Effective Date, PacifiCorp, if requested by USFWS or ODFW, shall cooperate with such agencies in their continuing efforts to monitor bald eagles, harlequin ducks and other federal- or state-listed rare, threatened or endangered terrestrial species documented within the Project boundary by (i) providing access to the Project, and (ii) providing data collected by PacifiCorp personnel regarding such species.

3.11 Cultural Resources Management Plan. Beginning 30 days after the Effective Date, PacifiCorp shall consult with the Oregon State Historic Preservation Office ("SHPO") and FERC staff to begin revising its draft Cultural Resources Management Plan ("CRMP") to reflect the actions proposed in this Agreement. It is anticipated that FERC will issue a new Programmatic Agreement between itself and the SHPO to reflect the terms of this Agreement and the revised CRMP. PacifiCorp shall make a reasonable effort to complete the revised CRMP prior to the FERC Order; however, the Parties recognize that the timing of the FERC Order may result in later completion. Upon the FERC Order, if it is not already completed, PacifiCorp shall complete and begin implementing the revised CRMP as soon as practicable.

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3.12 Recreation Facilities. Upon the Effective Date, PacifiCorp shall continue to maintain existing recreation facilities on an as-needed basis through PacifiCorp's existing operations and maintenance program. In addition, PacifiCorp shall perform the following at Powerdale Park: (i) when the existing toilet needs replacing, provide and maintain a portable, ADA-accessible toilet; (ii) within one year after the Effective Date, provide one additional picnic table; (iii) within two years after the Effective Date, provide a second additional picnic table; and (iv) within 30 days after the Final FERC Order, install trail directional signs and a Project interpretive sign. PacifiCorp shall also perform the following at the Powerhouse day-use site: (a) within 30 days after the Final FERC Order, install and maintain a portable, ADA-accessible toilet at the Powerhouse day-use site and construct a pathway to that toilet; and (b) within 30 days after the Final FERC Order, install warning signs regarding fluctuating water levels, trail directional signs, and a salmon interpretive sign.

3.13 Information Sharing. In addition to any water quality information sharing required pursuant to the Section 401 Certification, the following information shall be shared with the Parties to assist in compliance monitoring and general decisionmaking.

3.13.1 Requirements After Effective Date. Beginning 30 days after the Effective Date and continuing through commencement of records maintenance and sharing requirements under Section 3.13.2, PacifiCorp shall provide the Parties with reasonable access to data related to PacifiCorp's implementation of this Agreement and created with existing equipment, such as records at the powerhouse and data regarding planned and unplanned outages, but not including PacifiCorp financial data. In addition, PacifiCorp shall convene an annual meeting with NMFS, USFWS, ODFW and CTWS to discuss any fish and wildlife mitigation and monitoring activities. Except as required by applicable law, the Parties shall keep confidential all records marked "confidential" or "proprietary" and not disseminate all or part of, or otherwise share the contents of, such records.

3.13.2 Requirements After Final FERC Order. Beginning 30 days after the Final FERC Order, PacifiCorp shall maintain records of Project operations, including instream flow releases, ramping conditions, and temperature monitoring reports, and shall make such records available to the Parties upon request. In addition, PacifiCorp shall convene an annual meeting with NMFS, USFWS, ODFW and CTWS and shall provide an annual report to such agencies summarizing fish and wildlife mitigation and monitoring activities. On reasonable notice, PacifiCorp shall provide the Governmental Parties with access to Project facilities and records related to implementation of the Agreement, but not including PacifiCorp financial information. Except as required by applicable law, the Parties shall keep confidential all records marked "confidential" or "proprietary" and not disseminate all or part of, or otherwise share the contents of, such records.

3.14 Maintenance of Lands During Interim Period. Beginning upon the Effective Date and continuing through March 29, 2012, PacifiCorp shall continue to own the lands identified in Appendix D (the "Subject Lands") and shall not dispose of, encumber, or initiate changes in the character of such lands, except (i) as provided in Section 4.4; (ii) for those actions specified in



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Appendix E; and (iii) after providing the Lands Stakeholders reasonable advance notice and an opportunity to comment, as reasonably necessary or desirable for the prudent ownership and management of the Subject Lands (e.g., granting easements or quitclaims for utilities, road widening, repairs and maintenance, stormwater facilities, and distribution lines).

### SECTION 4: DECOMMISSIONING

4.1 Decommissioning Actions. PacifiCorp shall perform the decommissioning actions set forth in this Section 4.1 and the decommissioning plan attached to and incorporated by reference into this Agreement as Appendix B. If any provision in Section 4.1 and Appendix B conflict, the provision in this Section 4.1 shall control. Subject to Sections 2.2 and 7.3, PacifiCorp shall complete the decommissioning actions within the time specified for each action in Appendix A, Table B, but in no event shall PacifiCorp be required to begin such actions prior to the Final FERC Order. Such times may only be modified with the written consent of all Parties, or by amending this Agreement in accordance with Section 6.13.

4.1.1 Diversion Dam. PacifiCorp shall remove the diversion dam including the roller gates, hoists and bridge, piers, walls, spillway, un-gated overflow section, fishway, embankment sections, and intake to the level of the original riverbed.

4.1.2 Intake. PacifiCorp shall perform the following actions regarding the intake: (i) remove all concrete portions of the structure above original river bed; (ii) remove the 6-foot-wide gated trash sluice, trashracks, traveling basket fish screens, and all related structural, mechanical and electrical equipment associated with the intake; (iii) remove the intake headgate that regulates flow from the intake into the power canal; (iv) remove the trash gate located between the intake structure and the trash sluice; and (v) remove several miscellaneous structures, including the control gatehouse, operator's house, and non-essential fencing. The operator's house may be left in place with the consent of a Grantee identified pursuant to Section 4.4.

4.1.3 Power Canal, Steel Flume and Sand-Settling Basin. PacifiCorp shall perform the following actions regarding the power canal, steel flume, and sand-settling basin: (i) break up and fill the 604-foot-long, trapezoidal concrete power canal with materials from the cofferdams and earth embankments, and blend it with the adjoining river bank; and (ii) remove the 550-foot-long steel flume, 142-foot-long concrete sand-settling basin, 254-foot-long steel flume, and 33-foot-long concrete structure.

4.1.4 Flowline Pipe. PacifiCorp shall perform the following actions regarding the approximately 14,500-foot-long flowline: (i) remove three sections of 10-foot-diameter wood stave pipe (a 480-foot-long section, a 1,564-foot-long section, and a 488-foot-long section) located in the first 4,692 feet of flowline and totaling 2,532 feet of wood stave, and identified in Appendix B, Figure 5.2, attached to and incorporated by reference into this Agreement; (ii) remove the concrete saddles associated with these three sections of wood stave; (iii) leave in place all remaining components of the flowline, including steel pipe located between and adjacent to the removed wood stave pipe; and (iv) create a wildlife access path beneath each of

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the two remaining upstream sections of steel flowline (commonly referred to as the “Flat Top” and “Hog Ranch” sections) at approximately the center of each section by excavating below the flowline to create an approximately six-foot-high passage.

4.1.5 Flowline Bridge. PacifiCorp shall leave the flowline bridge and associated access to the steel catwalk in place.

4.1.6 Surge Tank. PacifiCorp shall use a shaped charge to topple the surge tank. PacifiCorp shall then cut the surge tank into pieces to be salvaged as scrap material.

4.1.7 Powerhouse. PacifiCorp shall perform the following actions regarding the powerhouse: (i) leave the concrete powerhouse structure in place; (ii) remove all internal non-structural features; (iii) replace window glass with security-oriented architectural treatments; (iv) remove the metal-sided maintenance garage located immediately adjacent to the south side of the powerhouse; (v) use the outdoor traveling gantry crane which spans the powerhouse to remove equipment from the interior of the powerhouse, then dismantle and remove the operable components of the crane, leaving the structural members of the crane in place; (vi) drain all oil and hydraulic fluids from equipment located inside the powerhouse; (vii) remove any loose equipment, parts and materials; (viii) remove the internal rotating generator and turbine components; (ix) seal the turbine pit with concrete; (x) maintain power to the switch room for as long as is necessary to support remaining facilities; (xi) re-grade the areas surrounding the surge tank and maintenance garage to match surrounding contours; and (xii) secure the powerhouse building, all remaining equipment, and adjacent remaining facilities.

4.1.8 Switchyard. PacifiCorp shall perform the following actions regarding the switchyard: (i) remove all components related to the transmission of power generated by the Project; (ii) leave in service all equipment required to supply or control power to the distribution switch/control panels in the powerhouse and equipment associated with the operation of PacifiCorp’s transmission/distribution system; and (iii) modify the existing fencing around the switchyard and powerhouse as necessary to provide additional security.

4.1.9 Fish Sorting and Trapping Facility. PacifiCorp will ensure that the Powerdale Dam Fish Trapping Facility (“Fish Trapping Facility”) is removed by February 29, 2012, unless otherwise agreed in writing by the Parties, pursuant to the First Amended Permit (Hydro Lands) executed by BPA and PacifiCorp on May 15, 2003 and attached hereto as Exhibit 3.

4.2 Decommissioning PM&E Measures. In association with the decommissioning actions set forth in Section 4.1, PacifiCorp shall perform the following PM&E measures. If any provision in Section 4.2 and Appendices A (decommissioning schedule) or B (decommissioning plan) conflict, the provision in this Section 4.2 shall control.

4.2.1 Erosion and Sediment Control Plan. Prior to taking any in-water decommissioning actions pursuant to Section 4.1, PacifiCorp shall develop and implement an Erosion and Sediment Control Plan (“ESCP”), in consultation with and with the approval of NMFS, USFWS, ODEQ, ODFW and CTWS, that identifies specific methods that shall be

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implemented at each work area to protect water quality. The ESCP shall address: (i) protection of the Hood River from unplanned releases of sediment and debris during decommissioning activities; (ii) disposition of sediment and decommissioning debris in accordance with applicable law, PacifiCorp's Spill Prevention Control and Countermeasure Plan, and public health and safety; (iii) implementation of permanent revegetation measures consistent with best management practices; and (iv) dam removal, which shall be conducted in dry conditions using a coffer dam and artificial channel to divert flows from work areas. In addition, the ESCP shall specify measures such as berms, ditches, sediment retention basins, silt fencing, and site restoration to be undertaken by PacifiCorp.

### 4.2.2 Aquatic Resources.

4.2.2.1 Timing and Notification of In-Water Work. For all in-water work required by Section 4.1 of this Agreement, PacifiCorp shall conduct such work between July 15 and August 31, or outside of that time period with the approval of ODFW, NMFS and USFWS. Actions that are likely to occur outside of the July 15 to August 31 period include the following decommissioning actions:

- (i) Construction and removal of upstream and downstream cofferdams, cofferdam materials and culverts;
- (ii) Removal of the artificial upstream fish passage channel and bypass flume;
- (iii) Placement of materials (relocated cofferdam materials and available streambed materials) along the river to create access for removal of remaining portions of dam and fish ladder;
- (iv) Placement of materials to regrade and armor the east and west banks of the river to harden the disturbed areas; and
- (v) Regrading of the streambed above and below the dam as necessary to assist with removal of any barriers to fish passage created as a result of decommissioning activities.

PacifiCorp shall provide NMFS, USFWS, ODFW and CTWS reasonable notice before initiating any in-water work, regardless of when it occurs, to enable such Parties to view the work and recommend fish salvage or other immediate measures to avoid fish stranding or delay. PacifiCorp shall undertake such measures with the assistance of ODFW and CTWS. For purposes of this Section, "in-water work" does not include dam removal or other decommissioning actions performed in areas that have been dewatered for purposes of decommissioning actions.

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### 4.2.2.2 Fish Passage During Dam Removal.

4.2.2.2.1 Manner of Fish Passage. During construction of the cofferdams associated with dam removal activities, PacifiCorp shall extend the existing fish ladder return channel upstream of the dam to above the upstream cofferdam work, and shall install culverts through the downstream cofferdam to provide continued access to the existing fish ladder entrance; provided that PacifiCorp shall not provide such fish passage through the cofferdam culvert if NMFS, USFWS, ODFW and CTWS agree that such passage is not necessary. Coincidental to the construction of the cofferdams, PacifiCorp shall construct an artificial channel extending from a mid-point on the existing fish ladder to a location immediately downstream of the downstream cofferdam. Upon completion of this channel and the bypass channel (described below), PacifiCorp shall close the fish access through the downstream cofferdam, allowing upstream migrants to enter the existing fish ladder structure through a newly constructed access. PacifiCorp shall place rock between the upstream return channel and water bypass intake to minimize upstream migrant entrainment into the downstream bypass flume. During dam removal, PacifiCorp shall divert river flow past the work zone using portions of the existing water conveyance system's steel flume by installing removed sections of the steel flume from above the upstream cofferdam to below the downstream cofferdam, passing over the overflow section and existing fish ladder. This will provide downstream fish passage. PacifiCorp shall position the bypass flume to discharge directly into a pool constructed at the entrance of the upstream passage channel to attract upstream migrants to the channel. The discharge area shall be designed with adequate pool area and depth to minimize impingement of downstream migrants on the bottom or sides of the pool. The requirements of this Section 4.2.2.2.1 may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

4.2.2.2.2 Final Fish Passage Design and Construction Plans. Prior to changing any of the existing fish passage facilities or constructing any new fish passage facilities associated with dam removal, PacifiCorp shall prepare final fish passage design and construction plans in consultation with NMFS, USFWS, ODFW and CTWS. The final design and construction plans shall be consistent with Section 4.2.2.2.1 and the following criteria, which may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

- (i) The outfall from the flume shall be designed in accordance with, as appropriate, sections 7.4.1, 7.4.2, 7.4.3, 13.10.4, 13.10.5 and 13.10.6 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date (attached as Exhibit 5). In addition, the pool volume and depth will be designed to minimize pool bottom surface velocities and injury to fish. For purposes of section 13.10.5, the design will minimize, but may not completely avoid, creation of false attraction

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flows. The outfall shall have a 10-foot minimum drop to the pool below (to prevent adults from entering the pipe), and shall be designed to provide smooth, rounded edges and surfaces, using materials similar to the flume, to minimize injury to fish exiting the pipe and to jumping adults;

(ii) The pipe/flume shall be designed in accordance with, as appropriate, sections 13.9.3.1, 13.9.3.4, 13.9.3.5, 13.9.3.6, 13.9.3.9, 13.9.3.11, 13.9.3.13 and 13.9.3.14 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date (attached as Exhibit 5). Weathered steel surfaces presently existing on the steel flume sections, or alternatively the galvanized surfaces of standard culvert material, shall be considered acceptable for this application, provided that, if the interior surfaces of the existing steel flume are considered to be too rough to meet NMFS' Passage Facility Guidelines and Criteria, PacifiCorp shall install a liner or conduct sand blasting of the interior surfaces;

(iii) The temporary approach to the fishway channel entrance shall be constructed with "field placed" structure materials to optimize local hydraulic conditions. PacifiCorp shall provide NMFS, USFWS, ODFW and CTWS a minimum of seven days notice prior to the placement of these materials to allow their on-site participation in field direction of this placement work on-site;

(iv) The control structures within the temporary approach channel to the fishway entrance shall be placed at least one channel width apart. These structures shall have less than one foot of head differential (measured from upstream of the boulder control structures to the downstream water surface elevation), and shall not span the entire width of the approach channel (unless the depth provided over the channel-spanning structure is at least one foot);

(v) If fish will be passing through the temporary culvert(s) installed in the downstream coffer dam, such culverts shall meet, as appropriate, sections 9.7.5, 9.7.8 and 9.7.9 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date (attached as Exhibit 5). In addition, the bypass shall be designed in accordance with, as appropriate, sections 9.3.2 and 9.3.3 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date;

(vi) The design shall provide supplemental flow to the fishway discharge to allow optimal operation of the fish ladder and temporary approach channel; and

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(vii) The design shall be developed such that flow conveyed in the bypass flume is delivered below the temporary approach channel in a manner that will maximize both upstream and downstream passage. The design shall be developed such that the bypass flume and the upstream temporary approach channel work together to both attract adult fish to the temporary approach channel, minimize delay of both upstream and downstream migrants, and minimize injury to fish passing downstream.

4.2.2.2.3 ESA Agency Approval. For ESA purposes, PacifiCorp shall submit fish passage design and construction plans for the bypass flume, plunge pool, culvert, temporary approach channel, and fish ladder for NMFS and USFWS approval. If required to minimize the effect of any incidental take of listed species, NMFS and USFWS may require as a condition of their approval additions or changes to such design plans; provided, however, that if NMFS or USFWS requires as a condition of approval more than a minor change to such design or construction plans, or alters the basic design, location, scope, duration or timing of such plans, the condition shall be considered inconsistent under Sections 6.2 and 6.5 of this Agreement.

4.2.2.2.4 Fish Passage Monitoring and Contingency Plan. PacifiCorp shall conduct a geomorphology survey consistent with the scope of work attached as Exhibit 2. Within 18 months of the Effective Date, PacifiCorp shall provide a final geomorphology report to the Parties. The report shall describe: (i) current geomorphic conditions beginning 2,200 feet below the dam (near the stream gage) to 1,000 feet upstream of the dam, or above the vegetated island (whichever is farther); and (ii) the anticipated impact of sediment released from dam removal on fish passage and aquatic habitat downstream of the dam removal site. PacifiCorp shall develop and implement a fish passage monitoring and mitigation plan, in consultation with NMFS, USFWS, ODFW, ODEQ and CTWS, and approved by NMFS, USFWS and ODFW. In the event a fish passage obstruction, as defined by the plan, is caused or exacerbated by dam removal, PacifiCorp shall restore adequate fish passage by implementing mitigation measures set forth in the plan. PacifiCorp shall have no obligation to monitor or mitigate under this Section 4.2.2.2.4 for more than one cycle of seasons beyond the return of the river to natural conditions, as determined by a team composed of representatives of NMFS, USFWS, ODFW, CTWS and PacifiCorp, in accordance with the geomorphology report.

### 4.2.3 Terrestrial Resources.

4.2.3.1 Minimizing Impacts. PacifiCorp shall complete surveys for federal- or state-listed rare, threatened and endangered species in areas planned for construction and shall plan and design removal activities to minimize direct impacts on wildlife species and minimize habitat impacts.

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4.2.3.2 Revegetation and Mitigation. PacifiCorp, in consultation with the Parties, shall prepare and implement a Revegetation and Mitigation Plan (“RMP”). The RMP shall address the manner in which PacifiCorp, in conducting decommissioning activities, shall (i) minimize the area of disturbance to the extent feasible; (ii) adhere to conditions of any applicable U.S. Army Corps of Engineers or Oregon Division of State Lands wetlands permit; (iii) consult with state and federal wildlife agencies, CTWS, and, when necessary, the Columbia River Gorge Commission prior to carrying out the work to determine appropriate protection measures; (iv) limit construction to summer through fall months; (v) revegetate disturbed areas with native vegetation to the extent feasible, based on existing vegetation cover type mapping and potential wetland delineations; and (vi) control sedimentation of aquatic habitat as set forth in the ESCP. The Parties recognize that decommissioning may result in some unavoidable wetland alteration due to elimination of leaks from the existing wood stave flowline, and agree that PacifiCorp is not obligated to compensate for the removal of this artificial water source.

4.2.4 Cultural Resources. PacifiCorp shall reach a draft Memorandum of Agreement with the SHPO for submission to FERC prior to decommissioning. PacifiCorp shall photographically document eligible properties for pictorial preservation by the National Register. In addition, PacifiCorp shall consider mitigation measures for eligible properties such as recordation to the Historic American Buildings Survey/Historic American Engineering Record standards, and architectural salvage. Prior to modifying any structures, PacifiCorp shall consult with the SHPO, the National Park Service, the U.S. Army Corps of Engineers, CTWS, the Oregon Historical Society, the Hood River County Historical Society, and the County of Hood River, as appropriate. If ownership of the property and remaining eligible facilities are transferred to another entity, PacifiCorp shall provide documentation acknowledging that the facilities are eligible for listing in the National Register of Historic Properties and require treatment in a manner consistent with that National Historic Preservation Act.

4.2.5 Recreation Resources. PacifiCorp may restrict or prohibit public access to the two existing day-use sites and the bypass reach while portions of decommissioning activities take place. Where full or restricted access is provided, PacifiCorp shall: (i) provide appropriate signing and public notification prior to demolition and restoration activities to inform the public of planned activities and temporarily restricted public access to the bypass and day-use sites; (ii) minimize impacts to the fishing experience by implementing a demolition program that minimizes the length of time that the river is affected; and (iii) where feasible, restore river trails, access roads and parking areas to pre-construction conditions following decommissioning activities.

4.2.6 Land Use and Management and Aesthetics/Visual Resources. Except as otherwise provided in this Agreement, the Parties agree that PacifiCorp shall not be obligated to perform additional measures addressing impacts to land use, land management, aesthetics or visual resources during or after decommissioning.

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### 4.3 Disposition of Water Rights.

4.3.1 Assignment. Within 90 days of permanent cessation of power at the Project, PacifiCorp shall assign its PacifiCorp Hydroelectric Water Right for the Powerdale Project (Certificate No. 46965) to OWRD for conversion to an instream water right pursuant to ORS 543A.305. OWRD shall accept the PacifiCorp Hydroelectric Water Right "AS IS"; PacifiCorp expressly disclaims any representation or warranty concerning the PacifiCorp Hydroelectric Water Right or its convertibility to an instream water right. Prior to the initiation of the conversion process, PacifiCorp shall use reasonable efforts to avoid allowing the PacifiCorp Hydroelectric Water Right to be forfeited for non-use, and shall not otherwise intentionally jeopardize the validity of the PacifiCorp Hydroelectric Water Right, except to the extent that the licensing authority requires flow regimes inconsistent with the PacifiCorp Hydroelectric Water Right, and in times of water shortage PacifiCorp and OWRD may agree with other existing water users to prorate water shortages notwithstanding relative priority dates. Instream flows required under this Agreement (Section 3.3) or by a FERC Order or license shall be considered part of PacifiCorp's use of water under its PacifiCorp Hydroelectric Water Right, but only to the extent that water available to PacifiCorp under its PacifiCorp Hydroelectric Water Right is needed to satisfy the instream flows. Nevertheless, if PacifiCorp's use of water under the PacifiCorp Hydroelectric Water Right becomes an issue, PacifiCorp shall cooperate with OWRD in defending the validity of the PacifiCorp Hydroelectric Water Right by providing documentation regarding the history of the use of water pursuant to the PacifiCorp Hydroelectric Water Right at the Powerdale facility as OWRD deems necessary.

4.3.2 Protest Withdrawal. Within 60 days following the Final FERC Order, PacifiCorp shall withdraw its protest currently pending before OWRD of ODFW's instream water right application IS 83969.

4.3.3 Side Agreement. Several Parties are currently working toward a separate side agreement that would address how the conversion of the PacifiCorp Hydroelectric Water Right to an instream water right would occur. If no side agreement is reached, these issues shall be addressed in the normal course of events, as directed by ORS 543A.305.

### 4.4 Disposition of Lands.

4.4.1 Designation of Grantee; Conveyance of Lands. PacifiCorp shall convey its interest in the Subject Lands, specifically described in Appendix D to this Agreement, to a creditworthy entity or entities (the "Grantee") mutually agreeable to NMFS, USFWS, ODFW, CTWS, AR, and HRWG (collectively, the "Lands Stakeholders"), in consultation with Hood River Valley Parks and Recreation District and Hood River County Parks and Buildings Department, and identified in a written notice to PacifiCorp signed by an authorized representative of each of the Lands Stakeholders; provided, however, that the notice identifying the Grantee must be received by PacifiCorp, if at all, on or before February 29, 2012; and provided further that PacifiCorp shall have the right to reserve from the Subject Lands an exclusive, perpetual easement, in form satisfactory to PacifiCorp, to enable PacifiCorp and its successors and assigns to access, operate, maintain, upgrade, enclose with fencing or other



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materials, and/or remove, as PacifiCorp deems appropriate: the switch room, powerhouse, associated electrical assets and other transmission and distribution facilities. If the identification is timely made, PacifiCorp shall convey the Subject Lands at a closing (the "Closing") that will occur on or before the later to occur of March 1, 2012 (the day after the Project license expires) or 30 days after the identification is made. If PacifiCorp does not receive the notice designating the Grantee on or before February 29, 2012, then beginning March 1, 2012, PacifiCorp shall be free, at its sole discretion, to retain or dispose of the Subject Lands as it sees fit. The boundaries of the Subject lands may be modified before Closing, upon unanimous written agreement among PacifiCorp and the Lands Stakeholders in consultation with Hood River Valley Parks and Recreation District and Hood River County Parks and Buildings Department, to reflect and incorporate any transfer to Jenny Copper of a portion of parcel PPNo. ORHR-0019 and any acquisition by PacifiCorp of Jenny Copper's property at Tax Lot # 300, as further described in Appendix E.

4.4.2 Responsibilities and Liabilities. Any conveyance of lands pursuant to Section 4.4.1 shall be "AS IS"; and the Grantee shall be responsible and liable for the Subject Lands and any structures remaining on the Subject Lands. The Grantee shall countersign and acknowledge the deed or deeds by which the Subject Lands are conveyed, and shall in such deed or deeds expressly agree to defend, indemnify and hold PacifiCorp harmless for any liability arising from the Subject Lands or any structures remaining on the Subject Lands, whether such liability arises before or after the conveyance date. In addition, the deed or deeds shall be a bargain and sale deed or deeds without any representation or warranty concerning the condition of title to the Subject Lands (it being understood that the Grantee shall look exclusively to title insurance, which shall be obtained at Grantee's expense, for satisfaction concerning title to the Subject Lands). Although PacifiCorp shall not otherwise be required to cure any title condition affecting the Subject Lands, it shall cause the Subject Lands to be released from PacifiCorp's blanket mortgage before the Subject Lands are conveyed to the Grantee. The Closing will take place in escrow at the offices of a title company selected by Grantee and identified to PacifiCorp at least 20 days before the Closing is to occur.

4.4.3 Purpose of Conveyance. The Parties intend that one or more Lands Stakeholders shall be responsible for causing the Grantee to execute, acknowledge and deliver a perpetual conservation easement in the form attached as Exhibit 4 (the "Conservation Easement") into escrow at the Closing. The form and terms of the Conservation Easement may be modified before Closing, upon unanimous written agreement by the parties to the Conservation Easement, in consultation with the Lands Stakeholders; provided, that the purpose of the Conservation Easement shall be to achieve the following: (i) Protection of existing fish and wildlife habitat while allowing for habitat restoration and enhancement; (ii) Retention of existing recreational uses while allowing improvements commensurate with those uses, provided such uses and improvements are consistent with protection, restoration and enhancement of fish and wildlife habitat; (iii) Expanded recreational and educational opportunities, provided such uses are consistent with protection, restoration and enhancement of fish and wildlife habitat; and (iv) Acknowledgement and preservation of the right of CTWS tribal members to exercise their Treaty-secured off-reservation fishing rights on the Subject Lands by utilizing the Subject Lands to access usual and accustomed fishing sites; and provided further, that the terms of the

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Conservation Easement shall allow the continuation and renewal of those existing uses and encumbrances listed in Appendix E. To facilitate this process, PacifiCorp shall submit escrow instructions at Closing that will instruct the title company to deliver the deed conveying the Subject Lands to the Grantee only when the Grantee has executed, acknowledged and unconditionally delivered the Conservation Easement into escrow. In no event shall PacifiCorp be responsible for addressing the Grantee's failure or refusal to execute, acknowledge and deliver the Conservation Easement. If the conveyance of the Subject Lands cannot be closed on or before March 31, 2012 because of the Grantee's failure or refusal to execute, acknowledge and deliver the Conservation Easement or to otherwise close the transaction, then beginning April 1, 2012, PacifiCorp shall be free, at its sole discretion, to retain or dispose of the Subject Lands as it sees fit.

