

# COPY

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by: )  
)  
Puget Sound Energy and the City of )  
Seattle at the Gas Works Park )  
Sediment Site in )  
Seattle, Washington )  
)  
)  
)

*Sediment*  
AGREED ORDER

No. DE 2008

TO: Puget Sound Energy  
Attn: Mr. Steve Secrist  
Assistant General Counsel  
411 - 108<sup>th</sup> Avenue N.E. OBC-03W  
P.O. Box 97034, OBC-03W  
Bellevue, Washington 98009-9734

AND TO: City of Seattle  
Attn: Ms. Sarah McKearnan  
Senior Policy Advisor  
Seattle Public Utilities  
Seattle Municipal Tower  
700 - 5<sup>th</sup> Avenue, Suite 4900  
PO Box 34018  
Seattle, Washington 98124-4018

## I.

### Jurisdiction

This Agreed Order ("Order") is issued by the State of Washington, Department of Ecology, hereinafter referred to as "Ecology" pursuant to the authority of RCW 70.105D.050(1).

## II.

### Findings of Fact

Ecology makes the following Findings of Fact, without adjudication or admission of any such facts by Puget Sound Energy, hereinafter referred to as "PSE," or by the City of Seattle, hereinafter referred to as the "City."

1. Lake Union is an urban, fresh water lake located near the center of Seattle, Washington. The lake has been the site of maritime, industrial, residential and commercial uses for over a century.

2. In the northern reach of Lake Union and immediately upland from the north-central shoreline of Lake Union is Gas Works Park.

3. The City is the current owner and operator of Gas Works Park, a public park, and adjacent property. The City has been the owner of portions of the property on which the park sits since 1911. The City had a lease with the operator of the tar refinery on a portion of the property during some years between 1911 and 1955. The properties owned by the City are shown on attached Exhibit A.

4. A predecessor of PSE owned a portion of the Gas Works Park property, and operated a manufactured gas plant from approximately 1906 to 1956. A tar refinery was constructed on a portion of the property owned by a predecessor of PSE prior to 1910. PSE's predecessors had a lease or other contractual

arrangement with the operator of the tar refinery during some years between 1907 and 1955. Coal tars from the manufactured gas plant operations were used by the tar refinery. A predecessor of PSE removed portions of the former manufactured gas plant after closure of the plant. The City purchased the Gas Works Park property from a predecessor of PSE and later designed and developed the property into a park, which opened in 1976. The City removed portions of the former manufactured gas plant during construction of the park. The properties owned by the predecessors of PSE are shown on attached Exhibit A.

5. Gas Works Park constitutes the former location of, among other things, a manufactured gas plant that operated from 1906 to 1956 and a tar refinery that operated from approximately 1907 to 1955. Ecology, through execution of an Agreed Order dated August 1, 1997 (the "1997 Agreed Order"), required the City and PSE to complete a Focused Feasibility Study of cleanup alternatives and a Cleanup Action Plan to identify the recommended cleanup alternatives for the area shown on the attached Exhibit A and, for purposes of this Agreed Order, referred to herein as the "Uplands." Thereafter, on December 22, 1999, Ecology, the City and PSE entered into a Consent Decree (the "1999 Consent Decree") to provide for remedial action and cleanup of hazardous substances in the Uplands. The 1999 Consent Decree was filed in King County Superior Court, Cause No. 99-2-52532-9SEA.

6. Historic sampling in Lake Union off-shore from and adjacent to the Uplands has indicated the presence of hazardous substances in underwater sediments in Lake Union. More recent sampling by PSE has identified more precisely that the off-shore area appears to be affected by certain hazardous substances, particularly polycyclic aromatic hydrocarbons, that are, at least in part, associated with releases from historic manufactured gas plant or tar refining or other activities on the Uplands. These sediments are the subject of this Order and are believed to be contained within the Area of Investigation, which is depicted and described in the attached Exhibit D to the best of the parties' current knowledge, and which may be modified in accord with Section IV, paragraph 2 of this Order.

