

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:                    **AGREED ORDER for REMEDIAL  
INVESTIGATION/FEASIBILITY STUDY  
AND DRAFT CLEANUP ACTION PLAN-  
POPE & TALBOT, INC. SAWMILL SITE**

**POPE RESOURCES LP and OLYMPIC  
PROPERTY GROUP LLC**

No. DE \_\_\_\_\_

TO:    Mr. Jon Rose  
        Olympic Property Group LLC  
        Pope Resources LP  
        19245 Tenth Ave. NE  
        Poulsbo, WA 98370

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## I. INTRODUCTION

The mutual objective of the State of Washington, Department of Ecology (Ecology), Pope Resources LP (“PR”), and Olympic Property Group LLC (“OPG”) under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires PR and OPG (the “Companies”) to perform a remedial investigation/feasibility study and draft Cleanup Action Plan consistent with WAC 173-340-350 and WAC 173-340-380 respectively. Ecology believes the actions required by this Order are in the public interest.

## II. JURISDICTION

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

## III. PARTIES BOUND

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each Party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such Party to comply with this Order. The Companies agree to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter the Companies’ responsibility under this Order. The Companies shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

## IV. DEFINITIONS

Unless otherwise specified herein, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms in this Order.

A. Site: The Site is referred to as the Pope & Talbot, Inc. Sawmill Site and is generally located at the eastern terminus of NE View Drive in Port Gamble, WA. Without any express or implied admissions by the Companies, Ecology has determined that the Site includes uplands, adjacent tidelands and a portion of Port Gamble Bay, and is defined by the extent of

contamination caused by the release of hazardous substances at the Site. The Site is more particularly described in the Site Diagram (Exhibit A). The Site constitutes a Facility under RCW 70.105D.020(5).

B. Parties: Refers to the State of Washington, Department of Ecology, Pope Resources LP and Olympic Property Group LLC, each of which shall be referred to as a "Party."

C. Potentially Liable Person (PLP): Refers to Pope & Talbot, Inc., Pope Resources LP and Olympic Property Group LLC.

D. Agreed Order or Order: Refers to this Order and each of the exhibits to this Order. All exhibits are integral and enforceable parts of this Order. The terms "Agreed Order" or "Order" shall include all exhibits to this Order.

## V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by the Companies:

A. The Site is located in north Kitsap County, Washington. The Site, as currently known, includes the former Pope & Talbot Sawmill property which is bounded to the north by Hood Canal, Port Gamble Bay to the east and the Kitsap Peninsula to the west and south. As currently known, the Site includes uplands, adjacent tidelands and portions of Port Gamble Bay, as shown on Exhibit A.

B. In 1853 the corporate predecessor to Pope & Talbot, Inc. (P&T) established one of the first sawmills on Puget Sound at the Site. At that time, the Site was a relatively small sand spit projecting east from the base of a bluff that forms the western boundary to the mouth of Port Gamble Bay. The Site operated as a forest products manufacturing facility for a period of approximately 142 years (1853 to 1995). The Site underwent several changes over that period including filling activities which expanded the upland area of the Site, moving building locations and causing changes in functions of buildings and structures. Between 1853 and 1995, operations at the Site included a succession of sawmill buildings, two chip loading facilities, a

log transfer facility, and log rafting and storage areas. Upland wood products manufacturing activities resulted in releases of hazardous substances, including petroleum hydrocarbons, carcinogenic polycyclic aromatic hydrocarbons, arsenic, chromium, lead and mercury.

C. During the mill-operating period, logs were rafted and stored offshore of the sawmill property (Exhibit A, Figure 2). In the late 1920s, a chip barge loading facility was installed on the north end of the Site (denoted the northern embayment). During the mid-1970s, an additional chip barge loading facility (referred to as the alder mill) was constructed at southeast portion of the sawmill property. Log rafting and chip loading operations resulted in accumulations of wood debris being deposited on the bed of Port Gamble Bay adjacent to the upland areas of the Site.

D. In 1985 P&T transferred ownership of the uplands and adjacent tidelands portion of the Site to PR. P&T continued wood products manufacturing at the Site until 1995 under a lease with PR.

E. Mill operations ceased in 1995 and the sawmill facility was dismantled and removed in 1997. Since 1997 the uplands portion of the Site has been leased to a variety of parties for use as a log sort and wood chipping yard, material handling activities and a marine laboratory.

F. Between 1995 and the present, the Companies and P&T carried out a series of independent interim remedial actions in both the upland and aquatic areas of the Site. These actions included investigations of the extent of upland contamination and aquatic accumulations of wood waste. The investigations revealed elevated levels of petroleum, mercury and arsenic in upland soils and groundwater, and extensive areas of wood debris in the aquatic areas of the Site.

G. The accumulation of wood debris in an aquatic environment is known to impose impacts to the biological resources that reside on surface sediments. It smothers organisms that are dependent upon access to overlying water for respiration or food (e.g., clams). It also prevents access to the sediment/water interface necessary for recruitment of new year-classes of animals. As wood debris decays it reduces dissolved oxygen from the sediment porewater and from the overlying layers of water. The resulting anoxia is directly toxic to some organisms. In

addition, significant volumes of wood debris accumulation in the marine environment are associated with releases of hazardous substances including but not limited to ammonia, hydrogen sulfide, phenol, 4-methylphenol, and 2, 4-dimethylphenol which all impose additional toxicity both individually and collectively to the benthic community.

H. Between 2002 and 2005 approximately 26,310 tons of contaminated soils were excavated from the Site uplands, and in 2003 approximately 13,500 cubic yards of wood debris were dredged from a 1.8 acre area of the aquatic portion of the Site containing bark and wood chip accumulations. Both the upland soils and the 2003 wood debris dredge material were disposed of at approved upland facilities.

I. In early 2007 Ecology dredged an additional 17,500 cubic yards of wood waste in an area adjacent to the 2003 dredging action and placed a six inch layer of clean sand over a portion of the newly-dredged area. In cooperation with this Ecology-led project, P&T took over the day to day management of the dredged material once it was removed from the Bay and removed salt from the material utilizing an on-Site holding cell and freshwater washing system. Sparging operations were completed by P&T in October 2007.

J. In late fall, 2007, P&T filed for bankruptcy in Delaware, Case No. 07-11738 (CSS). By letter dated December 13, 2007, P&T informed Ecology that it would not be able to participate in this Agreed Order absent Bankruptcy Court approval.