### 4.4.4 Establishment of Maintenance Fund.

4.4.4.1 Establishment of Trust Fund. Upon PacifiCorp's conveyance of the Subject Lands in accordance with Section 4.4.1, PacifiCorp shall place \$154,500 (escalated as provided below) in trust, the interest of which shall be used by the Grantee for maintenance of the Subject Lands (the "Maintenance Fund"). The contribution to the Maintenance Fund shall be escalated by a percentage equal to any increase in the Consumer Price Index published by the United States Bureau of Labor Statistics of the United States Department of Labor. Comparisons shall be made using the index entitled US City Average – All Items and Major Group Figures for all Urban Consumers, (1982 – 1984 = 100), or the nearest comparable data on changes in the cost of living if such index is no longer published. The change shall be determined by comparison of the figure for March of 2003, with that announced most recently before the date of the contribution. In no event, however, shall the amount of the maintenance fund be reduced below \$154,500. PacifiCorp and the Grantee shall use commercially reasonable efforts to create and fund the trust and distribute interest from the trust in a manner that will maximize any deductions and other tax benefits available to PacifiCorp under applicable law. At the Closing of the conveyance, PacifiCorp and the Grantee shall execute and deliver such instruments as may be reasonably required to enable Grantee to use only the interest and not the principal of the sum placed in trust, and to make sure that funds in the trust are invested in an appropriate manner to facilitate the ongoing maintenance of the Subject Lands.

4.4.4.2 Alternative Funding. The Parties recognize that the Grantee identified may be a 26 U.S.C. § 501(c)(3) non-profit entity whose stated purpose is land conservation. In that event, PacifiCorp shall transfer the principal amount of the Maintenance Fund, calculated in accordance with Section 4.4.4.1, to Grantee to be placed in a dedicated account for maintenance of the Subject Lands in lieu of establishing a trust fund for that purpose. PacifiCorp and the Grantee shall use commercially reasonable efforts to transfer the funds in a manner that will maximize any deductions and other tax benefits available to PacifiCorp under applicable law.

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### SECTION 5: EARLY CESSATION OF GENERATION; EARLY DECOMMISSIONING

5.1 Early Cessation of Generation. If PacifiCorp determines at its sole discretion at any time prior to decommissioning that, due to a catastrophic event that affects the Project, continued operation of the Project would be uneconomic, PacifiCorp may cease generating power at the Project. Upon cessation of generation, if PacifiCorp decides to pass all water less the amount required to compensate for leakage, PacifiCorp shall not be required to implement the PM&E measures set forth in Sections 3.2 through 3.9, except for 3.6. In addition, PacifiCorp shall continue to share information generated prior to and after ceasing power generation pursuant to Section 3.13, but Section 3.13 shall not be interpreted as requiring the continued creation of data or other information pursuant to measures no longer being implemented. PacifiCorp shall notify the Parties within 30 days after a decision to cease power generation pursuant to this Section 5.1. PacifiCorp's decision to cease power generation and associated PM&E measures is subject only to any necessary FERC approval. The Parties shall not object to PacifiCorp's decision to cease power generation.

#### 5.2 Actions After Ceasing Generation.

5.2.1 Remaining Operation and Maintenance Issues. After ceasing generation pursuant to this Section, PacifiCorp shall maintain remaining Project facilities as necessary to avoid the creation of environmental and human health and safety hazards until such facilities are removed. In addition, within 15 days of providing notice to the Parties of a decision to cease power generation, PacifiCorp shall consult with NMFS, USFWS, ODFW, ODEQ and CTWS regarding its continued operation of the Project consistently with Sections 5.1, 5.2.2 and 5.3.

5.2.2 Provision of Flows to Support Fish Sorting and Trapping Facility. During the first year after providing notice pursuant to Section 5.1, PacifiCorp shall continue to operate the dam in a manner that maintains sufficient water surface elevation upstream of the dam to allow operation of the Fish Trapping Facility. After the first year, PacifiCorp shall continue to operate the dam in such a manner provided that PacifiCorp is reimbursed for the costs of such operations. If at any time after the first year PacifiCorp is not reimbursed for such operations, PacifiCorp shall, at its sole discretion but after consultation with the Parties, either: (a) continue to operate the dam as described in the first sentence of this Section 5.2.2 until decommissioning begins in accordance with Section 4.1 and Appendix A, Table B; or (b) continue to operate the dam as described in the first sentence of this Section 5.2.2 until the beginning of the next season during which PacifiCorp can commence early decommissioning of the Project in accordance with Section 5.3 below. A decision to continue to operate the dam pursuant to subsection (a) of this Section shall not restrict PacifiCorp from choosing to decommission early in accordance with subsection (b) of this Section at some later time.

5.3 Early Decommissioning. Upon ceasing generation in accordance with Section 5.1, PacifiCorp may, at its discretion, perform the decommissioning actions and their associated PM&E measures set forth in Section 4.1 and Appendix B prior to the time designated for such actions in Appendix A, Table B. Notwithstanding the previous sentence, PacifiCorp shall not remove the dam or other structures necessary to facilitate operation of the Fish Trapping Facility

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until such operation is no longer required pursuant to Section 5.2.2. In addition, should PacifiCorp cease generation pursuant to Section 5.1 and should operation of the Fish Trapping Facility permanently discontinue for any reason, PacifiCorp shall use its reasonable best efforts to pursue early decommissioning of the Project. PacifiCorp shall notify the Parties at least 60 days prior to any early decommissioning action. PacifiCorp shall consult with the Parties regarding implementation of the early decommissioning action and any associated PM&E measures, prior to their implementation.

### SECTION 6: IMPLEMENTATION OF AGREEMENT

6.1 Parties Bound. Except as provided in Section 6.16, the Parties shall be bound by this Agreement until the Agreement is terminated in accordance with Section 6.15, unless this Agreement is sooner terminated as provided in Section 6.17. Sections 1.3, 6.18 and 7.4 of this Agreement shall survive any such termination.

6.2 Inconsistent Actions Before FERC Order. If, following the Effective Date and prior to the FERC Order: (i) any Section 401 Certification, TMDL, final ESA biological opinion, final order pursuant to ORS 509.585, or other necessary authorization is denied or issued with conditions that conflict with, add to, omit or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement; or (ii) any Party advocates to FERC or in any other forum the imposition of measures that conflict with, add to, omit or are otherwise inconsistent with the measures required by Sections 3, 4 or 5 or Exhibit 1 of this Agreement; then this Agreement shall be deemed modified to include such conditions or recommended measures, as finally imposed by FERC or other agency, unless any Party (a) provides notice to the other Parties that it objects to the imposition of such measures within 30 days after the Party has actual knowledge of the occurrence of the imposition of such measures; and (b) initiates the Alternative Dispute Resolution Procedures set forth in Section 6.14 of this Agreement (“ADR Procedures”). Any Party may also seek rehearing or appeal as provided in Section 6.6 of this Agreement, and such request for rehearing or appeal shall constitute notice to the other Parties of the dispute. If, after completion of ADR Procedures one or more of the imposed measures continues to conflict with, add to, omit or otherwise remain inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, the Party or Parties that objected to an event listed above may, within 60 days after completion of ADR Procedures, withdraw from this Agreement.

6.3 FERC Order.

6.3.1 FERC Order Inconsistent with This Agreement. If any interim operation or decommissioning activity or PM&E measure, either as initially approved by FERC or following conclusion of any rehearing or appeals, contains any measure that conflicts with, adds to, or omits the measures set forth in Sections 3, 4.1, 4.2 or 5 or Exhibit 1 of this Agreement, or is otherwise inconsistent with this Agreement, this Agreement shall be deemed modified to conform to the inconsistency, unless a Party provides notice to the other Parties that it objects to the inconsistency and initiates ADR Procedures within 30 days after the date of the FERC Order or the conclusion of any rehearing or appeals, as appropriate. If the disputing Party or Parties

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seek rehearing or appeal as provided in Section 6.6, such Party's request for rehearing or appeal shall constitute notice to the other Parties of the dispute. If, after completion of ADR Procedures, any interim operation or decommissioning activity or PM&E measure continues to conflict with, add to, or omit measures required by Sections 3, 4.1, 4.2 or 5 or Exhibit 1 of this Agreement, or is otherwise inconsistent with this Agreement, the Party or Parties that objected to the inconsistency may, within 60 days after completion of ADR Procedures, withdraw from this Agreement. The Parties reserve any remedies under applicable law to enforce measures required under this Agreement but omitted or altered by FERC (or after appeals), if disputed under this Section.

**6.3.2 Rejection of Inconsistent FERC Order or Inconsistent Final FERC Order.** If PacifiCorp withdraws from this Agreement in accordance with Section 6.3.1 as the result of an inconsistent FERC Order or inconsistent Final FERC Order and this Agreement is therefore terminated pursuant to Section 6.17, the Parties intend that PacifiCorp shall be allowed to reject the inconsistent FERC Order or inconsistent Final FERC Order and that PacifiCorp shall not be required to withdraw its pending license application.

**6.3.3 Acceptance of Consistent Final FERC Order.** If the Final FERC Order is consistent with this Agreement, PacifiCorp shall accept the Final FERC Order. Upon receipt and acceptance by PacifiCorp of the Final FERC Order, PacifiCorp shall file a withdrawal of its pending license application.

**6.4 Reopeners and Modification.** After the FERC Order, the Parties may not seek measures that conflict with, add to, omit or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement pursuant to standard FERC reopener provisions or other authorities except: (i) as provided pursuant to Sections 1.1.2, 1.1.3, 2.5.3 and 6.8; (ii) as required by statutes or regulations enacted or amended after the date of the FERC Order; or (iii) in the event of materially-changed factual circumstances or material facts not known or understood at the time of the FERC Order. If a Party seeks inconsistent measures in accordance with (i), (ii), or (iii) above, the acting Party shall provide the other Parties at least 60 days' notice to consider the acting Party's position. A Party shall not be required to comply with this 60-day-notice provision if it believes an emergency situation exists, or if required to meet its responsibilities under a statute or regulation enacted or amended after the date of the FERC Order. If a Party imposes or otherwise succeeds in requiring measures that conflict with, add to, omit or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement pursuant to subsections (i), (ii) or (iii) above or by any other means, any Party or Parties may object and respond in accordance with Section 6.5 below.

**6.5 Response to Modifications.** If, after the FERC Order, any Party or non-Party action, including FERC action, ODEQ 401 Certification action, or other agency action, results in a change to interim operation or decommissioning of the Project that conflicts with, adds to, omits or is otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, this Agreement shall be deemed modified to conform to the inconsistency, unless a Party gives notice that it objects to the inconsistency and

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initiates ADR Procedures. A Party may also seek rehearing or appeal of such action as provided in Section 6.6 below, and any such request for rehearing or appeal shall constitute notice to the other Parties of the dispute. If, after conclusion of ADR Procedures, any interim operation or decommissioning activity or PM&E measure continues to conflict with, add to, omit or otherwise remain inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, the Party or Parties that objected to the inconsistency may, within 60 days after completion of ADR Procedures, withdraw from this Agreement. The Parties reserve any remedies under applicable law to enforce measures required under this Agreement but modified, if disputed under this Section.

6.6 Review of Governmental Actions. To the extent provided by applicable law, any Party may request rehearing of or appeal any act or omission by FERC, a Governmental Party, or a governmental agency which is not a Party, and which act or omission conflicts with, adds to, or omits measures required by this Agreement, or is otherwise inconsistent with this Agreement. The ADR Procedures and the timelines established by Section 6 shall neither preclude PacifiCorp from timely rejecting a FERC Order or Final FERC Order that is inconsistent with this Agreement nor preclude any Party from timely filing for and pursuing rehearing under 18 C.F.R. § 385.713 or other agency's applicable rules, or judicial review, of the inconsistent action. However, the Parties shall follow ADR Procedures to the extent reasonably practicable prior to rejection of the FERC Order or Final FERC Order by PacifiCorp or while any rehearing or appeal of an inconsistent FERC Order is being pursued. If a Party has filed for administrative rehearing or judicial review of any action that conflicts with, adds to, omits or is otherwise inconsistent with the measures required by this Agreement, and the Parties subsequently agree to modify this Agreement to conform to the inconsistent action, the filing Party or Parties shall withdraw the request for rehearing or appeal, or recommend such withdrawal, as appropriate.

6.7 PacifiCorp Fails to Perform. If PacifiCorp fails to perform any provision of this Agreement, whether or not the provision is included in the FERC Order, and such failure is not excused by force majeure, a Party may give PacifiCorp notice and an opportunity to cure within 30 days of such notice. If PacifiCorp fails to cure the problem within that period, or if such failure is not curable within 30 days and PacifiCorp has not commenced a cure within that period and diligently completed such cure, any Party who objects to such failure to perform may give notice to the other Parties and commence ADR Procedures. In addition, the aggrieved Party or Parties may petition FERC to enforce such provision, if appropriate, or may pursue the remedies of mandamus or specific performance, if applicable. If, after any applicable remedies at FERC are exhausted, FERC (i) does not enforce the provision; (ii) does not construe the disputed portion of the Agreement against the complaining Party; and (iii) PacifiCorp fails to perform the provision, then any Party other than PacifiCorp may withdraw from this Agreement. In addition, the Parties reserve any remedies under applicable law to enforce the measures contained in this Agreement but not performed by PacifiCorp. If a Party has exhausted remedies at FERC and then seeks judicial review of the same dispute, then that Party may still withdraw from the Agreement at any time in accordance with subsections (i) through (iii) above, except that the complaining Party may not withdraw if the reviewing court determines that PacifiCorp is in compliance with the disputed portion of the Agreement.

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6.8 Reinitiation of ESA Consultation. Should any species that may be affected by the Project become listed as threatened or endangered or other event requiring reinitiation of ESA Section 7(a)(2) consultation pursuant to 50 C.F.R. § 402.16 occur after the FERC Order and before termination of this Agreement pursuant to Section 6.17, USFWS or NMFS may, if necessary to comply with their mandates under the ESA, seek reinitiation of consultation with FERC. Should consultation under ESA section 7(a)(2) result in the imposition of measures that conflict with, add to, omit or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, this Agreement shall be deemed modified to conform to the inconsistency unless a Party gives notice that it objects to the inconsistency and initiates ADR Procedures. If, after conclusion of ADR Procedures, any interim operation or decommissioning activity or PM&E measure continues to conflict with, add to, omit or otherwise remain inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, the Party or Parties that objected to the inconsistency may, within 60 days after completion of ADR Procedures, withdraw from this Agreement.

6.9 Responsibility for Costs. PacifiCorp shall pay for the cost of actions required of PacifiCorp by this Agreement and the Final FERC Order. PacifiCorp shall have no obligation to reimburse or otherwise pay any other Party for its assistance, participation, or cooperation in any activities pursuant to this Agreement, except as required by law.

6.10 State Ratemaking Proceedings. The Parties agree that the Agreement is fair and reasonable and in the public interest, and will support this Agreement for purposes of PacifiCorp's planned decommissioning cost recovery application before each state regulatory commission that has ratemaking authority. Upon request of PacifiCorp at least 30 days prior to the deadline for such comments, each Party shall use its reasonable best efforts to submit appropriate general letters of support of this Agreement within their areas of expertise.

6.11 PacifiCorp Solely Responsible for Operations of Project. By entering into this Agreement, none of the Parties, except for PacifiCorp, have accepted any legal liability or responsibility for the operation and decommissioning of the Project.

6.12 Availability of Funds. Implementation of this Agreement by a Party that is a federal agency is subject to the requirements of the Anti-Deficiency Act, 31 U.S.C. §§ 1341-1519, and the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury. The Parties acknowledge that the Governmental Parties that are federal agencies shall not be required under this Agreement to expend any federal agency's appropriated funds unless and until an authorized official of each such agency affirmatively acts to commit such expenditures, as evidenced in writing. Implementation of this Agreement by Governmental Parties that are state agencies is subject to the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the Treasury of the State of Oregon. The Parties acknowledge that the Governmental Parties that are state agencies shall not be required under this Agreement to expend any appropriated funds unless and until an authorized official of each such agency

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affirmatively acts to commit such expenditures, as evidenced in writing. Implementation of this Agreement by CTWS is subject to the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from CTWS.

### 6.13 Amendment of Agreement.

6.13.1 General. This Agreement may be amended at any time during the extended license term or implementation of the decommissioning measures set forth in Section 4 and Appendix B of this Agreement, with the unanimous agreement of all Parties. This Agreement may also be amended before the FERC Order, upon the Parties' unanimous written agreement, provided the Parties first consult regarding the effect of any such amendment on the pending FERC Order. Any amendment of this Agreement shall be in writing and executed by all Parties still in existence, or their successors and assigns, if applicable. As appropriate, the Parties shall submit a statement to FERC in support of the amendment.

6.13.2 Alternate Measures. The Parties agree that, should a change in circumstances so warrant, the Parties will consult to determine whether alternate measures would meet the intent of this Agreement and could be substituted for measures in this Agreement. At the Parties' discretion, and subject to necessary approvals, such alternate measures may be adopted pursuant to Section 6.13.1.

### 6.14 Alternative Dispute Resolution.

6.14.1 General. Except to the extent that FERC or another agency with jurisdiction over the Project has a procedure that precludes implementation of Section 6.14.1 through 6.14.3, all disputes among the Parties regarding the obligations of the Parties under this Agreement shall, at the request of any Party, be the subject of nonbinding ADR Procedures among the disputing Parties. Each Party shall cooperate in good faith to promptly schedule, attend, and participate in ADR Procedures. The Parties agree to devote such time, resources, and attention to ADR Procedures as are needed to attempt to resolve the dispute at the earliest time possible. Each Party shall implement promptly all final agreements reached, consistent with its applicable statutory and regulatory responsibilities. Nothing in Sections 6.14.1 through 6.14.3 is intended or shall be construed to affect or limit the authority of FERC, the Governmental Parties, or other agency with jurisdiction over the Project to resolve a dispute brought before it in accordance with its own procedure and applicable law, or is intended or shall be construed to alter the statute of limitations or other requirements for administration or judicial review of any action. ADR Procedures shall not preclude PacifiCorp from timely rejecting a FERC Order or Final FERC Order that is inconsistent with the Agreement nor prevent any Party from timely filing for and pursuing rehearing under 18 C.F.R. § 385.713 or other agency's applicable rules, or judicial review, of an action that is inconsistent with the Agreement. However, the Parties shall follow ADR Procedures to the extent reasonably practicable prior to rejection of the FERC Order or FERC Final Order by PacifiCorp or while any rehearing or appeal of an inconsistent FERC Order is pursued.



## Powerdale Hydroelectric Project Settlement Agreement

### 6.14.2 ADR Procedures.

6.14.2.1 General. Unless otherwise agreed among the Parties, each Party shall bear its costs for its own participation in ADR Procedures. Pending resolution of any dispute under these ADR Procedures, and subject to the authority of FERC or other agency with jurisdiction to order otherwise, PacifiCorp shall continue operating or decommissioning the Project in accordance with this Agreement and any FERC Order, except to the extent that such operations or decommissioning actions may be directly affected by the results of such ADR Procedures and ceasing such actions will not violate the FERC Order, a Permit, or any other law or regulation.

6.14.2.2 Notice of Dispute. A Party claiming a dispute shall give notice of the dispute within 30 days of the Party's actual knowledge of the act, event, or omission that gives rise to the dispute, unless this Agreement provides otherwise. Notification under Section 7.9 of this Agreement, when effective, shall constitute actual knowledge. Service of process on a Party's registered agent shall also constitute actual knowledge.

6.14.2.3 Meeting of the Parties. In any dispute subject to these ADR Procedures, the Parties shall hold two informal meetings within 30 days after notice, or as soon as practicable thereafter, to attempt to resolve the disputed issue or issues. Within 15 days after the second meeting or any scheduled meeting thereafter, any Party still disputing the issue or issues shall notify the other Parties that the informal meetings failed to resolve the dispute and may request mediation (a "mediation request"). If a mediation request is not so provided, ADR Procedures will be considered complete.

6.14.2.4 Mediation. Upon receiving a mediation request, the Parties may attempt to resolve the dispute using a neutral mediator agreeable to the Parties. If, within 15 days after receiving a mediation request, all disputing Parties have not agreed to mediate the dispute, ADR Procedures shall be considered complete.

6.14.3 Enforcement of Agreement After ADR Procedures. Any Party may seek specific performance of this Agreement by any other Party, before FERC or in a court of competent jurisdiction, after compliance with ADR Procedures. No Party shall be liable in damages for any breach of this Agreement, any performance or failure to perform a mandatory or discretionary obligation imposed by this Agreement, or any other cause of action arising from this Agreement, except that a Party may seek monetary penalties under applicable law. Nothing in Sections 6.14.1 through 6.14.3 is intended or shall be construed to affect or limit the jurisdiction of any agency or court as established under applicable law.

6.15 Completion of Decommissioning Measures. Upon completion of the decommissioning and associated PM&E measures set forth in Sections 4.1 and 4.2 and Appendix B, PacifiCorp shall notify the Parties that it has completed decommissioning. Upon request, PacifiCorp shall provide reasonable supporting documentation and/or site access as may be necessary for the Parties to verify completion of such actions. Should any Party dispute PacifiCorp's completion of actions required by Sections 4.1 and 4.2 and Appendix B, the Party shall consult with

## Powerdale Hydroelectric Project Settlement Agreement

PacifiCorp and attempt to resolve the dispute, and may initiate ADR Procedures set forth at Section 6.14. After completion of any ADR Procedures, any Party who reasonably believes that decommissioning and/or associated PM&E measures have not been completed in accordance with this Agreement may petition FERC to enforce the Final FERC Order and/or the Agreement, if appropriate, or may pursue remedies under applicable law or the remedies of mandamus or specific performance, if applicable. If no Party initiates ADR Procedures within 30 days of PacifiCorp's notification of completion pursuant to this Section, this Agreement shall be considered unanimously terminated by the Parties. Nothing in this Section is intended or shall be construed to prevent PacifiCorp from notifying and requesting any necessary approval from FERC that all measures required by the Final FERC Order have been completed. PacifiCorp shall notify the Parties at least 30 days prior to seeking any such FERC approval if the Agreement has not yet been terminated.

### 6.16 Withdrawal from Agreement.

6.16.1 Withdrawal of a Party from Agreement. A Party may withdraw from this Agreement only as expressly provided in this Agreement. In addition, if a Party ceases to exist and has no successors or assigns, it shall be treated as having withdrawn.

6.16.2 Method of Withdrawal. A Party may exercise its right to withdraw from this Agreement by providing 60 days' advance notice to the other Parties.

6.16.3 Continuity After Withdrawal. The withdrawal of a Party does not terminate this Agreement for the remaining Parties. However, if any Party withdraws, any other Party may elect to withdraw without further ADR Procedures, after providing notice within 60 days of the withdrawal of the other Party. If a Party withdraws from this Agreement, the withdrawing Party shall not be bound by any term contained in this Agreement, except as provided in Sections 1.3, 6.18 and 7.4 or except as might be established through action for specific performance or mandamus.

6.17 Termination of Agreement. This Agreement may be terminated by unanimous written agreement of the Parties, by withdrawal of all Parties, or by unanimous termination as set forth in Section 6.15 of this Agreement. In addition, without affecting actions for specific performance or mandamus, if applicable, the withdrawal of PacifiCorp pursuant to Section 6.16.1 shall terminate this Agreement.

6.18 Survival of Interim PM&E Measures. If this Agreement terminates pursuant to Section 6.17 because of the withdrawal of PacifiCorp pursuant to Section 6.3, then PacifiCorp's obligation to perform the following PM&E measures, and provisions regarding implementation of PM&E measures, shall survive termination, up to and through the time of resolution of the pending FERC relicensing of the Project in FERC Docket No. P-2659-011, including the rehearing and appeal, if any, of a FERC order on relicensing: Sections 3.2.1, 3.2.3, 3.2.4, 3.3.1, 3.3.3, 3.3.4, 3.3.5, 3.3.6, 3.4, 3.5, 3.6, 3.7, 3.9, 3.10, 3.11, 3.12 (except 3.12(iv), (a), and (b)),

## Powerdale Hydroelectric Project Settlement Agreement

3.13.1, 6.11, 6.12, 7.3, and 7.4. In addition, PacifiCorp shall not be required to make capital improvements but shall continue to maintain the fish ladder auxiliary attraction water bar rack within the ladder sufficiently free of debris to allow adequate attraction flows.

### SECTION 7: GENERAL PROVISIONS

7.1 No Third-Party Beneficiaries. Without limiting the applicability of rights granted to the public pursuant to applicable law, this Agreement shall not create any right or interest in the public, or any member of the public, as a third-party beneficiary of this Agreement and shall not authorize any non-Party to maintain a suit at law or equity pursuant to this Agreement. The duties, obligations, and responsibilities of the Parties with respect to third parties shall remain as imposed under applicable law.

7.2 Successors and Assigns. This Agreement shall apply to and be binding on the Parties and their successors and approved assigns. Upon completion of a succession or assignment, the initial Party shall no longer be a Party to this Agreement, but shall remain secondarily liable for the performance of the assignee. No change in ownership of the Project or transfer of the Project license by PacifiCorp shall in any way modify or otherwise affect any other Party's interests, rights, responsibilities, or obligations under this Agreement. Unless prohibited by applicable law, PacifiCorp shall provide in any transaction for a change in ownership of the Project or transfer of the Project license that such new owner or owners shall be bound by and shall assume the rights and obligations of this Agreement and the FERC Order upon completion of the change of ownership and any requisite FERC approval. A transferring or assigning Party shall provide notice to the other Parties at least 60 days prior to completing such transfer or assignment.

7.3 Failure to Perform Due to Force Majeure.

7.3.1 Declaration of Force Majeure. No Party shall be liable to any other Party for breach of this Agreement as a result of a failure to perform or for delay in performance of any provision of this Agreement if such performance is delayed or prevented by force majeure. The term "force majeure" means any cause reasonably beyond the affected Party's control, whether unforeseen, foreseen, foreseeable, or unforeseeable, and without the fault or negligence of the affected Party. Force majeure may include, but is not limited to, natural events, labor or civil disruption, breakdown or failure of Project works, orders of any court or agency having jurisdiction of the Party's actions, delay in the FERC Order, or delay in issuance of any required permit. Increased cost for the performance of any interim operation or decommissioning measure, or change in market conditions for the sale of electricity, shall not be deemed to constitute force majeure, provided that PacifiCorp shall not be obligated to perform measures other than those commitments specified in this Agreement. The Party whose performance is affected by force majeure shall notify the other Parties in writing within 24 hours after becoming aware of the Party's inability to perform due to a force majeure. Such notice shall identify the event causing the delay or anticipated delay, estimate the anticipated length of delay, state the measures taken or to be taken to minimize the delay, and estimate the timetable for implementation of delayed measures. The affected Party shall make all reasonable efforts to promptly resume performance of this Agreement and, when able, to resume performance of its

## Powerdale Hydroelectric Project Settlement Agreement

obligations and give the other Parties written notice to that effect. NMFS and USFWS do not intend to analyze or authorize the “take” of any ESA-listed species under its jurisdiction caused by the Project due to a force majeure event.

