

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

COPY

FS 1019

In the Matter of Remedial Action by: )  
 )  
Port of Ridgefield ) **AGREED ORDER**  
111 W Division Street ) No. 01TCPSR-3119  
Ridgefield, WA 98642 )

TO: Port of Ridgefield

I.  
JURISDICTION

This Agreed Order ("Order") is issued pursuant to the authority of RCW 70.105D.050(1).

II.  
FINDINGS OF FACT

Ecology makes the following Findings of Fact, without admission of such facts by the Port of Ridgefield (Port)

1. The former Pacific Wood Treating (PWT) facility (Site) is located at 111 West Division Street in Ridgefield, Washington. It is bounded to the east by the Burlington Northern Railroad and to the west by Lake River. North of the Site is the Ridgefield National Wildlife Refuge (Refuge) and Carty Lake. To the south lies the Ridgefield Marina. The City of Ridgefield sewage treatment plant is within the Site boundaries.

Figure 1 (attached) shows the Site in relation to its surroundings. Figure 2 (attached) is a map showing the Site's features and building's names. The Site is currently known as the Lake River site, but shall be referred to as the PWT Site in this Order for consistency in Site file documentation.

2. The Site consists of approximately 41 acres of paved and unpaved areas. The Site has been surveyed. For purposes of the Order, the Site has been divided into four (4) Cells as illustrated in Figure 3. Cell 1 is comprised of the former tank farm area (i.e., the former tank farm, retorts, and drip pad); Cell 2 the main plant fabrication area and the southern portion of the former North Pole Yard (NPY); Cell 3 the former South Pole Yard (SPY) which was the area used to store/stage treated wood; and Cell 4 the remainder of the NPY which was formerly used to store/stage untreated wood. This Order addresses all four (4) Cells. It is the intent of the Port to return this Site to a usable condition as soon as possible. The Site will continue to be used for industrial purposes in the short term. However, the Port is in the process of finalizing a Master Plan which may influence future use of the Site.

3. The PWT Corporation used wood preservatives at its facility from 1964 to 1993. PWT pressure-treated specialty wood products with oil-based treatment solutions containing various hazardous constituents such as creosote, pentachlorophenol (PCP), and CCA (a copper, chromium, and arsenic mixture). PWT ceased wood treating operations in 1993, when the company declared bankruptcy.

The Port leased 24 acres to PWT and following PWT's bankruptcy purchased an additional 11 acres. The Port is an "owner or operator" as defined at RCW 70.105D.020(11) of a "facility" as defined in RCW 70.105D.020(4).

4. Union Pacific Railroad (UP) owns an approximately two-acre parcel along the eastern

Y9103  
COPY

side of the SPY portion of the Site (UP Property). UP leased its property to PWT beginning in the early to middle 1970's. PWT treated wood on the UP Property in a steel dip trough from 1988 to 1993 using treating solutions containing pentachlorophenol (PCP), petroleum hydrocarbons, and copper/chrome/arsenic (CCA).

5. The City of Ridgefield (City) owns an approximately 0.5-acre parcel in the former tank farm area. The City leased its property to PWT beginning in the 1960s. Wood treating chemicals were stored on the City property and were used to treat wood using solutions containing PCP, petroleum hydrocarbons, and CCA.

6. Releases of hazardous constituents occurred at and/or from the PWT facility, including the UP and City Property in the past in various ways including drippage of treatment solutions onto the ground; spills of creosote or treatment solutions onto the ground; spills of granular PCP and stored wastewater onto the ground; and the discharge and/or leakage of wastewater, stormwater runoff, and spilled/leaked materials from the buried drain systems carrying them.

7. Past waste disposal methods used on-site at the PWT facility have included an unlined surface impoundment (now covered over); a buried french drainage system routed toward Lake River; and on-site sludge incineration. Stormwater runoff from the surface at the Site was and is currently collected and discharged through four outfalls into Lake River.

8. In August 1984, the United States Environmental Protection Agency (EPA), pursuant to its authority under the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6901 et seq., required PWT to submit a complete closure plan for the facility. A closure plan was submitted by PWT to the Department of Ecology (Ecology) in November 1984. In June 1985, PWT contracted with Sweet-Edwards to conduct a groundwater study at the PWT facility. The study identified two aquifers beneath the PWT Site; a shallow water table aquifer in the recent alluvium and Troutdale formation, and a deeper semi-confined aquifer in the Troutdale formation. Groundwater monitoring during that study showed that PCP was present in both aquifers at levels above EPA's Maximum Contaminant Level (MCL), which at that time was 220 ug/L (ppb). (The EPA MCL is now 1 ug/L.) Other contaminants detected in the groundwater during the study include benzene, trichloroethylene, tetrachloroethylene, and polycyclic aromatic hydrocarbons. Past data had shown some PCP contamination in the Ridgefield water supply, including the town-owned wells 4 and 5, located less than 250 feet east of the Site. PWT leased wells 4 and 5, and took them off-line.

9. In January 1989, Ecology completed a Class II inspection report of stormwater runoff at PWT. Substantial concentrations of PCP, PAHs, and metals were detected in PWT surface runoff, on-site sediment catch basins, and some near-field sediments. The on-site catch basin sediments were highly contaminated with PAHs.

10. A RCRA Preliminary Assessment was conducted by the EPA in 1990. The final report, dated February 1991, identified ten waste management areas as needing further characterization of the extent of contamination. Hart Crowser conducted a Phase II Site Investigation (1991) to investigate contamination in the areas of concern. Some of the findings of the Hart Crowser report were PCP concentrations in soil up to 1900 ppm in the South Pole Yard, and up to 13,000 ppm in the area of the granular PCP spill. It was found that the large creosote storage tank (100,000 gallons) was not resting upon a concrete slab, but had concrete poured

around the base of the tank, thereby potentially allowing creosote leakage into soils underneath the tank. Contamination was confirmed at all ten areas of concern

11. EPA issued an Administrative Agreed Consent Order (#1091-04-09-7003/106), signed on September 1, 1991. This order directed PWI to complete a thorough site characterization workplan and report of results, conduct interim measures if PWI identified an immediate threat to human health or the environment during the investigation, conduct an analysis of long-term corrective measures, and implement EPA-approved corrective measures. Hart Crowser, on behalf of PWI, was contracted to develop a RCRA Facility Investigation (RFI) Site Characterization Workplan, as per the order. The workplan was executed by Kleinfelder and results of the RFI were presented in a data summary report.

12. PWI and its parent company Niedermeyer-Martin declared bankruptcy in August 1993. The president of PWI, Edward Niedermeyer, also declared bankruptcy and is now deceased.

13. EPA conducted a Site Assessment in June and July 1995 (report from Ecology and Environment, dated March 1996). The investigation confirmed previous reports of contamination. Nineteen boreholes were drilled as part of monitoring well installation. A one-foot layer of free product was found in a monitoring well near the tank farm. Groundwater in eleven of twelve wells installed was contaminated by PCP. A preliminary Human Health and Ecological Risk Assessment identified potential risks to human health and the environment through several exposure pathways.

14. A settlement agreement was proposed between the EPA, Ecology, and the trustees of the PWI/Niedermeyer-Martin bankruptcy estates. A percentage of the estate's proceeds went to EPA (or its agent), Ecology, and to the US Department of the Interior, to be used for conducting cleanup activities and for natural resource damage assessment and restoration. The total approximate recovery from both debtors' settlements is 1.8 million dollars.

15. At the Port's request, and with concurrence from the EPA, oversight responsibility for the cleanup of the Site was transferred to Ecology.

16. A previous Agreed Order – No. DE96IC-S304 – was signed by the Port and Ecology during September 1996, pursuant to Ecology's authority under the Model Toxics Control Act, Ch. 70.105D RCW. The purpose of the previous Order was to conduct interim actions as recommended in previous studies and to address the most highly contaminated area of the Site – the tank farm area. The Order required the Port to 1) address the stormwater system and contaminants leaving the Site via the outfalls; 2) remove/demolish tanks, retorts, ancillary equipment, chemicals and hazardous wastes, and the concrete containment wall in the former tank farm area; 3) characterize soil and groundwater in the former tank farm area and address free product if necessary; 4) clean up impacted soil from a historic granular pentachlorophenol spill; and 5) assess recommendations from previous PWI Site studies. While the majority of the previous Order work requirements have been met, some items remain ongoing. To the extent that any terms or actions under the earlier Agreed Order (DE96IC-S304) remain unresolved, this Agreed Order supersedes the earlier Agreed Order.

