

**EXHIBIT B**  
**SCOPE OF WORK AND SCHEDULE**  
**North Boeing Field/Georgetown Steam Plant RI/FS**

**SCOPE OF WORK**

**PURPOSE**

The purpose of this RI/FS Scope of Work (SOW) for the North Boeing Field/Georgetown Steam Plant Site (the Site) is to describe the work to be carried out by the parties to the Agreed Order (AO) entered into by the Department of Ecology (Ecology) and the city of Seattle, King County, and The Boeing Company (the PLPs). The AO provides that Ecology may perform the RI/FS. The PLPs will be given the first opportunity to perform any interim actions that may be required under the AO. If the PLPs are unable to perform interim actions required under the AO, Ecology may perform interim actions and bill the PLPs for all interim action costs. The RI/FS is intended to provide sufficient data, analysis, and evaluations to enable Ecology to select a cleanup alternative for the Site. The SOW is divided into five major tasks. Tasks 1, 2, 3, & 5 may be completed by Ecology's contractor. Task 4, Potential Interim Actions will be performed by the PLPs unless they are unable to perform interim actions. If the PLPs are unable to perform interim actions, Ecology or Ecology's contractor may perform interim actions. The five SOW tasks are as follows:

Task 1. Progress Reports

Task 2. Supplemental Summary of Existing Information and Data Gaps Report and RI/FS Project Plans

Task 3. Remedial Investigation

Task 4. Potential Interim Actions

Task 5. Feasibility Study and SEPA Compliance

This SOW assumes that separate RI and FS reports will be prepared and submitted for public review. Ecology may direct the preparation of a combined RI/FS report, if project staff resources and schedules allow for preparation of a combined report.

**TASK 1. PROGRESS REPORTS**

As long as Ecology is conducting the RI/FS it shall require that its contractor(s) submit progress reports to it monthly for the duration of the RI/FS project. Ecology will request that its contractor submit progress reports to the Ecology project coordinator by the 15<sup>th</sup> of the month following the reporting month. If this day is a weekend or holiday, the progress report will be submitted to Ecology on the next business day. At a minimum, progress reports should contain the following information regarding the preceding reporting period:

- A description of the actions which have been taken to comply with the AO and SOW during the previous reporting period.

- An estimate of the percentage of RI/FS work completed to date.
- Summaries of sampling and testing reports and other data reports received.
- Summaries of deviations from approved work plans, including schedule changes.
- Summaries of contacts with representatives of the local community, public interest groups, press, and federal, state, or tribal governments.
- Summaries of problems or anticipated problems in meeting the schedule or objectives set forth in the SOW and Work Plan.
- Summaries of solutions developed and implemented or planned to address any actual or anticipated problems or delays.
- Changes in key personnel.
- A description of work planned for the next reporting period.

## **TASK 2. SUPPLEMENTAL SUMMARY OF EXISTING INFORMATION AND DATA GAPS REPORT AND RI/FS PROJECT PLANS**

### **Task 2.1 Supplemental Summary of Existing Information and Data Gaps Report**

Science Applications International Corporation (SAIC) prepared a *Summary of Existing Information and Identification of Data Gaps* report for the Site in February 2007 (Data Gaps Report). This report included information and data through mid-September 2006. Current information will be needed to determine the data gaps that need to be addressed during the RI/FS. Within sixty (60) days of signing the AO, the PLPs shall provide additional information that was not included in the Data Gaps Report. This information shall include historical or recent Site environmental monitoring data that were not included in the Data Gaps Report; a description of any past and present buildings, structures (including utility and storm drain lines) and areas on the Site that were not described in the Data Gaps Report including drawings, maps of their locations, descriptions of the activities that occurred at these locations including hazardous substances that might have been used, and potential releases of hazardous substances that might have occurred; a description of any historical or recent remedial actions taken at the Site that were not described in the Data Gaps Report; and a description of any future investigations or cleanups that have been planned for the Site.