## **VI. ECOLOGY DETERMINATIONS**

Ecology makes the following determinations, without any express or implied admissions of such determinations by the Companies:

A. As the current owner of the upland and tidelands portion of the Site, PR is an "owner or operator" as defined in RCW 70.105D.020(17) of a "facility" as defined in RCW 70.105D.020(5). As an operator of the upland portion of the Site, OPG is an "owner or operator" as defined in RCW 70.105D.020(17) of a "facility" as defined in RCW 70.105D.020(5). As the former owner of the uplands and tidelands portion of the Site and the operator of wood products manufacturing at the Site from 1853 to 1995, P&T was an "owner or operator" as defined in

RCW 70.105D.020(17) of a "facility" as defined in RCW 70.105D.020(5) at the time of the disposal or release of hazardous substances.

B. Based upon all factors known to Ecology, a "release" or "threatened release" of "hazardous substance(s)" as defined in RCW 70.105D.020(25) and RCW 70.105D.020(10), respectively, has occurred at the Site. There have been releases or threatened releases of hazardous substances including but not limited to petroleum hydrocarbons, carcinogenic polycyclic aromatic hydrocarbons, arsenic, chromium, lead and mercury at this Site. Additionally, the wood debris at this Site has caused or contributed to releases or threatened releases of hazardous substances managed under MTCA including, but not limited to, ammonia, hydrogen sulfide, phenol, 4-methylphenol, and 2, 4 dimethylphenol. Ecology's recent study and P&T's data compilation report both independently confirmed the presence of the hazardous substances ammonia and hydrogen sulfide (sulfides) in the wood debris at the Site. Additionally, these studies confirmed benthic community impacts and bioassay toxicity exceeding SMS criteria.

C. Based upon credible evidence, Ecology issued PLP status letters to the Companies dated May 9, 2007, pursuant to RCW 70.105D.040, -.020(21) and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible evidence supported a finding of potential liability, Ecology issued determinations that the Companies are PLPs under RCW 70.105D.040 and notified the Companies of this determination by letter dated November 14, 2007.

D. Pursuant to RCW 70.105D.030(1) and -.050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

E. Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance; that corrects

a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed; or that is needed to provide for completion of a site hazard assessment, remedial investigation/feasibility study or design of a cleanup action. As stated in Section V, Paragraphs F and H, between 2002 and 2005, the Companies have conducted remedial actions as a part of source removal actions to eliminate/reduce the migration of contamination into the Port Gamble Bay. During early 2007, Ecology conducted a partial cleanup of the wood waste present at the Site in Port Gamble Bay. Ecology will consider all these completed remedial actions as interim actions consistent with WAC 173-340-430.

## **VII. WORK TO BE PERFORMED**

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the Companies take the following remedial actions at the Site and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein:

A. The Companies shall perform a remedial investigation and feasibility study for the Site as described in the Scope of Work and Schedule, which is attached to this Order as Exhibit B. Generally, this work shall include, but shall not be limited to, the following tasks:

- i. Compile and summarize existing data regarding previous investigations and interim remedial actions;
- ii. Develop a conceptual site model;
- iii. Identify potential data gaps;
- iv. Develop a Sampling and Analysis Plan (SAP) to address data gaps for both uplands and in-water portions of the site. The upland portion should include a supplemental investigation to identify the arsenic source in the soils in the vicinity of monitoring well MW-8. The sediment portions of the SAP will target data necessary to assess the nature and extent and sediment impacts from chemicals of concern and wood debris in accordance with the Sediment Management Standards (Chapter 173-204



WAC) (SMS). The sediments portions of the SAP will be developed as per the Sampling and Analysis Plan Appendix (Ecology publication no. 03-09-043, available at <http://www.ecy.wa.gov/biblio/0309043.html>). The SAP will include a Health and Safety Plan in accordance with WAC 173-340-350(7)(c)(iv) that will be submitted to Ecology for review prior to conducting the sampling.

v. The Companies shall perform the supplemental investigations and present results in the draft RI/FS Report. In addition the draft RI/FS Report shall include identification of soil and groundwater cleanup levels and, for sediments, identify those areas requiring remediation pursuant to the SMS. The FS Section will include the evaluation of cleanup action alternatives.

vi. The Companies shall identify habitat restoration alternatives for the Site.<sup>1</sup>

vii. The Companies shall develop and submit a Draft Cleanup Action Plan for Ecology's review and approval.

viii. The Companies recognize that Ecology intends to conduct concurrent RI/FS work at the neighboring Port Gamble Log Storage Lease Area Site. In complying with the schedule in Exhibit B, the Companies shall make best efforts to coordinate with Ecology on the timing of deliverables so as to create efficiencies for both sites where practicable.

B. The work shall be performed according to the Schedule and Scope of Work included in Exhibit B.

C. If, at any time after the first exchange of comments on drafts, Ecology determines that insufficient progress is being made in the preparation of any of the deliverables required by this Section, Ecology may complete and issue the final deliverable.

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<sup>1</sup> The site is being overseen by Ecology and work is being done on an expedited manner under the Governor's Puget Sound Initiative. The Initiative focuses on cleaning up contamination as well as restoring Puget Sound. Ecology recognizes that site cleanups can be designated and implemented in a manner that improves habitat values and provides for shoreline restoration in conjunction with remedial actions. While planning the cleanup and making cleanup decisions, Ecology and the Companies will evaluate opportunities to perform remedial actions in a fashion that coincidentally enhances habitat. Elements of the remedial action will be evaluated for restoration opportunities in consultation with Ecology as plans for cleanup are developed.

D. The Companies shall submit to Ecology a progress report the first week of each month regarding the progress of RI/FS work until such time as the Companies have completed the work required under this Agreed Order. The monthly progress report shall include the work completed in the previous month, problems encountered and how they were resolved, and work scheduled for the subsequent month and percentage work completed. Electronic submittals are acceptable.