17. Consistent with the five tasks in Agreed Order DE96IC-S304, the Port has completed the following activities: 1) The Port upgraded and replaced a significant portion of the drainage network associated with Outfall 003 to provide capacity for runoff from the NPY and provide for additional sedimentation. The Port

removed solids from the entire drainage network between 1996 and 1998 and then once again during February 2000. 2) Between the Fall of 1996 and the Fall of 1997, the Port demolished the former PWT tank farm area. Demolition included the removal and disposition of all chemicals, former tanks, retorts, piping, ancillary equipment and concrete containment. In all, the Port removed 100 tons of solid and 4,500 gallons of hazardous waste, and 158,000 gallons of wood treating chemicals left by PWT. 3) The Port characterized the extent of light non-aqueous phase liquids (LNAPL) associated with releases from the former tank farm area and assessed potential impacts to the deep aquifer beneath the site. The results of this characterization work were provided to Ecology, during meetings convened in June and September 1998; March, May, and September 1999; and January 2000. The Port also completed a Site-wide assessment of potential source areas of soil and groundwater contamination. 4) The granular PCP spill and accessible soil impacted by the spill was removed by Port personnel during July 1998. 5) The recommendations of previous consultants were reviewed by the Port, and a summary of the review was submitted to Ecology on March 31, 1997.

18. Site characterization work completed by the Port shows that severe soil and groundwater contamination has resulted from historic spills and releases originating in the vicinity of the former PWT tank farm area. In the former tank farm area, impacts extend from the ground surface into groundwater and have migrated downward to a depth of greater than 60 feet. LNAPL has migrated on and in groundwater towards the Refuge. Ecology determined that contamination associated with the former tank farm area poses an imminent threat to the Refuge.

19. Before Agreed Order No. DE96TC-S304 was finalized in September 1996, the Port and Ecology began discussing options for addressing contamination associated with the former tank farm area. Based on the magnitude of the contamination and the nature of the chemicals, Ecology proposed the use of steam enhanced remediation to remove mobile NAPL originating from the former tank farm area. The Port and Ecology have been moving forward with evaluation, design, and implementation of a steam-based remediation system since late 1997.

20. Funding is mutually recognized by Ecology and the Port as the most significant factor in determining the performance, timing, and staging of the steam remediation project. In the interest of moving the steam enhanced remediation project forward, the Port has: 1) characterized the extent of LNAPL in the former tank farm area and between the former tank farm area and the Refuge; 2) selected a steam remediation service provider through a public bid process; 3) developed a steam remediation system conceptual design; and 4) prepared the Final - Steam Enhanced Remediation of the Port of Ridgefield Lake River Industrial Site (Former Pacific Wood Treating Corporation Facility), Conceptual Design and Schedule, dated July 2000 (Conceptual Design). Ecology reviewed and accepted the Conceptual Design (provided a few comments/questions were addressed) in July 2000.

21. The Conceptual Design separated implementation of steam enhanced remediation into two phases. The performance goals of both phases are listed in the Conceptual Design. Phase 1 is included under this Order, and is known as the "emergency action and optimization phase". As stated in the Conceptual Design, the performance goals of Phase 1 are to: 1) establish hydraulic control near the Refuge; 2) begin removal of NAPL along the axis of the contaminant plume in the former tank farm area and between the former tank farm area and the Refuge and; 3) evaluate the design to optimize well spacing, extraction strategy, and the effluent

treatment system. Phase 2 is the full-scale implementation of the steam enhanced soil and groundwater remediation system. The performance goals of Phase 2 are to 1) remove NAPL from within the area occupied by the LNAPL plume (see Figure 4), and 2) provide for long-term protection of the Refuge, soil and groundwater. Phase 2 will be performed pursuant to an amendment to this Order, a separate Agreed Order, or a separate Consent Decree and is subject to the procurement of necessary funding under terms and conditions acceptable to Ecology and the Port.

22. The interim/emergency action (see Section IV) will occur primarily in the former tank farm area of Cell 1 and groundwater of Cell 2 (see Figure 3). Ecology acknowledges that the Port's Master Plan will propose a prioritization of site development activities, and identify suitable options for developing the site that considers environmental threat. At this point in time, it is projected that remediation of soil source areas in Cell 2 and Cell 3 will occur after, or concurrently with, the interim/emergency action, followed by remedial work in Cell 4.

23. Ecology and the Port mutually recognize that addressing the NAPL present in the former tank farm area and between the tank farm area and the Refuge, is the immediate priority for site characterization, remediation, and funding efforts. Additionally, Ecology and the Port agree that, to the maximum extent practicable given site considerations, other potential source areas of soil contamination will be identified at the Site, consolidated into the former tank farm area, and remediated using the steam process.

24. Ecology and the Port acknowledge that, a remedial investigation and feasibility study (RI/FS) will be conducted for the Site concurrently with the interim/emergency actions. The RI/FS shall be conducted for all or for each cell(s) individually. If a remedial action(s) is/are warranted within a Cell based on the RI/FS, it will be conducted consistent with provisions of this Order, pursuant to an amendment to this Order, or under a separate Agreed Order or Consent Decree.

25. Ecology recognizes that interim/emergency remedial actions conducted within a Cell may meet applicable cleanup requirements before environmental concerns are addressed across the entire Site. At the Port's request, and upon Ecology's determination that the characterization of soil and groundwater and any necessary interim remedial actions for a Cell have been completed in compliance with the Cell(s) approved RI/FS/Cleanup Action Plan, that no further remedial action is necessary in the Cell, and that applicable cleanup standards have been met, Ecology may delete the Cell in compliance from the Site. Ecology shall only make this determination through a separate Agreed Order or Consent Decree and only after public notice and an opportunity to comment.

26. Cleanup of the Site is being conducted under the Model Toxics Cleanup Act (MTCA) with formal Ecology oversight. Interim/emergency action remediation of the former tank farm area is needed because wood-treating chemicals have been detected in the Refuge and free-product has been measured on top of the shallow water table below the former tank farm. The purpose of this Order is to 1) conduct Phase 1 of an interim/emergency action to remove mobile free product (NAPL) from the axis of the LNAPL plume (see Figure 4) and reduce the risk of further contaminant migration to the Refuge and groundwater beneath the site; 2) remove free product, soil and groundwater contamination from the most highly contaminated portions of Cell 1 and Cell 2; 3) continue work to improve stormwater quality, 4) demolish structures/buildings as needed to make the site more accessible for characterization and remediation work in support of the interim/emergency action; and 5) conduct and prepare a Remedial Investigation/Risk Assessment/Feasibility Study of the Site.

27 Ecology certifies that the Phase 1 steam enhanced soil and groundwater remediation facility described in the Ecology-approved Conceptual Design, is being designed and constructed for the purpose of abating, controlling or preventing pollution in accordance with RCW 70.95A 100.

### III.

#### ECOLOGY DETERMINATIONS

1. The Port of Ridgefield is an "owner or operator" as defined at RCW 70.105D.020(11) of a "facility" as defined in RCW 70.105D.020(4).

2. The facility, which consists of approximately 41 acres of property owned by the Port, the City and UP is known as the former Pacific Wood Treating (PWT) site (Site) and is located at 111 West Division in Ridgefield, Washington.

3. The substances found at the Site as described above are "hazardous substances" as defined at RCW 70.105D.020(7).

4. Based on the presence of these hazardous substances at the Site and all factors known to Ecology, there is a release or threatened release of hazardous substances from the Site, as defined at RCW 70.105D.020(19).

5. By a letter dated July 15, 1996, Ecology notified the Port of Ridgefield of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity for comment. By a letter of August 6, 1996 the Port of Ridgefield waived its rights to notice and comment and accepted Ecology's determination that the Port of Ridgefield is a "potentially liable person" under RCW 70.105D.040.

6. By a letter dated April 3, 1997, Ecology notified the City of Ridgefield of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity for comment. By a letter dated August 29, 1999, the City of Ridgefield was informed that the thirty-day comment period on the preliminary notice expired on May 6, 1997. The letter stated that Ecology had received no comments from the City regarding the proposed status and that, "Based on the information available to date, Ecology finds that credible evidence exists which supports your [the City] status as a potentially liable person under RCW 70.105D.040"

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. The threat of the LNAPL plume migrating into the Refuge warrants an interim/emergency action consistent with WAC 173-340-430(1)(b), and an essential component of the interim/emergency action is to address NAPL in the source area (i.e., the tank farm area).