A *Supplemental Summary of Existing Information and Identification of Data Gaps* report (Supplemental Data Gaps Report) may be prepared by the Ecology contractor, which should provide the following information:

- Historical or recent Site environmental monitoring data that was not included in the Data Gaps Report.
- A description of any past and present buildings, structures, and areas on the Site that were not described in the Data Gaps Report including maps of their locations, descriptions of the activities that occurred at these locations, including hazardous substances that might have been used, and potential releases of hazardous substances that might have occurred.

- A description of any historical or recent remedial actions taken at the Site that were not described in the Data Gaps Report.
- A description of any future investigations or cleanups that have been planned for the Site.
- Data gaps related to the objectives of the RI/FS based on available Site-related information

The purpose of the supplemental information described above and information in the February 2007 Data Gaps Report is to prepare a list of data gaps that need to be addressed as part of the RI and to identify contaminants of concern (COCs) for various Site locations and media. Ten (10) copies of the draft Supplemental Data Gaps Report are to be prepared and submitted to Ecology for review and comment. After Ecology's comments on the draft report are addressed, ten (10) copies of the final draft report are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments on the final draft report are addressed, ten (10) copies of the final report are to be prepared and submitted to Ecology for distribution. Draft, final draft and final deliverables shall also be provided electronically in Word/Excel and Adobe .pdf formats. Historical data reviewed and/or summarized during this task will not be uploaded to Ecology's Environmental Information Management (EIM) database.

## **Task 2.2 RI/FS Project Plans**

### **Task 2.2.1. RI/FS Work Plan**

To plan and manage the RI/FS, the project tasks and management strategies may be summarized in an RI/FS Work Plan (Work Plan) that will be developed and submitted to Ecology and the PLPs for review in accordance with this SOW. The Work Plan is to specify and describe all tasks to be accomplished to complete an RI/FS that meets the requirements of WAC 173-340-350 in accordance with the AO and this SOW. The Work Plan is to outline the overall technical approach, and should include, at a minimum, the following elements:

- Preliminary conceptual Site model.
- Summary of results of Data Gaps Report and Supplemental Data Gaps Report.
- Overall description of RI/FS activities.
- Project management strategy for implementing and reporting on RI/FS activities, including phasing of activities.
- Responsibility and authority of all organizations and key personnel involved in conducting the RI/FS.
- Description of individual RI/FS tasks, subtasks and interim and final deliverables.
- A plan for prioritizing the RI to prioritize investigations that focus on existing or potential contaminant releases that might recontaminate Slip 4.
- Draft outline of final RI and FS reports, including types of data evaluation, figures, and tables that will be included.

- Proposed schedule, including a timeline for completion of all RI/FS tasks, subtasks, and interim and final deliverables, including but not limited to the deliverables listed in this SOW. The objectives and anticipated content of any deliverable not listed in this SOW will also be provided.

The Work Plan is not to be implemented until approved by Ecology. Once approved by Ecology, the Work Plan may be implemented according to the schedule contained in this SOW or any schedules contained or revised in the Work Plan that are approved by Ecology. RI/FS subtasks may be developed to address the data gaps identified in the Data Gaps Report and the Supplemental Data Gaps Report prepared as Task 2.1 of this SOW. RI/FS tasks and subtasks may be developed to include, as appropriate, the following:

- Development of a conceptual Site model – Identification of potential contaminant sources, types and concentrations of hazardous substances, potentially contaminated media, and actual and potential exposure pathways and receptors.
- Analysis of applicable or relevant and appropriate requirements (ARARs) – Identification of MTCA cleanup levels, maximum contaminant levels, Sediment Management Standards, and other regulatory limits for Site COCs and other regulatory requirements for the Site.
- Determination of data quality objectives – Determination of the level of data quality needed for environmental sampling and testing and the contaminant detection limits that will be achievable and necessary to determine compliance with ARARs.
- Analysis and investigation of documented areas of contamination – Analysis of Site areas identified in the Data Gaps Report or Supplemental Data Gaps Report where environmental investigations or cleanups have been conducted, and plans for subsurface soil and groundwater investigations of Site areas that have residual contamination exceeding ARARs or that have the potential to contaminate Site stormwater.
- Investigation of suspected areas of contamination – Plans for subsurface soil and groundwater investigations of Site areas that are suspected to be contaminated on the basis of information in the February 2007 Data Gaps Report or the Supplemental Data Gaps Report prepared for Task 2.1 of this SOW.
- Analysis and investigation of stormwater system – Plans for sampling and testing of Site stormwater and sediments to trace sources of contaminants into the stormwater system; analysis of stormwater system historical maps and recent inspections to identify abandoned or damaged piping or structures that might be allowing contaminants to enter into the system; plans for subsurface soil and groundwater sampling and testing of areas that are suspected to be sources of contaminants into the stormwater system.
- Analysis and investigation of contaminated joint sealant material – Analysis of contaminated joint sealant sampling and testing, removal, and replacement; analysis of replacement joint sealant that has become recontaminated to determine the mechanism for recontamination; plans for sampling and testing concrete associated with contaminated joint sealant; analysis of airport sweeping data to evaluate impacts of joint sealant removal and replacement on contaminant

- concentrations; plans for sampling and testing remaining contaminated joint sealant and associated concrete for leachability and weathering to determine if these materials might continue to be a source of stormwater contamination.
- Analysis and investigation of building coatings, caulk, and roofing materials – Analysis of coatings, caulk, and roofing materials on buildings and structures on the Site to determine if these materials contain contaminants that might be released to stormwater; plans for sampling and testing these materials for the presence of contaminants and for the potential release of these contaminants to stormwater.
  - Other field investigations, as appropriate.
  - Phasing of RI tasks to prioritize investigations that focus on existing or potential contaminant releases that might recontaminate Slip 4.
  - Data evaluation.
  - Terrestrial ecological evaluation.
  - RI Report.
  - Remedial alternatives development and screening.
  - Detailed analysis of alternatives.
  - FS Report.

Ten (10) copies of the draft RI/FS work plan are to be prepared and submitted to Ecology for review and comment. After Ecology's comments on the draft work plan are addressed, ten (10) copies of the final draft work plan are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments on the final draft work plan are addressed, ten (10) copies of the final work plan are to be prepared and submitted to Ecology for distribution. Draft, final draft, and final work plan deliverables shall also be provided electronically in Word/Excel and Adobe .pdf formats.

### **Task 2.2.2 Other Project Plans**

Pursuant to WAC 173-340-350(7)(c)(iv), a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) is to be prepared and submitted for review by Ecology and the PLPs. A Health and Safety Plan (HSP) may also be prepared and submitted but will not be subject to Ecology or PLP review.

#### ***Sampling and Analysis Plan***

A SAP for RI sampling and analysis activities is to be prepared in accordance with WAC 173-340-820. The purpose of the SAP is to describe the sample collection, handling, and analysis procedures to be used in the RI sampling program, such that the information obtained will meet the data needs identified in the Work Plan. The SAP should describe the sampling objectives and the rationale for the sampling approach. A detailed description of sampling tasks may then be provided, including specification for sample identifiers; the type, number, and location of samples to be collected; contingency measures if samples cannot be collected or if insufficient sample volumes are obtained; the analyses to be performed; descriptions of sampling equipment and collection methods

to be used; and descriptions of sample documentation and sample containers, collection, preservation and handling.

### ***Quality Assurance Project Plan***

A QAPP for RI sampling and analysis activities is to be prepared. The QAPP will identify and describe measures that will be taken during the performance of all sampling and analysis tasks to ensure the fulfillment of data quality objectives. Data quality objectives will reflect the criteria or threshold values used for remedial decisions. The QAPP will include the following elements:

- A brief project description, referencing the Work Plan and/or SAP for details.
- Project personnel and QA responsibilities.
- Quality assurance objectives, including precision, accuracy, and level of data validation.
- Field QA measures, including sample acceptability criteria, field QA samples, and calibration of field instruments, referencing the SAP for a discussion of decontamination procedures and sample custody and handling.