7.3.2 Emergency Consultation with NMFS and USFWS. If PacifiCorp is unable to perform any obligation pursuant to any provision of this Agreement as a result of force majeure, and NMFS or USFWS requests reinitiation of consultation consistently with 50 C.F.R. § 402.16, PacifiCorp shall cooperate in such reinitiation of consultation in order to minimize the effect of any incidental take associated with the inability to perform due to the force majeure event. USFWS or NMFS may, if necessary to comply with their mandates under the ESA with respect to a newly-listed species, petition FERC to reopen the Project license. Should reinitiation of consultation under ESA section 7 be required and result in the imposition of measures that conflict with, add to, omit or are otherwise inconsistent with the measures required by this Agreement and specifically Sections 3, 4 or 5 or Exhibit 1 of this Agreement, the effect of such inconsistency on this Agreement shall be addressed in accordance with Section 6.14.

7.3.3 Duration of Force Majeure. If PacifiCorp’s inability to perform any obligation pursuant to any provision of this Agreement continues or is reasonably anticipated to continue for more than 180 days due to force majeure, any Party other than PacifiCorp may withdraw from this Agreement, and any Party that withdraws from this Agreement may pursue any other remedy available under applicable law. If any Party withdraws from this Agreement pursuant to this Section 7.3.3, PacifiCorp may oppose the assertion of such other remedy or authority that Party seeks to assert under any applicable law or notify FERC that PacifiCorp has withdrawn from this Agreement and may seek such further FERC action as PacifiCorp in its sole discretion deems appropriate.

7.4 Indemnification and Hold Harmless. PacifiCorp shall indemnify and hold harmless each of the Parties to this Agreement and their respective boards, commissions, officers, employees, and agents regarding any claims or liabilities for property damage or personal injury arising from interim operation or decommissioning activities undertaken prior to the completion of decommissioning by PacifiCorp or its employees, officers, agents or contractors.

7.5 Elected Officials Not to Benefit. No member of or delegate to Congress shall be entitled to any share or part of this Agreement or to any benefit that may arise from it.

7.6 No Partnership. Except as otherwise expressly set forth herein, this Agreement does not, and shall not be deemed to, make any Party the agent for or partner of any other Party.

7.7 Preservation of Treaty Rights. Nothing in this Agreement shall be construed to impair, limit or in any way modify the off-reservation treaty rights, including fishing, hunting and gathering rights, reserved to the CTWS pursuant to the Treaty with the Tribes of Middle Oregon, June 25, 1855, 12 Stat. 963.

## Powerdale Hydroelectric Project Settlement Agreement

7.8 Reference to Statutes or Regulations. Any reference in this Agreement to any federal or state statute or regulation shall be deemed to be a reference to such statute or regulation or successor statute or regulation in existence as of the date of the action.

7.9 Notice. Any notice required by this Agreement shall be written. Notice shall be sent by first-class mail or comparable method of distribution to the authorized representative of each Party, or a Party's successor or assign if applicable. For the purpose of this Agreement, a notice shall be effective three days after the date on which it is mailed or otherwise distributed. The authorized representative of each Party as of the Effective Date is designated in Appendix C, attached to and incorporated by reference into this Agreement. Each Party is responsible for providing notice to the other Parties of any change in its authorized representative designated in Appendix C. When sending notice pursuant to this Section, each Party shall also send a copy of the notice to the person or persons designated under "with copy to" in Appendix C.

7.10 Section Titles for Convenience Only. The titles of the sections in this Agreement are used only for convenience of reference and organization, and shall not be used to modify, explain, or interpret any of the provisions of this Agreement or the intentions of the Parties. Reference to a given section of this Agreement shall be deemed to include all subsections of that section.

7.11 Entire Agreement. This Agreement sets forth the entire agreement and processes to be followed by Parties with regard to the environmental, historical, cultural, public recreation, fishery, wildlife, water quality, land management, operational, and related measures, including all PM&E measures, relating to the interim operation and decommissioning of the Project.

### SECTION 8: EXECUTION OF AGREEMENT

8.1 Signatory Authority. Each signatory to this Agreement certifies that he or she is authorized to execute this Agreement and to legally bind the Party he or she represents, and that such Party shall be fully bound by the terms hereof upon such signature without any further act, approval, or authorization by such Party.

8.2 Signing in Counterparts. This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument as if all the signatory Parties to all of the counterparts had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures, and may be attached to another counterpart of this Agreement identical in form having attached it to one or more signature pages.

Powerdale Hydroelectric Project Settlement Agreement

**PacifiCorp:**

Judi Johansen 6/6/03  
Judi Johansen date  
Chief Executive Officer

**National Marine Fisheries Service:**

D. Robert Lohm 6/6/03  
D. Robert Lohm date  
Regional Administrator

**United States Fish and Wildlife Service:**

For: David B. Allen 6/6/03  
David B. Allen date  
Regional Director

**Oregon Department of Fish and Wildlife:**

Lindsay A. Ball 06-06-03  
Lindsay A. Ball date  
Director

**Oregon Department of Environmental  
Quality:**

Michael T. Lewelyn 6/6/03  
Michael T. Lewelyn date  
Administrator, Water Quality Division

**Oregon Water Resources Department:**

Paul R. Cleary 6/6-03  
Paul R. Cleary date  
Director

**Confederated Tribes of the Warm Springs  
Reservation of Oregon:**

Garland Brunoe 6/6/03  
Garland Brunoe date  
Tribal Council Chairman

**American Rivers:**

for Ann C. Mills 6/6/03  
Ann C. Mills date  
Executive Vice President

**Hood River Watershed Group:**


Chuck Gehling 6/6/03  
Chuck Gehling date  
Chairman

Powerdale Hydroelectric Project Settlement Agreement

SUPPORTING NON-PARTY

The following entity supports the purpose and effect of the Settlement Agreement Concerning the Interim Operation and Decommissioning of the Powerdale Hydroelectric Project (FERC No. 2659). This entity is not a Party to or third-party beneficiary under the Settlement Agreement.

**Hood River Valley Parks and Recreation District:**

  
\_\_\_\_\_  
Scott Baker                      6/5/03  
Program Coordinator              date

**APPENDIX A**

**IMPLEMENTATION SCHEDULE**



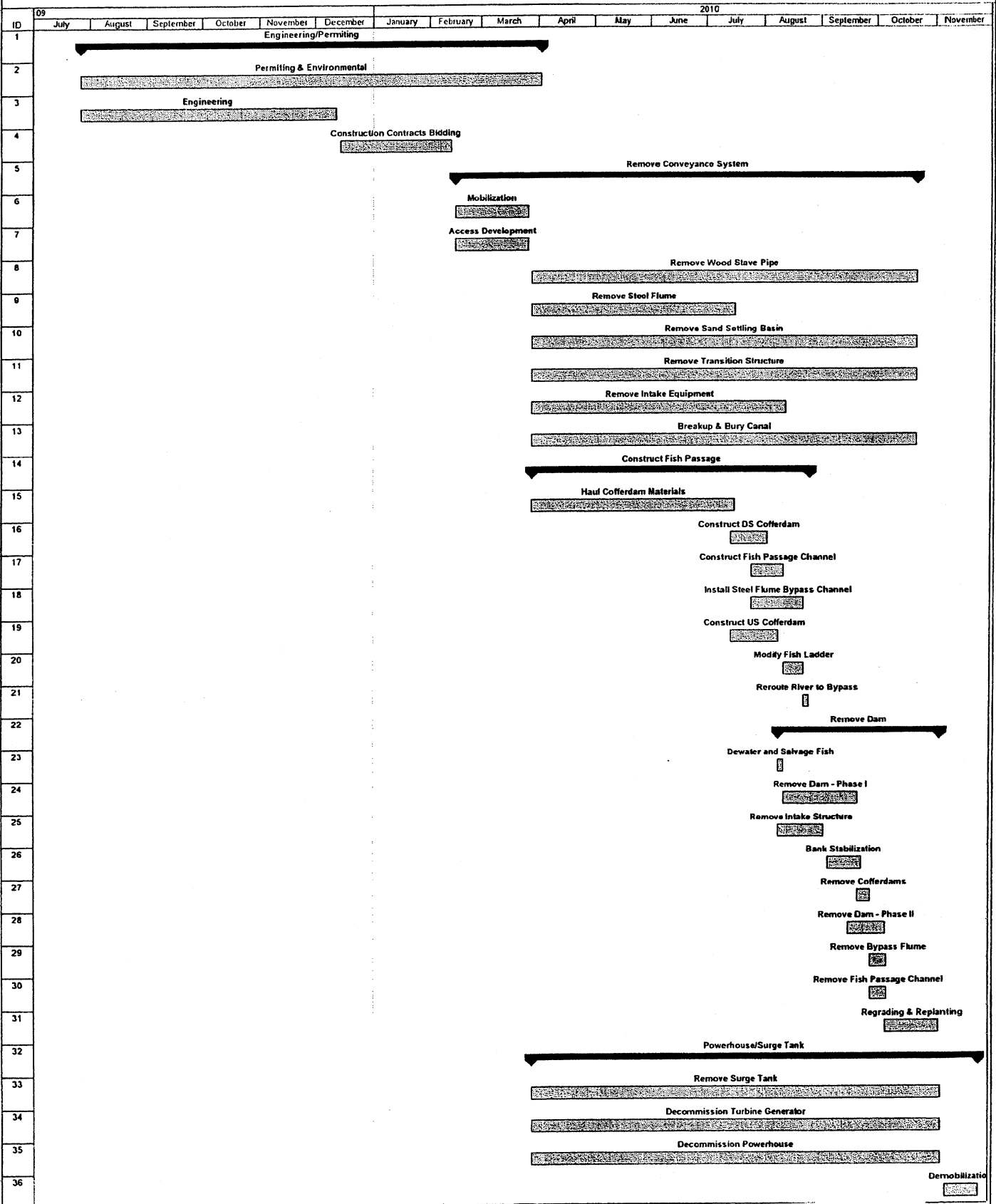
APPENDIX A  
IMPLEMENTATION SCHEDULE

Table A: Implementation of Interim Operation PM&E Measures

Sec.	PM&E Measure (see appropriate section number in Agreement for specific wording of measures)	Upon Effective Date	15 Days After Effective Date	30 Days After Effective Date	Upon FERC Order	Upon Final FERC Order	30 Days After Final FERC Order	Other Timing
3.2.1	Ramping: make reasonable efforts to limit ramping to 3 inches/hour, with preferred target of 2 inches/hour, using existing equipment			X				
3.2.2	Ramping: make reasonable efforts to limit ramping to 2 inches/hour; ramping not to exceed 3 inches/hour						X	
3.3.1	Instream Flows: make reasonable efforts to implement minimum instream flows in the bypass reach using existing equipment	X						
3.3.2	Instream Flows: meet instream flow limits						X	
3.4	Temporary Reduction in Canal Flow: reduce diversion flow to maximum of 25 cfs from April 15 to June 30 each year	X						
3.5	Planned Outages: to extent feasible, limit planned outages to coincide with temporary reduction in canal flow or summer, and non-summer outages to 24 hours						X	
3.6	Flushing: restrict flushing of sand settling basin to periods when bypass flows are > 500 cfs, and preferably > than 1,000 cfs			X				
3.7	Intake Screens: operate and maintain in working order	X						

Sec.	PM&E Measure (see appropriate section number in Agreement for specific wording of measures)	Upon Effective Date	15 Days After Effective Date	30 Days After Effective Date	Upon FERC Order	Upon Final FERC Order	30 Days After Final FERC Order	Other Timing
3.8	Fishway Auxiliary Water Intake: implement method to keep fish ladder auxiliary attraction water bar rack sufficiently free of debris							no later than first in-water work opportunity after the Final FERC Order
3.9	Ground-Disturbing Activities: implement requirements to limit impacts to terrestrial and wetland habitat from ground-disturbing activities			X				
3.10	Rare, Threatened and Endangered Terrestrial Species: provide access and data			X				
3.11	Cultural Resources Management Plan: consult with SHPO			X				
3.11	Cultural Resources Management Plan: implement revised CRMP as soon as practicable					X		
3.12	Recreation Facilities: maintain existing recreation facilities	X						
3.12	Recreation Facilities: replace existing toilet with portable, ADA-accessible toilet, when necessary							when existing toilet needs replacing
3.12	Recreation Facilities: provide one additional picnic table at Powerdale Park							within 1 year of Effective Date
3.12	Recreation Facilities: provide second additional picnic table at Powerdale Park w/in two years of Effective Date							within 2 years of Effective Date

Sec.	PM&E Measure (see appropriate section number in Agreement for specific wording of measures)	Upon Effective Date	15 Days After Effective Date	30 Days After Effective Date	Upon FERC Order	Upon Final FERC Order	30 Days After Final FERC Order	Other Timing
3.12	Recreation Facilities: install trail directional signs and a Project interpretive sign						X	
3.12	Recreation Facilities: at powerhouse day-use site, install portable, ADA-accessible toilet and construct pathway; install warning signs						X	
3.13	Information Sharing: provide reasonable access to data created with existing equipment			X				
3.13	Information Sharing: maintain records and make records available to Parties; convene annual meeting						X	
3.14	Maintenance of Lands During Interim Period: continue to own Subject Lands; do not dispose, encumber or initiate changes in character of lands	X						



<sup>1</sup> Times designated in this schedule are subject to early decommissioning pursuant to Section 5 of the Settlement Agreement.

**APPENDIX B**

**DECOMMISSIONING PLAN**

Powerdale Hydroelectric Project  
FERC Project No. 2659  
Hood River, Oregon

## **APPENDIX B TO SETTLEMENT AGREEMENT**

### **POWERDALE HYDROELECTRIC PROJECT DECOMMISSIONING PLAN**

**May 2003**

PacifiCorp  
Portland, OR

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## DECOMMISSIONING PLAN FOR PACIFICORP'S POWERDALE HYDROELECTRIC PROJECT, HOOD RIVER, OREGON

This Decommissioning Plan is part of and governed by the Settlement Agreement among PacifiCorp, National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Oregon Department of Fish and Wildlife (ODFW), Oregon Water Resources Department (OWRD), Oregon Department of Environmental Quality (ODEQ), Confederated Tribes of the Warm Springs Reservation of Oregon (CTWS), American Rivers (AR), and the Hood River Watershed Group (HRWG).

Permitting for the proposed project decommissioning is scheduled to begin mid-year in 2009, with initiation of on-the-ground decommissioning activities in the first quarter of 2010, as reflected in Appendix A, Table B of the Settlement Agreement. Prior to applying for the permits necessary to decommission the Powerdale Project, PacifiCorp will develop detailed engineering plans. These plans will be of a detail required to obtain the necessary permits and include the best management practices (BMPs) and environmental protection guidelines in effect at that time. Where feasible, decommissioning activities are scheduled to occur during periods that will minimize the impact on fish and terrestrial resources (Section 2). A tabular summary of elements to be removed or retained is presented in Table 1.0-1. Project drawings depicting the decommissioning scenario presented below can be found in Section 5.0.

### 1.0 DECOMMISSIONING SCENARIO

#### 1.1 DIVERSION DAM

PacifiCorp will completely remove the existing diversion dam including the roller gates, hoists and bridge, piers, walls, spillway, un-gated overflow section, fishway, embankment sections, and intake to the level of the original riverbed. The method of accomplishing this portion of the decommissioning activities while maintaining upstream and downstream fish passage and protecting the resource is described below. Operation of the Farmer's Irrigation District (FID) powerhouse, directly upstream from the Powerdale dam, will not be impacted by this action.

##### 1.1.1 Cofferdams

In order to perform the demolition and removal of the concrete portions of the dam and intake in the dry, upstream and downstream cofferdams will be placed across the river. It is expected that natural sediments obtained from the river and surrounding areas (sands, gravels and cobbles) will be used to construct as much of the cofferdams as possible, with the remaining materials imported from another source.

**Table 1.0-1. Disposition of project components at decommissioning.**

Project Element	Sub-Element	Removed	Left in Place
Dam	Roller Gates & Hoists	X	
	Bridge	X	
	Piers	X	
	Walls & Misc.	X	
	Spillway	X	
	Fish Ladder	X	
Intake	Trashracks	X	
	Traveling Screens	X	
	Supporting Equipment	X	
	Control Gate & Trash Gate	X	
	Control Gate House	X	
	Concrete Intake Structure	X	
Power Canal		X (rock-filled and cover/blend)	
Steel Flume		X	
Sand Settling Basin		X	
Transition Structure		X	
Flowline	Wood Stave – 480 feet	X	
	Steel – 1,090 feet		X
	Wood Stave – 1,564 feet	X	
	Steel – 1,070 feet		X
	Wood Stave – 488 feet	X	
	Steel – 2,368 feet		X
	Wood Stave – 493 feet		X
	Steel – 1,849 feet		X
	Wood Stave – 480 feet		X
	Steel – 4,536 feet		X
Bridge			X
Surge Tank		X	
Powerhouse	Superstructure		X
	Substructure		X
	Generator Rotating Parts	X	
	Turbine Rotating Parts	X	
	Mechanical & Electrical Equipment	X	
	Maintenance Garage	X	
	Gantry Crane	X	
Tailrace			X
Switchyard			X

The western end of the upstream cofferdam will be located on the natural riverbank that lies between the Powerdale intake structure and the FID powerhouse. The eastern end will be

positioned at the right abutment of Powerdale dam near the transition between the overflow and right embankment sections (Figure 1.1-1).

The downstream cofferdam will be constructed approximately 200 feet downstream of the dam's spillway crest. This location will allow an access road to be aligned and constructed across both the intake canal and the cofferdam; the road is necessary to access the construction area and connect the east and west sides of the site (Figure 1.1-1). Both the upstream and downstream cofferdams will remain in place until the concrete portions of the intake and spillway sections of the dam are removed.

### 1.1.2 Fish Passage

Prior to changing any of the existing fish passage facilities, or constructing any new fish passage facilities associated with dam removal, PacifiCorp will prepare final fish passage design and construction plans in consultation with NMFS, USFWS, ODFW and CTWS. The final design and construction plans will be consistent with Section 1.1.2.2 below and the following criteria, which may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

(i) The outfall from the flume shall be designed in accordance with, as appropriate, sections 7.4.1, 7.4.2, 7.4.3, 13.10.4, 13.10.5 and 13.10.6 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the pool volume and depth will be designed to minimize pool bottom surface velocities and injury to fish. For purposes of section 13.10.5, the design will minimize, but may not completely avoid, creation of false attraction flows. The outfall shall have a 10-foot minimum drop to the pool below (to prevent adults from entering the pipe), and shall be designed to provide smooth, rounded edges and surfaces, using materials similar to the flume, to minimize injury to fish exiting the pipe and to jumping adults;

(ii) The pipe/flume shall be designed in accordance with, as appropriate, sections 13.9.3.1, 13.9.3.4, 13.9.3.5, 13.9.3.6, 13.9.3.9, 13.9.3.11, 13.9.3.13 and 13.9.3.14 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. Weathered steel surfaces presently existing on the steel flume sections, or alternatively the galvanized surfaces of standard culvert material, shall be considered acceptable for this application, provided that, if the interior surfaces of the existing steel flume are considered to be too rough to meet NMFS' Passage Facility Guidelines and Criteria, PacifiCorp shall install a liner or conduct sand blasting of the interior surfaces;

(iii) The temporary approach to the fishway channel entrance will be constructed with "field-placed" structure materials to optimize local hydraulic conditions. PacifiCorp will provide NMFS, USFWS, ODFW and CTWS a minimum of seven days notice prior to the placement of these materials to allow their on site participation in field direction of this placement work;

(iv) The control structures within the temporary approach channel to the fishway entrance will be placed at least one channel width apart. These structures will have less than one foot of head differential (measured from upstream of the boulder control structures to the downstream water surface elevation), and will not span the entire width of the approach channel (unless the depth provided over the channel-spanning structure is at least one foot);

(v) If fish will be passing through the temporary culvert(s) installed in the downstream coffer dam, such culverts shall meet, as appropriate, sections 9.7.5, 9.7.8 and 9.7.9 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the bypass shall be designed in accordance with, as appropriate, sections 9.3.2 and 9.3.3 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date;

(vi) The design will provide supplemental flow to the fishway discharge to allow optimal operation of the fish ladder and temporary approach channel; and

(vii) The design will be developed such that flow conveyed in the bypass flume is delivered below the temporary approach channel in a manner that will maximize both upstream and downstream passage. The design will be developed such that the bypass flume and the upstream temporary approach channel work together to both attract adult fish to the temporary approach channel, minimize delay of both upstream and downstream migrants, and minimize injury to fish passing downstream.

#### 1.1.2.1 ESA Agency Approval

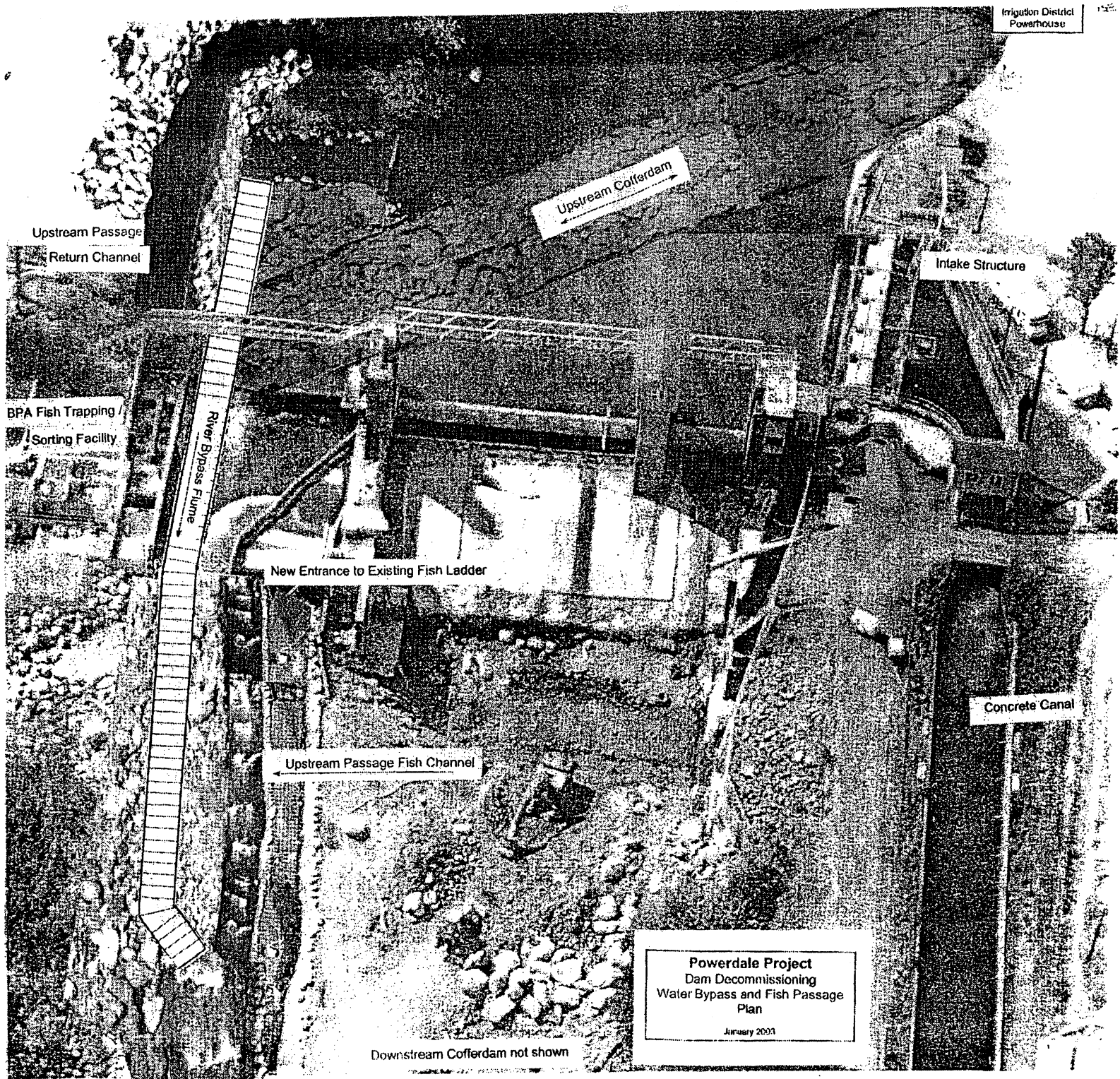
For ESA purposes, PacifiCorp will submit fish passage design and construction plans for the bypass flume, plunge pool, culvert, temporary approach channel, and fish ladder for NMFS and USFWS approval. If required to minimize the effect of any incidental take of listed species, NMFS and USFWS may require, as a condition of their approval, additions or changes to such design plans, provided that if NMFS or USFWS requires as a condition of approval more than a minor change to such design or construction plans, or alters the basic design, location, scope, duration or timing of such plans, the condition will be considered inconsistent with the Settlement Agreement.

#### 1.1.2.2 Upstream Passage during Dam Removal

Unless NMFS, USFWS, ODFW and CTWS agree that upstream fish passage is not necessary, such passage will be maintained initially by placing culverts in the downstream cofferdam as it is constructed, thereby allowing continued access through the existing stream channel to the fish ladder until the construction of the bypass flume (Section 1.1.2.2) and an artificial upstream fish passage channel are completed and operating.

An artificial upstream fish passage channel will be constructed coincidental to the construction of the cofferdams and will be located between the existing fish ladder structure and the right riverbank. This channel will extend from a mid-point on the existing fish ladder to a location immediately downstream of the downstream cofferdam (Figure 1.1-1). Upon completion of the channel, culvert access through the downstream cofferdam will be closed and upstream migrants will be directed to the fish ladder structure through this newly constructed fish passage channel.

Figure 1.1-1. Water bypass and fish passage plan.



PacifiCorp will continue to maintain the existing fish ladder during dam removal to ensure continued upstream fish passage into the ODFW and CTWS trapping and sorting facility. The return channel exiting the sorting facility will be extended upstream, beyond the upstream cofferdam, to allow the return of fish to the river channel (Figure 1.1-1).

#### 1.1.2.2 Downstream Passage/Bypass Flume

River flow will be diverted past the work zone during removal of the dam using recycled portions of the existing water conveyance system's steel flume materials, which will be removed as described in Section 1.3. This bypass flume will provide downstream fish passage and will extend from above the upstream cofferdam to just below the downstream cofferdam, passing over the overflow section and existing fish ladder. The inside surface of the bypass flume will be smooth, with steady gradient and gradual bends. NMFS, USFWS, and ODFW will be given the opportunity to inspect the bypass flume prior to installation.

The upstream fish return channel from the ODFW and CTWS sorting facility and the intake for the water bypass flume will be separated by the placement of rock between them to avoid the entrainment of upstream migrants into the downstream flume.

To provide attraction of upstream migrants to the new artificial upstream passage channel, discharge from the bypass flume will be positioned to fall directly into the entrance of the newly constructed upstream passage channel. This discharge will be designed to act as both a barrier to upstream migrants attempting to enter the bypass flume, while at the same time attracting them to the upstream passage channel and fish ladder.

This water bypass flume will also serve as the passage route for downstream migrating fish including adult bull trout and steelhead kelts. The discharge pool will be excavated to ensure adequate area and depth prior to diverting flow to prevent injury to the downstream migrants.

#### 1.1.3 Diversion Dam

Upon closure of the upstream and downstream cofferdams, the area between them will be dewatered by pumping and access will be constructed to allow removal of the concrete portions of the dam and intake structure.

It is expected the concrete will be broken up with mechanical equipment and controlled blasting. Reinforcing steel will be separated and the concrete materials from the dam will be reduced to a manageable size and hauled to a location on site for burial. Steel materials will be hauled off site for proper disposal or salvage.

After removal of the concrete structures, the riverbed between the upstream and downstream cofferdams will be contoured to match upstream and downstream invert elevations using on site materials.