9. Consistent with WAC 173-340-430(3)(a), Ecology has determined that the use of a steam enhanced soil and groundwater remediation system within the area of the LNAPL plume (see Figure 4) is appropriate and warranted given the nature of the chemicals, the extent of the contamination, the presence of non-aqueous phase liquids, and the imminent threat posed to the Refuge.

10. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

#### IV.

#### WORK TO BE PERFORMED

Based on the foregoing Facts and Determinations, it is hereby ordered that the Port of Ridgefield perform the following activities and that these activities be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein

The activities described in this Order are being performed under an Ecology Remedial Action Grant, demonstrating both Ecology's and the Port's support for site cleanup and its beneficial reuse for commercial and/or industrial purposes (i.e., a "brownfields" redevelopment)

The activities in this Order are designed to remediate the potential risks posed to human health and the environment from the Site and reduce the threat to the adjoining Ridgefield National Wildlife Refuge, Lake River, and their sediments. Specifically, work to be performed includes, but is not limited to: 1) conduct Phase 1 of an interim/emergency action to remove mobile free product (NAPL) from the axis of the LNAPL plume (see Figure 4) and reduce the risk of further contaminant migration to the Refuge and groundwater beneath the site; 2) remove free product, soil and groundwater contamination from the most highly contaminated portions of Cell 1 and Cell 2; 3) continue work to improve stormwater quality; 4) demolish structures/buildings as needed to make the site more accessible for characterization and remediation work in support of the interim/emergency action; and 5) conduct and prepare a Remedial Investigation/Risk Assessment/Feasibility Study of the Site.

Based on the foregoing Facts and Determinations, it is hereby ordered that the Port conduct remedial activities at the Site according to the requirements of this Order. In order to carry out the remedial actions required under this Order, the Port shall produce the reports and carry out the activities specified in this section. All activities shall be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein.

#### **1. INTERIM/EMERGENCY ACTION/ENGINEERING DESIGN REPORT**

Within 90 days of the effective date of this Order, the Port shall prepare a draft Interim/Emergency Action/Engineering Design Report for the Phase 1 implementation of the steam enhanced soil and groundwater remediation system (draft Phase 1 Design Report). The draft Phase 1 Design Report will include the necessary information to construct Phase 1 of the steam enhanced remediation system described in the July 2000 Conceptual Design. This draft Phase 1 Design Report shall be prepared by or under the direct supervision of a registered professional engineer. The final Phase 1 Design Report shall incorporate any revisions required by Ecology in response to the draft design and shall be submitted in accordance with WAC 173-340, Sections 400, 410, and 430. Those items that were completed as part of the July 2000 Conceptual Design may be incorporated into the Phase 1 Design Report by reference consistent with WAC 173-340-400(4). The draft Interim/Emergency Action/Engineering Design Report shall include, but is not limited to, the following items:

- a An introduction including a statement of the goals of the interim/emergency cleanup action with specific cleanup or performance requirements; a summary of general information and information from the previous Site characterizations updated as needed to reflect current Site conditions; identification of who will own, operate, and maintain the Site and the interim/emergency action during and following construction; Site maps showing existing conditions and proposed location of

the interim/emergency action; and a discussion of the characteristics, quantity and location of the materials to be remediated.

- b. Schedule for construction of the interim/emergency action and monitoring systems. Phase 1 of the interim/emergency action shall begin in accordance with the Ecology approved schedule within the final Interim/Emergency Action/Engineering Design Report. The mutual goal of Ecology and the Port is to implement Phase 2 of the interim/emergency action within three years of initiating the steam enhanced remediation system under Phase 1, contingent on the provision of funding under terms and conditions acceptable to the Port.
- c. Equipment layout, including a map showing final layout and traffic flow.
- d. Design for wastewater, air, and recovered product treatment features. This shall include plan and profile drawings showing construction details; materials to be used; a flow pattern diagram; and elevations of significant features, including relationship of the structures to the steam system. The treatment facilities shall be designed to adequately convey and treat or store wastewater, recovered product, and air.
- e. Engineering justification for design and operation parameters. In particular, provide engineering justification that the system is durable enough to operate effectively throughout the projected life of the interim/emergency action.
- f. Procedures for minimizing the potential for hazardous materials spills and accidental discharge during any excavation, construction, and operation. This shall include a description of measures taken to protect Lake River and the Refuge and their sediments from physical disturbances or contamination, and shall include use of control devices as needed. This shall also include a description of measures taken to prevent spills or spreading of contaminated materials on the Site, including provisions for decontaminating equipment, preventing erosion from any stockpiled soils, and spill prevention during loading/unloading of vehicles.
- g. A discussion of Site-specific characteristics that may affect design, construction, or operation of the cleanup action, including: relationship of the proposed cleanup action to existing or potential future Site operations, probability of flooding or erosion, settling/subsidence, and soil and groundwater characteristics.
- h. A discussion of methods for management or disposal of any treatment residual and other waste materials containing hazardous substances generated as a result of the cleanup action. However, effort shall be made to design the steam system as a "closed loop" system.
- i. A worker safety and health plan per requirements of WAC 173-340-810.
- j. Copies of all permits obtained regarding performance of the interim/emergency action.
- k. Any information not provided in the previous characterization studies needed to fulfill all applicable requirements of the State Environmental Policy Act (Chapter 43 21C RCW), and any additional information needed to address the applicable state, federal, and local requirements.
- l. Additional information as needed to fulfill the substantive permit requirements of local, state, and/or federal agencies including the substantive requirements of exempted permits consistent with WAC 173-340-400 (4)(b)(vii).



- m Detailed final construction plans and procedural material specifications necessary for construction of the steam and water/air treatment system prepared in conformance with currently accepted engineering practices and techniques
- n. Specific quality control (QC) tests to be performed to document the construction as applicable, including specification for the testing or reference to specific testing methods, frequency of testing, acceptable results, and other documentation methods. This section shall include QC testing during steam and water/air treatment system construction and monitoring system installation.
- o. An Operation Plan presenting requirements to assure effective operation of the steam system and associated treatment facilities. This plan shall include an inspection schedule of quarterly inspections for the first year and semi-annual inspection subsequent years, criteria for evaluating the need for repair or maintenance, repair procedures. The operation plan shall also identify who will be responsible for maintaining the interim/emergency action and other relevant information identified in WAC 173-349-400(4)(c)
- p Compliance monitoring plan per WAC 173-340-410. This shall include a description of performance monitoring to confirm that the interim/emergency action is reducing contaminant mass, is meeting the performance goals, and monitoring to ensure that the interim/emergency action does not result in an increase of contamination to the Refuge and Lake River. All sampling and analysis shall be conducted under a sampling and analysis plan meeting the requirements of WAC 173-340-820. The compliance monitoring plan and sampling and analysis plan may be combined in one section and submitted with the Phase 1 Design Report or submitted as a separate document. The compliance monitoring plan shall include:
  - p-1 Performance monitoring for groundwater. Sampling shall be conducted in the shallow and deep aquifers. Enough samples shall be obtained to compare to baseline levels established during characterization/monitoring work prior to the interim/emergency action, and to show that contaminant mass in groundwater is decreasing. Groundwater samples shall be analyzed for contaminants of concern utilizing EPA SW-846 methods and Ecology specified methods for petroleum hydrocarbons.
  - p-2 For soils moved from other portions of the Site outside the area of the LNAPL plume (e.g., Cell 3) to the former tankfarm, a methodology for additional excavation and verification sampling if sampling shows that remaining soils exceed cleanup standards.
  - p-3. Monitoring for Site groundwater per WAC 173-340-410 (1)(c), including a description of the frequency and duration of monitoring, and monitoring parameters.
  - p-4. A methodology for evaluating sample results. Statistical analysis of samples shall be in accordance with Ecology *Publication No. 94-49, Guidance on Sampling and Data Analysis Methods*.
  - p-5. Provisions for reporting results of performance sampling to Ecology. Results of performance monitoring shall be provided to Ecology following each sampling event under the schedule developed in I-3.

## **2. FINAL INTERIM/EMERGENCY ACTION/ENGINEERING DESIGN REPORT**

The final Phase 1 Design Report shall incorporate Ecology's comments on the draft report. The final Phase 1 Design Report shall be submitted to Ecology within 30 days of receiving Ecology's comments on the draft.