An Ecology accredited laboratory, accredited for the specific analyses to be performed under this AO, will be used. If an unaccredited lab is proposed to be used, the results of recent performance audits and systems audits will be provided to Ecology prior to use of the lab.

### ***Health and Safety Plan***

An HSP for RI activities is to be prepared in accordance with WAC 173-340-810. The HSP must be consistent with the requirements of the Washington Industrial Safety and Health Act of 1973, chapter 49.17 RCW, including any updates or amendments. The HSP should identify specific monitoring and management responsibilities and activities to ensure the protection of human health during the conduct of activities associated with the RI.

Ten (10) copies of the draft SAP and draft QAPP are to be prepared and submitted to Ecology for review and comment. After Ecology's comments on the draft SAP and QAPP are addressed, ten (10) copies of the final draft SAP and final draft QAPP are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments are addressed, ten (10) copies of the final SAP and final QAPP are to be prepared and submitted to Ecology for distribution together with ten (10) copies of the final HSP. Draft, draft final, and final SAP and QAPP shall also be provided electronically in Word/Excel and Adobe .pdf formats.

### **TASK 3. REMEDIAL INVESTIGATION**

An RI that meets the requirements of WAC 173-340-350(7) is to be conducted according to the Work Plan as approved by Ecology. The RI will determine the nature and extent of

contamination exceeding MTCA cleanup levels, maximum contaminant levels, Sediment Management Standards, and other regulatory requirements, and will provide sufficient data and information for Ecology to select a final remedy for the Site. The RI will be phased to prioritize investigations that focus on existing or potential contaminant releases that might recontaminate Slip 4. The RI will include, as appropriate, the following elements:

- Subsurface sampling and testing of soil and groundwater in Site areas with confirmed or suspected soil or groundwater contamination that exceeds ARARs or has the potential to contaminate stormwater.
- Identification and location of abandoned or damaged stormwater piping, abandoned piping conduits, subsurface debris, and structures that might be pathways for contamination of stormwater.
- Sampling and testing of stormwater and sediments before and after system cleaning to locate sources of contaminants into the stormwater system.
- Sampling and testing of joint sealant material for the presence of contaminants and for susceptibility to weathering and leaching; sampling and testing of concrete associated with contaminated joint sealant to evaluate potential contamination because of leaching of contaminants from joint sealant material and, if needed, for susceptibility to weathering and leaching; sampling and testing of exposed surfaces in areas where joint sealant has been removed to evaluate residual contamination and susceptibility to weathering and leaching.
- Sampling and testing of solids from airport sweeping.
- Sampling and testing of coatings, caulk, and roofing materials on buildings and structures for the presence of contaminants and for the potential release of contaminants to stormwater.
- Preparation and submittal of interim data reports and updates as new Site data and information become available.

Ecology will be informed of changes to the Work Plan and other project plans and of issues and problems as they develop during the RI. Ecology and the PLPs may verbally agree to minor changes to the work to be performed without formally amending the AO. Minor changes will be documented in writing by Ecology. Major changes to the work, as determined by Ecology, will be addressed in accordance with Section VIII.I of the AO.

The results of the Site investigation are to be compiled into an RI report. Ten (10) copies of the preliminary draft RI report are to be prepared and submitted to Ecology for review and comment. After Ecology's comments on the preliminary draft report are addressed, ten (10) copies of a second preliminary draft RI report are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments on the second preliminary draft report are addressed, ten (10) copies of a draft RI report are to be prepared and submitted to Ecology for distribution and public comment. Preliminary draft and draft deliverables shall also be provided electronically in Word/Excel and Adobe .pdf formats.