After completion of the removal work and riverbed grading within the confines of the cofferdams, the river will be returned to the natural channel by breaching the upstream and downstream cofferdams. As flows are not expected to be of sufficient quantity to effectively wash the cofferdam materials downstream, a majority of these materials will be removed using

mechanical excavation equipment and reclaimed for use in riverbank grading and armoring. The remaining, unrecoverable portions of the cofferdams are expected to fill in and adjust the streambed to natural contours. With the river returned to a natural course the remaining concrete structures, including the fishway and un-gated overflow section, will be removed. Access for this work will be gained directly from the riverbank utilizing remaining portions of the cofferdams, or by developing access points using removed cofferdam materials, as needed. Dam removal work will be concluded with the placement of materials along the riverbank to harden the disturbed bank areas and prevent erosion during the upcoming winter period.

Earthen materials from the two dam embankments will be spread on site or relocated for use in covering buried concrete materials from the dam and flowline removal. These earth materials will be contoured and revegetated to blend with the surrounding area and to prevent erosion into waterways. Likewise, areas disturbed by dam removal will be revegetated and invasive or exotic plants will be controlled pursuant to a Revegetation and Mitigation Plan described in Section 3.4. Erosion and sediment control measures will be implemented as determined in the Erosion and Sediment Control Plan (ESCP), described in Section 3.1, to protect the environment and will remain in place until new vegetation is established.

The volume of sediment stored in the 5-acre-foot reservoir behind Powerdale dam is minimal. It is expected that high flows experienced in the Hood River during the first winter after dam removal will remove any sediments that remain in the reservoir area. No specific treatment is planned for removing the sediments as part of the dam removal work. Any remaining accumulations of sediments are expected to be flushed downstream with the natural flows in the river.

## **1.2 INTAKE**

The concrete intake structure, located on the left bank adjacent to and just upstream from the dam, will be removed to original riverbed. The 6-foot-wide gated trash sluice, trashracks, traveling basket fish screens, and all related structural, mechanical and electrical equipment associated with the intake will be removed. The intake headgate that regulates flow from the intake into the power canal and the trash gate located between the intake structure and the trash sluice will be removed. Several miscellaneous structures including the operator's house and the control gatehouse will be removed, as well as some non-essential fencing. The operator's house may be left in place, at the discretion of a designated grantee as defined in Section 4.4 of the Settlement Agreement.

## **1.3 POWER CANAL, STEEL FLUME AND SAND-SETTLING BASIN**

The 604-foot-long trapezoidal concrete power canal will be broken up and filled with available materials from the cofferdams and earth embankments, and the area will be graded to blend with the adjoining river bank. The 550-foot-long steel flume, 142-foot-long concrete sand-settling basin, 254-foot-long steel flume, and 33-foot-long concrete structure transitioning into the flowline will be removed. Concrete debris from the removal of these facilities will be broken into a manageable size and buried on site. Miscellaneous metals and wood materials will be hauled to an off site disposal location.



#### **1.4 FLOWLINE (PIPE)**

The flowline is approximately 14,500 feet in length and extends from the concrete transition structure (steel flume to flowline) to the surge tank. With the exception of several short segments of riveted steel pipe, it was originally constructed of wood stave pipe for its entire length. The flowline is supported on concrete saddles along most of its length. Each saddle is 9 feet wide at its base, 12 feet, 8 inches wide at the top, and approximately 1-foot thick.

In 1965 approximately 3,600 feet of the original wood stave pipe was replaced in kind. Since 1978, remaining portions of the original wood stave pipe flowline have been replaced with steel pipe on an as-needed basis. The flowline presently consists of the remaining approximately 3,600 feet of vintage 1965 wood stave pipe, 2,000 feet of the original riveted steel plate pipe, and 9,000 feet of newer spiral-welded steel pipe.

Beginning at the transition structure, the first 4,692 feet of flowline includes 2,532 feet of 10-foot-diameter wood stave pipe. This wood stave pipe is positioned along this portion of the flowline in 3 distinct sections. The first is a 480-foot-long section that starts at the transition structure to the first section of spiral weld steel pipe. The steel pipe runs for a length of 1,090 feet before transitioning back into a 1,564-foot-long section of wood stave pipe. The flowline changes back into a 1,070-foot-long section of steel at this location, leading to a 488-foot-long section of wood stave pipe. All 3 of these sections of wood stave pipe and the associated concrete saddles will be removed. The steel pipe sections in this area will remain in place. Wildlife access will be created beneath each of the two upstream sections of steel flowline (commonly referred to as the "Flat Top" and "Hog Ranch" sections) along this 4,692 stretch by excavating an approximately 5 to 6 foot-high passage below the pipe at approximately the center of each section.

The flowline sections to be removed will be accessed from the diversion dam area along a maintenance road. The steel reinforcing hoops around the wood stave pipe will be cut and the pipe will be crushed with a hydraulic excavator. The metal bands will be separated from the wood stave debris, and both will be loaded into dump trucks and hauled away via the existing access road. The concrete saddles will be broken into small pieces, each no larger than 1 cubic yard. A trench will be dug near the vicinity of the flowline alignment and the concrete pieces buried on location. The trench will be back-filled and the area will be graded to match the natural contours and will be revegetated. Remaining openings into the transition structure and at the ends of the remaining sections of the steel pipe will be secured to prevent ingress.

The portion of the flowline downstream of the lower 488-foot length of wood stave pipe to be removed will remain in place. This includes two relatively short sections of wood stave pipe (493 feet long and 480 feet long respectively) located approximately 7,000 feet and 9,400 feet downstream of the transition structure, along with the remaining portions of the steel flowline.

The steel walkway providing recreation access to the river along the top of the flowline, for a distance of approximately 4,000 feet upstream from the flowline bridge, will be left in place.



## **1.5 FLOWLINE BRIDGE**

A 130-foot-long riveted steel truss bridge supports the flowline pipe across the Hood River approximately 4,000 feet upstream of the powerhouse. Two large concrete pedestals support this bridge on each bank of the river. The bridge will remain in place to provide a river crossing point for fishermen and recreationists. Access will remain available to the steel catwalk that extends along the flowline for another 4,000 feet upstream from the bridge.

## **1.6 SURGE TANK**

A 28-foot-diameter riveted steel plate surge tank stands 207 feet high on 4 support legs. It has a 7-foot 9-inch-diameter riser pipe and a 3-foot-diameter overflow pipe that extends from the tank to the tailrace. A shaped charge will be used to topple the surge tank. Once it is down, it will be cut into pieces and salvaged as steel scrap.

## **1.7 POWERHOUSE**

The 86-foot-wide by 51-foot-long concrete powerhouse structure will remain in place. All internal non-structural features of the building will be removed. Window glass will be replaced with steel plates or other architectural treatments to secure the facility. The metal-sided maintenance garage located immediately adjacent to the south side of the powerhouse will be removed. The outdoor traveling gantry crane that spans the powerhouse will be used to decommission and remove equipment from the interior of the powerhouse, and then the operable components of the crane will be dismantled and removed.

All oil and hydraulic fluids will be drained from the equipment located inside the powerhouse, and any loose equipment, parts and materials will be removed. Internal rotating generator and turbine components will be removed. The turbine pit will be sealed with concrete. A switch room, located on the west side of the operating floor level in the powerhouse contains distribution system switches and controls associated with the switchyard/substation located west of the powerhouse. Power will be maintained to this room and the switch/control panels will remain functional for as long as is necessary to support remaining facilities. These facilities may be relocated outside of the powerhouse in the future; however, they must remain in service until that time to facilitate operation of the local power distribution system.

The areas surrounding the surge tank and maintenance garage will be re-graded to match the surrounding contours. The powerhouse building, all remaining equipment, and adjacent remaining facilities will be secured for safety and to prevent unauthorized ingress.

## **1.8 SWITCHYARD**

The switchyard and transmission lines serve as part of PacifiCorp's local and regional transmission/distribution system and are independent of the Powerdale Project. All components related to the generation of power by the Powerdale Project will be removed from the switchyard. Equipment required to supply or control power to the distribution switch/control panels in the powerhouse and equipment associated with the operation of PacifiCorp's

transmission/distribution system will remain in service. The existing fencing around the switchyard and powerhouse will be modified as necessary to provide additional security once the powerhouse is no longer staffed.

## 2.0 DECOMMISSIONING SCHEDULE

PacifiCorp will accomplish the decommissioning of the Powerdale Project according to Section 4 and Appendix A of the Settlement Agreement. It is intended that the decommissioning activities can be completed in one construction season; April 1 through November 15. Required permits will be obtained prior to the construction season. Timing restrictions will be in effect for any in-water work in to protect sensitive life stages of aquatic species, and to minimize effects to terrestrial resources. For all in-water decommissioning work, PacifiCorp will conduct such work between July 15 and August 31, or outside of that time period with the approval of NMFS, USFWS and ODFW. For purposes of this decommissioning action, “in-water work” does not include dam removal or other decommissioning actions performed in areas that have been dewatered for purposes of decommissioning actions. Actions that are likely to occur outside of the July 15 to August 31 period include the following decommissioning actions:

- (i) Construction and removal of the upstream and downstream cofferdams, cofferdam materials, and culverts (Section 1.1.3).
- (ii) Removal of the artificial upstream fish passage channel and bypass flume (Section 1.1.2.1).
- (iii) Placement of materials (relocated cofferdam materials and available streambed materials) along the river to create access for removal of remaining portions of the dam and fish ladder (Section 1.1.3).
- (iv) Placement of materials to regrade and armor the east and west banks of the river to harden the disturbed areas (Section 1.1.3).
- (v) Regrading of the streambed above and below the dam as necessary to assist with removal of any barriers to fish passage created as a result of decommissioning activities (Section 1.1.3).

These activities are scheduled to occur outside of the July 15 through August 31 time period, as shown in Appendix A, Table B to the Settlement Agreement and, as such, are exempt from prior approval by NMFS, USFWS and ODFW. Preparatory work will be performed from April through June, and post-decommissioning work may be completed in November and December, after a return of the river to the natural channel.

PacifiCorp will provide NMFS, USFWS, ODFW and CTWS with reasonable notice prior to initiating in-water work to allow them to view the work and recommend fish salvage or other immediate measures to avoid fish stranding or delay.

### **3.0 DECOMMISSIONING PROTECTION, MITIGATION AND ENHANCEMENT MEASURES**

#### **3.1 EROSION AND SEDIMENT CONTROL PLAN**

PacifiCorp will develop and implement an Erosion and Sediment Control Plan (ESCP), in consultation with and with the approval of NMFS, USFWS, ODEQ, ODFW and CTWS, prior to any in-water decommissioning actions. The ESCP will identify specific methods to be implemented at each work area to protect water quality and aquatic habitat. The objectives of the ESCP will be to (i) protect the Hood River from unplanned releases of sediment and debris during decommissioning activities; (ii) appropriately dispose of sediment and decommissioning debris in accordance with applicable laws, the Spill Prevention Control and Countermeasure Plan, and public health and safety; (iii) implement permanent revegetation measures consistent with BMPs; and (iv) ensure that dam removal will be conducted in dry conditions using a cofferdam and artificial channel to divert flows from work areas.

The ESCP will also specify measures such as berms, ditches, sediment retention basins, silt fencing, and site restoration to be used for protecting natural resources during the decommissioning activities.

#### **3.2 SEDIMENT AND FISH PASSAGE MONITORING; CONTINGENCY PLAN**

PacifiCorp will perform a geomorphology study of the river channel shortly after the effective date of the Settlement Agreement for the purpose of describing current geomorphic conditions in the Hood River from 2,200 feet downstream of the dam to 1,000 feet upstream of the dam, or above the vegetated island, whichever is farther. This information will be used to predict potential impacts of sediment released from dam removal activities on fish passage and aquatic habitat downstream of the dam location.

PacifiCorp will develop a fish passage monitoring and mitigation plan in consultation with NMFS, USFWS, ODFW, ODEQ and CTWS. The plan will be approved by NMFS, USFWS and ODFW and implemented following removal of the cofferdams and the return of the river to its natural channel. In the event a fish passage obstruction, as defined by the plan, is cause or exacerbated by dam removal, PacifiCorp will restore adequate fish passage by implementing the mitigation measures set forth in the plan.

PacifiCorp will have no obligation to monitor or mitigate for obstruction to fish passage created by dam removal for more than one cycle of seasons beyond the return of the river to natural conditions, in accordance with the above mentioned geomorphology report, and as determined by a team composed of representatives of NMFS, USFWS, ODFW, CTWS and PacifiCorp.

#### **3.3 RARE, THREATENED AND ENDANGERED SPECIES PLAN**

PacifiCorp will complete surveys for federal- or state-listed rare, threatened and endangered species in areas planned for construction. All decommissioning activities will be planned and designed to minimize direct impacts on wildlife species and their habitat.

### **3.4 REVEGETATION AND MITIGATION PLAN**

PacifiCorp will consult with the Settlement Parties to develop a Revegetation and Mitigation Plan (RMP) that will address how PacifiCorp, in conducting decommissioning activities, will (i) minimize the area of disturbance to the extent possible; (ii) adhere to conditions in any applicable Army Corps of Engineers or Oregon Division of State Lands wetlands permit; (iii) consult with state and federal wildlife agencies, CTWS and, when necessary, the Columbia River Gorge Commission (CRGC) prior to determining appropriate protection measures; (iv) limit construction to the summer through fall time period; (v) revegetate disturbed areas with native vegetation to the extent possible based on existing vegetation cover type mapping and potential wetland delineations; and (vi) control sedimentation of aquatic habitat as set forth in the ESCP.

PacifiCorp will have no obligation to compensate for unavoidable wetland alteration following the removal of portions of the wood stave flowline and the associated artificial water source.

### **3.5 CULTURAL AND HISTORIC MEMORANDUM OF AGREEMENT**

PacifiCorp will draft a Memorandum of Agreement with the State Historic Preservation Officer (SHPO) prior to initiating any decommissioning activities. PacifiCorp will photographically document eligible properties for pictorial preservation by the National Register. Additionally, PacifiCorp will consider recordation of eligible properties to the Historic American Buildings Survey/Historic American Engineering Record standards, and architectural salvage. PacifiCorp will consult with the SHPO, the National Park Service, the U.S. Army Corps of Engineers, CTWS, the Oregon Historical Society, the Hood River County Historical Society, and the County of Hood River, as appropriate, prior to modifying any project structures.

In the event that ownership of the property and the remaining eligible facilities are transferred to another entity, PacifiCorp will provide documentation acknowledging that the facilities are eligible for listing in the National Register and require treatment in a manner consistent with the National Historic Preservation Act.

### **3.6 RECREATION PLAN**

PacifiCorp may restrict or prohibit public access to the day-use sites and the bypass reach while portions of the decommissioning activities take place. PacifiCorp will provide appropriate signage and public notification prior to demolition and restoration activities to inform the public of planned activities and temporary restrictions. PacifiCorp will implement a demolition program that minimizes the length of time that the river is affected to minimize impacts to the fishing experience and, where feasible, will restore river trails, access roads and parking areas to pre-construction conditions following decommissioning.

PacifiCorp will not be required to perform additional measures to address impacts to land use, land management, aesthetics or visual resources during or after decommissioning.

#### 4.0 DECOMMISSIONING COSTS

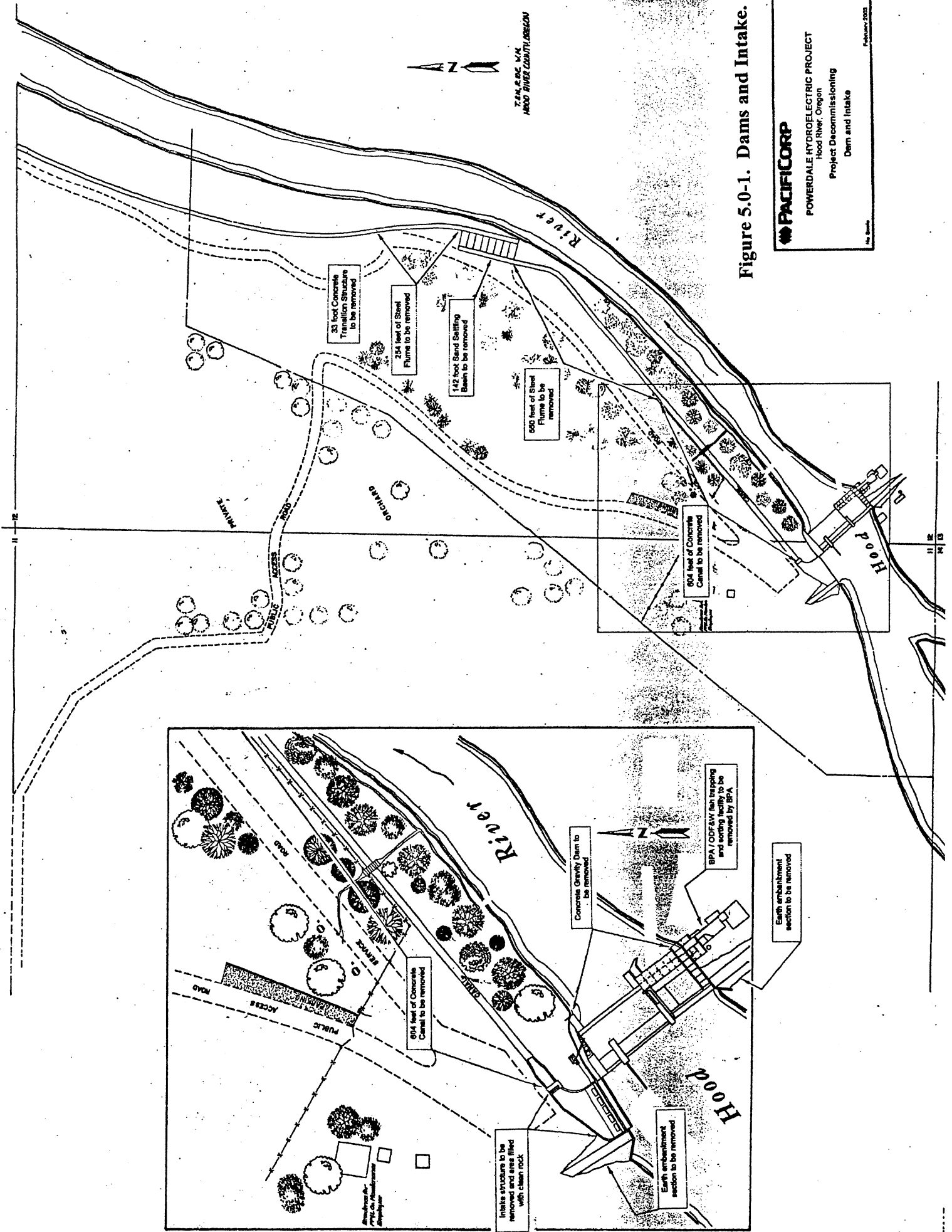
Table 4.0-1 presents the estimated costs of decommissioning the Powerdale Project as described in this Decommissioning Plan.

**Table 4.0-1. Decommissioning costs.**

<b>Project Element</b>	<b>Decommissioning Price</b>
Survey	\$27,000
River Diversion	\$400,000
River Bypass	\$317,000
Sediment and Erosion Control	\$148,000
Dam	\$1,280,000
Intake	\$378,000
Misc. Structures	\$30,000
Canal	\$37,000
Steel Flume	\$146,000
Sand Settling Basin	\$266,000
Transition Structure	\$58,000
Flowline	\$618,000
Surge Tank	\$157,000
Powerhouse	\$765,000
Substation	\$78,000
Restoration	\$58,000
<b>Project Total</b>	<b>\$4,763,000</b>

## **5.0 DECOMMISSIONING DRAWINGS**

The following general design drawings, showing the principal project works, graphically depict the Powerdale Project components and features proposed for decommissioning.



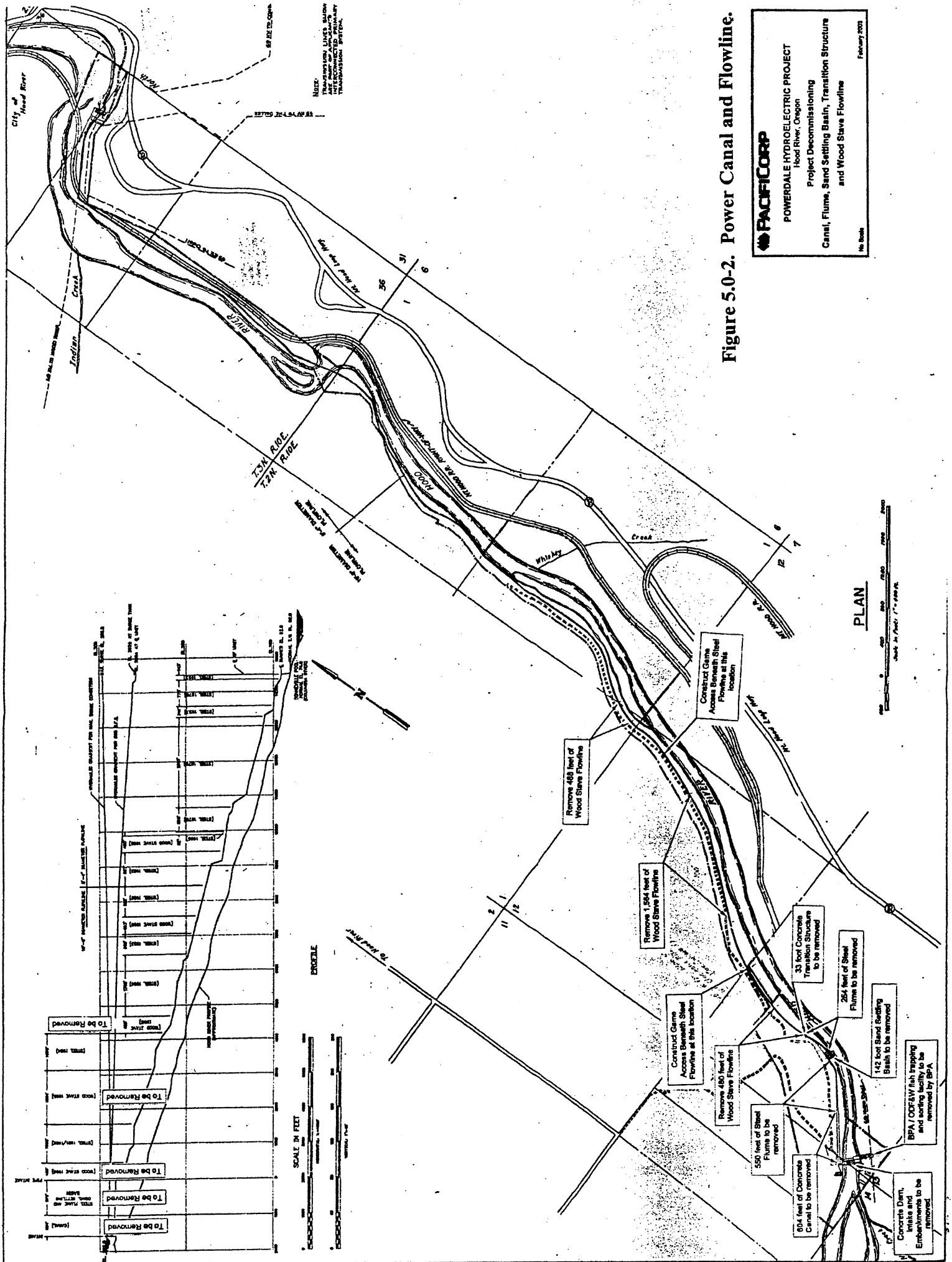
T.A.M. & S.E. W.A.C.  
HOOD RIVER COUNTY, OREGON

Figure 5.0-1. Dams and Intake.