E. As discussed in Section V.I., the desalinization of materials dredged during the 2006/2007 dredging operation was completed by P&T in October 2007. This operation included a sparging system to reduce the salinity of dredged materials for beneficial reuse. In April 2008, a total of thirty samples were collected from 500-cubic yard sparging material plots for the analysis of polycyclic aromatic hydrocarbons (PAHs), metals, and pesticides/PCBs to verify that the treated dredged material ("sparged material") meets MTCA Method-B soil cleanup levels for unrestricted land use, consistent with a soil sampling and analysis plan reviewed and approved by the Kitsap County Health District. The results of these analyses demonstrated that most (approximately 12,000 cubic yards) but not all of the sparged material meets MTCA cleanup levels for unrestricted land use, and it can therefore be removed from the sparging facility and reused per the requirements of the May 2008 Kitsap County Grading Permit 08 52323. The April 2008 sampling results showed, however, that PAH concentrations in approximately 3,000 cubic yards of sparged material exceed MTCA Method B cleanup levels and are therefore not currently suitable for off-site beneficial reuse. The Companies shall handle these contaminated materials as per one the following options:

- (i) Continue to treat the contaminated material in the sparging basin (e.g., through periodic aeration to stimulate biodegradation) until PAHs concentrations are reduced to below MTCA cleanup levels in accordance with all applicable laws. Once the treatment is completed and the material is below MTCA Method B cleanup levels, the material can be used per the requirements of the May 2008 Kitsap County Grading Permit 08 52323 or, as appropriate, by obtaining an appropriate permit from the Kitsap County if Permit 08 52323 is no longer

applicable. Should leachate be generated during this additional treatment it must be collected, tested for PAHs and nutrients (nitrogen as nitrate and sulfate) and designated and handled in accordance with all applicable laws. In addition, a plan for the additional operation and maintenance, and ultimate closure, of the sparging facility shall be submitted to Ecology for review and approval in accordance with the schedule in Exhibit B. OR

- (ii) Dispose of the contaminated dredged materials off-site in an appropriately permitted landfill in accordance with all applicable laws. Before the material may be removed from the sparging facility, a plan for removal and disposal of the material shall be submitted to Ecology for review and approval.

### **VIII. TERMS AND CONDITIONS OF ORDER**

#### **A. Public Notice**

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that this Order is inadequate or improper in any respect.

#### **B. Remedial Action Costs**

The Companies shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work related to this Order performed by Ecology or its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed prior to the issuance of this Order, retroactive to January 4, 2007, and work performed subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). The Companies shall pay the required amount within ninety (90) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred,

an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), unless the oversight costs are the subject of active dispute resolution under Sec. VIII(J), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

Ecology's costs incurred in planning and carrying out the interim action completed in early 2007 are not within the scope of this Order. However, Ecology anticipates addressing those costs as part of a future Consent Decree with the Companies, and by signing this Order Ecology is not waiving its rights to seek recovery of any and all remedial action costs incurred at this Site.

Pursuant to RCW 70.105D.055, Ecology has authority to recover unreimbursed remedial action costs by filing a lien against real property subject to the remedial actions.

**C. Implementation of Remedial Action**

If Ecology determines that the Companies have failed without good cause to implement the remedial action, in whole or in part, Ecology may, after notice to the Companies, perform any or all portions of the remedial action that remain incomplete. If Ecology performs all or portions of the remedial action because of the Companies' failure to comply with its obligations under this Order, the Companies shall reimburse Ecology for the costs of doing such work in accordance with Section VIII.B (Remedial Action Costs), provided that the Companies are not obligated under this Section to reimburse Ecology for costs incurred for work inconsistent with or beyond the scope of this Order.

Except where necessary to abate an emergency situation, the Companies shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.

**D. Designated Project Coordinators**

The project coordinator for Ecology is:

Kevin MacLachlan

Toxics Cleanup program  
PO Box 47600  
Olympia, WA 98504-7600  
(360) 407-6798

The project coordinator for the Companies is:

Clay Patmont  
Anchor Environmental, LLC  
1423 3<sup>rd</sup> Avenue, Suite 300  
Seattle, WA 98101-2226  
(206) 903-3324

Each project coordinator shall be responsible for overseeing the implementation of this Order. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and the Companies, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Order.

Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

**E. Performance**

All geologic and hydrogeologic work performed pursuant to this Order shall be under the supervision and direction of a geologist licensed in the State of Washington or under the direct supervision of an engineer registered in the State of Washington, except as otherwise provided for by Chapters 18.220 and 18.43 RCW.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered in the State of Washington, except as otherwise provided for by RCW 18.43.130.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a professional engineer. The professional engineer must be registered in the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrologic or engineering work shall be under the seal of an appropriately licensed professional as required by Chapters 18.220 and 18.43 RCW.

The Companies shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

**F. Access**

Ecology or any Ecology authorized representative shall have the full authority to enter and freely move about all property at the Site that the Companies either own, control or have access rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the Companies' progress in carrying out the terms of this Order; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the Companies. The Companies shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by the Companies where remedial activities or investigations will be performed pursuant to this Order. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by the Companies unless an emergency prevents such notice. All persons who access the Site pursuant to this Section shall comply with any applicable Health and Safety Plan(s). Ecology employees and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access.

**G. Sampling, Data Submittal, and Availability**

With respect to the implementation of this Order, the Companies shall make the results of all sampling (both preliminary and final), laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section VII (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Exhibit C, Data

Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

If requested by Ecology, the Companies shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by the Companies pursuant to implementation of this Order. The Companies shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow the Companies and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Order, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section VIII.F (Access), Ecology shall notify the Companies prior to any sample collection activity unless an emergency prevents such notice.

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under Chapter 173-50 WAC for the specific analyses to be conducted, unless otherwise approved by Ecology.

#### **H. Public Participation**

A Public Participation Plan has been prepared for the Site and is attached to this Order as Exhibit D.

Ecology shall maintain the responsibility for public participation at the Site. However, the Companies shall cooperate with Ecology, and shall:

1. If agreed to by Ecology, develop appropriate mailing list, prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

2. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before major meetings with the interested public and local governments. Likewise, Ecology shall notify the Companies prior to the issuance of all press releases and fact sheets, and before major meetings with the interested public and local governments. For all

press releases, fact sheets, meetings, and other outreach efforts by the Companies that do not receive prior Ecology approval, the Companies shall clearly indicate to their audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

3. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions or as a presenter.

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

- a. Poulsbo Library  
700 NE Lincoln Street  
Poulsbo, WA
- b. Department of Ecology  
Toxics Cleanup Program  
Headquarters Office  
300 Desmond Drive  
Lacey, WA

At a minimum, copies of all public notices, fact sheets, and press releases; all quality assured monitoring data; remedial action plans and reports, supplemental remedial planning documents, and all other similar documents relating to performance of the remedial action required by this Order shall be promptly placed in these repositories.

**I. Retention of Records**

During the pendency of this Order, and for ten (10) years from the date of completion of work performed pursuant to this Order, the Companies shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, the Companies shall make all records available to Ecology and allow access for review within a reasonable time.