7. The Area of the Investigation encompasses an area of sediments that contain hazardous substances, including polycyclic aromatic hydrocarbons (PAHs), that are, at least in part, associated with releases from manufactured gas plant, or tar refining or other activities on the Uplands. The Area of Investigation does not define a site boundary. Rather, it describes the area in which work under this Order will be focused. The Area of Investigation may be expanded or contracted consistent with the provisions for making changes to this order to encompass the extent of the releases of hazardous substances associated with activities on the Uplands.

8. The lakebed and certain shorelands of Lake Union, up to and including the line of ordinary high water, are owned by the State of Washington, hereinafter referred to as the "State." The State of Washington Department of Natural Resources ("DNR") is the steward and public trustee of State-owned aquatic lands, including shorelands and lakebeds. DNR has historically leased the harbor area, including, but not limited to, the current DNR lease area for the Harbor Patrol property as shown on the attached Exhibit A.

Certain other shorelands have been conveyed or leased by the State to other persons and entities. A small area of the shorelands adjacent to the Uplands is owned by the City as shown on the attached Exhibit A. This area is approximately two (2) acres.

### III.

#### Ecology Determinations

1. The City is a current "owner(s) or operator(s)" as defined at RCW 70.105D.020(12) of portions of a "facility" as defined in RCW 70.105D.020(4).

2. PSE's predecessor owned or operated a manufactured gas plant on a portion of the Uplands that generated hazardous substances and from which hazardous substances were released, including PAHs, at a facility, within the meaning of RCW 70.105D.040(1)(c).

3. Based upon presently available information and upon belief, hazardous substances, as defined by RCW 70.105D.020(7), such as polycyclic aromatic hydrocarbons, from manufactured gas plant or tar refining or other activities on the Uplands have come to be located on the submerged shorelands and bed of Lake Union, generally in the vicinity of the Uplands. The Uplands are located at 3000 N. Northlake Way in Seattle, Washington. Sediments contaminated with hazardous substances, at least in part, from activities on the Uplands are believed to lie within the Area of Investigation, which is depicted and described in the attached Exhibit D, and referred to in Section IV, paragraph 2 of this Order. These sediments are the subject of this Order.

5. Based on the presence of these hazardous substances at the facility and all factors known to Ecology, there has been a release, as defined at RCW 70.105D.020(20), or threatened release of hazardous substances to a facility.

6. By letters dated March 29, 2002, Ecology notified the City and PSE of their status as "potentially liable persons" under RCW 70.105D.040, providing notice and opportunity for comment. PSE waived its right to comment; the City submitted comments but did not dispute its PLP status based on shoreland ownership by letter to Ecology dated July 1, 2002.

7. Pursuant to RCW 70.105D.030(1) and 70.105D.050, Ecology may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

8. Based on the foregoing facts, Ecology believes the remedial action required by this Order is in the public interest.

#### IV.

##### Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that PSE and the City take the remedial actions described in the Statement of Work and that these actions be conducted in accordance with Chapter 173-340 WAC and Chapter 173-204 unless otherwise specifically provided for herein. The Statement of Work and Schedule of Deliverables shall be as provided in Exhibits B and C, attached to this Order and incorporated by reference as if set forth in full.

1. As provided more fully in the Statement of Work, the required remedial actions under this Order shall include tasks to determine the nature and extent of submerged shoreland and lakebed sediments in the area of Lake Union adjacent to the Uplands that are impacted by hazardous substances released from historical manufactured gas plant or tar refining or other activities on the Uplands.

2. The tasks referred to in the preceding paragraph shall be performed in the Area of Investigation that is depicted and described in the attached Exhibit D, to the best of the parties' current knowledge. The boundaries of the Area of Investigation may be modified as necessary to accurately determine the nature and extent of the hazardous substances in the sediments. Modification requires written agreement of the project coordinators.

3. The effective date of this Order is written above the signatures on the final page of the Order and is hereinafter referred to as the "Effective Date." Tasks identified in the Statement of Work to be completed under this Order shall be based upon the Effective Date, except that tasks may be undertaken with Ecology concurrence prior to the effective date of this Order under the same time periods provided in Exhibit C.