The draft RI report is to be presented at one public meeting or hearing. After the public comment period is completed, a draft responsiveness summary is to be prepared that addresses public comments and a revised draft RI report is to be prepared. Ten (10) copies of the draft responsiveness summary and revised draft RI report are to be prepared and submitted to Ecology for review and comment. After Ecology's comments are addressed, ten (10) copies of a final draft responsiveness summary and final draft RI report are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments are addressed, ten copies of the final responsiveness summary and final RI report are to be prepared and submitted to Ecology for distribution. Revised draft, final draft, and final deliverables shall also be provided electronically in Word/Excel and Adobe .pdf formats. In addition, RI-generated analytical data will be uploaded to Ecology's Environmental Information Management (EIM) database.

#### **TASK 4. POTENTIAL INTERIM ACTIONS**

Remedial actions implemented prior to completion of the RI/FS will be considered interim actions, will be implemented in accordance with WAC 173-340-430 and the AO, and will be designed in a manner that will not foreclose reasonable alternatives for any final cleanup action that may be required.

If an interim action is identified by Ecology that needs to be implemented prior to completion of the RI/FS, the PLPs will be given the first opportunity to perform the interim action. If the PLPs are unable to perform identified interim actions, Ecology may perform interim actions and bill the PLPs for all interim action costs.

Interim action work plans and reports will be prepared and submitted for review in accordance with the AO. Upon successful completion of the work, an Interim Action Report will be prepared as a separate deliverable. Interim action deliverables shall be submitted in hard copy and provided electronically in Word/Excel and Adobe .pdf formats.

The scope of the interim actions may include, but not be limited to, typical source control or containment elements such as:

- Soil removal.
- Groundwater remediation
- Repair, slip lining, replacement, or closure of stormwater piping or other structures such as conduit, vaults, catch basins, etc.
- Performance and/or confirmation sampling
- Removal of joint sealant material
- Removal of contaminated building or other structural material
- Construction of an interim or final treatment facility

## **TASK 5. FEASIBILITY STUDY AND SEPA COMPLIANCE**

### **Task 5.1 Feasibility Study**

The information obtained in the RI is to be used to conduct an FS that meets the requirements of WAC 173-340-350(8) according to the Work Plan as approved by Ecology. The FS is to include the following elements:

- Determination of cleanup standards and applicable laws.
- Identification and screening of cleanup technologies.
- Basis for assembly of cleanup action alternatives.
- Description of cleanup alternatives.
- Comparative evaluation of cleanup alternatives in accordance with WAC 173-340-360.

The results of these analyses are to be compiled into an FS report. Ten (10) copies of the preliminary draft FS report are to be prepared and submitted to Ecology for review and comment. After Ecology's comments on the preliminary draft report are addressed, ten (10) copies of a second preliminary draft FS report are to be prepared and submitted to Ecology for distribution to the PLPs. After Ecology's comments on the second preliminary draft FS report are addressed, ten (10) copies of a draft FS report are to be prepared and submitted to Ecology for distribution and public comment. Preliminary draft and draft deliverables shall also be provided electronically in Word/Excel and Adobe.pdf formats.

The draft FS report and SEPA evaluation are to be presented at one public meeting or hearing, in conjunction with the SEPA evaluation (see Task 4.2 below). After the public comment period is completed, a draft responsiveness summary is to be prepared to address public comments and a preliminary draft final FS report is to be prepared. Ten (10) copies of the draft responsiveness summary and preliminary draft final FS report are to be prepared and submitted to Ecology for review and comment. After Ecology's comments are addressed, ten (10) copies of the draft final responsiveness summary and draft final FS report are to be prepared and submitted to Ecology for distribution to the PLPs for review and comment. After the PLPs' comments are addressed, ten (10) copies of the final responsiveness summary and final FS report are to be prepared and submitted to Ecology for distribution. Preliminary draft, draft and final deliverables shall also be provided electronically in Word/Excel and Adobe .pdf formats.

### **Task 5.2 SEPA Compliance**

The RI/FS must comply with the State Environmental Policy Act (SEPA) Rules including preparation and circulation of an environmental checklist, making a threshold determination, and issuing a determination of nonsignificance (DNS) or determination of significance (DS). If it is necessary to issue a DS, draft and final environmental impact

statements must be prepared under a separate Scope of Work to be prepared by Ecology. SEPA public involvement requirements must be coordinated with MTCA public involvement requirements whenever possible, such that public comment periods and meetings or hearings can be held concurrently.