## **3. IMPLEMENT INTERIM/EMERGENCY ACTIONS**

Implement interim/emergency actions as outlined in the Ecology-approved Final Phase 1 Design Report. The requirements described in the Order and in Section 4 (Construction Documentation) are applicable to Phase 1 of the interim/emergency action(s). The stated performance goals of Phase 1 of the interim/emergency action are: 1) to stop the migration of free product to the Refuge; 2) begin removal of NAPL between the former PWI tank farm and the Refuge; 3) evaluate the design to optimize well spacing, extraction strategy and the effluent treatment system for Phase 2. During construction, detailed records including photographic documentation shall be kept of substantive aspects of the work performed, including construction techniques and materials used, items installed, and tests and measurements performed. The substantive requirements of WAC 173-340-400(7)(8) shall be met. During the construction of the interim/emergency action system, the Port's project coordinator or his/her designee will make oral reports at least every week to the Ecology project manager or his/her designee regarding progress. Any significant problems, deviation from plans, or interim/emergency conditions will be reported to Ecology immediately.

## **4. CONSTRUCTION DOCUMENTATION**

Within 90 days from the completion of construction, the Port's engineer responsible for the supervision of Phase 1 activities shall prepare a final report documenting the activities, including a description of where soils were removed, volumes removed, disposition of materials, performance sampling, backfill, grading, construction of the steam system, wastewater treatment and air control features, and other actions taken for the interim/emergency action. If the final design differs from the plans in the Final Phase 1 Design Report, as-built drawings shall be prepared and submitted to Ecology. The report shall also contain an opinion from the Port's project manager and engineer, based on the testing results and inspections, as to whether the interim/emergency action system has been constructed and is performing in substantial compliance with the plans and specifications and related documents.

## **5. STORMWATER COLLECTION AND DRAINAGE SYSTEM**

Past work completed under Agreed Order DE96IC-S304 has greatly reduced levels of contamination released to Lake River. However, sediments that accumulate in the stormwater system must continue to be removed and the system must continue to be checked and maintained for the period of time this Order is in effect.

- a) The Port shall submit a revised draft stormwater system report to Ecology which summarizes work completed thus far and addresses stormwater system cleanout and maintenance. The report shall include a maintenance and monitoring schedule.
- b) The draft report shall be submitted to Ecology within one hundred twenty (120) calendar days of the effective date of this Order. Ecology will provide comments within thirty (30) calendar days of receipt of the draft report. The final report shall be submitted within thirty (30) calendar days of receipt of Ecology's comments.

## 6. PLANNING DOCUMENTS

A work plan which includes a sampling and analysis plan (SAP) and a Site health and safety plan (HASP) will be prepared to comply with WAC 173-340-810 and 820. A single work plan will be prepared for the entire Site. The SAP will propose a scope of work to evaluate known environmental concerns at all four Cells.

a) The Port shall submit a draft work plan to Ecology for characterization of the extent of soil and groundwater contamination at the Site. The work plan shall contain a SAP which will identify but not be limited to the proposed number of soil test locations and groundwater monitoring locations; approximate depths of samples and borings (as appropriate); sampling and analysis scheme including a quality assurance/quality control (QA/QC) plan; and a HASP for field work. The draft work plan shall include a schedule for implementation. The draft work plan shall be submitted within two hundred seventy (270) calendar days of the effective date of this Order. Ecology shall review and provide written comments within thirty (30) calendar days of receipt of the draft work plan. The Port shall submit a final work plan within thirty (30) calendar days of receipt of Ecology's comments.

## 7. REMOVAL/DEMOLITION AND/OR RECYCLING OF BUILDINGS AND ANCILLARY EQUIPMENT

Some of the existing buildings and structures at the Site that were used by the former wood treating facility will be demolished by the Port. This is necessary to provide unimpeded access to the subsurface for the performance of remedial investigation and/or remedial action at the Site. This will include proper removal and disposal (or recycle) of:

- Site buildings (including part of the office building) which may include asbestos- and/or lead-containing materials within the buildings.
- Residual equipment left behind by the former (now bankrupt) tenant.
- Obsolete and unusable facilities which may include but are not limited to residual above ground tanks, dry wells, septic tanks, sumps, unusable water treatment equipment, unnecessary drainage structures, outfalls, unnecessary railroad tracks, and other structures or equipment left by the former wood treating tenant.

The Port will submit work plan(s) for demolition and removal and report(s) describing the demolition, removal, and disposal (or recycle) of equipment and structures within three hundred sixty five (365) calendar days from the effective date of this Order. The report(s) will include an inventory of the equipment and structures that were removed by the Port. The report(s) will also document where and how the equipment and structures were disposed of or recycled. The work plan(s) will also include an approximate schedule for implementation of the demolition activities. Ecology will provide comments within thirty (30) calendar days of receipt of the draft work plan. The Port shall submit a final work plan within thirty (30) calendar days of receipt of Ecology's comments.

## 8. REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

The Port shall conduct a remedial investigation (RI) and a feasibility study (FS) at all four of the Site Cells to address the substantive requirements of WAC 173-340-350 and 360. In an effort to meet an existing lease schedule, portions of Cell 2, and Cells 3 and 4 (see Figure 3) may be investigated prior to or during the activities associated with the interim/emergency actions occurring in Cells 1 and 2. The RI will evaluate the distribution of contaminants in soil and groundwater at the Site. Based on these data, an FS will be performed

(as required) to evaluate a range of remedial technologies to mitigate Site conditions that pose an unacceptable risk to human health and/or the environment

- a) The approved work plan outlined in Subsection 6a of this Order will be implemented. The RI work plan will include a scope of work to characterize the nature and extent of soil and groundwater impacts in each of the four cells at the Site. Samples of sediment will be collected from under the site outfalls and south of Carty Lake and analyzed to assess potential impacts. Should additional RI work be needed to characterize the distribution of contaminants in soil and groundwater in a Cell, a supplemental RI work plan will be submitted for that cell for review by Ecology.
- b) Once all RI work is complete at all or any one of the Cell(s), the Port shall perform a focused FS (in the event that Site media exceed cleanup standards that are appropriate for the future use of the property) for all or for each cell(s) individually. The Port shall then submit to Ecology a draft report of the results of the RI/FS for all or any one of the Cell(s). The draft report shall include, as appropriate, Site location maps and physical setting description; soil characterization; surface and subsurface soil sampling results (analytical data as well as field logs); soil, groundwater, and sediment characterization; description of monitoring well installation; well logs; drilling logs; results of soil, groundwater, and sediment sampling; hydraulic characterization; recommendations including estimates of volumes and areas of media requiring remediation; evaluation of realistic exposure pathways and exposed populations; evaluation of a range of proven and reliable remedial alternatives that mitigate risks; summary; and conclusions.
- c) The draft RI/FS report shall be submitted to Ecology for review and comment within ninety (90) calendar days of completion of field work and receipt of analytical results for all or for each Cell(s) individually. Ecology shall provide written comments within forty-five (45) calendar days of receipt of the draft report. The Port shall complete a final report within thirty (30) calendar days of receipt of Ecology's comments.

The intent of this Order is to provide the Port an option to perform RI/FS work in each Cell independent of any other, and promote reuse of portions of the Site that are in compliance with this Order

#### **9. GRANULAR PENTACHLOROPHENOL SPILL REPORT**

The Port shall submit a brief report of cleanup work performed at the granular pentachlorophenol location. The report shall contain a discussion of work performed, maps, soil disposal records, and any other documentation necessary for Ecology to determine that the work adequately met the requirements of the granular pentachlorophenol spill workplan. The draft report shall be submitted within thirty (30) calendar days of the effective date of this order. Ecology will provide comments within fifteen (15) calendar days of receipt of the draft report. The Port shall provide a final report within fifteen (15) days of receipt of Ecology's comments.

#### **10. OTHER SITE WORK NOT INCLUDED IN WORK ITEMS 1 THROUGH 9**

The Port may want to conduct additional investigation or remediation at the PWI Site not covered by items 1 through 9 above. However, no investigative or remedial work shall be done at the Site unless the work is done under the MTCA process in conjunction with this Order. Ecology may amend the Order if the proposed additional work is considered significant.