4. In accordance with the schedule in Exhibit C, PSE and the City shall complete a draft Remedial Investigation ("RI") and Feasibility Study ("FS") that satisfies the requirements of WAC 173-340-350 and WAC 173-204-560. The draft RI and FS shall be submitted to Ecology for a thirty (30) day public review and comment period. After receiving written comments from Ecology on the draft RI and FS, PSE and the City shall complete a final RI and FS and submit them to Ecology in accordance with the schedule in Exhibit C. The parties presently intend to address any future



clean up action(s) concerning the facility that is the subject of this Order in a Consent Decree or other agreement.

5. PSE and the City shall provide written monthly progress reports to Ecology that describe the actions taken during the previous month to implement the requirements of this Order. All progress reports shall be delivered to Ecology each month until the remedial actions required under this Order have been completed. The report shall include but not be limited to the following items:

a) a list of activities that have taken place during the month;

b) a detailed description of any modifications from this Order as agreed to under Section V, paragraph 4;

c) a description of all deviations from the schedule and any planned deviations from the schedule in the upcoming month, and plans for recovering lost time and maintaining compliance with the schedule set forth in this Order; and

d) the validated results of any sampling that has been completed under this Order.

6. In accordance with WAC 173-340-840(5), sampling data shall be submitted according to SAMPLING DATA SUBMITTAL REQUIREMENTS. These submittals shall be provided to Ecology as required under the schedule established above.

#### 7. Extension of Schedule

A. An extension of schedule shall be granted only when a

request for an extension is submitted in a timely fashion, generally at least 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 the reason(s) the extension is needed.

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:

- (1) Delays in the issuance of a necessary permit which was applied for in a timely manner; or
- (2) Other circumstances deemed exceptional or extraordinary by Ecology; or
- (3) Endangerment as described below.

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

B. The burden shall be on the City and/or PSE 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 includes, but is not limited to:

(1) Circumstances beyond the reasonable control and despite the due diligence of the City and/or PSE, 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 parties; or

(2) Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or

(3) Endangerment as described below.

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 parties.

#### C. ENDANGERMENT

If, for any reason, Ecology determines that any activity being performed in the Area of Investigation is creating or has the potential to create a danger to human health or the environment, Ecology may direct the City and/or PSE to cease such activities for such period of time as it deems necessary to abate the danger. The City and/or PSE shall immediately comply with such direction.

If, for any reason, the City or PSE determines that any

activity being performed in the Area of Investigation is creating or has the potential to create a danger to human health or the environment, the City or PSE may cease such activities until Ecology directs it to resume such activities. When ceasing activities pursuant to this paragraph, the City or PSE shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after ceasing such activities, and thereafter provide Ecology with documentation of the basis for ceasing such activities. If Ecology disagrees with the City or PSE's determination, it may direct the City or PSE to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this Order, the City or PSE's 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 this Section, for such period of time as Ecology determines is reasonable under the circumstances.

Terms and Conditions of Order1. Definitions

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

2. Public Notices

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 the Order is inadequate or improper in any respect.

3. Remedial Action Costs. PSE and the City shall pay to Ecology costs incurred by Ecology pursuant to this Order, including costs for work reviewed by Ecology prior to the effective date of this Order. These shall include the reasonable costs for work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. Ecology costs shall include reasonable costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). PSE and the City shall pay the required amount within 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 description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.

4. Designated Project Coordinators. The project coordinator for Ecology is:

John Keeling, PE  
Environmental Engineer, Toxics Cleanup Program  
Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue SE Bellevue, WA 98008-5452

The project coordinator for PSE is:

Steve Secrist  
Director Environmental Services  
Puget Sound Energy  
411 108<sup>th</sup> Ave. NE, 11th Floor  
Mailstop OBC-11N  
Bellevue, WA 98004

The project coordinator for the City is:

Ms. Sarah McKearnan  
Senior Policy Advisor  
Seattle Public Utilities  
Seattle Municipal Tower  
700 - 5<sup>th</sup> Avenue, Suite 4900  
PO Box 34018  
Seattle, WA 98124-4018

The project coordinators shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology, the City and PSE, 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 agree to minor modifications to the work plan or scope of work without formal amendments to this Order. Ecology shall approve minor modifications in writing. Should Ecology, the City or PSE change project coordinator(s), written notification shall be provided to all parties.