POWERDALE HYDROELECTRIC PROJECT  
Hood River, Oregon  
Project Decommissioning  
Dam and Intake

February 2003



**Figure 5.0-2. Power Canal and Flowline.**

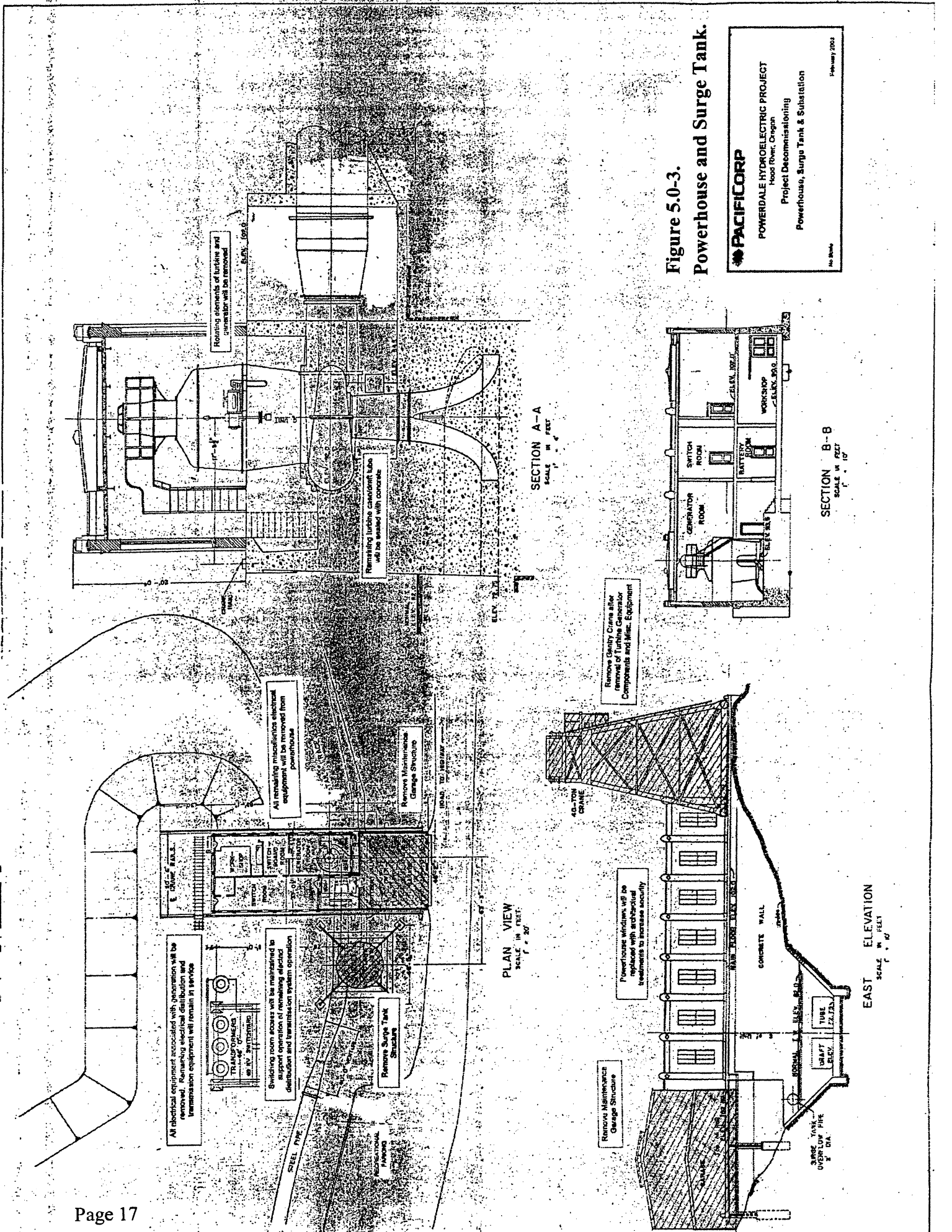
**PACIFICORP**

**POWERDALE HYDROELECTRIC PROJECT**  
Hood River, Oregon

**Project Decommissioning**  
Canal, Flume, Sand Settling Basin, Transition Structure  
and Wood Stake Flowline

16 Books February 2003





**Figure 5.0-3.**  
**Powerhouse and Surge Tank.**

**PACIFICORP**  
 POWERDALE HYDROELECTRIC PROJECT  
 Hood River, Oregon  
 Project Decommissioning  
 Powerhouse, Surge Tank & Substation  
 February 2003

**APPENDIX C**

**REPRESENTATIVES OF THE PARTIES**

APPENDIX C  
REPRESENTATIVES OF THE PARTIES

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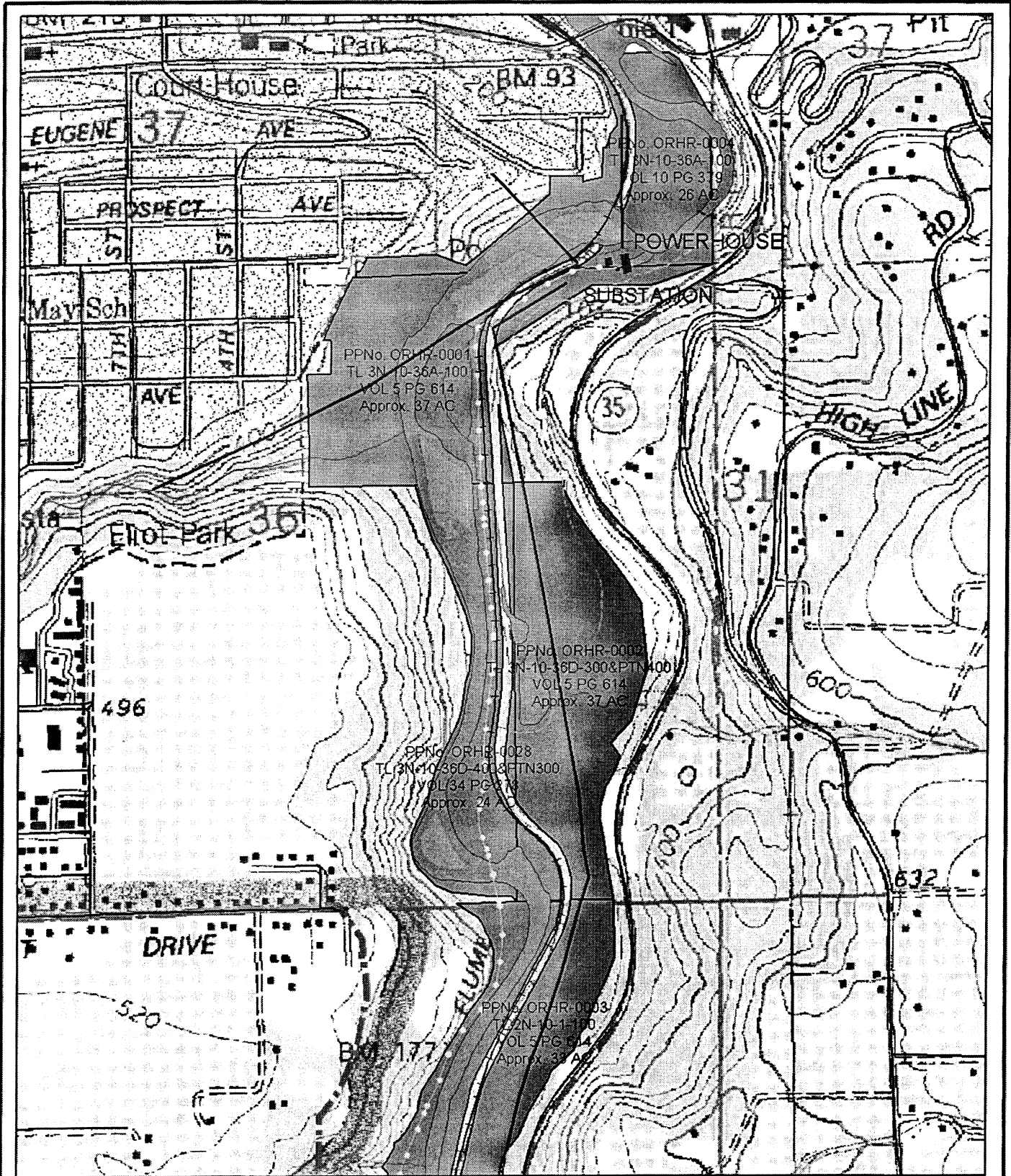
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**APPENDIX D**

**SUBJECT LANDS**

APPENDIX D - SUBJECT LANDS \*



Powerdale Sheet 1

- |                        |                   |                       |
|------------------------|-------------------|-----------------------|
| Public Access Easement | Gorge Scenic Area | <b>Facility Lines</b> |
| Facility               | Subject Lands     | — POWERLINE           |
| Railroad               |                   | - - - FENCE           |
|                        |                   | — FLUME               |
|                        |                   | - - - MSC             |

**DISCLAIMER**  
 Areas were calculated from GIS data and are approximate and subject to survey. PacifiCorp makes no warranty as to the accuracy, reliability, or completeness of this data for individual or aggregate use with other data.

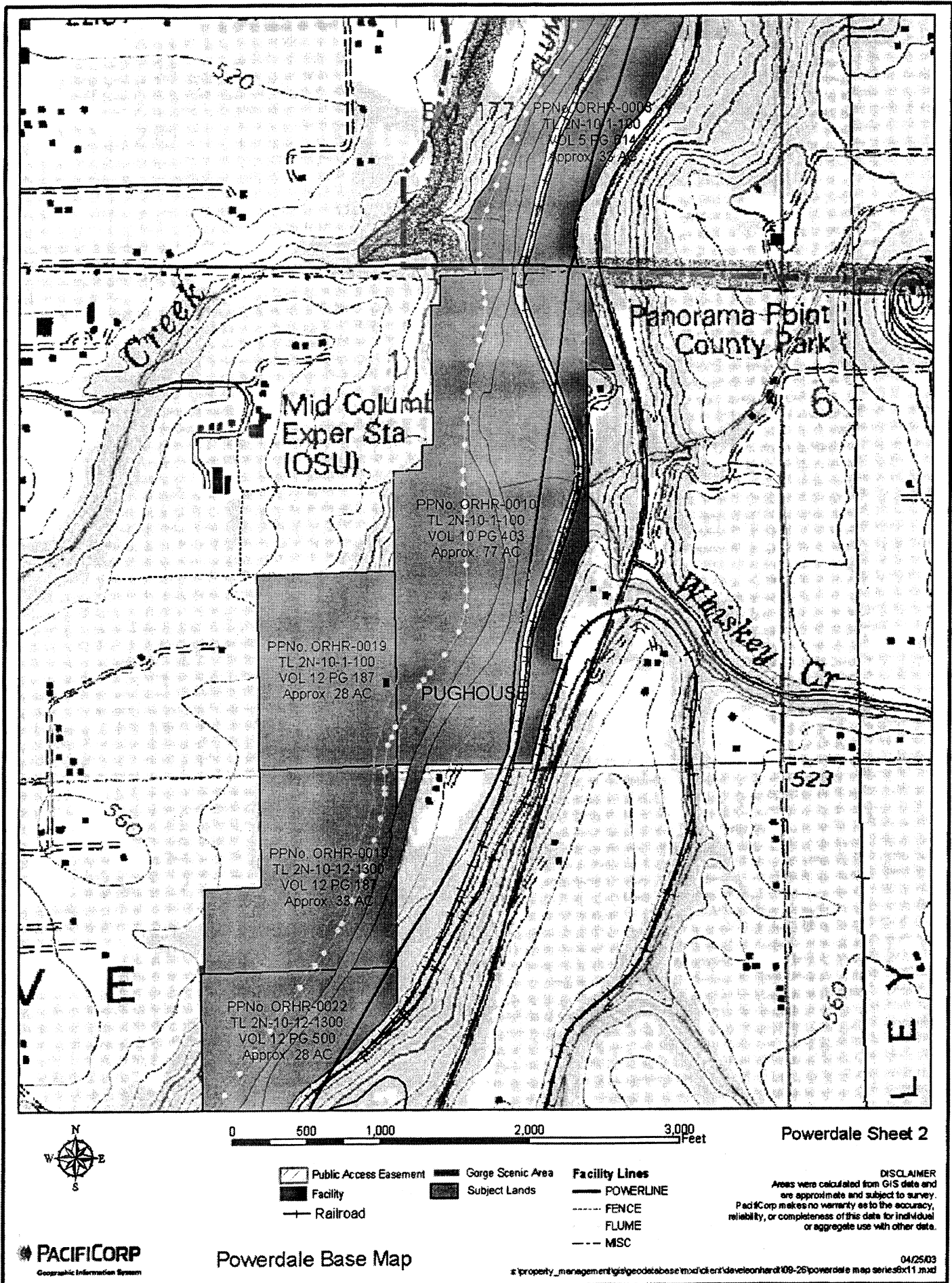


Powerdale Base Map

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\* The boundaries of these Subject Lands may be amended pursuant to Section 4.4.1 of the Settlement Agreement.

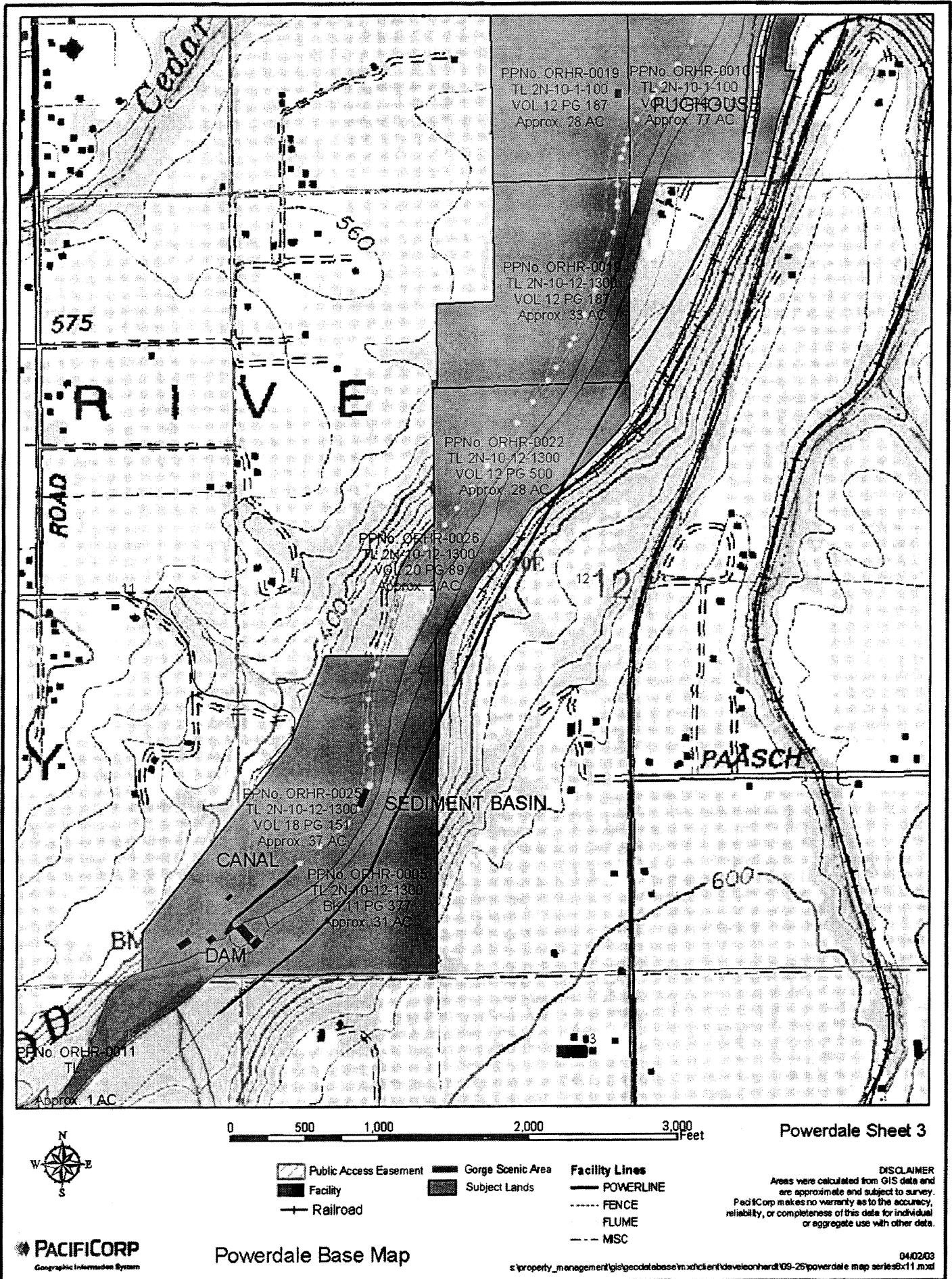
APPENDIX D - SUBJECT LANDS \*



\* The boundaries of these Subject Lands may be amended pursuant to Section 4.4.1 of the Settlement Agreement.



APPENDIX D - SUBJECT LANDS\*



\* The boundaries of these Subject Lands may be amended pursuant to Section 4.4.1 of the Settlement Agreement.

**APPENDIX E**

**ALLOWABLE INTERIM PERIOD ACTIONS AND  
ENCUMBRANCES**

APPENDIX E  
ALLOWABLE INTERIM PERIOD ACTIONS AND ENCUMBRANCES

**Project Name:** *Oregon State University (OSU) Agricultural Lease Agreement for the Mid-Columbia Agricultural Research and Extension Center in Hood River (File Number OR-HR-0019C).*

**Action:** PacifiCorp may enter into an Agricultural Lease Agreement with OSU on parcel PPNo. ORHR-0019; TL 2N-10-1-100; Vol. 12 PG 187. The lease term may be for one year, beginning November 1, 2002 and ending October 31, 2003, with the option to renew in one year increments until PacifiCorp disposes of the property.

**History:** For the past 35 years, PacifiCorp has permitted OSU to use for agricultural purposes the Northwest corner of land in parcel PPNo. ORHR-0019; TL 2N-10-1-100; Vol. 12 PG 187. Of the total 28 acres, 5.75 acres have been used for growing pear trees. The last lease agreement was signed August 6, 1996 and terminated March 1, 2000. Since that time, PacifiCorp has allowed OSU to continue use of the land with the intent to sign a new agreement. On Feb 25, 2000 PacifiCorp notified OSU of its expired lease agreement and presented OSU with PacifiCorp's new policy, which requires collection of rent for the use of company lands.

**Project Name:** *Hood River Valley Parks & Recreation District (HRVPRD) trail easement request (File Number: OR-HR-0001).*

**Action:** PacifiCorp may grant to HRVPRD a perpetual public trail right-of-way easement across PacifiCorp parcels 100 Sec. 36 Y 3N R10E in Hood River over the existing easement provided for a Sanitary Sewer (Ref P.S. 1709)..

**History:** HRVPRD requested a public trail right-of-way easement across PacifiCorp parcels 100 Sec. 36 Y 3N R10E in Hood River. The Indian Creek trail currently exists on PacifiCorp land and has been open for public use for the past 15-20 years. The proposed location of the new easement would be granted over an existing 10' permanent easement granted to the City of Hood River for Sanitary Sewer granted Dec 2, 1970, Ref P.S. 1709. HRVPRD presented a written trail easement proposal on Feb 27, 2001. On June 20, 2001, PacifiCorp responded with a letter expressing the company's willingness to support the trail easement as long as it did not jeopardize PacifiCorp's service commitment to the community. On June 10, 2002, a land survey of the Indian Creek Trail Segment #1 was completed. The survey provided a legal description for the easement as requested by PacifiCorp. The City and PacifiCorp are prepared to finalize the easement.

**Project Name:** *Jenny Copper request to sell or trade property (file not yet created).*

**Action:** PacifiCorp, after consultation with the Lands Stakeholders, may trade up to 5.7 acres of parcel PPNo. ORHR-0019 land with or grant an easement to Jenny Copper in exchange for fee simple ownership of or an access easement over Jenny Copper's property, Tax Lot # 300.

**Description:** Copper's land currently divides PacifiCorp's property TL 2N-10-12-1300. An original access easement across Jenny Coppers land was signed on Sep 28, 1950. The road currently provides access to the west side of the Powerdale Dam. The easement or right of way is twenty feet in width for private road purposes over and across the described property in Hood River County, otherwise known as Jenny Copper's property, Tax Lot # 300. By its terms, the easement ceases in the event that PacifiCorp's properties in Hood River are acquired by any governmental agency or corporation, or if PacifiCorp's use of the pipeline over the property discontinues for one year or more. If Copper's land is acquired or an access easement created, there would then be contiguous access along the west side of Hood River. Copper expressed interest in trading property with PacifiCorp on March 23, 2000. The land has not yet been acquired because the Copper has not completed a survey. The land could be acquired through a trade or purchase, or access granted by easement.

**Project Name:** *Ekker Land use Permit (File Number: OR-HR-0022A).*

**Action:** PacifiCorp may renew a land use permit to Jerry Ekker and Jannine Ekker, giving the Ekkers permission to occupy and use real property located in Hood River County until PacifiCorp disposes of the property.

**History:** The most recent permit to occupy real property was granted to the Ekkers on July 21, 1997. This permit ends on June 30, 2007. The purpose of renewing this permit would likely be to obviate the need for PacifiCorp to cut weeds and otherwise maintain the property.

**Project Name:** *Evans Land use Permit (File Number: OR-HR-0019B).*

**Action:** PacifiCorp may renew a permit to Helen C. Evans, giving Evans permission to occupy and use 3.5 acres of real property located in Hood River County until PacifiCorp disposes of the property.

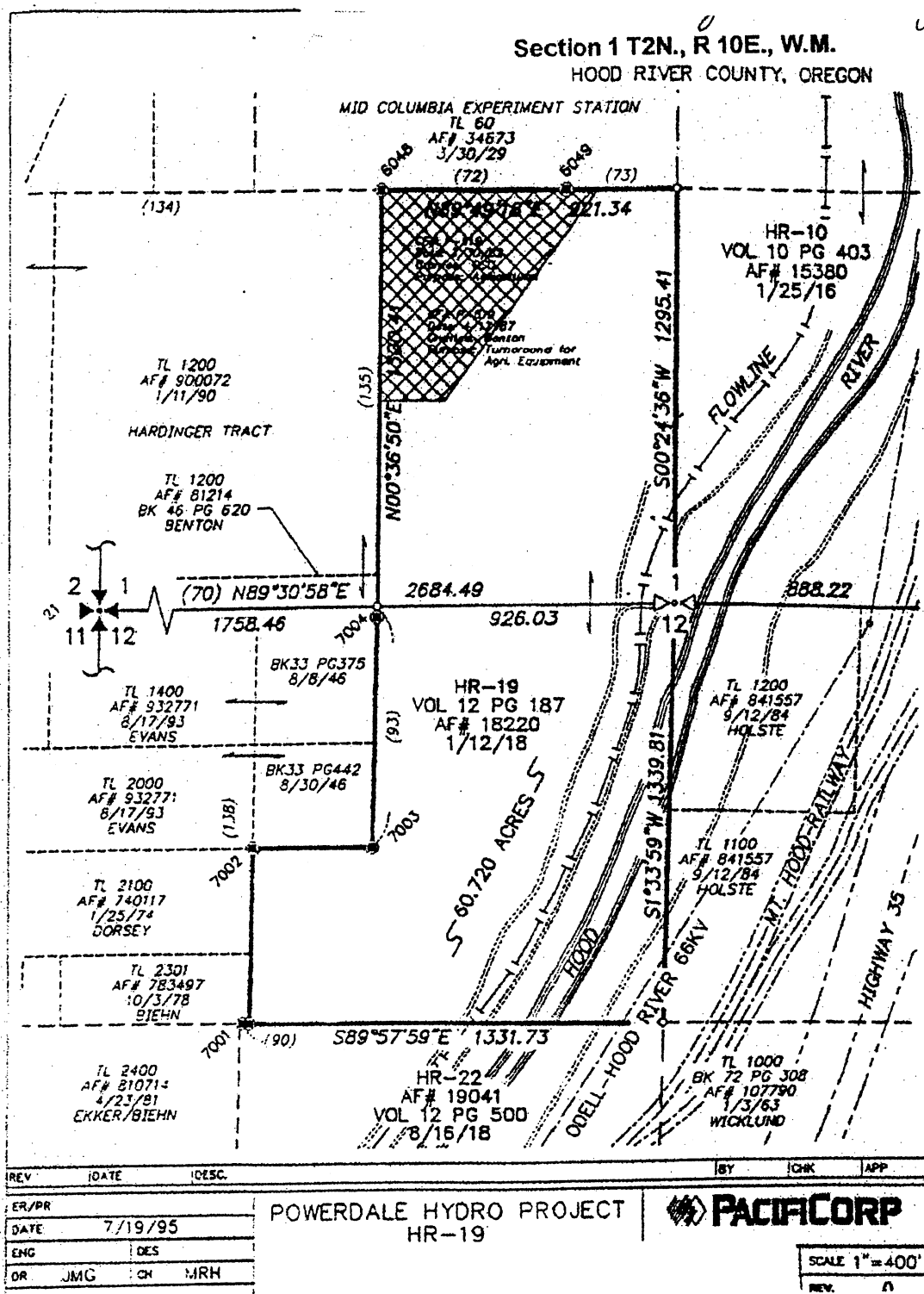
**History:** The initial permit was granted on October 19, 1970. The purpose of renewing this permit would likely be to obviate the need for PacifiCorp to cut weeds and otherwise maintain the property.

**Project Name:** *Benton Land use Permit (File Number: OR-HR-0019A).*

**Action:** PacifiCorp may renew a permit to John M. Benton and Julie Benton, giving the Bentons permission to occupy and use 3.5 acres of real property located in Hood River County until PacifiCorp disposes of the property. The property is 700' in length and 15' in width. TL 2N-10-1-100; Vol. 12 PG 187.

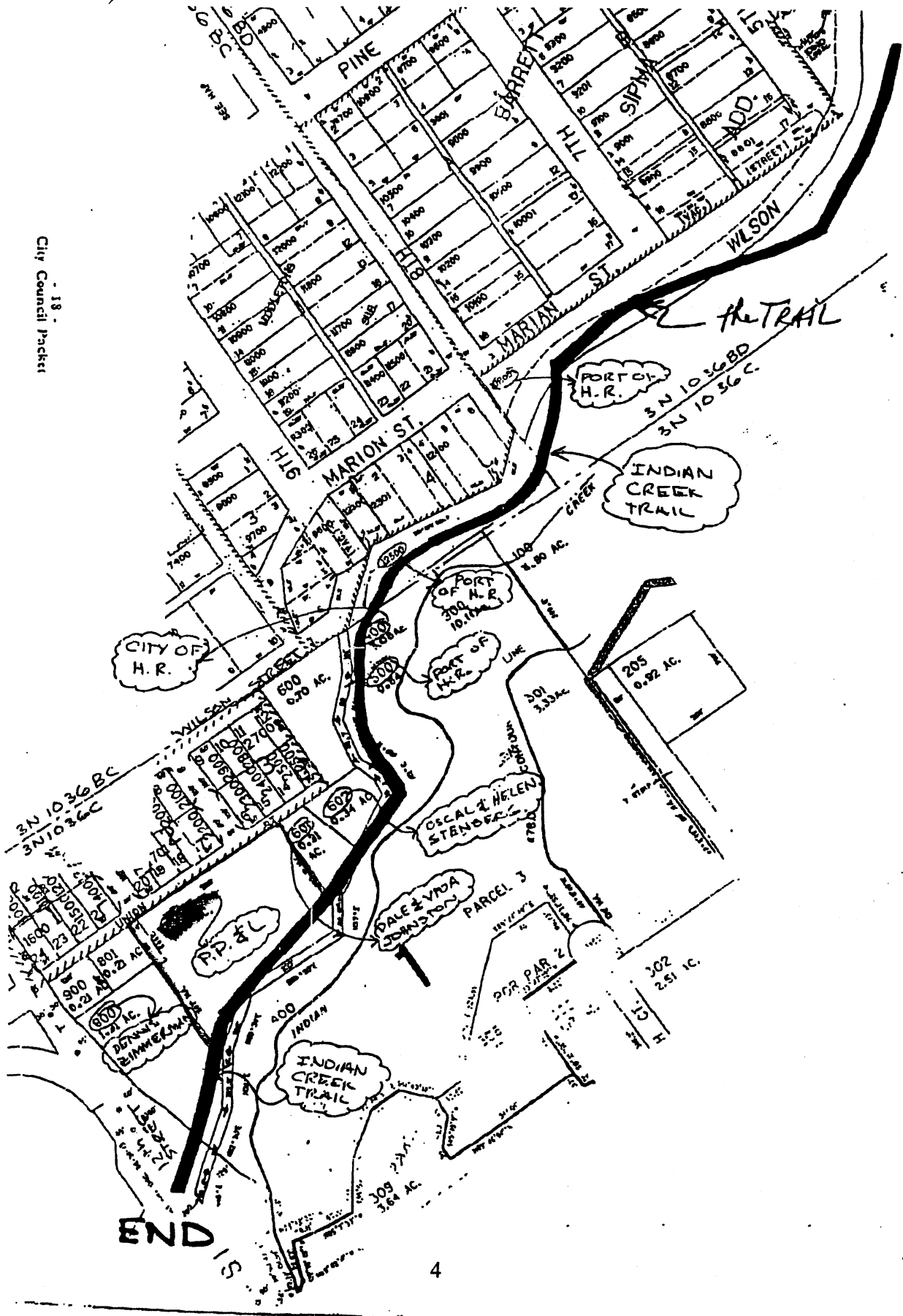
**History:** The initial permit was granted on July 6, 1982. The most recent permit was granted on June 16, 1995 and ends May 31, 2005. The purpose of renewing this permit would likely be to obviate the need for PacifiCorp to cut weeds and otherwise maintain the property.

Oregon State University (OSU) Agricultural Lease Agreement for the Mid-Columbia Agricultural Research and Extension Center in Hood River (File Number OR-HR-0019C).

