STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action at: CITY PARCEL SITE Spokane, Washington	))))	Enforcement Order No. 2691

TO: Mr. Richard Boyce
Mr. Paul Gisselberg
Mr. Jerry Overton

Collectively referred to herein as the Potentially Liable Persons (PLPs).

I.

Jurisdiction

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

II.

Statement of Facts

Ecology makes the following Findings of Fact, without admission of such facts by the PLPs.

1. The City Parcel Site (the Site) is located in the SE ¼ sec. 16, T. 25, N., R. 43 E. in Spokane County, Washington at the intersection of N. Cook Street and E. Springfield Ave. The location of the Site is shown in Exhibit A (Vicinity Map) of this Order.

2. This Site was occupied by Spokane Transformer Inc., a transformer repair and recycling operation, for approximately 25 years. The Site was sold to a parcel delivery service, City Parcel, Inc., in 1980. City Parcel, Inc. is currently in operation. The former Spokane

Transformer Inc. address was 2500 E. Springfield Avenue, Spokane, Washington 99202. The current City Parcel Delivery, Inc. address is 708 N. Cook Street, Spokane, Washington, 99202.

3. The Site was owned by Mr. Richard Boyce during transformer repair and recycling operations. Mr. Boyce operated Spokane Transformer Inc. until 1974. Mr. Jerry Overton leased the property from Mr. Boyce and owned and operated Spokane Transformer from 1974 to 1980.

4. The Site was first investigated in 1976 by the Environmental Protection Agency (EPA). Two soil samples were collected from outside of the operations building. Analytical results indicated soils contained 150 and 16,500 milligrams per kilogram or parts per million (ppm) polychlorinated biphenyls (PCBs). These reported PCB concentrations exceed relevant Model Toxics Control Act (MTCA) cleanup levels for both residential and industrial site soil.

5. In 1980, EPA and the Washington Department of Ecology inspected the site. The inspectors noted areas of visibly oil-stained soil.

6. In 1986, EPA collected four soil samples from the vicinity of the building. Laboratory results showed a maximum concentration of 2,400 ppm PCBs. Two of these soil samples, collected from storm drain catch basins in the vicinity of the Site, indicated the presence of PCBs at concentrations of 370 ppm and 14 ppm.

7. In 1987, Ecology and Environment Inc. (E&E), as a contractor to EPA, conducted a sampling program to further characterize the extent of PCB contamination in work areas, floor drains, on-site soil and off-site storm drain. PCBs were detected in on-site soil samples at concentrations of 7 to 7,675 ppm. Four surface scrape samples collected to examine work space

contamination showed results of PCB concentrations of 233 to 415 ppm. Sediment samples from floor drains inside the building contained PCBs at concentrations of 295 to 64,000 ppm. Sediment samples from storm drains in the vicinity of the Site had concentrations ranging from 5 to 681 ppm PCBs. Three samples that were analyzed for PCBs were also tested for chlorinated hydrocarbons. Chlorinated hydrocarbons were detected in all three samples.

8. City Parcel and its owners, Paul and Mary Ann Gisselberg, filed a lawsuit against Richard E. and Mary K. Boyce and Jerry and Jane Doe Overton in December 1994, as a private right of action under MTCA.

9. In March and April 1997, George Maddox & Associates, Inc., working for Mr. Gisselberg, collected soil samples from inside and outside the building, from dry wells, and from an alley on the east side of the building. The on-site soils contained up to 536 ppm PCBs. The soil from a dry well analyzed contained 8230 ppm PCBs. PCB concentrations from soil samples taken from the alley way ranged from 58.9 to 1620 ppm PCBs.

10. In November 1997, George Maddox & Associates, Inc., installed a monitoring well adjacent to a dry well near the southeast portion of the City Parcel property. Soil samples were taken at each 5 feet of drill penetration. The highest PCB concentration of 30.7 ppm was measured at the 10-12 feet depth. A ground water sample taken from this monitoring well contained 2.88 micrograms per liter or parts per billion (ppb) PCBs. This reported concentration is substantially above the 0.1 ppb Method A MTCA cleanup level for ground water. Attributing the PCBs in ground water to turbidity, a second water sample was collected in January 1998 using much longer purging times. This sample did not detect PCBs.

11. In September 1997, Ecology conducted an initial investigation of the Site and an early notice letter dated September 9, 1997 was sent to Mr. Gisselberg, requiring further remedial action.

12. Mr. Gisselberg submitted a proposed independent cleanup plan to Ecology for review under the Voluntary Cleanup Program in February 1998. Ecology provided written review comments on April 21, 1998. Recommendations were made for a site characterization/cleanup plan. Ecology also required that the following immediate actions be undertaken: install a temporary cover over the PCB-contaminated surface soils in the parking lot and in the alleyway; cover a PCB-containing soil pile on site and make arrangements for disposal/treatment of the soils; and inform worker/visitors of the PCB contamination in the area.

13. On October 5, 1998, Ecology sent out a letter to Mr. Gisselberg requiring that the immediate actions listed in the April 21, 1998 letter be completed in 30 days. The parking lot was subsequently covered with gravel; the alleyway was not. The soil pile was covered with plastic but was not disposed or treated; the soil pile is still on site.