## 11. SCHEDULE

|   |  |
|---|--|
| 1. Draft Interim/Emergency Action/Engineering Design Report (i.e., Phase 1 Design Report) | Within 60 days of the effective date of this Order.                    |
| 2. Final Phase 1 Design Report  | Within 30 days of receiving Ecology's comments on the draft report.    |
| 3. Implement Interim/Emergency Actions  | According to the schedule in the approved Final Phase 1 Design Report. |
| 4. Construction Documentation   | Within 90 days of completion of construction.                          |
| 5. Stormwater Collection/Drainage System  | Within 120 days of the effective date of this Order.                   |
| 6. Planning Documents   | Within 270 days of the effective date of this Order.                   |
| 7. Removal/Demolition, and/or Recycling of Buildings and Ancillary Equipment              | Within 365 days of the effective date of this Order.                   |
| 8. Remedial Investigation/Feasibility Study   | Within 1095 days of the effective date of this Order.                  |
| 9. Granular Pentachlorophenol Spill Report  | Within 30 days of the effective date of this Order.                    |

## V.

### TERMS AND CONDITIONS OF ORDER

#### 1. 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 70.105.D.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.

Port of Ridgefield shall pay to Ecology costs incurred by Ecology as defined in WAC 173-340-550(2). Port of Ridgefield 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:

Name: Dan Alexanian  
 Address: Southwest Regional Office  
 PO Box 47775, Olympia, WA 98504-7775

The project coordinator for Port of Ridgefield is:

Name: Brent Grening – Executive Director  
 Address: PO Box 55  
 Ridgefield, WA 98642

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and Port of Ridgefield, 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 coordinator(s). Should Ecology or Port of Ridgefield change project coordinator(s), written notification shall be provided to Ecology or the Port of Ridgefield at least ten (10) calendar days prior to the change.

5 Performance.

All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. The Port of Ridgefield shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order in advance of their involvement at the Site. The Port of Ridgefield 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, the Port of Ridgefield shall not perform any remedial actions at the former Pacific Wood Treating (PWT) leasehold Site outside that required by this Order unless Ecology concurs, in writing, with such additional remedial actions.

WAC 173-340-400(7)(b)(i) requires that "construction" performed on the Site must be under the supervision of a professional engineer registered in Washington.

6 Access.

Ecology or any Ecology authorized representative shall have the authority to enter and freely move about the Site 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 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 the Port of Ridgefield. By signing this Order, the Port of Ridgefield agrees that this Order constitutes reasonable notice of access, and agrees to allow access to the Site at all reasonable times for purposes of overseeing work performed under this Order. Ecology shall allow split or replicate samples to be taken by the Port of Ridgefield during an inspection unless doing so interferes with Ecology's sampling. Ecology shall provide the Port reasonable notice before any sampling event. The Port of Ridgefield shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any sampling activity.

7 Public Participation.

The Port of Ridgefield shall prepare and/or update a public participation plan for the Site. Ecology shall maintain the responsibility for public participation at the Site. The Port of Ridgefield shall help coordinate and implement public participation for the Site.

8 Retention of Records

The Port of Ridgefield 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 records, 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 the Port of Ridgefield, the Port of Ridgefield agrees to include in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

9 Dispute Resolution

The Port of Ridgefield may request Ecology to resolve disputes which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory, or his/her successor(s), to this Order. Ecology resolution of the dispute shall be binding and final. The Port of Ridgefield is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10 Reservation of Rights/No Settlement

This 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 Port of Ridgefield 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 Port of Ridgefield to require those remedial actions required by this Order, provided the Port of Ridgefield complies with this Order.

Ecology reserves the right, however, to require additional remedial actions at the Site (e.g., interim actions related to sediment) should it deem such actions necessary.

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 from the former Pacific Wood Treating facility.

In the event Ecology determines that conditions at the Site are creating or have the potential to create a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, Ecology may order the Port of Ridgefield 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 Site shall be consummated by the Port of Ridgefield 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 transfer of any legal or equitable interest the Port of Ridgefield may have in the Site or any portions thereof, the Port of Ridgefield shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such interest. At least thirty (30) days prior to finalization of any transfer, the Port of Ridgefield shall notify Ecology of the contemplated transfer.

12 Compliance with Applicable Laws

A. All actions carried out by the Port of Ridgefield 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, 75.20, 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 Attachment A and are binding and enforceable requirements of the Order.

The Port of Ridgefield has 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 the Port of Ridgefield determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify Ecology of this determination. Ecology shall determine whether Ecology or the Port of Ridgefield shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the Port of Ridgefield 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 Port of Ridgefield and how the Port of Ridgefield must meet those requirements. Ecology shall inform the Port of Ridgefield in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The Port of Ridgefield 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 the Port of Ridgefield 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 Port of Ridgefield's receipt of written notification from Ecology that the Port of Ridgefield has completed the remedial activity required by this Order, as amended by any modifications, and that all other provisions of this Order have been complied with.



VII.

ENFORCEMENT

1 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 Port of Ridgefield refuses, without sufficient cause, to comply with any term of this Order, the Port of Ridgefield will 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.

Effective date of this Order: 9/24/2001

PORT OF RIDGEFIELD

By 

Brent Grening  
Executive Director  
Ridgefield, Washington

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

By 

Rebecca Lawson, P. E.  
Section Manager  
Toxics Cleanup Program  
Southwest Regional Office

## ATTACHMENT A

The known permits and rules that are pertinent to this Order and their respective substantive requirements are listed below. A contact and phone number are provided for the state agency or local government that would typically administer each permit or applicable regulations. Ecology will make a final determination regarding which substantive requirements will apply in situations where requirements conflict.

### Permits pertinent to this action:

1. City of Ridgefield Grading Permit
2. State Hydraulic Project Approval, Washington Department of Fish and Wildlife (WDFW)
3. State Water Quality Standards Modification, Ecology
4. State NPDES Stormwater Baseline General Permit for Construction, Ecology
5. State NPDES Individual Permit for Industrial Discharge, Ecology
6. State Waste Discharge Permit, Ecology
7. State Hazardous Waste Treatment, Storage and Disposal Permit, Ecology
8. Permit to Withdraw or Divert Surface or Groundwater; Certificate of Water Right, Ecology
9. Underground Injection Control Registration, Ecology
10. Southwest Clean Air Agency, Operating Permit

### Other regulations pertinent to this action:

11. State of Washington, Hazardous Waste Management, Ecology
12. Local Health Department - Solid Waste Regulations
13. Ridgefield National Wildlife Refuge – United States Fish and Wildlife Service

#### **1. City of Ridgefield Grading Permit (Contact: Joan Hazen, 360-887-3557)**

- Any grading, excavation or filling activities associated with Construction shall be performed according to the Stormwater Pollution Prevention Plan (Erosion and Sediment Control Plan) required under the NPDES Baseline Stormwater Permit for Construction.

#### **2. State Hydraulic Project Approval (HPA), Washington State Department of Fish and Wildlife (Contact: John Loch, 360-414-7238)**

- The Port shall consult with the Area Habitat Biologist 60 days before implementing any in water work activities. This will allow for Washington State Department of Fish and Wildlife (F&W) review of plans. F&W recommendations will be incorporated into workplans before field work is initiated
- The Port shall notify the Area Habitat Biologist by fax at 360-414-7238 or mail at least three (3) working days prior to the start of in-water work activities. The notification shall include the Port's name, project location, and starting date for work.
- Dredged or excavated materials will be placed upland and diked or contained as necessary
- In-water work shall occur between July 1 and September 30

#### **3. State Water Quality Standards Modification, Ecology (Contact: Rusty Post, 360-690-4787)**

- The contractor shall follow and implement all specifications for erosion and sediment control specified by the Port. Adjustments to planned erosion and sediment control may be necessary to successfully control off-site movement of material.
- Turbid water produced from Construction activities shall not be discharged directly to Lake River. If necessary, sediment traps shall be used to allow the turbid water to settle for a minimum of two hours before discharge.