**J. Resolution of Disputes**

1. In the event a dispute arises as to an approval, disapproval, proposed change, or other decision or action by Ecology's project coordinator, or an itemized billing statement under



Section VIII.B (Remedial Action Costs), the Parties shall utilize the dispute resolution procedure set forth below. The Companies may act individually or collectively under the provisions of this section.

a. Upon receipt of Ecology's project coordinator's written decision or the itemized billing statement, the Companies have fourteen (14) days within which to notify Ecology's project coordinator in writing of its objection to the decision or itemized statement.

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute. If the project coordinators cannot resolve the dispute within fourteen (14) days, Ecology's project coordinator shall issue a written decision.

c. The Companies may then request regional management review of the decision. This request shall be submitted in writing to the Land and Aquatic Lands Cleanup Section Manager within seven (7) days of receipt of Ecology's project coordinator's written decision.

d. The Section Manager shall conduct a review of the dispute and shall endeavor to issue a written decision regarding the dispute within thirty (30) days of the Companies' request for review. The Section Manager's decision shall be Ecology's final decision on the disputed matter.

2. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

**K. Extension of Schedule**

1. An extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

- a. The deadline that is sought to be extended;
- b. The length of the extension sought;
- c. The reason(s) for the extension; and
- d. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on the Companies to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

- a. Circumstances beyond the reasonable control and despite the due diligence of the Companies including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by the Companies;
- b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or
- c. Endangerment as described in Section VIII.M (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of the Companies.

3. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give the Companies written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII.L (Amendment of Order) when a schedule extension is granted.

4. An extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of:

- a. Delays in the issuance of a necessary permit which was applied for in a timely manner;

- b. Other circumstances deemed exceptional or extraordinary by Ecology; or
- c. Endangerment as described in Section VIII.M (Endangerment).

**L. Amendment of Order**

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within seven (7) days of verbal agreement.

Except as provided in Section VIII.N (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be formally amended by the written consent of both Ecology and the Companies. The Companies shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request for amendment is received. If the amendment to this Order represents a substantial change, Ecology will provide public notice and opportunity to comment. Reasons for the disapproval of a proposed amendment to this Order shall be stated in writing. If Ecology does not agree to a proposed amendment, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.J (Resolution of Disputes).

**M. Endangerment**

In the event Ecology determines that any activity being performed at the Site is creating or has the potential to create a danger to human health or the environment on or surrounding the Site, Ecology may direct the Companies to cease such activities for such period of time as it deems necessary to abate the danger. The Companies shall immediately comply with such direction.

In the event the Companies determine that any activity being performed at the Site is creating or has the potential to create a danger to human health or the environment, the Companies may cease such activities. The Companies shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction the Companies shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology

disagrees with the Companies' cessation of activities, it may direct the Companies to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this Section VIII.M (Endangerment), the Companies' obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII.K (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

**N. Reservation of Rights**

This Order is not a settlement under Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against the Companies to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against the Companies regarding remedial actions required by this Order, provided the Companies comply with this Order.

Ecology nevertheless reserves its rights under Chapter 70.105D RCW, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

By entering into this Agreed Order, the Companies do not admit any liability for the environmental condition of the Site. The Companies reserve all rights available under law, including but not limited to the right to seek cost recovery or contribution against third parties and the right to assert any claims, defenses and arguments described in the Companies' written responses to Ecology's PLP status letters dated May 9, 2007.

**O. Transfer of Interest in Property**

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by the Companies without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to the Companies' transfer of any interest in all or any portion of the Site, and during the effective period of this Order, the Companies shall provide a copy of this Order to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, the Companies shall notify Ecology of said transfer. Upon transfer of any interest, the Companies shall restrict uses and activities to those consistent with this Order and notify all transferees of the restrictions on the use of the property.

**P. Compliance with Applicable Laws**

1. All actions carried out by the Companies pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090. At this time, no federal, state or local requirements have been identified as being applicable to the actions required by this Order, other than the Kitsap County Permit referenced in Section VII (Work to be Performed), subsection E above.

2. Pursuant to RCW 70.105D.090(1), the Companies are exempt from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, the Companies shall comply with the substantive requirements of such permits or approvals, including but not limited to the requirements of Chapter 90.48 RCW.

The Companies have a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or the Companies determine that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the

remedial action under this Order, they shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or the Companies shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the Companies shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by the Companies and on how the Companies must meet those requirements. Ecology shall inform the Companies in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The Companies shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

3. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the State to administer any federal law, the exemption shall not apply and the Companies shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

**Q. Indemnification**

The Companies agree to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action for death or injuries to persons or for loss or damage to property to the extent arising from or on account of acts or omissions of the Companies, its officers, employees, agents, or contractors in entering into and implementing this Order. However, the Companies shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in entering into or implementing this Order.

**IX. SATISFACTION OF ORDER**

The provisions of this Order shall be deemed satisfied upon the Companies' receipt of written notification from Ecology that the Companies have completed the remedial activity required by this Order, as amended by any modifications, and that the Companies have complied with all other provisions of this Agreed Order.

**X. ENFORCEMENT**

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

- A. The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.
- C. In the event the Companies refuse, without sufficient cause, to comply with any term of this Order, the Companies will be liable for:
  - a. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply; and
  - b. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.
- D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order: \_\_\_\_\_

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

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Tim L. Nord  
Section Manager  
Toxics Cleanup Program  
Land & Aquatic Lands Cleanup Section  
Telephone: (360) 407-7226

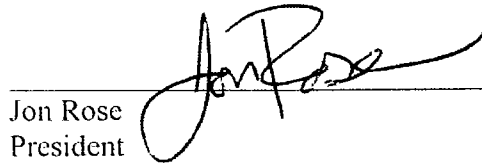
**POPE RESOURCES LP**



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David Nunes  
Chief Executive Officer  
Telephone: (360) 697-6626