14. In August 1998, the Spokane Regional Health District completed the site hazard assessment (SHA) of the City Parcel Property, as required under MTCA. This Site, pursuant to the requirements contained in WAC 173-340-320 and the "Washington Ranking Method Scoring Manual", was given a rank of 2.

15. The lawsuit filed by City Parcel and the Gisselberg's against the Boyce's and the Overton's was tried in Spokane County Superior Court from July 19 – 22, 1999. On September 28, 1999, Judge Linda Thompkins issued Findings of Fact and Conclusions of Law imposing

liability of 37.5% for Mr. Boyce, 37.5% for Mr. Overton, and 25% for Mr. Gisselberg as their contribution for remedial action costs under MTCA. (See City Parcel, et al. v. Overton, et al., Spokane County Superior Court Cause No. 94-2-06779-1.)

16. In certified correspondences dated March 21, 2001, Ecology notified Mr. Gisselberg, Mr. Boyce, and Mr. Overton of the preliminary finding of potential liability and requested comment on those findings. On April 12, 2001, after notice and opportunity for comment, Ecology notified Mr. Gisselberg, Mr. Boyce, and Mr. Overton of their status as "potentially liable persons" (PLPs) under RCW 70.105D.040, for the release of hazardous substances at the City Parcel Site.

17. On July 18, 2001, Ecology initiated negotiations with Mr. Gisselberg, Mr. Boyce, and Mr. Overton (the PLPs) for an Agreed Order that would require completion of a Remedial Investigation/Feasibility Study (RI/FS) for the Site. Ecology ended negotiations in accordance with WAC 173-340-530(6) on September 13, 2001, based on the lack of reasonable progress toward successful negotiations of the Agreed Order.

18. Ecology thereafter conducted a state-funded RI/FS for the Site. RI field activities at the Site were conducted in 2002 by Science Applications International Corporation (SAIC). Results of the 2002 studies are presented and discussed in the November 27, 2002 "Final Remedial Investigation Report For the City Parcel Site" prepared by SAIC. The draft RI report was made available for public comment from January 16 through February 18, 2003. One written comment was received on behalf of Mr. Boyce regarding the necessity of the RI investigations. This comment did not require any changes in the RI Report.

19. Results of the RI confirmed extensive contamination of PCBs in soils in the parking lot and in the alleyway. Additional groundwater sampling was conducted by SAIC in 2003 to verify the 2002 groundwater results. Groundwater results collected in 2002 and additional data collected in 2003 showed no indication of PCB groundwater contamination at the monitoring wells during those sampling events.

20. On August 2003, Ecology formally requested that the City of Spokane install a temporary cover over the contaminated soils in the alleyway which is a City right-of-way. The City subsequently covered the alleyway with gravel.

21. Based on the RI results and other existing site data, Ecology drafted a Feasibility Study (FS) Report in 2004. The report evaluated cleanup technologies that were applicable to the Site. The FS Report was made available for public review and comment from February 26, 2004 through March 26, 2004. No written comments were received during this comment period.

22. Ecology then prepared a Draft Cleanup Action Plan (DCAP) that identified the selected remedial actions for the Site. The DCAP was made available for public review and comment from July 21 through August 19, 2004. No comments were received during the public comment. The Final Cleanup Action Plan (FCAP) was issued in August 2004. The FCAP requires, among other details, the removal of the building, excavation of soils, removal of all drain lines and dry wells, and the removal of the underground storage tank.

23. On November 22, 2004, Ecology sent letters to the PLPs calling for a meeting to discuss the FCAP and its implementation. Mr. Gisselberg, at the request of his legal counsel,

was given a second opportunity to provide comments for an additional thirty-day period, extending from December 1, 2004 to December 31, 2004.

24. On December 28, 2004, Mr. Robert Dunn, Mr. Gisselberg's attorney, provided comments on the remedial actions and proposed alternative actions that include allowing the building to remain on site. The proposed modifications did not meet the minimum requirements of MTCA, and the FCAP was not revised.

25. On May 24, 2005, Ecology met with the PLPs to discuss implementation of the FCAP. At the meeting, Ecology outlined the nature and magnitude of modifications that would be necessary to the cleanup actions identified in the FCAP if the building were to remain.

26. On May 27, 2005, the Attorney General's Office, on behalf of Ecology, sent letters to the PLPs asking their intention to negotiate an Agreed Order or Consent Decree with Ecology to implement the FCAP (as written or with some specific modifications as discussed during the May 24, 2005 meeting). Ecology requested that the PLPs respond to Ecology's letter by July 27, 2005. Mr. Boyce, through his attorney Mr. Todd Reuter, responded that he did not intend to cooperate in the form of payment for any portion of the cleanup costs. A response was also received by Ecology from Mr. Gisselberg's attorney, Mr. Robert Dunn, electing not to negotiate an Agreed Order or Consent Decree with Ecology for implementation of either the FCAP, or the FCAP with specific modifications that would allow the building on Site to remain. Mr. Overton did not send a response.