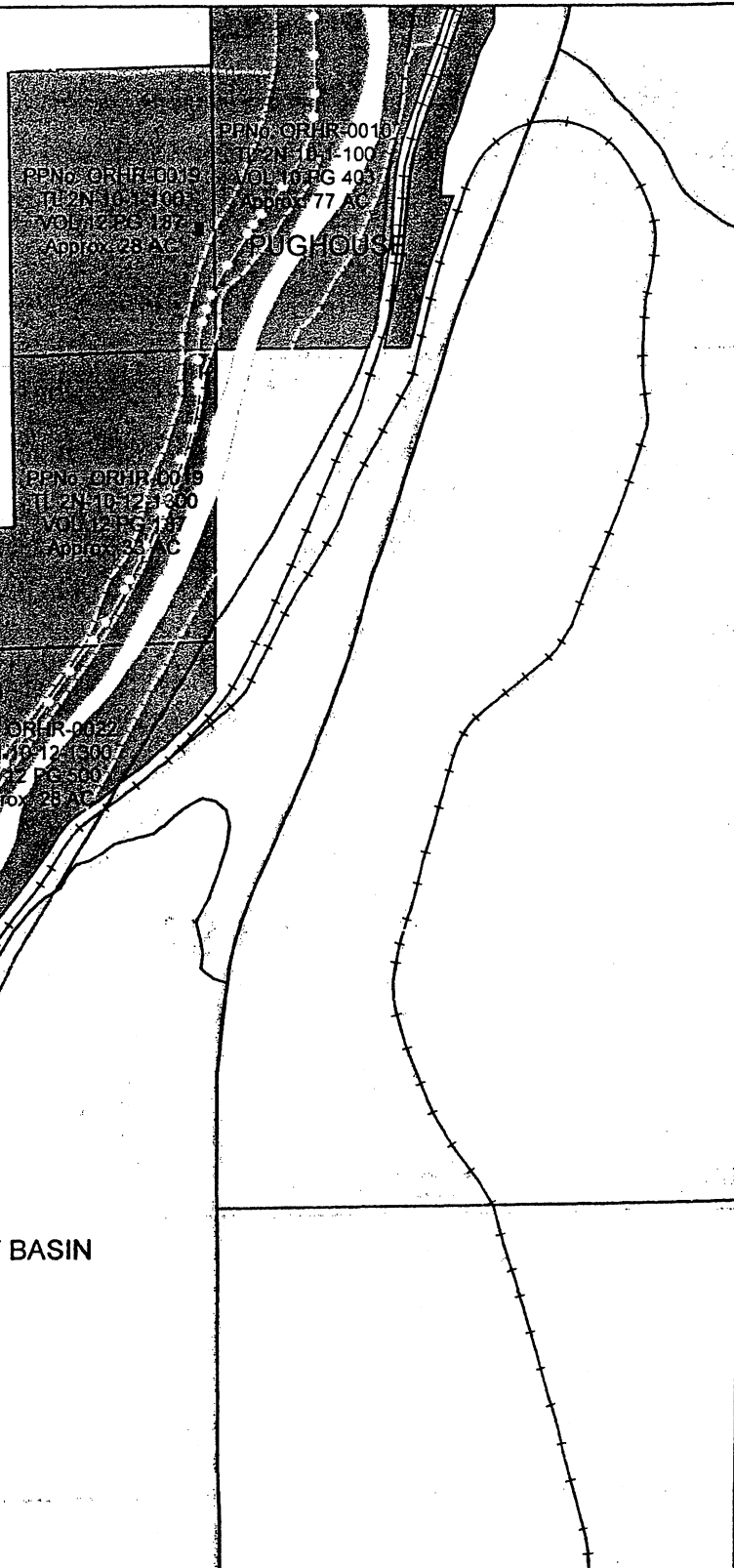


Hood River Valley Parks & Recreation District (HRVPRD) trail easement request (File Number: OR-HR-0001).

City Council Packet  
- 18 -



JENNY COPPER  
REQUEST TO SELL  
OR TRADE PROPERTY.



SUBJECT  
PROPERTY

SEDIMENT BASIN

CANAL

DAM



- |                        |                      |                       |
|------------------------|----------------------|-----------------------|
| Public Access Easement | Gorge Scenic Area    | <b>Facility Lines</b> |
| Facility               | PacifiCorp Ownership | POWERLINE             |
| Railroad               |                      | FENCE                 |
|                        |                      | FLUME                 |
|                        |                      | MISC                  |

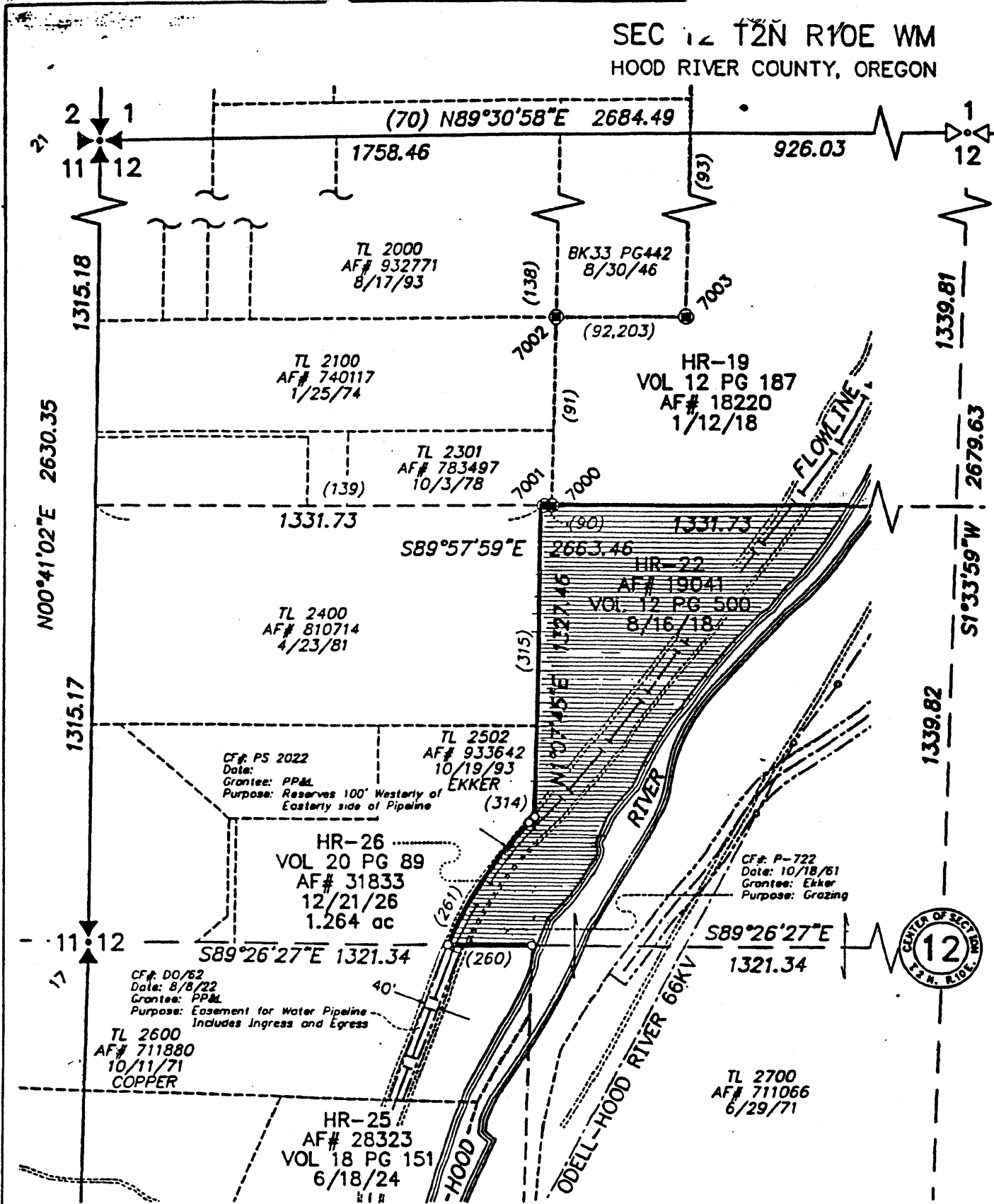
**DISCLAIMER**  
Areas were calculated from GIS data and are approximate and subject to survey. PacifiCorp makes no warranty as to the accuracy, reliability, or completeness of this data for individual or aggregate use with other data.



Powerdale Base Map

s:\property\_management\gis\geodatabase\mxd\client\daveleonhard\109-26\powerdale map series8x11.mxd 04/29/03

SEC 12 T2N R10E WM  
HOOD RIVER COUNTY, OREGON



REV	DATE	DESC.	BY	CHK	APP

ER/PR	
DATE	7/19/95
ENG	DES
DR	JMG CH MRH
APP	

POWERDALE HYDRO PROJECT  
HR-26



SCALE	1" = 400'
REV.	0



21  
11/12  
13 1/2 Acre Tract

80 Acre Tract

66 1/2 Acres ±

5.26 A.

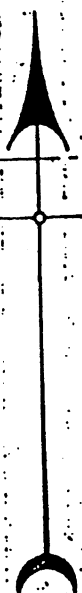
11.265 ±

5.26 A.

120

Hood River

Mt. Hood R.R.



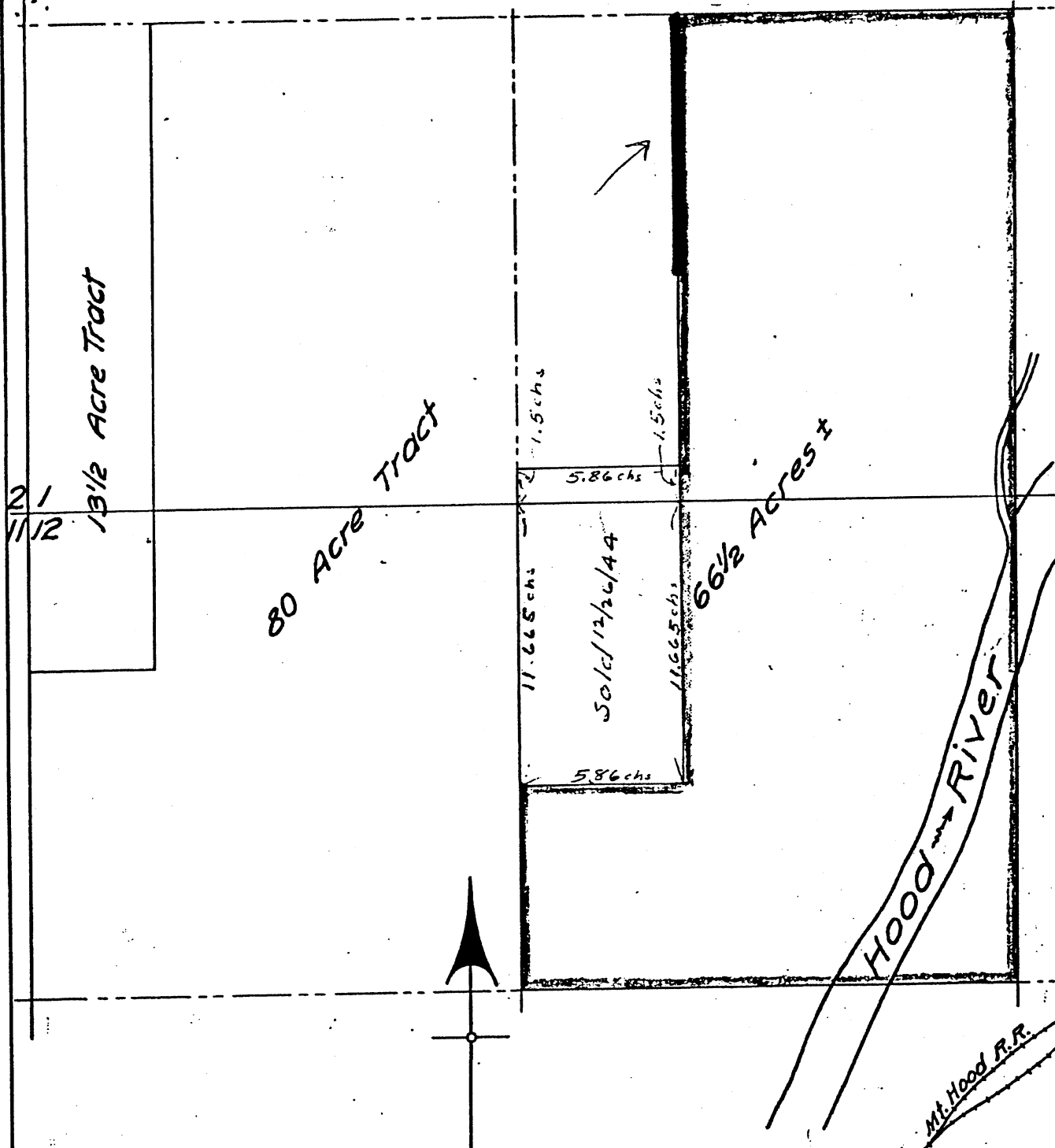
Made at Portland, Ore.  
Wm. H. Galvani, Engineer.  
Chief of Party.

DRAWN M. A. B. Feb 1916  
TRACED " " 1916  
CHECKED R. L. S. " 1916  
APPROVED W. H. G. 1916

Parcel of Land  
in Secs. 1 & 12, T. 2 N., R. 10 E., 11 M.  
Hood River County, Ore.

PACIFIC POWER & LIGHT COMPANY  
PORTLAND, OREGON

SCALE: 1" = 400' PA-1120



Made at Portland, Ore.  
Wm. H. Galvani, Engineer.  
Chief of Party.

DRAWN	M. A. B.	Feb	1916
TRACED	"	"	1916
CHECKED	R. L. S.	"	1916
APPROVED	W. M. G.	"	1916

Parcel of Land  
in Secs. 1 & 12, T.2N., R.10E., N.M.  
Hood River County, Ore.

PACIFIC POWER & LIGHT COMPANY  
PORTLAND, OREGON

SCALE: 1" = 400'

PA-1120

**EXHIBIT 1**

**PROPOSED SECTION 401 CERTIFICATION CONDITIONS FOR  
INTERIM OPERATION AND DECOMMISSIONING OF THE  
POWERDALE HYDROELECTRIC PROJECT**

EXHIBIT 1  
 PROPOSED SECTION 401 CERTIFICATION CONDITIONS  
 FOR INTERIM OPERATION AND DECOMMISSIONING  
 OF THE POWERDALE HYDROELECTRIC PROJECT

Unless otherwise specifically provided, the following certification conditions are effective 30 days after incorporation into a FERC license or order or other federal license or permit for interim operation and decommissioning of the Powerdale Hydroelectric Project. The conditions are in addition to certain rights and obligations of PacifiCorp and other parties set forth in the Settlement Agreement Concerning the Interim Operation and Decommissioning of the Powerdale Hydroelectric Project (Settlement Agreement), specifically PacifiCorp's obligations under the Settlement Agreement to implement certain measures at an earlier date, or to continue measures commenced at an earlier date, and including other parties' review and approval of certain activities under the Settlement Agreement.

1. Interim Operation: Conditions for Compliance with the Temperature Water Quality Standard and Total Maximum Daily Loads (TMDLs).

- a. *Temperature Management Plan.* In accordance with OAR 340-041-0026(3)(a)(D), PacifiCorp shall implement the Surface Water Temperature Management Plan approved by the Oregon Department of Environmental Quality (ODEQ) in conjunction with this certification and set forth in Conditions 1.b, 1.c, 1.d., 1.f., 1.g., 1.h., 1.i, 1.j., and 2.b.
- b. *Flows.* Subject to Condition 1.d., PacifiCorp shall implement in the bypass reach on an average hourly basis either the Hood River flow immediately upstream of the Project (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), or the minimum instream flows set forth in the following table, whichever is less. Minimum instream flow requirements may be met using a combination of flows from the fish ladder, fish screen bypass flow, trash sluice, and spillway gates.

January	140 cfs
February	220 cfs
March	220 cfs
April*	220 cfs
May*	250 cfs
June*	250 cfs
July	250 cfs
August	250 cfs
September	250 cfs
October	250 cfs
November	220 cfs
December	140 cfs

\* Minimum instream flows for temperature specified in this table for April 15 through June 30 are superseded by higher minimum instream flows provided in accordance with Conditions 2.a. and 2.b. for the same period.

- c. *Powerhouse Discharge*. Heat discharged to the Hood River through powerhouse cooling water may not exceed 19.31 million kilocalories per day.
- d. *TMDLs September 15-October 15*. To meet its load allocation (LA) under the TMDL from September 15 through October 15, PacifiCorp shall undertake the following measures:
- (1) PacifiCorp shall provide ODEQ with an annual temperature and flow monitoring report by December 31 of each year. The annual monitoring report shall include the required hourly temperature and flow data, pre- and post-deployment data, and monthly field audit data required by Condition 1.g. for that calendar year. The annual report shall identify any instances in which the seven-day moving average of daily maximum temperatures measured at the downstream end of the bypass reach exceeded 55°F during the period from September 15 through October 15. If any such instances are identified in the first three years of monitoring, PacifiCorp shall conduct and submit in the third annual temperature and flow monitoring report to ODEQ an evaluation of whether the temperature increase in the bypass reach was 0.25°F (as a seven-day moving average) more than the increase that would have occurred had the Project not diverted water from the bypass reach. In lieu of conducting this evaluation, PacifiCorp may assume that any temperature increase between the upstream and downstream ends of the bypass reach is due to Project diversions.
  - (2) If, based on the evaluation or assumed Project impact described in the preceding paragraph, ODEQ determines that the stream warming that occurred in the bypass reach was 0.25°F more than would have occurred had there been no Project diversions, PacifiCorp shall, within 90 days from written notification from ODEQ, submit to ODEQ a written proposal for measures that PacifiCorp will take to ensure that the Project-related warming in the bypass reach is not more than 0.25°F (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15. The proposal shall include a proposed schedule for implementing the measures. The measures may include, but are not limited to, the following:
    - (a) Temperature modeling for the period September 15 through October 15 to determine what minimum instream flows would be necessary to reduce Project-related warming to 0.25°F or less (as a seven-day moving average) when the seven-day moving average of daily maximum temperatures at the downstream end of the bypass reach exceeds 55°F. If increased minimum flows are necessary and feasible, PacifiCorp shall provide the increased flows for the necessary period, subject to the limits set forth in Condition 1.d.(3).
    - (b) In the alternative, PacifiCorp may elect not to divert water (except for amounts required to compensate for flowline leakage up to 25 cfs) whenever and so long as the river temperature exceeds 55°F at the downstream end of the bypass reach between September 15 and October 15.

- (3) The following limitations apply to modifications of minimum instream flows under this Condition 1.d:
- (a) ODEQ will not require modification of flows beyond those reasonably necessary to prevent a Project-related instream temperature increase of 0.25°F or more. This limitation will only apply upon ODEQ's determination that PacifiCorp has satisfactorily demonstrated under prevailing conditions that any such modification would result in a Project-related temperature increase of less than 0.25°F.
  - (b) Modification of minimum instream flows shall be limited to no more than a 50 cfs increase in any two-year period.
  - (c) PacifiCorp's responsibility to fulfill minimum instream flow requirements shall be limited to reducing Project diversions from the bypass reach.
  - (d) No increase in minimum instream flows shall be required before September 15, 2006.
- e. *TMDLs Reservation.* In the event the Project continues to divert water for power generation or Project maintenance during and after 2012, ODEQ reserves the right to modify these certification conditions, in accordance with OAR Chapter 340, Division 48, as necessary to ensure implementation of TMDLs for any applicable period.
- f. *Resumption of Power Generation.* Following the period of temporary reduction of flow in the flowline (April 15 to June 30), PacifiCorp shall resume power generation in accordance with Condition 2.b.
- g. *Temperature Monitoring.* PacifiCorp shall monitor stream temperatures hourly from July 1 through October 15 each year at the sites PDBUP (upstream end of the bypass reach, approximately 50 meters downstream of the dam) and PDBDN (downstream end of the bypass reach, approximately 250 meters upstream of the powerhouse). The accuracy of temperature recorders shall be tested before and after field deployment to ensure that they are operating within their designated range of accuracy. In addition to pre- and post-deployment checks, the temperature recorders shall be audited monthly during the field measurement period. The pre- and post-deployment and monthly field audit checks shall be made using a National Institute of Standards and Technology (NIST) traceable (calibrated and maintained) thermometer accurate to  $\pm 0.2^{\circ}\text{C}$  or better, which has been checked against an NIST traceable thermometer. PacifiCorp shall also record average hourly flows released from the diversion dam into the bypass reach for the period July 1 through October 15. These flows shall be measured in accordance with Condition 1.h.

h. *Flow Monitoring.*

- (1) PacifiCorp shall measure instream flows by a Programmable Logic Control or alternative method for monitoring compliance with minimum instream flows, consistent with standard operating procedures developed by PacifiCorp in consultation with ODEQ, the Oregon Department of Fish and Wildlife (ODFW), the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWS).
  - (2) PacifiCorp shall publicly post hourly flow data on the Internet. The Internet posting shall clearly display the total average hourly river flow being released into the bypass reach directly downstream of the diversion dam. The Internet posting shall also display the average hourly flow being diverted to the flow conveyance system. Flows shall be reported in cfs. PacifiCorp shall post hourly flow measurements as timely as possible but no more than 24 hours after such measurements are taken.
  - (3) Unless otherwise agreed upon in writing by ODEQ and PacifiCorp in consultation with ODFW, OWRD, NMFS, USFWS, and CTWS, the following flow verification requirements shall apply: For the first two years, rating tables, including any discharge coefficients used to calculate the gaged flows being tracked by the PLC system, shall be verified at least once every six weeks during the periods when flows at the Tucker Bridge Gage are less than the sum of the minimum instream flow plus the power claim flow (generally about July through November); Rating tables shall be set-up to cover a range of operation settings; If after the initial two-year period a control structure rating table demonstrates stability, then verification measurements shall be conducted at least once per year; If after the initial two-year period a control structure demonstrates instability, or when maintenance changes flow conditions through a control structure, then more frequent than once-per-year verification measurements shall be conducted on an as-needed basis to re-establish a stable rating table for the particular control structure.
- i. *Measurable Increase.* Any Project-related instream temperature increase of 0.25°F or less above the relevant criterion shall not be deemed to contribute to an exceedance of the temperature criterion or to a violation of the temperature water quality standard.
- j. *Monitoring Modifications.* ODEQ may make modifications to temperature monitoring required under Condition 1.g. that ODEQ considers to be reasonable and feasible, or, after consultation with ODFW, OWRD, NMFS, USFWS, and CTWS, make reasonable and feasible modifications to flow monitoring required under Condition 1.h, if:
- (1) The monitoring requirements prove to be insufficient to provide the necessary data;  
or,
  - (2) Modifications to minimum instream flow requirements require modifications to monitoring requirements.

k. *Temperature Flow Modifications.* With the approval of ODEQ, PacifiCorp may cease implementing or may implement modified flows under the Temperature Management Plan. ODEQ may approve cessation or modification if ODEQ determines that it will not impair the achievement of any TMDL or LA for the Project for temperature and will not contribute to the exceedance of the relevant temperature criterion in waters affected by the Project.

l. *Duration of Conditions.* The above conditions in this section will cease to be effective upon commencement of removal of the dam structure.

2. Interim Operation: Conditions for Compliance with the Biological Criteria, pH, Dissolved Oxygen, and Turbidity Water Quality Standards, Protection of Beneficial Uses, and Compliance with Other Appropriate State Laws.

a. *Flows.* Subject to Condition 1.d, PacifiCorp shall implement in the bypass reach either the Hood River flow immediately upstream of the Project (less the amount required to compensate for flowline leakage up to a maximum of 25 cfs), or the following minimum instream flows, whichever is less:

February 1 to April 14: 220 cfs

April 15 to June 30: manage flows as set forth in Condition 2.b

July 1 to October 31: 250 cfs

November 1 to November 30: 220 cfs

December 1 to January 31: 140 cfs

Minimum instream flow requirements may be met using a combination of flows from the fish ladder, fish screen bypass flow, trash sluice, and spillway gates.

b. *Temporary Reduction in Diversion Flow.*

(1) From April 15 to June 30 each year, PacifiCorp shall reduce diversion flow to a maximum of 25 cfs. All flows in excess of the amount required to compensate for flowline leakage up to the maximum of 25 cfs shall be passed by the dam.

(2) PacifiCorp may resume power generation on July 1 of each year. For the 96 hours prior to the start-up of the turbine unit, PacifiCorp shall use multiparameter continuous monitoring devices approved by ODEQ to sample water quality at two sites in the river agreed upon by ODEQ. One site shall be just upstream of the powerhouse tailrace at site PDBDN as defined in Condition 1.g; the other shall be approximately 30 meters downstream of the powerhouse tailrace confluence with the river along the east bank. The continuous sampling devices shall sample and record hourly stream temperature, dissolved oxygen, pH, and turbidity. At least 72 hours prior to the start-up of the turbine unit, but not less than 24 hours after commencing the continuous monitoring, PacifiCorp shall open a 10-inch drain valve in the powerhouse near the tailrace to provide a slow exchange of flowline water. Upon



beginning generation on July 1, PacifiCorp shall set the turbine generator unit on the minimum wicket gate setting required to synchronize the turbine generator. PacifiCorp shall then ramp the turbine generator load in sufficiently small increments to the extent feasible to maintain the ramping requirements set forth in Condition 2.c. Monitoring under this Condition 2.b.(2) at the two sampling sites may cease 24 hours after beginning generation. The multiparameter devices shall be calibrated for each parameter according to the manufacturer's specifications prior to deployment. At the time the instruments are deployed in the water and when they are retrieved at each site, PacifiCorp shall audit the multiparameter devices by measuring stream temperature with an NIST traceable thermometer accurate to  $\pm 0.2^{\circ}\text{C}$  and measure stream dissolved oxygen via Winkler titration. Within 30 days after the instruments are retrieved, PacifiCorp shall forward ODEQ the electronic files of the continuous sampling, audit, and calibration data.

- (3) The procedure set forth in Condition 2.b.(2) might provide dilution of flowline water in excess of that necessary to comply with water quality standards. PacifiCorp may reduce or cease its monitoring effort under Condition 2.b.(2) following three consecutive years of monitoring data, of quality considered accurate and reliable by ODEQ, demonstrating that the flowline water does not contribute to an exceedance of a water quality standard at the downstream monitoring site described in that condition. In the absence of three years of such data, PacifiCorp may reduce or cease its monitoring effort under Condition 2.b.(2) if ODEQ provides written approval based upon an ODEQ determination that there is no reasonable potential for the flowline water to contribute to an exceedance of one or more water quality standards at the downstream monitoring site. If, notwithstanding use of the procedure described in Condition 2.b.(2), the flowline water causes an exceedance of water quality standards at the downstream monitoring site, ODEQ may direct PacifiCorp to develop and propose, within a reasonable time specified by ODEQ, alternative measures for ensuring that the flowline water does not cause an exceedance of water quality standards at the downstream monitoring site upon beginning generation. Upon approval by ODEQ, PacifiCorp shall implement the alternative measures, which may include increased diversion flow during the period April 15 through June 30.

*c. Ramping.*

- (1) PacifiCorp shall make reasonable efforts to limit the ramping rates in the bypass reach to no more than two inches per hour, and in any event such rates shall not exceed three inches per hour. In addition, PacifiCorp shall complete and implement standard operating procedures and a monitoring plan, developed in consultation with ODEQ, ODFW, NMFS, USFWS, and CTWS, for meeting and documenting compliance with the ramping limits. Should development or implementation of the monitoring plan, or the resulting data, show that a different ramping rate will result in the same protections for aquatic species (for example, when river flows into the Project are already high), PacifiCorp may propose such a different ramping requirement. Upon the approval of ODEQ in consultation with ODFW, NMFS,

USFWS, and CTWS, the approved variation shall be substituted for the ramping requirements set forth in this condition.

(2) "Ramping" means those Project-induced increases (up-ramping) and decreases (down-ramping) in river discharge and associated changes in water surface elevation over time resulting from generation of electricity by Project facilities, Project maintenance activities (i.e., planned outages) and unplanned (forced) outages. Ramping does not include changes in flows and change in river stage resulting from increases or decreases in stream flow unrelated to the Project. Ramping rates in this certification are stated in inches of change per hour. Ramping is measured as the distance between the maximum and minimum water level measured at a specified location over the applicable period of time; variation in water levels within the maximum and minimum water level during that period are not considered for purposes of measuring ramping. For example, if the relevant ramping limitation is one inch per hour, and the river gage is at four feet at noon, then during the next hour the water elevation may vary no more than between three feet eleven inches and four feet; between four feet and four feet one inch; et cetera. In each example, the amount of change between the minimum and maximum gage readings in a one-hour time period is not more than one inch, but could vary within that range more than once during the hour.