- Proper erosion and sediment control practices shall be used on the construction Site and adjacent areas to prevent upland sediments from entering the river channel
- All bank areas disturbed by the project construction will be restored with clean durable rip/rap or given some other equivalent type of protection against erosion
- All planned sediment and erosion control measures shall be adjusted to meet field conditions at the time of construction.
- Periodic inspection and maintenance of all sediment control structures must be provided. Sediment control measures shall be in working condition at the end of each working day. After any significant rainfall, sediment control structures shall be inspected for integrity. Any damaged devices shall be repaired immediately.
- Work in or near the waterway shall be done so as to minimize turbidity, erosion, other water quality impacts, and riverbed deformation.
- Properly dispose of all construction debris on land in such a manner that it cannot enter into the river or cause water quality degradation to state waters.
- Extreme care shall be taken to prevent any petroleum products, fresh cement, lime, or concrete, chemicals, or other toxic or deleterious materials from entering the water in any manner. Construction activities on the waterway will be boomed to prevent impacts to the river
- Mobile equipment that enters the water shall be maintained such that a visible sheen from petroleum products will not appear. Any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. All oil, fuel, or chemical storage tanks shall be diked and located on impervious surfaces so as to prevent spills from escaping to surface waters or ground waters of the state. Waste liquids shall be stored under cover, such as tarpaulins or roofs. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters. Proper security shall be maintained to prevent vandalism. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
- Spills into state waters, spills onto land with a potential for entry into state waters, or other significant water quality impacts, shall be reported immediately to the Department of Ecology, Southwest Regional Office at (360) 407-6300 (24-hour phone number)
- If distressed or dead fish are noticed in the vicinity, the Port shall immediately notify the Department of Ecology, Southwest Regional Office at (360) 407-6300, and take immediate action to identify and eliminate toxic sources that are causing the problem. The Port is only responsible for eliminating sources where the Port or an agent of the Port has some responsibility.
- If at any time during the work the Port or an agent of the Port finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the Port shall immediately notify the Department of Ecology, Southwest Regional Office at (360) 407-6300 (24-hour phone number)
- The Port's Environmental Manager or designated Environmental Consultant shall be on-site, or on-call and readily accessible to the Site, at all times while construction activities are occurring that may affect the quality of ground and surface waters of the state.
- Copies of this Order shall be kept on the job site and readily available for reference by Port personnel, the construction superintendent, construction managers and foremen, and state and local government inspectors.
- Five (5) days advance notification must be given by telephone to the Department of Ecology Site manager (360-407-6249) before work in the waterway commences. Rusty Post, water quality inspector for Ecology, must be notified at (360) 690-4787 at least 24 hours prior to commencement of in-water work.

**4. State NPDES Stormwater Baseline General Permit for Construction, Ecology (Contact: Linda Matlock, 360-407-6437)**

- The Port shall comply with applicable special conditions S1 through S10 of the general permit for stormwater discharges associated with construction activities, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP). The Port shall also comply with applicable general conditions G1 through G24 of the general permit.

**5. State NPDES Individual Permit for Industrial Discharge (Contact: David Knight, 360-407-6277)**

- Discharge of water to surface waters of the state will not be permitted without written authorization from the Ecology remedial action project manager.
- At a minimum, the Port will sample effluent flow for the target analytes identified for the site (e.g., selected chlorophenolic compounds, selected polycyclic aromatic hydrocarbons, selected halogenated and non-halogenated volatile organic compounds, total copper, arsenic, chromium, and zinc, pH, total suspended solids and temperature. The list of parameters may be modified based on review and consideration of the data, and with Ecology's approval.
- Sampling of effluent will be required weekly for the first month following the start of discharge, and monthly thereafter. The frequency of sampling may be modified based on review and consideration of the data and with Ecology's approval.
- Water discharged to surface waters of the state will meet or exceed the water quality standards in WAC 173-201A.
- Monitoring, recording and reporting of discharge flow and quality will be consistent with the conditions of WAC 173-220-210.

**6. State Waste Discharge Permit, Ecology (Contact: David Knight, 360-407-6277)**

- The Port will obtain permission from the Ecology permit manager before discharging water to the City of Ridgefield publicly owned treatment works (POTW). The Ecology permit manager can be contacted at (360) 407-6277.
- The Port will obtain permission from the City of Ridgefield public works department before discharging to the POTW.
- Acceptable flow rates and water quality standards will be determined by the Ecology permit manager and the City of Ridgefield public works department.
- The Port will provide effluent analytical results and total flow rates to the City of Ridgefield public works department on a monthly basis.

**7. Hazardous Waste Treatment, Storage, and Disposal Permit (Contact: Ty Thomas 360-407-6758)**

- Use and management of containers to store dangerous waste will meet the substantive requirements of WAC 173-303-630
- Tank systems used to store or treat dangerous waste will meet the substantive requirements of WAC 173-303-640.
- Waste piles used to store or treat dangerous waste will meet the substantive requirements of WAC 173-303-660.
- If dangerous waste is burned in a boiler or an industrial furnace the substantive requirements of WAC 173-303-670 will apply. In addition, the information required by WAC 173-303-806(iii) will be prepared by the Port and submitted to Ecology for review

**8. Permit to Withdraw or Divert Surface or Ground Water; Certificate of Water Right, Ecology (Contact: Pat Locke, 360-407-6857)**

**9. Underground Injection Control Registration; Ecology (Contact: Mary Shaleen Hansen, 360-407-6143)**

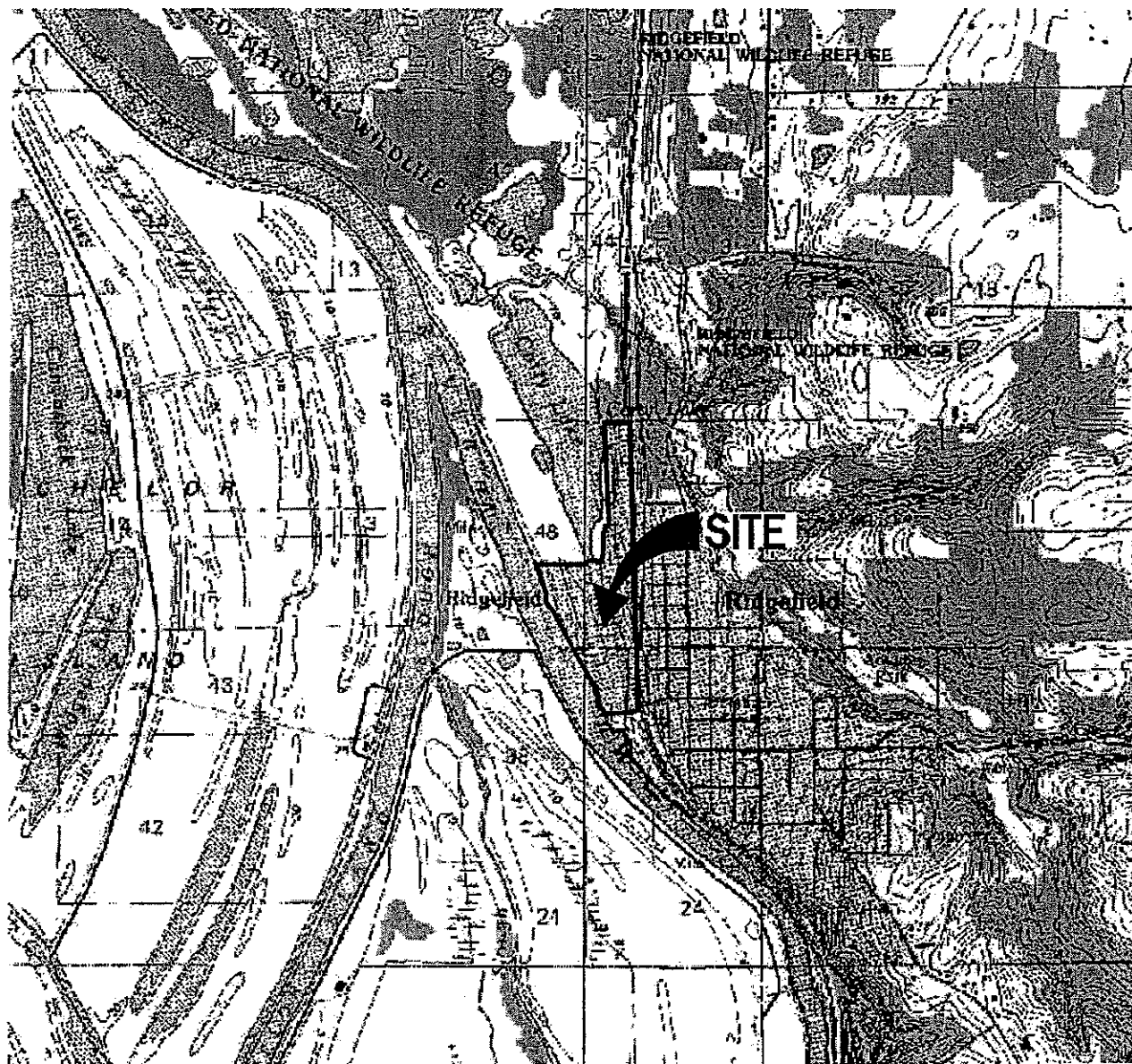
- The Port will register any well used for injection as part of the remedial action with the Underground Injection Control (UIC) Program.
- Consistent with WAC 173-200-010(c), fluids injected into the subsurface will meet the groundwater quality standards developed for the site under WAC 173-340-720. The groundwater quality standards developed for the remedial action will be provided in the applicable work plans and remedial action documents.