**OLYMPIC PROPERTY GROUP LLC**

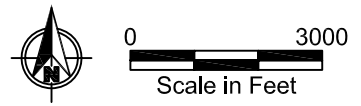
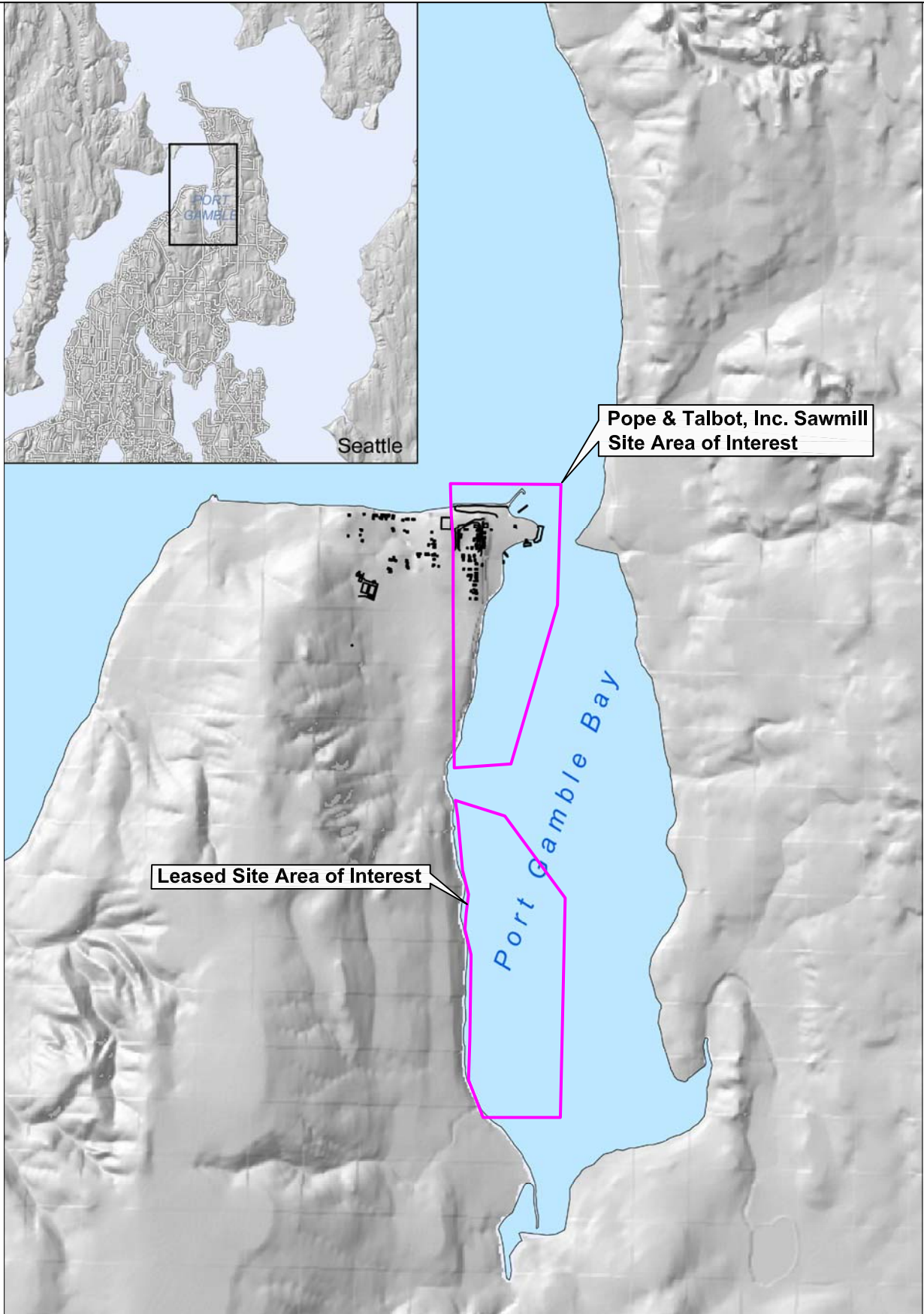


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Jon Rose  
President  
Telephone: (360) 697-6626



Nov 29, 2007 10:38am cdavidson K:\Jobs\050207-PORT\_GAMBLE\_BAY\050207-02\05020702-023.dwg EXH A



**EXHIBIT B****POPE & TALBOT, INC. SAWMILL SITE, PORT GAMBLE, WA  
SCOPE OF WORK AND SCHEDULE OF DELIVERABLES****1 DATA GAPS****1.1 Upland Data Gaps**

The following upland data gaps have been identified to complete the remedial investigation/feasibility study (RI/FS) at the Pope & Talbot Sawmill Site (the "Site"):

- Arsenic continues to be detected at concentrations greater than cleanup levels (see Section 2.2) in groundwater samples from MW-8. Investigations in 2005/2006 have determined the extent of arsenic in groundwater toward the south and west; however, the northern and eastern extents have not been fully characterized. A source of arsenic in soil has not been identified.
- Total mercury continues to be sporadically detected at concentrations greater than cleanup levels (see Section 2.2) in groundwater samples from MW-7. Dissolved mercury has never been detected in samples from MW-7. No trends are apparent. Mercury impacts in soil identified during the 1999-2001 investigations were removed during the 2002 interim action.

**1.2 Sediment Data Gaps**

The following sediment data gaps have been identified to complete the RI/FS at the Site:

- Verify the presence or absence of significant wood debris in the north embayment and in the southern portion of the Site. (See Exhibit A and Figure 1)
- Collect data as necessary to refine comparative analyses of remedial alternatives, including;
  - Logging the vertical distribution of wood debris near the former chip loading facilities located within the Site to refine prospective remedial actions in this area; and
  - Performing selected physical, chemical and/or biological analyses in these borings to assess disposal options (e.g., potential open-water disposal down-ranking) and to evaluate the effectiveness of alternative cap designs.

### 1.3 Habitat Restoration Opportunities and Data Gaps

The site is being overseen by Ecology and work is being done on an expedited manner under the Governor's Puget Sound Initiative. The Initiative focuses on cleaning up contamination as well as restoring Puget Sound. Ecology recognizes that site cleanups can be designated and implemented in a manner that improves habitat values and provides for shoreline restoration in conjunction with remedial actions. While planning the cleanup and making cleanup decisions, Ecology and the Companies will evaluate opportunities to perform remedial actions in a fashion that coincidentally enhances habitat. Elements of the remedial action will be evaluated for restoration opportunities in consultation with Ecology as plans for cleanup are developed.

There are considerable opportunities for subtidal and intertidal habitat restoration within the Site area. The following items are a non-exclusive list of some of the habitat restoration alternatives that should be considered in the RI/FS process:

Eelgrass habitat restoration in the Site area would require modifications of the existing grades to restore shallow subtidal elevations, as the greatest densities of this species occur from approximately -2 to -5 ft below mean lower low water (MLLW). Historical shoreline filling and dredging activities (including recent interim actions) within the Site area have created relatively steep shallow subtidal banks characterized by a very narrow band of substrate within this optimal elevation range, and also containing debris.

As part of a separate project, NewFields Northwest is currently performing supplemental eelgrass surveys in Port Gamble Bay to more precisely map eelgrass distributions in the Site area. These data will be available for use in the Port Gamble Mill Site RI/FS evaluation.