5. Performance. All work performed pursuant to this Order shall be under the direction and supervision, as determined by the project coordinators and as necessary, of a professional engineer or remedial specialist. Any remedial specialist must possess appropriate training, experience and expertise in sediment site investigation and cleanup, and Ecology's pre-approval. PSE and the City shall notify Ecology as to the identity of any such experts, and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement at the facility. PSE and the City 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 will be in compliance with this Order.

Except where necessary to abate an emergency situation, PSE and the City shall not perform any remedial actions within the Area of Investigation beyond those required by this Order unless

Ecology concurs, in writing, with such additional remedial actions.

6. Access. Ecology or any Ecology authorized representative shall have the authority to enter and freely move about the Area of Investigation or Uplands, to the extent owned by the City or PSE, 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 progress in carrying out the terms of this Order; conducting such tests or collecting samples in full conformity with applicable regulations as Ecology or the project coordinator 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 PSE and the City. By signing this Agreed Order, the City agrees that this Order constitutes reasonable notice of access, and the City agrees to allow Ecology access to its owned parcels within or adjacent to the facility at all reasonable times for purposes of overseeing work performed under this Order.

Ecology shall allow split and/or replicate samples to be taken by PSE or the City during an inspection unless doing so significantly interferes with Ecology's sampling. PSE and the City shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any sampling activity. All parties shall be entitled to the data on



sampling results, which shall be provided within a reasonable period of time.

The parties acknowledge that the City and PSE do not own all of the properties that compose the Area of Investigation. The City and PSE will use reasonable efforts to obtain access to the Area of Investigation to perform work in accordance with this Order.

If necessary, Ecology shall make reasonable efforts in accordance with WAC 173-340-800(8) to facilitate access for purposes of conducting remedial actions under this Order.

7. Public Participation PSE and the City shall assist in preparation and/or update of a public participation plan for the Area of Investigation. Ecology shall maintain the responsibility for public participation at the facility. PSE and the City shall help coordinate and implement public participation for the facility.

8. Retention of Records. PSE and the City shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all substantive and material reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of PSE or the City, then PSE and the City agree to include

in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

9. Dispute Resolution.

A. In the event a dispute arises as to an approval, disapproval, proposed change, or other decision or action by Ecology's project coordinator, the Parties shall utilize the dispute resolution procedure set forth below.

(1) Upon receipt of the Ecology project coordinator's decision, PSE or the City has fourteen (14) days within which to notify Ecology's project coordinator of its objection to the decision.

(2) 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.

(3) PSE or the City may then request Ecology management review of the decision. This request shall be submitted in writing to the Toxics Cleanup Section Manager with jurisdiction over the site within seven (7) days of receipt of Ecology's project coordinator's decision.

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

B. 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. Where any Party utilizes the dispute resolution process in bad faith or for purposes of delay, the other Parties may seek sanctions.

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.

10. Reservation of Rights/No Settlement. This Agreed Order is not a settlement under ch. 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against the City or PSE to recover remedial action costs paid to and received by Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement actions against the City or PSE to require those remedial actions required by this Agreed Order, provided the City and PSE comply with this Agreed Order. Neither does this Order affect the terms of the existing 1999 Consent Decree, Cause No. 99-2-52532-9SEA, filed in King County Superior Court, addressing the Uplands.

Ecology reserves the right, however, to require additional remedial actions in the Area of Investigation should it deem such actions necessary.

The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders specifically related to this Order as provided in Section VII.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the releases or threatened releases of hazardous substances in the Area of Investigation.