**10. Southwest Clean Air Agency, Operating Permit, (Contact: Jerry Strawn, 360-574-3058)**

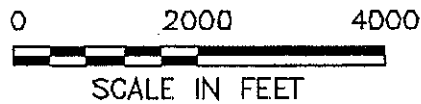
- Each emission unit will meet the emission standards provided in SWAPCA 400-040.
- Combustion units will meet the emission standards provided in SWAPCA 400-050. If a combustion or incineration unit is determined to be major as defined in SWAPCA 400-30, then monitoring will be conducted consistent with SWAPCA 400-52

- Each emission unit will meet the hazardous air pollutant emission standards in SWAPCA 400-075 or the toxic air pollutant emission standards in SWAPCA 400-076, as applicable
11. **State of Washington, Hazardous Waste Management, Ecology (Contact: Dee Williams, 360-690-7120)**
    - The remedial action shall provide for management or disposal of dangerous wastes or hazardous wastes in a manner in compliance with regulations under Chapter 173-303-WAC. Wastes shall be designated and managed in compliance with the Site Work Plans. Hazardous waste manifests shall be used to track the transfer and disposal of hazardous wastes
  12. **Local Health Department - Solid Waste Regulations (Contact: Gary Bickett, 360-397-8061)**
    - This project shall comply with Southwest Washington Health District provisions for acceptance of any soils to be disposed of at a landfill in the State of Washington, according to criteria developed for the specific Site.
  13. **Ridgefield National Wildlife Refuge (Contact: Jim Clapp, 360-887-4106)**
    - The Port shall contact the Refuge and inform U.S. Fish & Wildlife personnel of upcoming and ongoing work and obtain the appropriate permits from the Refuge before beginning work in the Refuge

File: G:\9000\9003-RIDGEFIELD\273\400\AGREED ORDER\SITE.DWG Last edited: JUN. 22, 2001 @ 1:47 p.m. by: jness Xrefs: none black/white



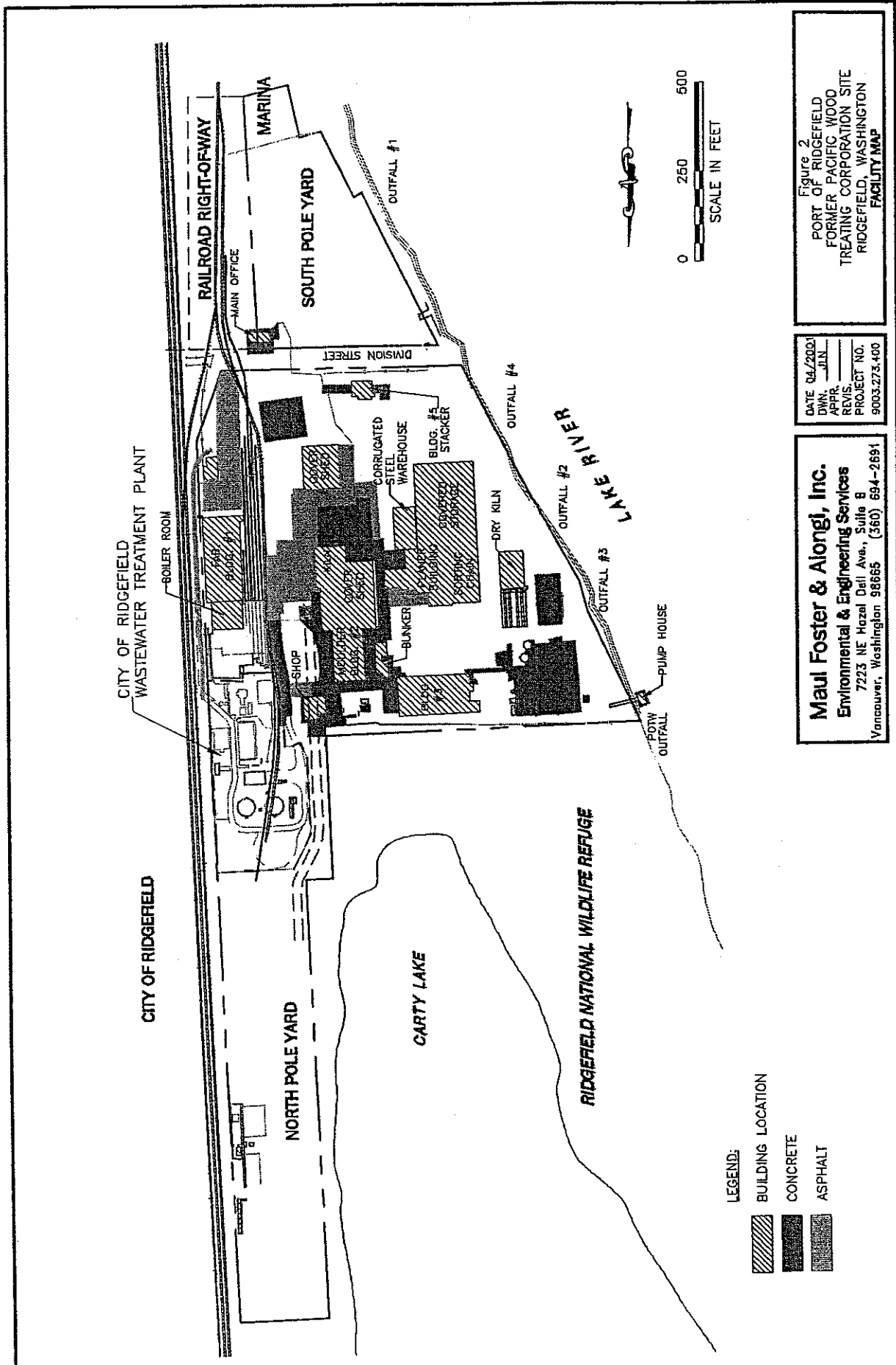
Base map prepared from DeLorme 3-D TopoQuads (1999)



**Maul Foster & Alongi, Inc.**  
Environmental & Engineering Services  
7223 NE Hazel Dell Ave., Suite B  
Vancouver, Washington 98665 (360) 694-2691

DATE 06/00  
DWN. AJY  
APPR. \_\_\_\_\_  
REVIS. \_\_\_\_\_  
PROJECT NO. 9003.273.400

Figure 1  
PORT OF RIDGEFIELD  
FORMER PACIFIC WOOD  
TREATING CORPORATION SITE  
RIDGEFIELD, WASHINGTON  
**SITE LOCATION MAP**