Analyses of the distribution and abundance of eelgrass along the Ruston/Tacoma shoreline suggest that that eelgrass survival and growth can be limited by elevated porewater sulfide concentrations near the sediment surface, concurrent with colonization by the sulfide-oxidizing bacterium *Beggiatoa*. Elevated porewater sulfide levels can result from degradation of relatively high concentrations wood debris, and *Beggiatoa* has been observed within those areas of the Port Gamble Mill Site that contain the highest porewater sulfide

concentrations, including areas dredged and left uncovered by the 2007 interim action. Work underway on other Puget Sound sites is evaluating different pilot cap thicknesses to effectively attenuate and mitigate sulfide migration from underlying wood debris deposits, to inform eelgrass restoration design. Depending on the results of the pilot study, relatively thick (e.g., 3-foot) caps overlying wood debris may be required to ensure effective eelgrass restoration. Pilot study data are anticipated to be available for use in the Port Gamble Mill Site RI/FS evaluation.

There are a number of constructed structures in Port Gamble Bay, including docks, piers, and pilings. Many of these are aging, creosote structures. Abandoned dock structures within the Site area include more than 31,000 square feet of overwater surface. In addition, approximately 21,000 lineal feet of the Site shoreline is armored with riprap. Existing data are sufficient to inform RI/FS evaluations of potential integrated cleanup and restoration actions within the Site area.

## 2 SUPPLEMENTAL INVESTIGATIONS AND RI/FS PROCESS

### 2.1 Supplemental Upland Investigations

As discussed above, data gaps remaining at the Port Gamble Mill Site are total mercury in groundwater at monitoring well MW-7 and arsenic in groundwater at MW-8.

**Mercury at MW-7.** Groundwater samples will continue to be collected on a quarterly basis at MW-7 until four “clean” quarters have been completed. Historical data at MW-7 show that mercury has not been detected in the dissolved metal samples from MW-7. Therefore, it is anticipated that careful application of low-flow purging and sampling techniques and verifying low turbidity prior to sample collection will provide four quarters of non-detects in samples from MW-7, which would complete this data gap.

**Arsenic at MW-8.** Fourteen direct-push technology (DPT) borings will be installed to provide data intended to delineate the northern and eastern extent of the arsenic contamination in groundwater near MW-8. In addition, two monitoring wells will be installed to the east, northeast, and/or southeast of MW-8 to monitor the concentrations of arsenic in groundwater in the area near the Bay.

Elevated arsenic concentrations in groundwater near MW-8 may be the result of geochemically reducing conditions, which increase the solubility of arsenic. Groundwater level fluctuations driven by tide changes in the Bay likely oxygenate groundwater near the shoreline and alter the geochemically reducing conditions in the upland area that increase arsenic solubility in groundwater. Environmental

Partners Inc (EPI) anticipates that groundwater in monitoring wells installed near the shoreline will be geochemically oxygenated and will have a corresponding lower solubility for arsenic, resulting in decreased arsenic concentrations.

DPT groundwater sampling locations and new monitoring wells will be sampled near existing well MW-8. All DPT borings will be advanced to approximately 12 feet below ground surface (bgs), approximately four feet below the water table. Soil and groundwater samples will be collected from each location. All groundwater sampled will be analyzed; soil sampled will be archived pending evaluation of groundwater analytical results. Only those soil samples collected at locations where arsenic is detected in groundwater will be analyzed.

Monitoring wells MW-15, MW-16, and MW-17 (if needed) will be installed using standard Hollow Stem Auger (HSA) techniques and constructed in accordance with WAC 173-160, Minimum Standards for Construction and Maintenance of Wells. Each well will have about 15 feet of screened interval extending from about 9 feet below to about 6 feet above the water table at the time of drilling. This will allow water in the well to intersect the unsaturated/saturated interface throughout the expected tidal fluctuations.

## **2.2 Preliminary Upland Cleanup Levels**

**Final Cleanup Standards will be set at the Cleanup Action Plan Stage.**

**Preliminary Soil Cleanup Levels.** Shallow unsaturated soils at the Site were generally regulated to MTCA Method A soil cleanup levels for unrestricted land use, based on direct contact exposure scenarios. Deeper saturated soils were regulated to the National Toxics Rule Criteria (40 CFR 131.36) for protection of human health for consumption of aquatic organisms, using Equation 747-1 (WAC 173-340-747(4)(b)) to derive soil concentrations for water protection. Additionally all soils (i.e., unsaturated and saturated) impacted with petroleum hydrocarbons were regulated to MTCA Method A or Method B soil cleanup levels because the National Toxics Rule does not have criteria established for petroleum hydrocarbons. MTCA Method A or Method B soil cleanup levels and the derived soil concentrations that are protective of the National Toxics Rule Criteria for COPCs are summarized in Table 1. Modifications to previous cleanup levels for individual carcinogenic PAHs have been made due to physical property data updates and a discrepancy in the application of the toxicity equivalency factor (TEF) normalization method [WAC 173-340-708(8)(e)(ii)]. Since soil remedial excavations were guided using the TEF normalized total polynuclear aromatic hydrocarbon (PAH) concentrations, these cleanup level modifications do not interfere with the objectives of the remedial excavations.

**Preliminary Groundwater Cleanup Levels.** Groundwater at the Site was regulated to National Toxics Rule Criteria (40 CFR 131.36) for protection of human health for consumption of aquatic organisms. If National Toxics Rule criteria were not available for an analyte, groundwater at the Site was regulated to Washington Surface Water Quality Standards (WAC 173-201A) Marine Water Chronic Criteria for

protection of aquatic organisms. If both National Toxics Rule Criteria and Washington Marine Water Chronic Criteria were available for an analyte, groundwater at the Site was regulated to the criteria with the lower value. If both National Toxics Rule Criteria and Washington Marine Water Chronic Criteria were not available for an analyte, groundwater at the Site was regulated to MTCA Method A groundwater cleanup levels. MTCA Method A groundwater cleanup levels, National Toxics Rule Criteria, and Washington Marine Water Chronic Criteria values for COPCs are summarized in Table 2.

### **2.3 Supplemental Sediment Investigations**

As discussed above, sediment data gaps that need to be filled to complete the Mill Site RI/FS include verification of the presence or absence of significant wood debris accumulations within the northern and southern portions of the Site, and collecting data necessary to refine comparative analyses of remedial alternatives, including dredging and capping.