(3) Following an unplanned outage, PacifiCorp shall observe conditions directly downstream of the Project dam and powerhouse. Should PacifiCorp, ODFW, CTWS, NMFS, or USFWS identify a fish stranding problem, PacifiCorp shall use its best reasonable efforts to minimize the impacts of such stranding by relocating such fish to the river in consultation with ODFW, CTWS, NMFS and USFWS.

d. *Flow Monitoring.* PacifiCorp shall measure and report flows in accordance with Condition 1.h.

e. *Planned Outages.* PacifiCorp shall, to the extent feasible, limit planned outages to April 15 to June 30 to coincide with the temporary reduction of diversion flow required under Condition 2.b., or with the summer, and shall limit planned non-summer outages to 24 hours to the extent reasonably feasible. PacifiCorp shall notify ODFW, NMFS, USFWS, and CTWS of planned outages and subsequent start up periods to allow for monitoring of those areas with the greatest possibility for fish stranding.

f. *Flushing.* PacifiCorp shall restrict flushing of the sand settling basin to periods when bypass reach instream flows are at least 500 cfs, and preferably greater than 1,000 cfs.

g. *Intake Screens.* PacifiCorp shall continue to operate and maintain existing intake screens in working order. The maintenance shall include regular inspections and the repair, rehabilitation, or replacement, as needed, of seals and moving components such as chain drives, sprockets, screen baskets, motors, and screen wash equipment. If a screen is damaged beyond repair, PacifiCorp shall replace it with a screen of similar design;

however, PacifiCorp shall not be required to design or install an upgraded fish screen or otherwise make technological or other major improvements.

- h. *Fishway Auxiliary Water Intake.* PacifiCorp shall identify and obtain NMFS, USFWS, ODFW and CTWS written approval of a method for maintaining the fish ladder auxiliary attraction water bar rack within the ladder sufficiently free of debris to allow adequate attraction flows. Alternatives to be considered shall be limited to the following unless PacifiCorp and the aforementioned agencies agree otherwise: frequent manual cleaning, modification of the bar spacing on the existing intake trash rack, installation of an intake device incorporating v-bar screen technology, or changing the spacing of the bars on the rack within the ladder. Recommendations and supporting documentation shall be shared with NMFS, USFWS, ODFW and CTWS. No later than the first in-water work opportunity, PacifiCorp shall obtain approval and implement the approved method identified in this condition.
- i. *Ground-Disturbing Activities.* Unless emergency conditions exist that require immediate action, PacifiCorp shall limit adverse effects on stream and wetland habitat from any ground-disturbing activities by (i) minimizing the area of disturbance; (ii) adhering to conditions in any applicable U.S. Army Corps of Engineers and Oregon Division of State Lands wetlands permits; (iii) consulting with state and federal wildlife agencies, CTWS, and, when necessary, the Columbia River Gorge Commission prior to carrying out the work to determine appropriate protection measures; (iv) limiting construction to the summer and fall; (v) revegetating disturbed areas with native vegetation to the extent feasible; and (vi) controlling sedimentation of aquatic habitat through erosion control measures contained in the applicable permits. PacifiCorp shall conduct a survey before the initial ground-breaking activity for rare, threatened and endangered species in areas planned for significant construction activities, and shall coordinate with the USFWS, ODFW, the Oregon Department of Agriculture, and the Oregon Natural Heritage Program to ensure that the target species list is current.
- j. *Duration of Conditions.* The above conditions in this section will cease to be effective upon commencement of removal of the dam structure.

3. Decommissioning: Conditions for Compliance with Water Quality Standards, Protection of Beneficial Uses, and Compliance with Other Appropriate State Laws.

- a. Upon applying for a federal permit or permits for decommissioning activities, including a dredge and fill permit from the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (§ 404 permit), PacifiCorp shall provide written notice to ODEQ of such application and of any proposed changes in decommissioning activities since the date of issuance of this certification. Within 60 days of ODEQ's receipt of notice from the Corps or other federal permitting agency that it is processing PacifiCorp's application, ODEQ will notify the federal agency and PacifiCorp either (i) that this certification is sufficient for purposes of the federal permit and permit conditions, or (ii) that, in light of new information related to the water quality impacts of decommissioning activities since issuance of this certification, there is no longer

reasonable assurance of compliance with state water quality standards. In the latter event, ODEQ will consider the new information, solicit and consider public and agency comment as required by law, and issue a Section 401 certification determination for purposes of the federal permit and decommissioning activities.

b. In the event ODEQ determines that this certification is sufficient for purposes of a federal permit or permits for decommissioning activities, PacifiCorp shall comply with the following conditions:

(1) *Decommissioning.* Unless otherwise approved by ODEQ in consultation with ODFW, NMFS, USFWS, and CTWS, PacifiCorp shall perform decommissioning in accordance with the Settlement Agreement and the Decommissioning Plan attached to and incorporated by reference into the Settlement Agreement.

(2) *Erosion and Sediment Control Plan.* Before commencement of any in-water decommissioning activities, PacifiCorp shall develop and submit to ODEQ for approval, in consultation with ODFW, NMFS, USFWS, and CTWS, an Erosion and Sediment Control Plan (ESCP) that identifies specific methods that will be implemented at each work area to protect water quality and aquatic habitat. The ESCP shall address (i) protection of the Hood River from unplanned releases of sediment and debris during decommissioning activities; (ii) disposition of sediment and decommissioning debris in accordance with applicable law, PacifiCorp's Spill Prevention, Control and Countermeasure Plan (SPCC Plan), and public health and safety; (iii) implementation of permanent revegetation measures consistent with best management practices; and (iv) dam removal, which shall be conducted in dry conditions using a coffer dam and artificial channel to divert flows from work areas. In addition, the ESCP shall specify measures such as berms, ditches, sediment retention basins, silt fencing, and site restoration to be undertaken by PacifiCorp. Upon ODEQ approval of the ESCP in consultation with ODFW, NMFS, USFWS, and CTWS, PacifiCorp shall implement the ESCP during decommissioning activities.

(3) *Timing and Notification of In-Water Work.* For all in-water decommissioning work, PacifiCorp shall conduct such work between July 15 and August 31, or outside of that time period with the approval of ODFW, NMFS, and USFWS. Actions that are likely to occur outside of the July 15 to August 31 period include the following decommissioning actions:

(a) Construction and removal of upstream and downstream cofferdams, cofferdam materials and culverts;

(b) Removal of the artificial upstream fish passage channel and bypass flume;

(c) Placement of materials (relocated cofferdam materials and available streambed materials) along the river to create access for removal of remaining portions of dam and fish ladder;

(d) Placement of materials to regrade and armor the east and west banks of the river to harden the disturbed areas; and

(e) Regrading of the streambed above and below the dam as necessary to assist with removal of any barriers to fish passage created as a result of decommissioning activities.

PacifiCorp shall provide NMFS, USFWS, ODFW, and CTWS reasonable notice before initiating any in-water work, regardless of when it occurs, to enable them to view the work and recommend fish salvage or other immediate measures to avoid fish stranding or delay. PacifiCorp shall undertake such measures with the assistance of ODFW and CTWS. For purposes of this requirement, "in-water work" does not include dam removal or other decommissioning actions performed in areas that have been dewatered for purposes of decommissioning actions.

(4) *Fish Passage During Dam Removal.*

(a) *Manner of Fish Passage.* During construction of the cofferdams associated with dam removal activities, PacifiCorp shall extend the existing fish ladder return channel upstream of the dam to above the upstream cofferdam work, and shall install culverts through the downstream cofferdam to provide continued access to the existing fish ladder entrance; provided that PacifiCorp shall not provide such fish passage through the cofferdam culvert if NMFS, USFWS, ODFW and CTWS agree that such passage is not necessary. Coincidental to the construction of the cofferdams, PacifiCorp shall construct an artificial channel extending from a mid-point on the existing fish ladder to a location immediately downstream of the downstream cofferdam. Upon completion of this channel and the bypass channel (described below), PacifiCorp shall close the fish access through the downstream cofferdam, allowing upstream migrants to enter the existing fish ladder structure through a newly constructed access. PacifiCorp shall place rock between the upstream return channel and water bypass intake to minimize upstream migrant entrainment into the downstream bypass flume. During dam removal, PacifiCorp shall divert river flow past the work zone using portions of the existing water conveyance system's steel flume by installing removed sections of the steel flume from above the upstream cofferdam to below the downstream cofferdam, passing over the overflow section and existing fish ladder. This will provide downstream fish passage. PacifiCorp shall position the bypass flume to discharge directly into a pool constructed at the entrance of the upstream passage channel to attract upstream migrants to the channel. The discharge area shall be designed with adequate pool area and depth to minimize impingement of downstream migrants on the bottom or sides of the pool. The requirements of this condition may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

(b) *Final Fish Passage Design and Construction Plans.* Prior to changing any of the existing fish passage facilities or constructing any new fish passage facilities associated with dam removal, PacifiCorp shall prepare final fish passage design and

construction plans in consultation with NMFS, USFWS, ODFW and CTWS. The final design and construction plans shall be consistent with Condition 3.b.(4)(a) and the following criteria, which may be modified with the written agreement of PacifiCorp, NMFS, USFWS, ODFW and CTWS.

- (i) The outfall from the flume shall be designed in accordance with, as appropriate, sections 7.4.1, 7.4.2, 7.4.3, 13.10.4, 13.10.5 and 13.10.6 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the pool volume and depth will be designed to minimize pool bottom surface velocities and injury to fish. For purposes of section 13.10.5, the design will minimize, but may not completely avoid, creation of false attraction flows. The outfall shall have a 10-foot minimum drop to the pool below (to prevent adults from entering the pipe), and shall be designed to provide smooth, rounded edges and surfaces, using materials similar to the flume, to minimize injury to fish exiting the pipe and to jumping adults;
- (ii) The pipe/flume shall be designed in accordance with, as appropriate, sections 13.9.3.1, 13.9.3.4, 13.9.3.5, 13.9.3.6, 13.9.3.9, 13.9.3.11, 13.9.3.13 and 13.9.3.14 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. Weathered steel surfaces presently existing on the steel flume sections, or alternatively the galvanized surfaces of standard culvert material, shall be considered acceptable for this application, provided that, if the interior surfaces of the existing steel flume are considered to be too rough to meet NMFS' Passage Facility Guidelines and Criteria, PacifiCorp shall install a liner or conduct sand blasting of the interior surfaces;
- (iii) The temporary approach to the fishway channel entrance shall be constructed with "field placed" structure materials to optimize local hydraulic conditions. PacifiCorp shall provide NMFS, USFWS, ODFW and CTWS a minimum of seven days notice prior to the placement of these materials to allow their on-site participation in field direction of this placement work on-site;
- (iv) The control structures within the temporary approach channel to the fishway entrance shall be placed at least one channel width apart. These structures shall have less than one foot of head differential (measured from upstream of the boulder control structures to the downstream water surface elevation), and shall not span the entire width of the approach channel (unless the depth provided over the channel-spanning structure is at least one foot);
- (v) If fish will be passing through the temporary culvert(s) installed in the downstream coffer dam, such culverts shall meet, as appropriate, sections 9.7.5, 9.7.8 and 9.7.9 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement. In addition, the bypass shall be designed in accordance with, as appropriate, sections

9.3.2 and 9.3.3 of NMFS' Draft Anadromous Salmonid Passage Facility Guidelines and Criteria as of the Effective Date of the Settlement Agreement;

(vi) The design shall provide supplemental flow to the fishway discharge to allow optimal operation of the fish ladder and temporary approach channel; and

(vii) The design shall be developed such that flow conveyed in the bypass flume is delivered below the temporary approach channel in a manner that will maximize both upstream and downstream passage. The design shall be developed such that the bypass flume and the upstream temporary approach channel work together to both attract adult fish to the temporary approach channel, minimize delay of both upstream and downstream migrants, and minimize injury to fish passing downstream.

*(c) Fish Passage Monitoring and Contingency Plan.* By October 1, 2004, PacifiCorp shall conduct a geomorphology survey consistent with the scope of work attached as Exhibit 2 to the Settlement Agreement. PacifiCorp shall provide a final geomorphology report to NMFS, USFWS, ODFW, ODEQ and CTWS. The report shall describe: (i) current geomorphic conditions beginning 2200 feet below the dam (near the stream gage) to 1,000 feet upstream of the dam, or above the vegetated island (whichever is farther); and (ii) the anticipated impact of sediment released from dam removal on fish passage and aquatic habitat downstream of the dam removal site. PacifiCorp shall develop and implement a fish passage monitoring and mitigation plan, in consultation with NMFS, USFWS, ODFW, ODEQ and CTWS, and approved by NMFS, USFWS and ODFW. In the event a fish passage obstruction, as defined by the plan, is caused or exacerbated by dam removal, PacifiCorp shall restore adequate fish passage by implementing mitigation measures set forth in the plan. PacifiCorp shall have no obligation to monitor or mitigate under this condition for more than one cycle of seasons beyond the return of the river to natural conditions, as determined by a team composed of representatives of NMFS, USFWS, ODFW, CTWS and PacifiCorp, in accordance with the geomorphology report.

4. General Conditions for Compliance with Water Quality Standards and Certification.

- a. *Fees.* PacifiCorp shall pay a fee for ODEQ's costs of overseeing implementation of this certification. The fee shall be \$ \_\_\_\_ (2003 dollars) annually, made payable to "State of Oregon, Department of Environmental Quality," and due on July 1 of each year after FERC approval of interim operation and decommissioning. The fee shall expire six years after the first July 1 following FERC approval of interim operation and decommissioning, unless terminated earlier by ODEQ because oversight of this certification is no longer necessary. One year before the sixth-anniversary expiration of the fee, ODEQ and PacifiCorp will review the need, if any, to modify, extend, or terminate the fee. PacifiCorp shall continue to pay any fee required after such review.
- b. *Spill and Waste Management.* PacifiCorp shall implement its SPCC Plan and Waste Management Guidelines. The SPCC Plan and Waste Management Guidelines must be

kept current. In the event of a spill or release or threatened spill or release of oil or waste to state waters, PacifiCorp shall immediately implement the site's SPCC Plan, modified SPCC Plan, or other applicable contingency plan and notify the Oregon Emergency Response System at 1-800-452-0311.

- c. *Certification Modification.* Subject to the provisions of OAR Chapter 340 Division 48, and, as applicable, 33 USC § 1341, ODEQ may reconsider, and add, delete, or alter, conditions to this certification as necessary to address changes in resource conditions or knowledge or to address any failure of certification conditions to protect water quality and beneficial uses. In accordance with 33 USC § 1341, any modification to conditions shall, so long as it is in effect, become a condition of any federal license or permit subsequently issued for the Project. With respect to a federal license or permit for the Project existing at the time of the modification to certification conditions, ODEQ may petition the federal agency to incorporate the modification into the federal license or permit.
- d. *Project Changes.* PacifiCorp shall obtain ODEQ review and approval before undertaking any change to the Project that might significantly affect water quality and that was not evaluated in connection with this certification, including changes to Project operation and flows.
- e. *Project Repair or Maintenance.* PacifiCorp shall obtain ODEQ review and approval before undertaking any Project repair or maintenance activity that might significantly affect water quality and that was not evaluated in connection with this certification.
- f. *Access.* PacifiCorp shall allow ODEQ reasonable access to Project records and the Project area as necessary to monitor compliance with certification conditions.
- g. *Posting of Certification.* PacifiCorp shall post a copy of this certification at a prominent location at the Project powerhouse.



**EXHIBIT 2**

**GEOMORPHOLOGY SURVEY SCOPE OF WORK**

EXHIBIT 2  
GEOMORPHOLOGY SURVEY SCOPE OF WORK

Background

PacifiCorp has commissioned a geomorphology study for a portion of the Hood River, in close proximity to the location of the present Powerdale diversion dam. The overall objective of this study is to evaluate potential changes to the profile and cross section of the Hood River in this general location, and determine the potential for the creation of barriers to fish passage or other potential aquatic habitat impacts. The work is being conducted in two phases. The first phase, which was completed in December 2002, was comprised of a limited field reconnaissance and preliminary discussions with members of the Powerdale Hydro Project Decommissioning Settlement Team. The second phase will consist of the hydraulic and geomorphic evaluations, an assessment of potential impacts and development of mitigation and monitoring strategies if the investigations determine they are necessary. More specific details of the Scope of Work are presented below.

Scope of Services – Phase 1

1. Site Visit - A geomorphologist and habitat biologist will visit the project site to collect necessary field data for this evaluation from a geomorphic perspective. The following tasks will be conducted.
  - 1.1. Characterize the channel that might be affected by decommissioning upstream and downstream of the dam.
  - 1.2. Determine the nature of bed and bank materials, and identify potential erosion and sedimentation issues.
  - 1.3. Determine the project survey needs and communicate these to the PacifiCorp Project Manager.
2. Technical Memorandum - Prepare a brief technical memorandum documenting the findings of the site visit, addressing initial feedback from the Settlement Team.

Scope of Services – Phase 2

1. Review Scope and Approach - Coordinate with the PacifiCorp Project Manager and key Settlement Team members to review the proposed scope and schedule for Phase 2. Obtain background information related to the project including drawings of the existing facility and decommissioning plans or other project features, reports on fisheries or habitat usage, and other information.
2. Topographic Survey - Conduct a topographical survey of the Hood River in the vicinity of Powerdale dam extending 2,200 feet below the dam (near the existing staff gauge) to 1,000 feet upstream of the dam or above the vegetated island (whichever is further). This survey shall include the following specific work.

- 2.1. Longitudinal profile of the thalweg, edge of water, and floodplain edge (banks), with data collected approximately every 25 feet horizontal, or at all elevation changes of 1 foot or more.
  - 2.2. Cross-sections every 300 feet, which include the active channel, banks and floodplain areas, from the upstream end of the survey area to at least 1.000 feet downstream of the dam.
  - 2.3. More closely spaced cross-sections near the dam (four above and two below, on channel width apart as measured downstream of the dam (50 to 100 feet apart).
3. Bed Material Sampling - Bed material sampling at four locations shall be conducted using the Wolman pebble count method for characterization of the surface particle size distribution. All sampling shall be conducted in rifles or runs.
  - 3.1. Upstream end of the topographic survey area (upstream of the island).
  - 3.2. Within the existing diversion dam pool area.
  - 3.3. Downstream of the diversion dam within 200 feet.
  - 3.4. At the downstream end of the topographic survey area.
4. Preliminary Hydraulic Analysis - Based on river surveys and aerial photos prepare a backwater model and complete a preliminary analysis of water levels, velocities and the extent of the backwater from the existing dam. Estimate changes in water levels and velocities to be expected following decommissioning.

The level of hydraulic analysis necessary for this project will be determined after the topographic survey and bed material data are collected. The technical team determining the need and intensity of a hydraulic analysis will include technical specialists from PacifiCorp, USFWS and NOAA Fisheries.
5. Additional Site Visit (optional) - If necessary an additional site visit will be conducted to collect additional field data for this evaluation.
6. Detailed Hydraulic Analysis - Based on the surveyed profile and cross sections and site observations, evaluate the stability of bed material and predict the short and long term channel bed profiles that might be expected to develop along the Hood River, its side channels and tributaries following the removal of the Powerdale diversion dam.
7. Assessment of Passage Issues - Based on site observations and the predicted bed profiles evaluate the potential for short-term or long-term upstream fish passage issues which may occur after removal of the Powerdale diversion dam.
8. Site Habitat Impacts - Based on site observations, predicted bed profiles and cross sections evaluate potential physical changes to in-stream habitat, such as pool areas, or riparian vegetation that might occur following removal of the Powerdale diversion dam.

9. Mitigation or Compensation - Identify potential mitigation and monitoring strategies to address any issues regarding upstream passage or loss of habitat at the site. Review these potential strategies with the PacifiCorp project manager and the Powerdale Settlement Team.
10. Recommendations - Develop recommendations for:
  - 10.1. Modifications to the dam removal strategy to minimize the potential for fish passage problems.
  - 10.2. Provide a strategy for mitigation of other potential habitat impacts.
  - 10.3. Recommend a monitoring plan for the area covered by the topographic survey.
11. Present Findings / Deliverables
  - 11.1. Prepare a Draft Report summarizing the results of the investigations and study work.
  - 11.2. Collect comments from PacifiCorp and the Powerdale Settlement Team.
  - 11.3. Prepare a Final Report Incorporating review comments, all study data, documentation of model data and results, all associated figures and tables, and recommendations.

**EXHIBIT 3**

**FIRST AMENDED LEASE (HYDRO LANDS)**

EXHIBIT 3

FIRST AMENDMENT  
OF  
PERMIT (HYDRO LANDS)

THIS FIRST AMENDMENT is entered into on this 15 day of May, 2003, between PacifiCorp, an Oregon corporation (“PacifiCorp”) and the Bonneville Power Administration (“Permittee”).

Recitals

A. PacifiCorp and the Permittee entered into a “Permit (Hydro Lands)” dated June 21, 1995 (the “Permit”) concerning, among other matters set forth in the Permit, the Powerdale Dam Fish Trapping Facility (the “Facility”).

B. The Permit allows Permittee to occupy and use the real property located in Hood River, Oregon, and described on attached Exhibit A (the “Premises”), in accordance with the terms and conditions of the Permit.

C. PacifiCorp and Permittee wish to amend the Permit as set forth in this First Amendment.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Defined Terms. Except as otherwise noted, defined terms used in this First Amendment (as indicated by initial capitalization) shall have the meaning given to those terms in the Permit.

2. Term. Paragraph 1 of the Permit is hereby deleted and replaced with the following:

“1. Term: This permit shall be in effect for a term commencing on June 21, 1995 and ending on February 29, 2012.”

3. Removal of Facility Assets. The following is hereby added to the Permit as Paragraph 32:

“32. Removal of Facility Assets.

(a) Permittee acknowledges that PacifiCorp intends to remove the diversion dam at PacifiCorp’s Powerdale Hydroelectric Project (the “Dam”) pursuant to a Settlement Agreement executed in May, 2003 between PacifiCorp and the National Marine Fisheries Service, *et al.* (the “Agreement”). To facilitate removal of the Dam, Permittee authorizes PacifiCorp (i) to remove and

dispose of from the Premises the Facility and all associated buildings, structures, improvements, equipment, material, property and other assets of any nature whatsoever, including but not limited to the Water Line contemplated by Paragraph 15 and, at PacifiCorp's sole discretion, the portion of the access road contemplated by Paragraph 17 that is on PacifiCorp property (collectively, the "Facility Assets"), (ii) to restore the soil surface, subsurface, and vegetation on the Premises and the lands affected by the Water Line and, if applicable, the access road to a condition that will support native plant communities similar to those that occupied the site immediately before Permittee began its use and occupancy thereof (although PacifiCorp may use non-native grasses to control erosion if it is reasonable to do so), and (iii) to undertake all necessary and desirable design, permitting, engineering, project management, restoration and mitigation services in connection with such removal and restoration ((i) through (iii) are hereinafter collectively referred to as the "Removal Work"). PacifiCorp shall not, however, remove the portion or portions of the Facility required to pass fish during Dam removal until such fish passage is no longer necessary pursuant to the Agreement.

(b) On or before the tenth (10<sup>th</sup>) day of each month, PacifiCorp will submit an invoice to Permittee for any reasonable out-of-pocket and overhead costs paid or incurred by PacifiCorp in performing or causing the performance of Removal Work in the prior calendar month. The invoice shall have sufficient detail to allow Permittee to determine the appropriateness of each cost. Permittee shall reimburse PacifiCorp's costs within thirty (30) days of receipt of an invoice. Late payments shall bear interest at the rate of 10% per annum from the date due until paid; *provided, however,* that the interest rate shall not exceed the maximum rate allowed by law. If Permittee questions the reasonableness of any costs submitted on an invoice, Permittee shall pay any undisputed amount and shall notify PacifiCorp of the dispute as promptly as possible and in any case before payment is due. If subsequent efforts by the parties do not resolve the question, Permittee may audit PacifiCorp's costs paid or incurred in performing or causing the performance of Removal Work. Permittee shall complete any such audit no later than sixty (60) days after receiving PacifiCorp's invoice. If Permittee is determined to owe the disputed amount or any portion thereof, it shall pay the amount due plus interest at the rate set forth above. To the extent that PacifiCorp wishes to engage a third party to perform all or any part of the Removal Work, it shall consult with Permittee concerning the selection of the third party.

(c) Upon commencement of the Removal Work all right and title to Permittee's Facility Assets shall vest in PacifiCorp, and PacifiCorp shall have no liability to Permittee for damage to the Fish Trapping Facility Assets and associated improvements, equipment and property incurred in connection with removal by PacifiCorp."

4. Effect of First Amendment. The Permit, as modified by this First Amendment, remains in full force and effect in accordance with its terms. If there is a conflict between the Permit and this First Amendment, the First Amendment shall control.

IN WITNESS WHEREOF, the Parties have entered into this First Amendment as of the date set forth above.

**PACIFICORP**

By: Randy Landolt  
Printed Name: Randy Landolt  
Title: Managing Director, Hydn Resources

**BONNEVILLE POWER ADMINISTRATION**

By: John R Cowger  
Printed Name: JOHN R COWGER  
Title: Mgr, Real Property



## EXHIBIT A

### Legal Description

Tract PDFF-FF-1, a tract of land for the Powerdale Dam Fish Trapping Facility site, as described in Exhibit A attached hereto and by this reference made a part hereof.

Tract PDFF-FF-2: a strip of land 10-feet wide, for the construction, operation and maintenance of a waterline, being 5 feet on each side of and parallel with the centerline, with an extension thereof over and across Hood River, attached to the Pacificorp Powerdale Dam, in part of the SE1/4SE1/4 of Section 11 and part of the SW1/4SW1/4 of Section 12, Township 2 North, Range 10 East, Willamette Meridian, Hood River county, Oregon. Said waterline centerline is shown on the drawing attached hereto as Exhibit B and by this reference made a part hereof.

Tract PDFF-FF-AR-1,P1: a right-of-way of variable width for a road to be constructed over and across part of the W1/2SW1/4 and part of the NE1/4SW1/4 of Section 12, Township 2 North, Range 10 East of the Willamette Meridian, Hood River County, Oregon, as shown on the drawing attached hereto as Exhibit C and by this reference made a part hereof. This right-of-way is permitted to cross under Pacific's 69kV powerline as described in tracts PDFF-AR-1, 1A; PDFF-AR-1, 1B; PDFF-AR-1, 3A; PDFF-AR-1, 3B as described in Exhibit D attached hereto and by this reference made a part hereof.

Use of existing access road referred to as Copper Dam Road, across Pacific's property located in part of the W1/2SW1/4 of Section 12, and part of the SE1/4SE1/4 of Section 11, in Township 2 North, Range 10 East, lying northwesterly of the Hood River in Hood River County, Oregon. Copper Dam Road is shown on the drawing attached hereto as Exhibit B and by this reference made a part hereof.

Temporary use of staging area as shown on the drawing attached hereto as Exhibit E and by this reference made a part hereof. Temporary use of Pacific's powerline access road easement which crosses Neal Creek. Temporary use of staging area and access road easement will terminate upon completion of construction of the Powerdale Dam Fish Trapping Facility, or on December 31, 1997, whichever comes first.

**EXHIBIT 4**

**CONSERVATION EASEMENT FOR SUBJECT LANDS**

EXHIBIT 4  
CONSERVATION EASEMENT FOR SUBJECT LANDS

**DEED OF CONSERVATION EASEMENT  
FOR POWERDALE PROJECT LANDS**

THIS GRANT DEED OF CONSERVATION EASEMENT (“Conservation Easement”) is made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_ (“Grantor”) in favor of Oregon Department of Fish and Wildlife (“ODFW”); Confederated Tribes of the Warm Springs Reservation of Oregon (“CTWS”); Hood River Watershed Group (“HRWG”), Hood River County Parks and Buildings (“HRCPB”); and Hood River Valley Parks and Recreation District (“HRVPRD”), referred to collectively as “Grantees.”

**I. RECITALS**

A. Grantor is the fee simple owner of the real property commonly known as the Powerdale Project Lands (the “Project Lands”) in Hood River County, Oregon, described in Exhibit A, attached to this deed and incorporated by reference.