In the event Ecology determines that conditions in the Area of Investigation are creating or have the potential to create an imminent and significant danger to the health or welfare of the people on the facility or in the surrounding area or to the environment, Ecology may order the City and PSE to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Transference of Property. No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Area of Investigation shall be consummated by the City 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. Accordingly, relinquishment of any

leasehold interest in the Harbor Patrol DNR lease area does not alter the City's obligations under this Order.

11. Compliance with Other Applicable Laws.

A. All actions carried out by PSE and the City, on the facility 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 paragraph B of this section.

B. Pursuant to RCW 70.105D.090(1), the substantive 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 for the remedial action under this Order that are known to be applicable at the time of issuance of the Order have been included in Section IV and Exhibit B, the Work to be Performed, and are binding and enforceable requirements of the Order.

PSE and the City 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 PSE and the City 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 Ecology of this determination. Ecology shall determine whether Ecology or PSE and the City shall be responsible to contact the appropriate

state and/or local agencies. If Ecology so requires, PSE and the City 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 PSE and the City and on how PSE and the City must meet those requirements. Ecology shall inform PSE and the City in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. PSE and the City shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

Ecology shall ensure that notice and opportunity for comment is provided to the public and appropriate agencies prior to establishing the substantive requirements under this section.

C. 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 which is necessary for the State to administer any federal law, the exemption shall not apply and PSE and the City 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.

VI.

Satisfaction of this Order

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

VII.

Enforcement

1. Pursuant to RCW 70.105D.050, in the event PSE or the City refuses, without sufficient cause, to comply with any term of this Order, 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 specifically related to this Order.

C. PSE or the City, whichever shall have failed to comply, may be liable for:

(1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and

(2) civil penalties of up to \$25,000 per day for each day it refuses to comply.

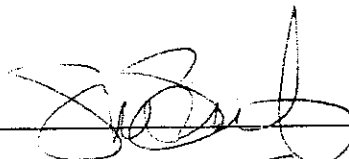
D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under Section 6 of ch. 70.105D RCW (RCW 70.105D.060).

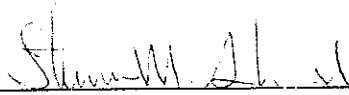


Effective date of this Order: March 18, 2005

PUGET SOUND ENERGY

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

By: 

By: 

Its Director - Enviro SCS

Its Regional Manager - TCI

CITY OF SEATTLE

By: 

Its Director of Seattle Public Utilities

EXHIBITS

- |           |   |
|-----------|---|
| EXHIBIT A | Map of Current and Former Ownership and 1999 Consent Decree (Uplands) |
| EXHIBIT B | Statement of Work   |
| EXHIBIT C | Schedule of Deliverables  |
| EXHIBIT D | Area of Investigation   |



## Exhibit B

### Statement of Work

The RI/FS for the Initial Area of Investigation will be managed as two side-by-side study areas, referred to as the Eastern Study Area and the Western Study Area. The Area of Investigation and the Eastern and Western Study Areas are depicted in Exhibit D. Puget Sound Energy (PSE) will be responsible for RI/FS activities in the Eastern Study Area. The City of Seattle (City) will be responsible for RI/FS activities in the Western Study Area. PSE and the City will coordinate their work in the two study areas to ensure that the RI/FS process is well organized, results in consistent and complimentary preferred remedial alternatives for the two study areas, and is efficient overall. PSE and the City will also work with the Department of Ecology to organize a single Public Involvement Process for the entire Area of Investigation.

### Area of Investigation

#### Area of Investigation Task 1: Public Participation Plan

PSE and the City will assist the Ecology Public Involvement Specialist in preparing and implementing a Public Participation Plan for the Area of Investigation.

### Eastern Study Area - PSE

The Schedule of Deliverables for the conduct of the tasks described below is attached hereto as Exhibit C – Eastern Study Area and incorporated by reference.

#### Eastern Study Area RI/FS Task 1: Remedial Investigation/Feasibility Study Work Plan

A work plan will be prepared for a focused Remedial Investigation/Feasibility Study (RI/FS) that meets the requirements of WAC 173-340 and WAC 173-204.