**Southern Log Rafting Area.** A phased sampling program would be performed, beginning with collection of approximately six surface sediment samples located throughout the area, and analysis of each sample for conventional parameters (grain size, wood debris percentage, total volatile solids (TVS), total organic carbon (TOC), and porewater ammonia and sulfide). If necessary, stations with relatively high wood debris indicators (e.g., relative to cleanup levels developed for other similar sites) would receive follow-on sampling to refine the nature and extent of wood debris in these areas, including sediment borings to define vertical distributions, and confirmatory



biological determinations to assess potential sediment toxicity.

**Former Chip Loading Areas.** Sediment borings will be advanced in the North and South Chip Loading Areas to refine prospective remedial actions in these areas. Each boring will be logged across the entire vertical core thickness and sectioned/sampled generally as follows:

- Physical determinations including grain size and other engineering parameters as necessary to support alternative dredging and cap foundation designs;
- Chemical determinations including TVS, TOC, porewater salinity, ammonia and sulfide, and full Sediment Management Standards (SMS) analytes at the apparent native contact;
- Focused Dredge Material Management Program (DMMP) chemical and biological analyses to assess possible disposal options (e.g., potential DMMP down-ranking).

#### **2.4 Feasibility Study (FS) Process**

The FS will evaluate remedial alternatives for Site cleanup, consistent with MTCA requirements to ensure protection of human health and the environment by eliminating, reducing, or otherwise controlling risk posed through each exposure pathway and migration route (WAC 173-340-350).

Media-specific general remedial alternatives for the Site will be screened as an initial element of the FS in accordance with WAC 173-340-350(8)(b) and WAC 173-340-360(2).

Remedial alternatives for the Site will be screened relative to MTCA criteria. The screening process removes from further consideration technologies that are not applicable or

technically possible for the Site, or that can be represented by other, comparable technologies in order to simplify the development of remedial alternatives.

The media-specific remedial technologies that pass the screening process will be combined into Site-wide remedial alternatives. The remedial alternatives that have not been removed from consideration by the screening process will be assembled for detailed evaluation. Additionally, alternatives for which costs are clearly disproportionate under WAC 173-340-360(3)(e) may be removed from further detailed analysis. All proposed cleanup actions for the Site must be shown to meet the minimum requirements of WAC 173-340-360(2).

A detailed analysis of each remedial alternative will be conducted according to the requirements of WAC 173-340-350 through WAC 173-340-370.. In particular, the remedial alternatives will be evaluated for compliance with the requirements of WAC 173-340-360, *Selection of Cleanup Actions*. Unless the Parties agree on a permanent cleanup action (defined in WAC 173-340-200) for the Site, the Feasibility Study shall include a disproportionate cost analysis, ranking each cleanup alternative from most to least permanent, according to a detailed evaluation of the following criteria:

- Protectiveness
- Permanence
- Cost
- Effectiveness Over the Long Term
- Management of Short Term Risks
- Technical and Administrative Implementability
- Consideration of Public Concerns

The remedial alternative that is judged to best satisfy the evaluation criteria will be identified. Justification for the selection will be provided, and the recommended remedial alternative further developed, either in the FS Report or in the ensuing Draft Cleanup Action Plan.

## **2.5 Schedule of Milestones and Deliverables**

The anticipated schedule for major project milestones is outlined below. Days are calendar days; if due dates fall on a weekend or holiday, deliverables will be submitted to Ecology on the next business day. Where the deliverable date is triggered by notification, comments, or approvals, the starting date for the period shown is the date of the actual receipt by the Companies of the notification, comments, or approval, unless otherwise shown. Where triggered by Ecology's receipt of deliverable, the starting date for the period shown is based on the date of the actual receipt by Ecology.

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<b>Project Milestone</b>	<b>Schedule</b>
Submit Plan for Operation Maintenance and Closure of Sparging Facility/Plan for Removal and Disposal of Dredge Material	30 days from effective date of Agreed Order
Final Closure of Sparging Facility/Final Removal and Disposal of Dredge Material	by June 2009
Submit Draft RI/FS Work Plan	45 days from effective date of Agreed Order
Submit Final RI/FS Work Plan	15 days from receipt of Ecology's comments
Submit Draft SAP	30 days from Ecology approval of RI/FS Work Plan
Submit Final SAP	15 days from receipt of Ecology's final comments
Initiate Field Work	October 2008
Submit Draft RI/FS Report	July 2009
Submit Final RI/FS Report	45 days from receipt of Ecology's final comments
Submit Draft CAP Report	Concurrent with submittal of Final RI/FS Report

## Exhibit C





# Toxics Cleanup Program Policy

Policy 840

*Resource Contact:* Policy and Technical Support Staff *Effective:* August 1, 2005

*References:* WAC 173-340-840(5)

*Revised:* September 9, 2005

<http://www.ecy.wa.gov/eim/>

<http://www.ecy.wa.gov/programs/tcp/smu/sedqualfirst.htm>

<http://www.ecy.wa.gov/biblio/0309043.html>

*Replaces:* Procedure 840

## Policy 840: Data Submittal Requirements

**Purpose:** Contaminated site investigations and cleanups generate a large volume of environmental monitoring data that need to be properly managed to facilitate regulatory decisions and access to this data by site owners, consultants, and the general public. The purpose of this policy is to describe the requirements for submitting environmental monitoring data generated/collected during the investigation and cleanup of contaminated sites under the Model Toxics Control Act (MICA) and the Sediment Management Standards.

**Application:** This policy applies to Ecology staff, potentially liable parties, prospective purchasers, state and local agencies, and Ecology contractors that investigate or manage the cleanup of contaminated sites.

- 1. Unless Otherwise Specified by Ecology, all Environmental Monitoring Data Generated during Contaminated Site Investigations and Cleanups shall be Required to be Submitted to Ecology in both a Written and Electronic Format.**

Environmental monitoring data include biological, chemical, physical, and radiological data generated during site investigations and cleanups under the Model Toxics Control Act Cleanup Regulation (WAC 173-340) and the Sediment Management Standards (WAC 173-204).

Data generated/collected during site investigations and cleanups conducted under an order, agreed order or consent decree, permit, grant, loan, contract, interagency agreement, memorandum of understanding or during an independent remedial action, are considered environmental monitoring data under this policy.

Data generated/collected for non site-specific studies, site hazard assessments that result in no further action and initial site investigations are not considered environmental monitoring data under this policy.