The SEPA evaluations are to be presented at one public meeting or hearing in conjunction with the draft FS report (see Task 4.1 above) and any additional presentations at separate meetings or hearings that might be required for SEPA compliance. Preliminary draft, draft, revised draft, final draft, and final environmental checklists are to be prepared and submitted concurrently with the deliverables described in Task 4.1.

### SCHEDULE

A general schedule for deliverables for this SOW is presented below. If a deliverable is due on a weekend or holiday, the deliverable will be submitted on the next business day. For deliverables that may be prepared by Ecology, Ecology may extend dates or otherwise modify this schedule at its discretion. The schedule for the preliminary draft RI report may be revised depending on the phasing of tasks as described in the work plan, A more detailed project schedule will be prepared as part of Task 2.2.1.

<b>RI/FS Deliverables</b>	<b>Completion Times</b>
Task 1. Progress Reports	15 <sup>th</sup> of every month beginning the first full month after execution of the work order with Ecology's contractor
Task 2.1 Draft Supplemental Summary of Existing Information and Data Gaps Report	60 calendar days after receiving supplemental Site information from PLPs
Task 2.1 Final Draft Supplemental Summary of Existing Information and Data Gaps Report	15 calendar days after receiving review comments from Ecology
Task 2.1 Final Supplemental Summary of Existing Information and Data Gaps Report	15 calendar days after receiving review comments from the PLPs
Task 2.2.1 Draft RI/FS Work Plan	120 calendar days after completing the final Supplemental Data Gaps Report
Task 2.2.1 Final Draft RI/FS Work Plan	30 calendar days after receiving review comments from Ecology
Task 2.2.1 Final RI/FS Work Plan	30 calendar days after receiving review comments from the PLPs
Task 2.2.2 Draft SAP and QAPP	60 calendar days after completing the final RI/FS Work Plan
Task 2.2.2 Final Draft SAP and QAPP	15 calendar days after receiving review comments from Ecology
Task 2.2.2 Final SAP, QAPP, and HSP	15 calendar days after receiving review comments from the PLPs

Scope of Work and Schedule, North Boeing Field/Georgetown Steam Plant RI/FS  
 July 3, 2008

Task 3 Preliminary Draft RI Report	300 calendar days after completing the final SAP and QAPP and HSP
Task 3 Second Preliminary Draft RI Report	30 calendar days after receiving review comments from Ecology
Task 3 Draft RI Report	30 calendar days after receiving review comments from the PLPs
Task 3 Draft Responsiveness Summary and Revised Draft RI Report	30 calendar days after completion of the public comment period
Task 3 Final Draft Responsiveness Summary and Final Draft RI Report	15 calendar days after receiving review comments from Ecology
Task 3 Final Responsiveness Summary and Final RI Report	15 calendar days after receiving review comments from the PLPs
Task 4. Interim Action Work Plans and Reports	To be determined by Ecology
Task 4. Final Interim Action Report	To be determined by Ecology
Task 5 Preliminary Draft FS Report and Draft Environmental Checklist	90 calendar days after completion of the RI Report
Task 5 Second Preliminary Draft FS Report and Revised Draft Environmental Checklist	30 calendar days after receiving review comments from Ecology
Task 5 Draft FS Report and Draft Environmental Checklist	30 calendar days after receiving review comments from the PLPs
Task 5 Draft Responsiveness Summary, Revised Draft FS Report, and Revised Draft Environmental Checklist	30 calendar days after completion of the public comment period
Task 5 Final Draft Responsiveness Summary, Final Draft FS Report, and Final Draft Environmental Checklist	15 calendar days after receiving review comments from Ecology
Task 5 Final Responsiveness Summary, Final FS Report, and Final Environmental Checklist	15 calendar days after receiving review comments from the PLPs