The objectives of the RI/FS Work Plan will be to provide the scope, methods and procedures for an additional phase of investigation that will: refine the conceptual site model for the Eastern Study Area, refine the extent of horizontal and vertical contamination in sediments within the Eastern Study Area, as depicted in Exhibit D and as modified pursuant to Section IV, Paragraph 2, of this agreement, caused by unrefined manufactured gas plant raw materials, products, and byproducts, and other historical activities, and further characterize geotechnical conditions in the Eastern Study Area so that remedial alternatives can be evaluated in the Feasibility Study. The RI/FS Work Plan will provide:

- A conceptual site model for the Eastern Study Area, including current conditions, potential sources, and existing regulatory framework.
- A review of existing environmental sediment data, including physical, chemical, biological, and geotechnical data.

Agreed Order & Exhibits

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- Identification of data gaps in nature and extent and remedy feasibility
- Provisions for collecting the required data.
- A sampling and analysis plan (SAP).
- A Quality Assurance Protection Plan (QAPP).
- A Health and Safety Plan (HSP)

The Work Plan will be reviewed and approved by Ecology prior to initiating field activities.

Eastern Study Area RI/FS Task 2: Implement Remedial Investigation/Feasibility Study Work Activities

The work plan developed in Task 1 will be implemented in accordance with applicable in-water work constraints and required agency permits and approvals. This includes field sampling activities and laboratory analyses.

Eastern Study Area RI/FS Task 3: Remedial Investigation/Feasibility Study Report

A RI/FS Report will be prepared that meets the requirements of WAC 173-340 and WAC 173-204.

The objectives of the RI/FS Report will be: to establish sediment cleanup standards, to determine the horizontal and vertical extent of contamination in sediments in the Eastern Study Area, as depicted in Exhibit D and as modified pursuant to Section IV, Paragraph 2, of this agreement, caused by unrefined manufactured gas plant raw materials, products, and byproducts, and other historical activities, and to identify and evaluate remedial alternatives. The RI/FS Report will include:

- Establishment of site-specific cleanup standards and/or sediment cleanup standards in general accordance with WAC 173-204-570-based criteria
- Identification of remedial alternatives, including remediation levels as appropriate. Remedial alternatives are to include, but not be limited to, institutional measures, capping, and dredging.
- Evaluation of remedial alternatives in general accordance with WAC 173-340
- Evaluation of the possibility of post-remedial sediment recontamination from both uplands and in-water sources.
- Identification of a preferred remedial alternative for the Eastern Study Area.

The Eastern Study Area RI/FS will be reviewed and approved by Ecology.

## Western Study Area - City

The Schedule of Deliverables for the conduct of the tasks described below is attached hereto as Exhibit C – Western Study Area and incorporated by reference

### Western Study Area RI/FS Task 1: Current Situation Report and RI/FS Work Plan

A work plan will be prepared for a focused Remedial Investigation/Feasibility Study (RI/FS) that meets the requirements of WAC 173-340 and WAC 173-204

The objectives of the Current Situation Report and RI/FS Work Plan will be: to provide a conceptual site model for the Western Study Area, to determine the extent of horizontal and vertical contamination in sediments within the Western Study Area, as depicted in Exhibit D and as modified pursuant to Section IV, Paragraph 2, of this agreement, caused by historical manufactured gas plant, tar refinery, and other associated activities, and to determine geotechnical constraints of the Western Study Area so that remedial alternatives can be evaluated in the Feasibility Study. The Current Situation Report and RI/FS Work Plan will provide:

- A conceptual site model for the Western Study Area, including physical setting, current conditions, historical use, potential sources, and existing regulatory framework.
- A review of existing environmental sediment data, both chemical and geotechnical.
- Identification of data gaps in nature and extent and remedy feasibility
- Provisions for collecting the required data.
- A sampling and analysis plan (SAP).
- A quality assurance protection plan (QAPP).
- A health and safety plan (HSP)

The Work Plan will be reviewed and approved by Ecology prior to initiating field activities

### Western Study Area RI/FS Task 2: Implement Remedial Investigation/Feasibility Study Work Activities

The work plan developed in Task 1 will be implemented in accordance with applicable in-water work constraints and required agency permits and approvals. This includes field sampling activities and laboratory analyses.