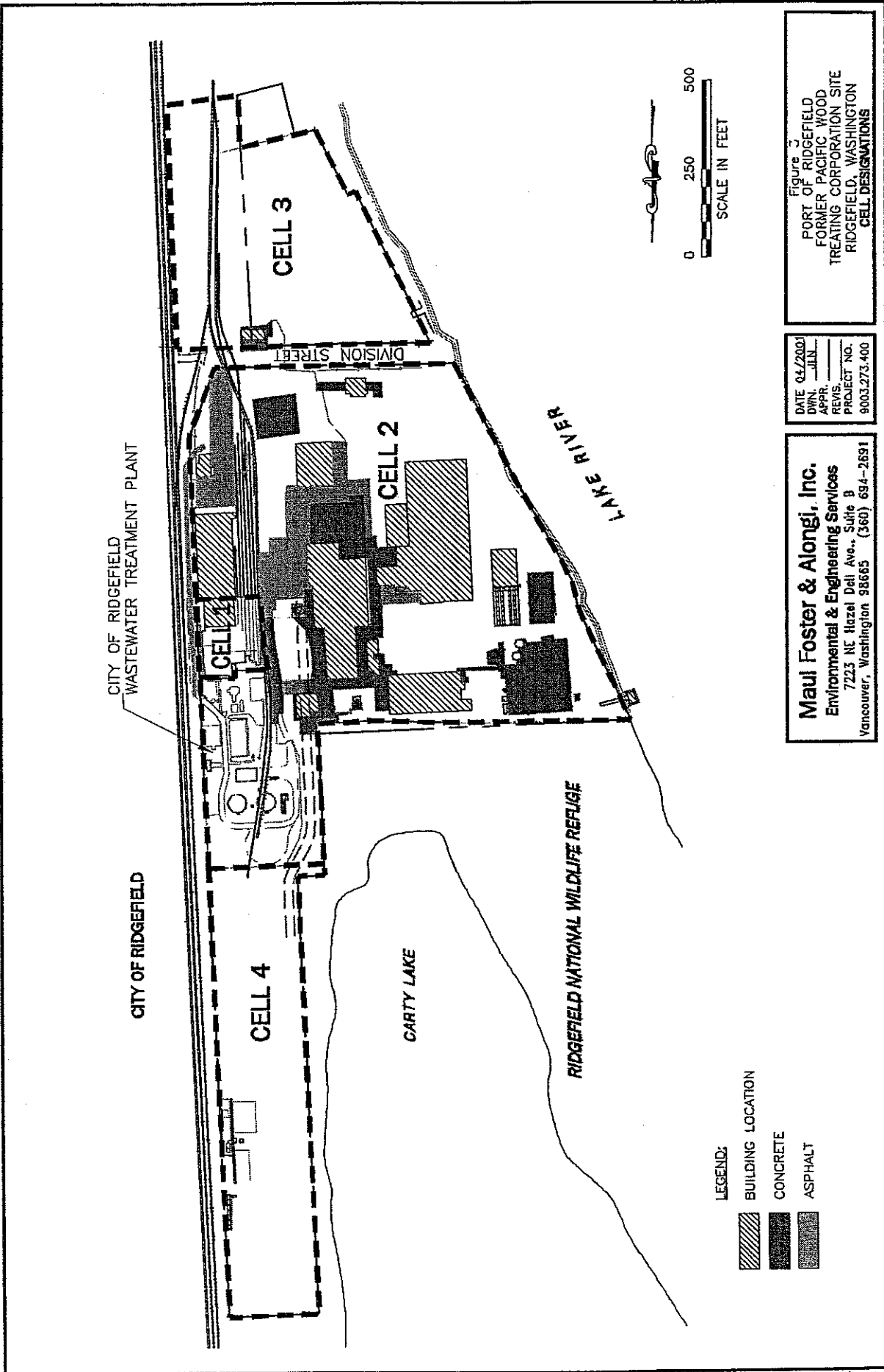
- LEGEND:**
- BUILDING LOCATION
  - CONCRETE
  - ASPHALT






DATE 04/2001  
 DWN. JUN.  
 APPR.  
 REVIS.  
 PROJECT NO. 9003-273-400

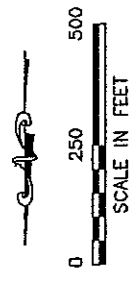
**Maul Foster & Alongi, Inc.**  
 Environmental & Engineering Services  
 7223 NE Hazel Dell Ave., Suite 8  
 Vancouver, Washington 98665 (360) 594-2691

Figure 2  
 PORT OF RIDGEFIELD  
 FORMER PACIFIC WOOD  
 TREATING CORPORATION SITE  
 RIDGEFIELD, WASHINGTON  
 FACILITY MAP



File: g:\9000\9003-RIDGEFIELD\273\400\AGREED ORDER\CELL.DWG Last edited: JUN. 22, 01 by: jness Xrefs: S003BASE, PR-HATCH, carty-ik B/W

- LEGEND:**
-  BUILDING LOCATION
  -  CONCRETE
  -  ASPHALT

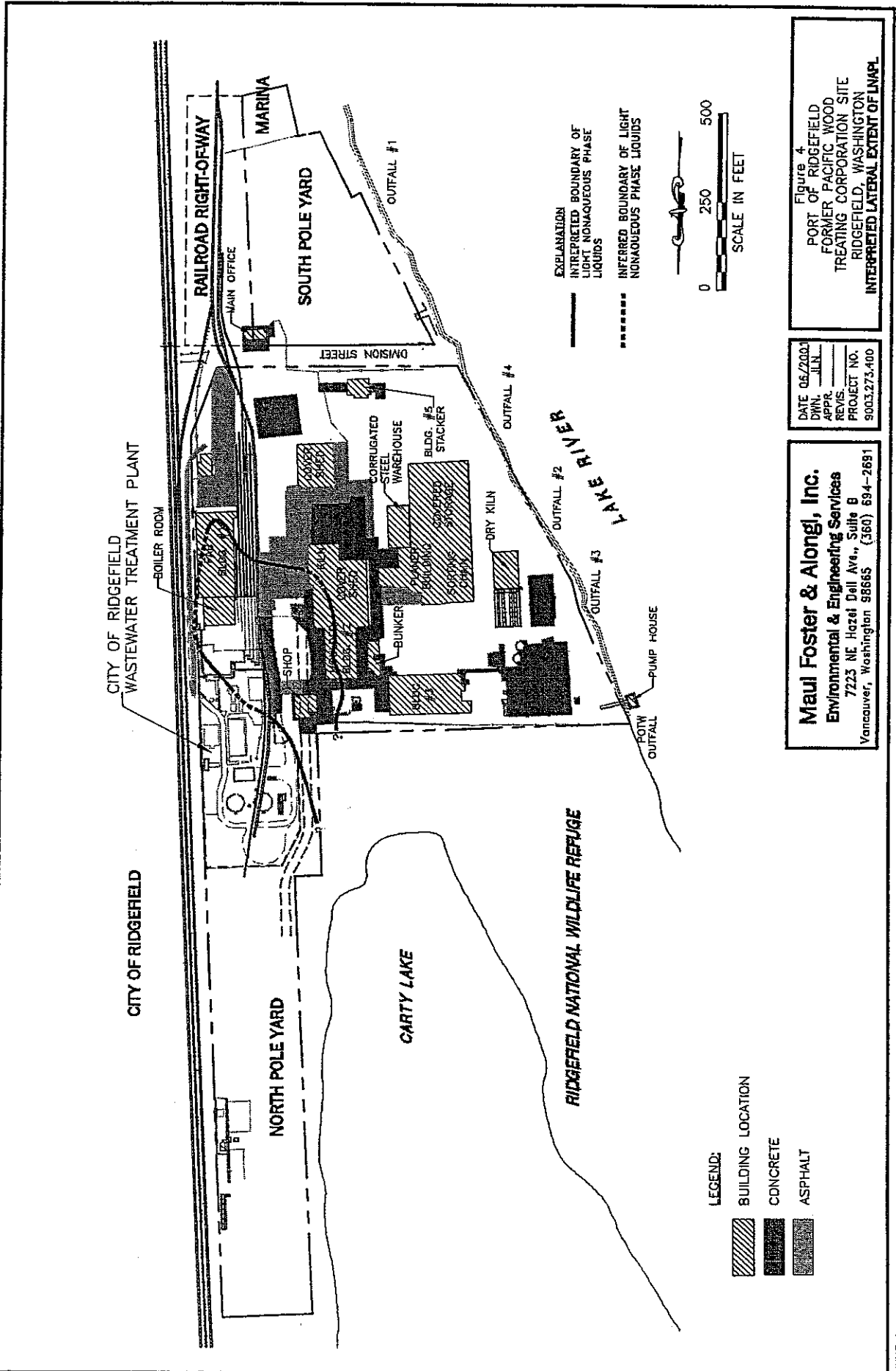


**Figure 3**  
 PORT OF RIDGEFIELD  
 FORMER PACIFIC WOOD  
 TREATING CORPORATION SITE  
 RIDGEFIELD, WASHINGTON  
**CELL DESIGNATIONS**

DATE 04/2000  
 DWN. JUN.  
 APPR. JUN.  
 REVIS. JUN.  
 PROJECT NO. 9003.273.400

**Maul Foster & Alongi, Inc.**  
 Environmental & Engineering Services  
 7223 NE Hazel Dell Ave., Suite B  
 Vancouver, Washington 98665 (360) 694-2691





- LEGEND:**
- BUILDING LOCATION
  - CONCRETE
  - ASPHALT

**EXPLANATION**

- INTERPRETED BOUNDARY OF LIGHT NONAQUEOUS PHASE LIQUIDS
- INFERRED BOUNDARY OF LIGHT NONAQUEOUS PHASE LIQUIDS

0 250 500  
SCALE IN FEET

DATE 06/2003  
DWN. JLN  
APPR.  
REVIS.  
PROJECT NO. 9003.273.400

**Maul Foster & Alongi, Inc.**  
Environmental & Engineering Services  
7223 NE Hazel Dell Ave., Suite B  
Vancouver, Washington 98665 (360) 694-2681

Figure 4  
PORT OF RIDGEFIELD  
FORMER PACIFIC WOOD  
TREATING CORPORATION SITE  
RIDGEFIELD, WASHINGTON  
INTERPRETED LATERAL EXTENT OF LNAPL