- 2. Orders, Agreed Orders, Consent Decrees, or Permits Issued After the Effective Date of this Policy Shall Include a Condition that Site-Specific Data be Submitted in Compliance with this Policy.**

Reports on such work that do not include documentation that the data have been submitted in compliance with this policy shall be deemed incomplete and a notice of such provided to the

### Policy 840 Data Submittal Requirements

submitter. These reports generally should not be reviewed until that information is provided. The assistant attorney general assigned to the site should be consulted in these situations.

- 3. Reports on Independent Remedial Actions Submitted for Review After October 1, 2005, Under Ecology's Voluntary Cleanup Program Shall Not be Reviewed Until the Data Have Been Submitted in Compliance with this Policy.**

Such reports shall be deemed incomplete, and a notice to this effect provided to the submitter.

- 4. Grants, Contracts, Interagency Agreements or Memoranda of Understanding Issued After the Effective Date of this Policy Shall Include a Condition that Site-Specific Data be Submitted in Compliance with this Policy.**

Reports on such work shall not be accepted as complete until the data have been submitted in compliance with this policy. If a payment or transfer of funds is involved in the transaction, the relevant payment or transfer shall be withheld until this requirement has been met.

Example language to include in these documents is attached in Appendix A.

- 5. Data Generated During Upland Investigations and Cleanups Shall be Submitted Electronically Using Ecology's Environmental Information Management System (EIM).**

EIM is Ecology's main database for environmental monitoring data. Proper submission of data through this system meets the requirement of submitting such data in an electronic format. Electronic data shall be submitted to Ecology simultaneously with the accompanying printed report.

Additional information on EIM, including instructions for data submittal, can be found on Ecology's EIM web site at <http://www.ecy.wa.gov/eim/>. TCP's EIM Coordinator also is available for technical assistance to site managers and consultants using EIM.

- 6. Data Submitted Electronically Using EIM Shall be Checked by the Toxics Cleanup Program's EIM Coordinator Prior to Loading the Data into EIM.**

Normally, notice that data have been submitted through EIM will come to TCP's EIM Coordinator. Upon receipt of such a notice the EIM Coordinator should notify the site manager. Similarly, if the Ecology site manager receives a notice of an EIM submittal, they should notify TCP's EIM Coordinator. Upon receipt of the data, TCP's EIM Coordinator reviews the submittal for quality control and officially loads the data into the system.

- 7. Data Generated During Sediment Investigations and Cleanups shall be Submitted Electronically Using Ecology's Sediment Quality Information System (SEDQUAL).**

SEDQUAL is Ecology's data management system for sediment-related data. Proper submission of data through this system meets the requirement of submitting such data in an electronic format. Electronic data shall be submitted to Ecology simultaneously with the accompanying printed report.



**8. Sediment Sampling Data Shall be Submitted to Ecology Using the SEDQUAL Data Entry Templates.**

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At a minimum, the following SEDQUAL data entry templates must be completed:

1. **Reference & Bibliography:** Describes lab reports and publications that relate to the data being entered;
2. **Survey:** Sample number;
3. **Station:** Specifies geographic location of the sediment sample. Sample latitude/longitude coordinates must be entered using the North American Datum of 1983 in U.S. Survey feet (NAD 83, U.S. feet);
4. **Sample:** Describes sample characteristics such as depth; and
5. **Sediment Chemistry:** Reports chemical concentration data in dry weight units.

The following additional templates must also be completed where these measurements/observations have been made:

1. **Bioassay:** Bioassay test results;
2. **Bioassay Control:** Bioassay control test results;
3. **Benthic Infauna:** Species abundance & diversity;
4. **Tissue:** Describes the organism collected;
5. **Bioaccumulation:** Reports tissue chemical concentrations; and
6. **Histopathology:** Reports tissue pathology such as tumors or lesions.

**9. Electronic Data Formats Shall be Verified to be Compatible with SEDQUAL Prior to Submittal.**

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Because SEDQUAL uses ASCII protocol and comma delimited text files, data format verification shall be conducted prior to submittal to Ecology. Data shall be verified by downloading the SEDQUAL database, importing the data into the database, correcting errors, and then exporting the corrected templates.

For additional information on sediment sampling and analysis plan requirements, see Ecology publication 03-09-043 "Sediment Sampling and Analysis Plan Appendix", April, 2003. A copy of this document can be obtained from Ecology's publication office or downloaded from the following web site: <http://www.ecy.wa.gov/biblio/0309043.html>

Additional information on SEDQUAL can be found at: <http://www.ecy.wa.gov/programs/tcp/smu/sedqualfirst.htm>. ICP's SEDQUAL Coordinator is also available for technical assistance to site managers and consultants using SEDQUAL.

**10. Sediment Sampling Data Shall Also be Submitted to Ecology in a Printed Report.**

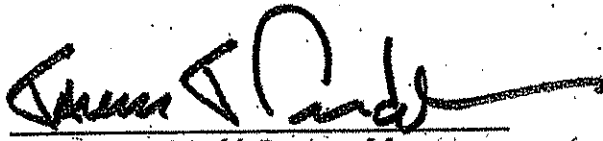
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Printed reports shall present the data in both dry weight and total organic carbon normalized units in data tables that compare the results to applicable state regulatory criteria.

**11. Data Submitted Electronically Using SEDQUAL Shall be Checked by the Toxics Cleanup Program's SEDQUAL Coordinator Prior to Loading the Data into SEDQUAL.**

Normally, SEDQUAL data submittals will come to ICP's SEDQUAL Coordinator. Upon receipt of a submittal, the Coordinator should notify the site manager. Similarly, if the Ecology site manager receives a SEDQUAL submittal, they should notify ICP's SEDQUAL Coordinator. Upon receipt of the data, ICP's SEDQUAL Coordinator reviews the submittal for quality control and officially loads the data into the system.

Approved:



James J. Pendowski, Program Manager  
Toxics Cleanup Program

**Policy Disclaimer:** This policy is intended solely for the guidance of Ecology staff. It is not intended, and cannot be relied on, to create rights, substantive or procedural, enforceable by any party in litigation with the state of Washington. Ecology may act at variance with this policy depending on site-specific circumstances, or modify or withdraw this policy at any time.

**APPENDIX A: MODEL GRANT AND PERMIT CONDITION**

The following condition is to be inserted in permits, grants, loans, contracts, interagency agreements, memorandum of understandings where site-specific environmental monitoring data is expected to be generated:

All sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840: Data Submittal Requirements. Electronic submittal of data is not required for site hazard assessments that result in no further action and initial site investigations. (FOR GRANTS & CONTRACTS ADD: Failure to properly submit sampling data will result in Ecology withholding payment and could jeopardize future grant funding.)