### Western Study Area RI/FS Task 3: Data Report

A data report will be prepared that presents an analysis of the results of field logs and laboratory analyses of the Task 2 sampling. The data report will be submitted to Ecology for review and approval. Ecology may determine, after reviewing the data report, that a supplemental investigation is necessary before execution of Task 4.

### Western Study Area RI/FS Task 4: Remedial Investigation/Feasibility Study Report

A RI/FS Report will be prepared that meets the requirements of WAC 173-340 and WAC 173-204.

The objectives of the RI/FS Report will be: to establish sediment cleanup standards and to identify and evaluate remedial alternatives. The RI/FS Report will include:

- Establishment of site-specific cleanup standards and/or sediment cleanup standards in general accordance with WAC 173-204-570-based criteria.
- Identification of remedial alternatives, including remediation levels as appropriate. Remedial alternatives are to include, but not be limited to, dredging, institutional measures and capping.
- Evaluation of remedial alternatives in general accordance with WAC 173-340.
- Evaluation of the possibility of post-remedial sediment recontamination (e.g., source control) from both uplands and in-water sources.
- Identification of a preferred remedial alternative for the Western Study Area.

The Western Study Area RI/FS will be reviewed and approved by Ecology.

## Exhibit C

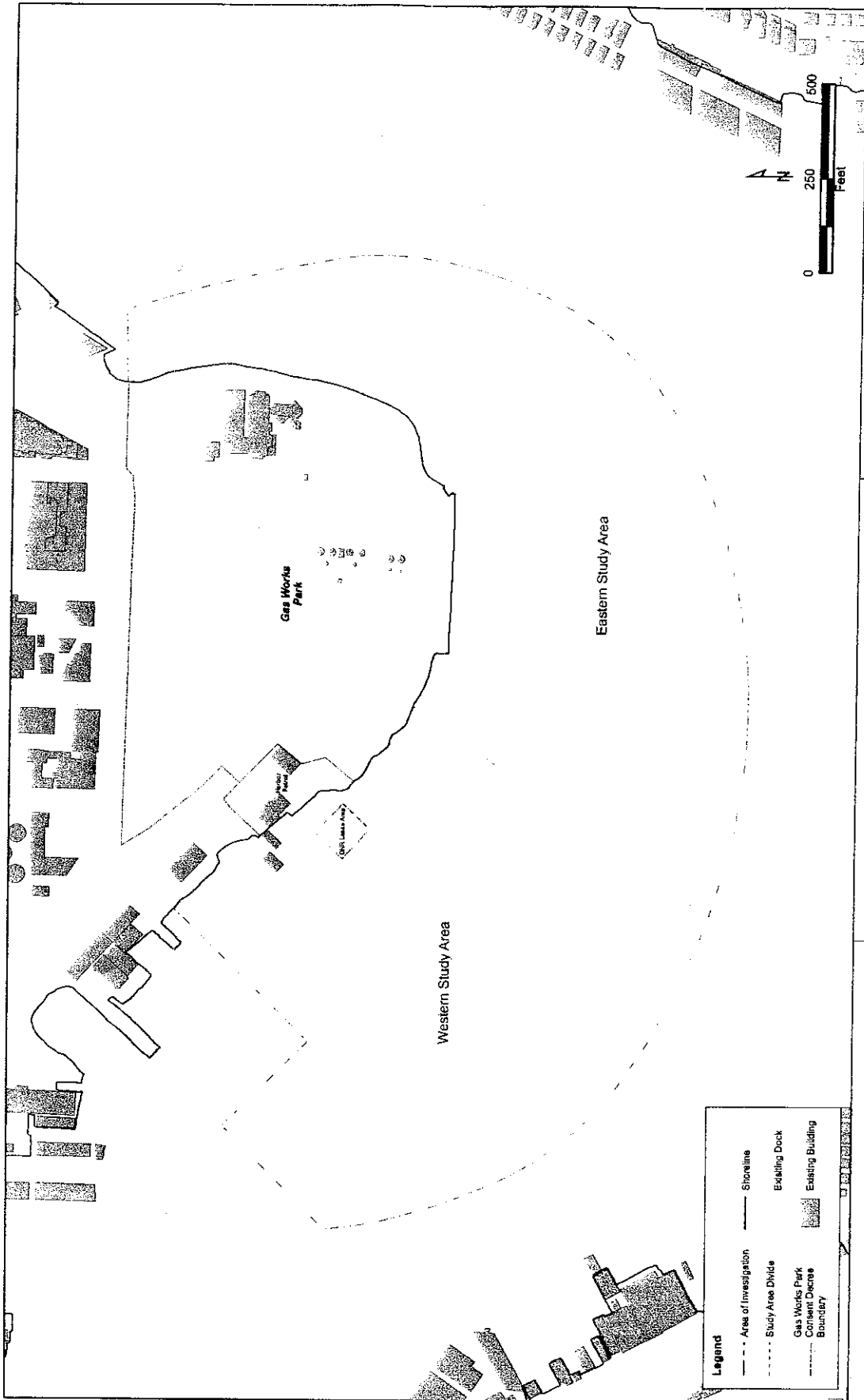
### Schedule of Deliverables Eastern Study Area - PSE