B. Some or all Grantees are parties to the Settlement Agreement Concerning the Interim Operation and Decommissioning of the Powerdale Hydroelectric Project dated \_\_\_\_\_, 2003 (the “Settlement Agreement”). The Settlement Agreement provides for the conveyance of the Project Lands subject to a Conservation Easement for certain stated purposes to an entity to be identified by Grantees.

C. Grantees have identified Grantor as the party to take conveyance of the Project Lands in accordance with the terms of the Settlement Agreement.

D. Grantor intends to convey to Grantees the right to preserve and protect the wildlife habitat, recreation and other values of the Project Lands, in accordance with the Goals listed in Section III below, in perpetuity.

E. The parties to this Conservation Easement (“Parties”) intend that this Conservation Easement comply with the requirements of, and be construed in accordance with, ORS 271.715 to 271.795, as amended.

**II. CONVEYANCE AND CONSIDERATION**

For and in consideration of the conveyance of the Project Lands to Grantor in accordance with the Settlement Agreement, Grantor hereby voluntarily grants and conveys to Grantees a Conservation Easement of the nature and character and to the extent hereinafter set forth over the Project Lands in perpetuity. This Conservation Easement shall be an easement in gross and shall run with the land as an incorporeal interest in the Project Lands. Grantor shall record this Conservation Easement in the records of deeds of real property in the county where the Project Lands are located, as authorized by ORS 271.725 and ORS 93.710.

### **III. PURPOSE**

It is the purpose of this Conservation Easement to achieve the following Goals:

**Goal 1:** Protect the existing fish and wildlife habitat while allowing for habitat restoration and enhancement;

**Goal 2:** Retain existing recreational uses and allow improvements commensurate with those uses, provided such uses and improvements are consistent with Goal 1;

**Goal 3:** Allow for expanded recreational and educational opportunities, provided those are consistent with Goal 1; and

**Goal 4:** Acknowledge and preserve the right of CTWS tribal members to exercise their Treaty secured off-reservation fishing rights on the Subject Lands by utilizing the Subject Lands to access usual and accustomed fishing sites.

Grantor intends that this Conservation Easement will confine the use of the Project Lands to such activities as are consistent with this purpose. Grantees shall have the right, but not the obligation, to enforce any and all terms of this Conservation Easement.

### **IV. PROHIBITED USES**

Grantor will ensure that Project Lands will be managed in accordance with the Goals listed in Section III, above. The Parties intend that any activity that violates the Goals is prohibited. Prohibited uses of Project Lands include, but are not limited to, those specifically listed below:

1. Timber harvesting, or the removal of other shrubbery or vegetation, except harvesting conducted for the purpose of improving fish or wildlife habitat, or as is necessary for proper fire management, for disease protection, or as is necessary for protection of person or property;
2. All commercial or industrial uses of Project Lands, except that the existing fruit orchard and electrical generation uses may be continued pursuant to the terms of the applicable agreements and permits in existence as of the current date, including any subsequent amendments or renewals thereof;
3. Depositing of soil, trash, ashes, garbage, waste, bio-solids or any other material, except as allowed under applicable federal, state, and local laws at approved locations;
4. Diking, draining, filling, dredging or removal of any wetland or wetlands;
5. Excavating, dredging or removing of loam, gravel, soil, rock, minerals, sand, hydrocarbons or other materials, except as needed to achieve the Goals listed in Section III;

6. Otherwise altering the general topography of the Property, including but not limited to building of roads and flood control work, except for work related to the accomplishment of the Goals listed in Section III; and

7. Granting any easement, lien, or other property interest that might affect the purpose of this Conservation Easement without the written consent of all existing Grantees.

8. Any other use that, overall, the Grantor or Grantees determine has a material negative impact on those Goals listed in Section III.

## **V. PERMITTED USES**

Grantor reserves, for itself and its heirs, successors, and assigns, the right to pursue activities on or use of the Project Lands which are consistent with the purpose of this Conservation Easement and which are not otherwise prohibited under Section IV.

## **VI. RIGHTS CONVEYED TO GRANTEES**

To accomplish the purpose of this Conservation Easement, Grantor conveys the following rights to Grantees:

1. The right to enter the Project Lands at reasonable times to monitor compliance with, and to enforce or otherwise exercise their rights under, this Conservation Easement;
2. The right to prevent any activity on, or use of, the Project Lands that is inconsistent with the purpose of this Conservation Easement or Prohibited Uses; and
3. The right to require Grantor to restore any areas or features of the Project Lands that are damaged by any activity prohibited by, or inconsistent with, this Conservation Easement.

## **VII. ENFORCEMENT AND REMEDIES**

A. Remedies. Upon any violation of the terms of this Conservation Easement by Grantor, and after providing notice of such breach and opportunity to cure as provided below, Grantees, jointly or severally, may exercise any or all of the following remedies:

1. Institute suits to enjoin any breach or enforce any covenant by ex parte, temporary, and/or permanent injunction, either prohibitive or mandatory; and
2. Require that the Project Lands be restored promptly to their condition prior to the violation.

Grantees' remedies shall be cumulative and shall be in addition to any other rights and remedies available to Grantees at law or equity. If Grantors are found to have breached any of the Terms under this Conservation Easement, Grantors shall reimburse Grantees for any costs or expenses incurred by Grantees in enforcing this Conservation Easement, including court costs and reasonable attorney's fees.

B. Notice and Opportunity to Cure. At least thirty (30) days before filing any legal action to enforce this Conservation Easement, Grantee or Grantees shall provide Grantor with written notice identifying the violation and demanding corrective action to cure the violation and, if applicable, to restore the Project Lands; provided, however, that if at any time Grantee or Grantees determine that the violation constitutes immediate and irreparable harm, no written notice is required and Grantee or Grantees may immediately pursue legal remedies to prevent or limit such harm. If Grantor fails to cure any such violation within thirty (30) days of its receipt of such notice, Grantee or Grantees may institute suit as described above.

C. Effect of Failure to Enforce. No failure or delay on the part of Grantees to enforce this Conservation Easement or any of its terms shall discharge or invalidate this Conservation Easement or any of its terms; nor shall such failure or delay affect the right of Grantees to enforce the same at a later date, or in the event of a subsequent violation or breach.

D. Effect of Multiple Grantees. Each Grantee has independent authority to enforce this Conservation Easement. In the event that Grantees do not agree as to whether the Grantor is in compliance with this Conservation Easement, each Grantee may independently proceed with enforcement actions with the written consent of a majority of existing Grantees.

## VIII. MISCELLANEOUS

A. Modification. This Conservation Easement may not be modified except by a written instrument signed and dated by Grantor (or its successor) and each existing Grantee (or its successor).

B. Assignment. No Grantee may assign any of its rights, interests, or obligations under this Conservation Easement without the prior written consent of each existing Grantee.

C. Binding Effect. This Conservation Easement shall be binding on and inure to the benefit of the Parties and their respective heirs, personal representatives, successors, and permitted assigns.

**IX. SIGNATURE AND ACKNOWLEDGMENTS**

To have and to hold the easement herein granted unto GRANTEES and its successors and assigns, forever, IN WITNESS WHEREOF, the undersigned Grantor has executed this instrument this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
\_\_\_\_\_

NAME:  
TITLE:

STATE OF OREGON        )  
                                  ) ss.  
County of \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_.

\_\_\_\_\_  
Notary Public for Oregon

**EXHIBIT 5**

**APPLICABLE NMFS DRAFT ANADROMOUS SALMONID  
PASSAGE FACILITY GUIDELINES AND CRITERIA**



EXHIBIT 5  
APPLICABLE NMFS DRAFT ANADROMOUS SALMONID  
PASSAGE FACILITY GUIDELINES AND CRITERIA\*

\*\*\*

7.4 Vertical Drop Structures - Description: A vertical drop structure can function as an exclusion barrier by providing total project head in excess of the leaping ability of the target fish species. These can be a concrete monolith, rubber dam, or approved alternative. Vertical drop structure criteria include the following:

7.4.1 The minimum height for vertical drop structure shall be 10 feet relative to the tailrace high design flow elevation.

7.4.2 To minimize the potential for leaping injuries, a minimum of 2 feet cantilevered ledge shall be provided.

7.4.3 Provision shall be made to ensure that fish jumping at the drop structure flow will land in a minimum 5 foot deep pool, without contacting any solid surface.

\*\*\*

9.3.2 Culvert Slope - The culvert shall be placed level (0% slope).

9.3.3 Embedment - The bottom of the culvert shall be buried into the streambed not less than 20% of the culvert height at the outlet and not more than 40% of the culvert height at the inlet.

\*\*\*

9.7.5 Temporary crossings, placed in salmonid streams for water diversion during construction activities, shall meet all of the guidelines in this document. However, if it can be shown that the location of a temporary crossing in the stream network is not a fish passage concern at the time of the project, then the construction activity only needs to minimize erosion, sediment delivery, and impact to surrounding riparian vegetation.

\*\*\*

9.7.8 Construction disturbance to the area shall be minimized and the activity shall not adversely impact fish migration or spawning.

9.7.9 If salmon are likely to be present, fish clearing or salvage operations shall be conducted by qualified personnel prior to construction. If these fish are listed as threatened or endangered

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\* NMFS draft as of the Effective Date of the Settlement Agreement. The draft criteria listed in this Exhibit 5 are the agreed-upon criteria for this Settlement Agreement.

under the federal or state Endangered Species Act, consult directly with NOAA Fisheries biologists to gain authorization for these activities. Care shall be taken to ensure fish are not chased up under banks or logs that will be removed or dislocated by construction. Return any stranded fish to a suitable location in a nearby live stream by a method that does not require handling of the fish.

\*\*\*

13.9.3.1 Bypass pipes and joints shall have smooth surfaces to provide conditions that minimize turbulence, risk of catching debris and the potential for fish injury. Pipe joints may be subject to inspection and approval by NOAA Fisheries prior to implementation of the bypass.

\*\*\*

13.9.3.4 In general, bypass flows should be open channel. If required by site conditions, pressures in the bypass pipe shall be equal to or above atmospheric pressures. In no instance shall there be pressurized to non-pressurized (or vice-versa) transitions within the pipe. Bypass pipes shall be designed to allow trapped air to escape.

\*\*\*

13.9.3.5 Bends should be avoided in the layout of bypass pipes due to the potential for debris clogging and turbulence. The ratio of bypass pipe center-line radius of curvature to pipe diameter (R/D) shall be greater than or equal to 5. Greater R/D may be required for super-critical velocities.

13.9.3.6 Bypass pipes or open channels shall be designed to minimize debris clogging and sediment deposition and to facilitate inspection and cleaning as necessary. Access ports shall be provided to allow for detection and removal of debris.

\*\*\*

13.9.3.9 The design pipe velocity should be between 6 and 12 fps for the entire operational range. If higher velocities are approved, special attention to pipe and joint smoothness is required. In no instance shall pipe velocity be less than 2 fps

\*\*\*

13.9.3.11 Closure valves of any type are not allowed within the bypass pipe unless specifically approved based on demonstrated fish safety.

\*\*\*

13.9.3.13. There should not be a hydraulic jump within the pipe, unless a weak jump is specifically approved by NOAA Fisheries.

13.9.3.14 The bypass pipe design shall facilitate the detection and removal of debris that may lodge in the pipe.

\*\*\*

13.10.4 Maximum bypass outfall impact velocity (i.e. the velocity of bypass flow entering the river) including vertical and horizontal velocity components shall be less than 25.0 ft/s.

13.10.5 The bypass outfall discharge into the receiving water shall be designed to avoid attraction of adult fish thereby reducing the potential for jumping injuries.

13.10.6 The bypass outfall design must allow for the potential attraction of adult fish, by provision of a safe landing zone if attraction to the outfall flow can potentially occur.

\*\*\*



**EXHIBIT 3**

**(Part 1)**

**LETTER TO FEREC**

February 1, 2007

Magalie Roman Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Subject: Powerdale Hydroelectric Project, FERC Project No. 2659  
Request to Cease Generation Early**

Dear Secretary Salas:

On November 7, 2006, the Powerdale project was badly damaged by a debris flow and floodwater in the Hood River, which resulted from more than seven inches of precipitation on Mt. Hood in a 24-hour period. Portions of several glaciers eroded and a massive debris torrent flowed down the mountain, destroying several sections of highway, and significantly damaging numerous irrigation and power diversion structures located along Hood River. Damage to the Powerdale project consisted of destroyed steel and woodstave sections of flowline, flooding of the powerhouse and switchyard, and significant sediment deposition at the diversion dam intake and powerhouse tailrace.

PacifiCorp notified the Federal Energy Regulatory Commission (FERC) on November 8 by telephone of the flood event and associated damage to the project, and on November 22 filed a detailed incident report with the FERC office in Portland, Oregon, outlining actions that the company was undertaking to stabilize the damaged project and ensure public safety. The report was also forwarded to Hossein Ildari of the Division of Hydropower Administration and Compliance in Washington, D.C. The major actions that have been undertaken so far include:

- Blocked public access to all dangerous areas.
- Removed hazardous materials from the shop and chemical storage building to avoid them from becoming inundated during future high-flow events.
- Removed steel flowline sections that collapsed and fell into the river, or were in imminent danger of collapsing.
- Removed the damaged woodstave flowline section and other woodstave sections facing imminent collapse.
- Stabilized remaining woodstave flowline sections to reduce the risk of collapse.
- Installed security bulkhead on all open flowline sections.

The stabilization work is nearly complete; all necessary precautions have been taken and will continue to be taken to ensure public safety. Public access will be restored soon to the recreation area at Powerdale Park near the upper dam site, and the day-use recreation site near the powerhouse. Temporary closings may arise in the future if a situation presents a potential risk to the public.

In order to evaluate options going forward, PacifiCorp performed an economic analysis of project reconstruction versus cessation of generation. A reconstruction schedule was developed that would put the plant back in service by June 30, 2007. The estimated cost to stabilize, rebuild and restore operations is \$4.46 million. A financial analysis was performed using this figure and the following assumptions: 1) formal decommissioning begins April 2010 in accordance with the FERC Order Amending License, Accepting Surrender, and Dismissing Application For New License issued November, 2005; and 2) the plant could potentially generate only 47,000 megawatt hours over the remaining three years of operations. The analysis concluded that there would be a substantial savings to the customer/ratepayer from ceasing generation versus restoring project operations for the remaining three-year period of operation. The loss of generation will be replaced by generation from other PacifiCorp generation facilities, or from purchase on the open market.

Based on the financial analysis, coupled with the risk of attempting to operate the plant with the current and likely unstable future river conditions, PacifiCorp has decided to file this request with the FERC to permanently cease generation early at the project. The request to cease generation is consistent with Section 5.1 of the Powerdale Settlement Agreement (PacifiCorp 2003), which states: “...*If PacifiCorp determines at its sole discretion at any time prior to decommissioning that, due to a catastrophic event that affects the Project, continued operation of the Project would be uneconomic, PacifiCorp may cease generating power at the Project*”.

The FERC Order also contemplates early project retirement, and states in *Section 3, Early Project Retirement, Item 28* that PacifiCorp may at some future date file a request to cease generation and retire the project earlier than the deadline adopted by the order. However, the Commission also makes it clear in Section 11 of the order that it supports the idea of delaying surrender until 2010 to allow for completion of fisheries studies being conducted at the fish sorting facility, because successful completion of studies is dependent on operation of the existing fish ladder and dam.

For the reasons discussed above PacifiCorp hereby requests to cease generation effective immediately. We will defer consideration of beginning formal decommissioning activities prior to April 2010 until we have consulted with the settlement parties.

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//  
//  
//  
//

Magalie Roman Salas  
February 1, 2007  
Page 3

If you have any questions or wish to discuss this further please contact Dave Leonhardt,  
Implementation Program Manager at (503) 813-6658.

Sincerely,



R. A. Landolt  
Managing Director, Hydro Resources

RAL:BW:anp

cc: Hossein Ildari, Deputy Director  
Federal Energy Regulatory Commission  
Division of Hydropower Administration and  
Compliance  
888 First Street, NE  
Washington, DC 20426

Patrick Regan, Regional Engineer  
Federal Energy Regulatory Commission  
Division of Dam Safety and Inspections  
Portland Regional Office  
101 SW Main Street, Suite 905  
Portland, OR 97204



Magalie Roman Salas  
February 1, 2007  
Page 4

Letter to FERC  
via FEDEX

**Subject: Powerdale Hydroelectric Project, FERC Project No. 2659  
Request to Cease Generation Early**

**Internal Distribution via email**

bcc: Atwood; T. Becker; Bornemeier; D. Brower; Denham; deTar; Chane; Fields;  
Flak; G. Hazlett; Hemstreet; Leonhardt; O'Connor; Sample; Strande; Sturtevant;  
Wazlaw; Weatherly  
Roger Weaver, Regulation  
Michael Hess, NTO

Cherise Oram, Stoel Rives - Seattle

File



**EXHIBIT 3**  
**(Part 2)**

**FERC APPROVAL LETTER**

FEDERAL ENERGY REGULATORY COMMISSION  
Office of Energy Projects  
Division of Dam Safety and Inspections  
Portland Regional Office  
101 S.W. Main Street, Suite #905  
Portland, Oregon 97204

In reply refer to:  
P-2659-OR

Mr. Randy Landolt  
Managing Director, Hyrdo Resources  
825 NE Multnomah ST #1500  
Portland, OR 97232

Dear Mr. Landolt:

This is to acknowledge your November 22, 2006 letter transmitting three copies of the Flowline Failure and Flood Damage Report for the Powerdale Project, FERC No. 2659. We have reviewed the report and have no comments.

Please submit, within 60 days of the date of this letter, a Plan and Schedule for restoring operation or decommissioning of the Powerdale Project.

Thank you for your continued cooperation relative to project safety. If you have any questions, please contact Ms. Kathleen Clarkson of this office at (503) 552-2723.

Sincerely,



Patrick J. Regan, P.E.  
Regional Engineer



**EXHIBIT 4**

**PACIFICORP HYDRO RESOURCES  
COMPARATIVE ANALYSIS**

**POWERDALE  
OPTION 1 “OPERATION”  
VS  
OPTION 2 “SHUT DOWN”**

PacifiCorp Hydro Resources -- Comparative Analysis  
**Powerdate Option 1 "Operation" vs Option 2 "Shut Down"**  
 Present Value of Revenue Requirement (PVRR) of the Two Options and  
 Difference Between to the two [PVRR(d)]

Customer Benefit Analysis

30-Year Present Value of Revenue Requirement: (\$000 at 7.1% discount rate)

options	Notes	PVRR	PVRR(d) Benefit / (Cost) Relative to Restore Operations, the Next Best option
1. Operations Present Value of Revenue Requirement of Cost of Repair and Rebuild and Operation until Decommissioning in 2010	1	\$4,046	\$
2. Shut Down in 2006 and Mothball until Decommissioning in 2010	2 / 3 / 4	\$2,435	\$(1,611)

**Conclusion:** Option 2, Shut Down, maximizes customer value by imposing \$922 million lower long-run cost (PVRR) than the next best option, Option 1, Operation.

Notes	
1 Loaded "net" capital cost of Option 1 excluding AFUDC (See Application Exhibit 4) minus Estimated Property Insurance Payment of \$745 thousand plus tail race dredging O&M in 2007 (See Application Exhibit 4)	\$2,996 \$20
2 Power purchase based on: Projected annual MWh output of Project (part year in 2007 and 2010) Priced at <September 30, 2006> PacifiCorp Official Base Price Projection	\$16,189
3 Annual O&M saving from Option 2 Shut Down (See Application Exhibit 5)	\$69
4 Estimated Property Insurance Payment of \$745 Credited Against O&M costs	





## **EXHIBIT 5**

- **PROJECT STABILIZATION ESTIMATE**
- **PROJECT RECONSTRUCTION ESTIMATE**
- **POWERDALE DECOMMISSION PLAN**

Appendix 4.1  
Project Stabilization Estimate

Description	QTY	UNIT	\$/Unit	OMAG	CAPEX	REMOVAL	ARO	Note
<b>Initial Response</b>								
Response/Site Assessment/Analysis	1	ls	\$ 50,000	\$ 50,000				
			Total	\$ 50,000				
<b>Seal Head Gate</b>								
Plug head gate with oakum	1	ls	\$ 10,000	\$ 10,000				
			Total	\$ 10,000				
<b>Fish Passage</b>								
Repair fish attraction pump & piping				\$ 10,000				
			Contingency (25%)	\$ 2,500				
			Engineering/Project Management/Internal Labor (10%)	\$ 1,000				
			Permitting (5%)	\$ 500				
			Total	\$ 14,000				
<b>Powerhouse Stabilization</b>								
Dewatering and site drainage restoration	1	ls	\$ 30,000	\$ 30,000				
Substation environmental assessment	1	ls	\$ 25,000	\$ 25,000				
			Subtotal	\$ 55,000				
			Contingency (25%)	\$ 13,750				
			Permitting	\$ 3,000				
			Total	\$ 71,750				
<b>Public Access Restoration</b>								
Fabricate and install stairway	1	ls	\$ 30,000	\$ 30,000				
Miscellaneous catwalk modifications	1	ls	\$ 20,000	\$ 20,000				
Establish flowline detour trail	1	ls	\$ 10,000	\$ 10,000				
			Subtotal	\$ 60,000				
			Contingency (25%)	\$ 15,000				
			Engineering/Project Management/Internal Labor (10%)	\$ 6,000				
			Permitting (5%)	\$ 3,000				
			Subtotal	\$ 84,000				
			AFUDC (8.3%)	\$ 6,972				
			CAP SURCHARGE (5.9%)	\$ 4,956				
			Total	\$ 95,928				
<b>Collapsed Steel Flowline Removal</b>								
Mobilization	1	ls	\$ 35,000			\$35,000		See Note 2
Site access	1	ls	\$ 40,000			\$40,000		See Note 3
Maneuver pipe sections to shore	1	ls	\$ 60,000			\$60,000		
Demo and remove steel pipe	170	ft	\$ 240			\$40,800		See Note 1
Remove conc. saddles	6	ea	\$ 300			\$1,800		See Note 1
Install security bulkhead	4	ea	\$ 10,000			\$40,000		
Remove damaged seawall section	1	ls	\$ 20,000			\$20,000		See Note 4
			Subtotal			\$237,600		
			Contingency (25%)			\$59,400		
			Engineering/Project Management/Internal Labor (10%)			\$23,760		
			Permitting (5%)			\$11,880		
			Subtotal			\$332,640		
			AFUDC (8.3%)			\$27,609		
			Total			\$360,249		

**Appendix 4.1  
Project Stabilization Estimate**

Description	QTY	UNIT	\$/Unit	OMAG	CAPEX	REMOVAL	ARO	Note
<b>Wood Stave Flowline Removal</b>								
Mobilization	1	ls	\$ 20,000				\$ 20,000	See Note 2
Wood stave pipe (remove)	500	lf	\$ 100				\$ 50,000	See Note 1
Surface restoration	1	ls	\$ 30,000				\$ 30,000	
Install security bulkhead	2	ea	\$ 10,000				\$ 20,000	
			Total				\$ 120,000	
				<b>OMAG</b>	<b>CAPEX</b>	<b>REMOVAL</b>	<b>ARO</b>	<b>TOTAL</b>
<b>TOTAL PROJECT COST</b>				<b>\$ 145,750</b>	<b>\$ 95,928</b>	<b>\$ 360,249</b>	<b>\$ 120,000</b>	<b>\$ 721,927</b>

Note 1: Engineer's and contractor estimate developed prior to SA x 1.5 for reduced economy of scale

Note 2: Mobilization = 20% of total

Note 3: Cut through existing pipe and grade trail to river bank

Note 4: In water work

ARO: Asset Retirement Obligation

**Appendix 4.2  
Project Reconstruction Estimate**

Description	QTY	UNIT	\$/Unit	OMAG	CAPEX	REMOVAL	ARO	Note
<b>Flowline Repair/Replacement</b>								
Repair/Replace Wood Stave Flowline	370	ft	\$ 1,500		\$ 555,000			See Note 1
Miscellaneous wood stave liner/repair	300	ea	\$ 333		\$ 99,900			
Steel flowline mobilization	1	ls	\$ 30,000		\$ 50,000			
Remove and scrap slid flowline section	155	lf	\$ 600		\$ 93,000			
Construct 200' cofferdam and fill eroded foundation area	1,519	cy	\$ 20		\$ 30,370			See Note 2
Dewatering	1	ls	\$ 250,000		\$ 250,000			
Form and pour new collapsed flowline foundations	1	ls	\$ 300,000		\$ 300,000			
Repair upper portion of slid pipe foundations	6	ea	\$ 20,000		\$ 120,000			
New steel flowline (material only)	325	lf	\$ 800		\$ 260,000			
Steel flowline installation	325	lf	\$ 1,000		\$ 325,000			
Remove cofferdam	1333	cy	\$ 10		\$ 13,333			
Contingency (25%)					\$ 524,151			
			Subtotal		\$ 2,620,755			
			Engineering/Project Management/Internal Labor/Permitting (25%)		\$ 655,189			
			Subtotal		\$ 3,275,943			
			AFUDC (8.3%)		\$ 271,903			
			CAP SURCHARGE (5.9%)		\$ 193,281			
			Loaded Project Total		\$ 3,741,127			
<b>Powerhouse Dredging</b>								
Dredge tailrace and connect to new river channel	2,000	CY	\$ 10	\$ 20,000				
			Subtotal	\$ 20,000				
<b>Project Stabilization Total</b>								
				\$ 145,750	\$ 95,928	\$ 360,249	\$ 120,000	
			TOTAL PROJECT COST	\$ 165,750	\$ 3,837,055	\$ 360,249	\$ 120,000	\$ 4,483,054

Note 1: Assume new material on existing foundations

Note 2: Cofferdam required for foundation excavation and placement

ARO: Asset Retirement Obligation

Appendix 4.3  
 Powerdale Decommission Plan

Item	QTY	UNIT	\$/Unit	OMAG	CAPEX	REMOVAL	ARO	Note
<b>Project Decomission</b>								
Survey	1	LS	\$ 35,000				\$ 35,000	
River Diversion	1	LS	\$ 470,030				\$ 470,030	
River Bypass	1	LS	\$ 380,830				\$ 380,830	
Sediment and Erosion Control	1	LS	\$ 177,909				\$ 177,909	
Dam	1	LS	\$ 1,513,628				\$ 1,513,628	
Intake	1	LS	\$ 446,625				\$ 446,625	
Misc. Structures	1	LS	\$ 35,032				\$ 35,032	
Canal	1	LS	\$ 42,082				\$ 42,082	
Metal Flume	1	LS	\$ 163,793				\$ 163,793	
Sand Settling Basin	1	LS	\$ 319,538				\$ 319,538	
Transition Structure	1	LS	\$ 69,842				\$ 69,842	
Flowline	1	LS	\$ 694,340				\$ 694,340	
Surge Tank	1	LS	\$ 172,555				\$ 172,555	
Powerhouse	1	LS	\$ 891,489				\$ 891,489	
Substation	1	LS	\$ 90,766				\$ 90,766	
Restoration	1	LS	\$ 66,252				\$ 66,252	
<b>Project Decomission Total</b>							<b>\$ 5,534,709</b>	

<b>Project Stabilization</b>	<b>\$ 145,750</b>	<b>\$ 95,928</b>	<b>\$ 360,249</b>	<b>\$ 120,000</b>	
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	OMAG	CAPEX	REMOVAL	ARO	TOTAL
<b>TOTAL PROJECT COST</b>	<b>\$ 145,750</b>	<b>\$ 95,928</b>	<b>\$ 360,249</b>	<b>\$ 5,654,709</b>	<b>\$ 6,256,636</b>

ARO: Asset Retirement Obligation