Deliverable	Due Date
Draft RI/FS Work Plan	Not later than 30 days after the Effective Date
Ecology Comments on the draft RI/FS Work Plan	Not later than 30 days following the receipt of the Draft RI/FS Work Plan, or 30 days after the effective date whichever is longer
Draft RI/FS Report	Not later than 270 days following the receipt of Ecology's comments on the draft work plan
Ecology Comments on the Draft RIFS	Not later than 45 days after receipt of the Draft RI/FS
PSE responds with written comments to Ecology's Comments on the Draft RI/FS	Not later than 30 days after receipt of Ecology's comments.
Ecology directs production of the Final Draft RI/FS	Not later than 30 days after receipt of PSE's response to Ecology's comments
Final Draft RI/FS delivered to Ecology	No later than 45 Days after Ecology orders production of the final Drat RI/FS
Public comment period	Not later than 45 days after receipt of the Final Draft RI/FS

**Exhibit C  
Schedule of Deliverables  
Western Study Area - City**

<b>Deliverable</b>	<b>Due Date</b>
Draft Current Situation Report and Work Plan	Not later than 30 days after the effective date.
Ecology's Comments on the Draft Current Situation Report and Work Plan	Not later than 30 days after the receipt of the Draft Current Situation Report and Work Plan
Final Current Situation Report and Work Plan	Not later than 60 days after receipt of Ecology's comments on the Draft Current Situation Report and Work Plan
Draft Data Report	Not later than 260 days following the receipt of Ecology's comments on the Draft Current Situation Report and Work Plan
Draft RI/FS	Not later than 270 days following receipt of Ecology's comments on the Draft Data Report
Ecology's comments on the Draft RI/FS	Not later than 45 days after receipt of the Draft RI/FS
The City responds with written comments in response to Ecology's comments on the Draft RI/FS	Not later than 60 days following the receipt of Ecology's comments
Ecology directs the production of the Draft Final RI/FS	Not later then 30 days after receipt of the City's response to Ecology's Comments.
Ecology receives the Final Draft RI/FS	Not later than 45 days after Ecology orders production of the Final Draft RI/FS
Public Comment Period	Not later than 45 days after the receipt of the Draft Final RI/FS





**Legend**

- - - - - Area of Investigation
- Study Area Divide
- Gas Works Park
- Consent Decree Boundary
- Shoreline
- Existing Dock
- Existing Building

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**Exhibit D**  
 Area of Investigation (AOI) with Dividing Line for  
 Eastern and Western Study Areas

DATE: 3/15/2013 14:44:45  
 PROJECT: Gas Works Sediment Area - Exhibit D - Rev 4.mxd