III.

Ecology Determinations

1. Mr. Boyce is a former owner and operator, Mr. Overton is a former operator, and Mr. Gisselberg is the current owner as defined under Chapter 70.105D.020(12) RCW of a "facility" as defined in Chapter 70.105D.020(4) RCW.

2. The facility is known as the City Parcel Site and is located at 708 N. Cook Street, Spokane, Washington, 99202.

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

4. Based on the presence of these hazardous substances at the facility and all factors known to the Department, there is a release or threatened release of hazardous substances from the facility, as defined in Chapter 70.105D.020(20) RCW.

5. By letter dated April 12, 2001, Ecology notified Mr. Boyce, Mr. Overton, and Mr. Gisselberg of their status as a "potentially liable person" under Chapter 70.105D.040 RCW after notice and opportunity for comment.

6. Pursuant to Chapters 70.105D.030(1) and 70.105D.050 RCW, the Department 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.

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

IV.

Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that the PLPs take the following remedial actions and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein.

1. The PLPs shall implement the cleanup action as selected in the Final CAP (Exhibit B, or with specific modifications that allow the building on Site to remain, as set forth in the Scope of Work and Schedule (Exhibit C)), which establishes the required remedial action at the Site.

2. A Restrictive Covenant shall be recorded on the property no later than sixty (60) days after approval of the Remedial Action Plan.

3. Progress reports shall be completed on a monthly basis until completion of the implementation of the cleanup action.

4. A cleanup action report, summarizing all construction activities and changes or modifications, shall be submitted to Ecology no later than sixty (60) days after completion of construction.

V.

Terms and Conditions of Order

1. Definitions

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

2. Public Notice

Chapter 70.105D.030(2)(a) RCW 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.

The PLPs shall pay to Ecology costs incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, Order preparation, oversight and administration. Ecology costs shall include costs of direct activities and support costs of direct activities as defined in Chapter 173-340-550(2) WAC. The PLPs 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	Teresita Bala, Site Manager
Address	Washington State Department of Ecology Eastern Regional Office Toxics Cleanup Program 4601 N. Monroe Spokane, WA 99205-1295 Tel: (509) 329-3543 Fax: (509) 329-3572 E-Mail: tbal461@ecy.wa.gov

The PLPs shall designate one individual to act as a Project Coordinator and shall inform Ecology of this individual's identity, telephone number and mailing address within fifteen (15) days of receipt of this Order.

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and the PLPs, 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 the PLPs change project coordinator(s), written notification shall be provided to Ecology or the PLPs 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 PLPs 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 PLPs 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 when necessary to abate an emergency situation, the PLPs shall not perform any remedial actions at the City Parcel Site outside that required by this Order unless Ecology concurs, in writing, with such additional remedial actions.

Chapter 173-340-400(7)(b)(i) WAC 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 all property at 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 PLPs. When entering the Site under Chapter 70.105D RCW, Ecology shall provide reasonable notice prior to entering the Site unless an emergency prevents notice. Ecology shall allow split or replicate samples to be taken by the PLPs during an inspection unless doing so would interfere with Ecology's sampling. The PLPs shall allow split or replicate samples to be taken by Ecology and shall provide Ecology seven (7) days notice before any sampling activity.

7. Public Participation

An updated public participation plan for the Site is attached as Exhibit D. Ecology shall maintain the responsibility for public participation at the Site. The PLPs shall help coordinate and implement public participation for the Site.

8. Retention of Records

The PLPs 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 PLPs, a record retention requirement meeting the terms of this paragraph shall be required of such contractors and/or agents.

9. Dispute Resolution

The PLPs may request Ecology to resolve factual or technical 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), of this Order. Ecology resolution of the dispute shall be binding and final. The PLPs are not relieved of any requirement of this Order during the pendency of the dispute and remain responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights

Ecology reserves all rights to issue additional orders or take any action authorized by law in the event or upon the discovery of a release or threatened release of hazardous substances not addressed by this Order, upon discovery of any factors not known at the time of issuance of this Order, in order to abate an emergency, or under any other circumstances deemed appropriate by Ecology.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances from the City Parcel Site.

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 PLPs 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 PLPs 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 PLPs may have in the Site or any portions thereof, the PLPs 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 PLPs shall notify Ecology of the contemplated transfer.

12. Compliance With Other Applicable Laws

A. All actions carried out by the PLPs pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in paragraph B. of this section.

B. Pursuant to RCW 70.105D.090(1), the substantive requirements of chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals for the remedial action under this Order and that are known to be applicable at the time this Order becomes effective are binding and enforceable requirements of this Order.

The PLPs have a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event the PLPs determine that additional permit 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 PLPs shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the PLPs 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 PLPs and on how the PLPs must meet those requirements. Ecology shall inform the PLPs in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The PLPs 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 PLPs 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 PLPs' receipt of written notification from Ecology that the PLPs have 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 Chapter 70.105D.050 RCW, 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 PLPs refuse, without sufficient cause, to comply with any term of this Order, the PLPs 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

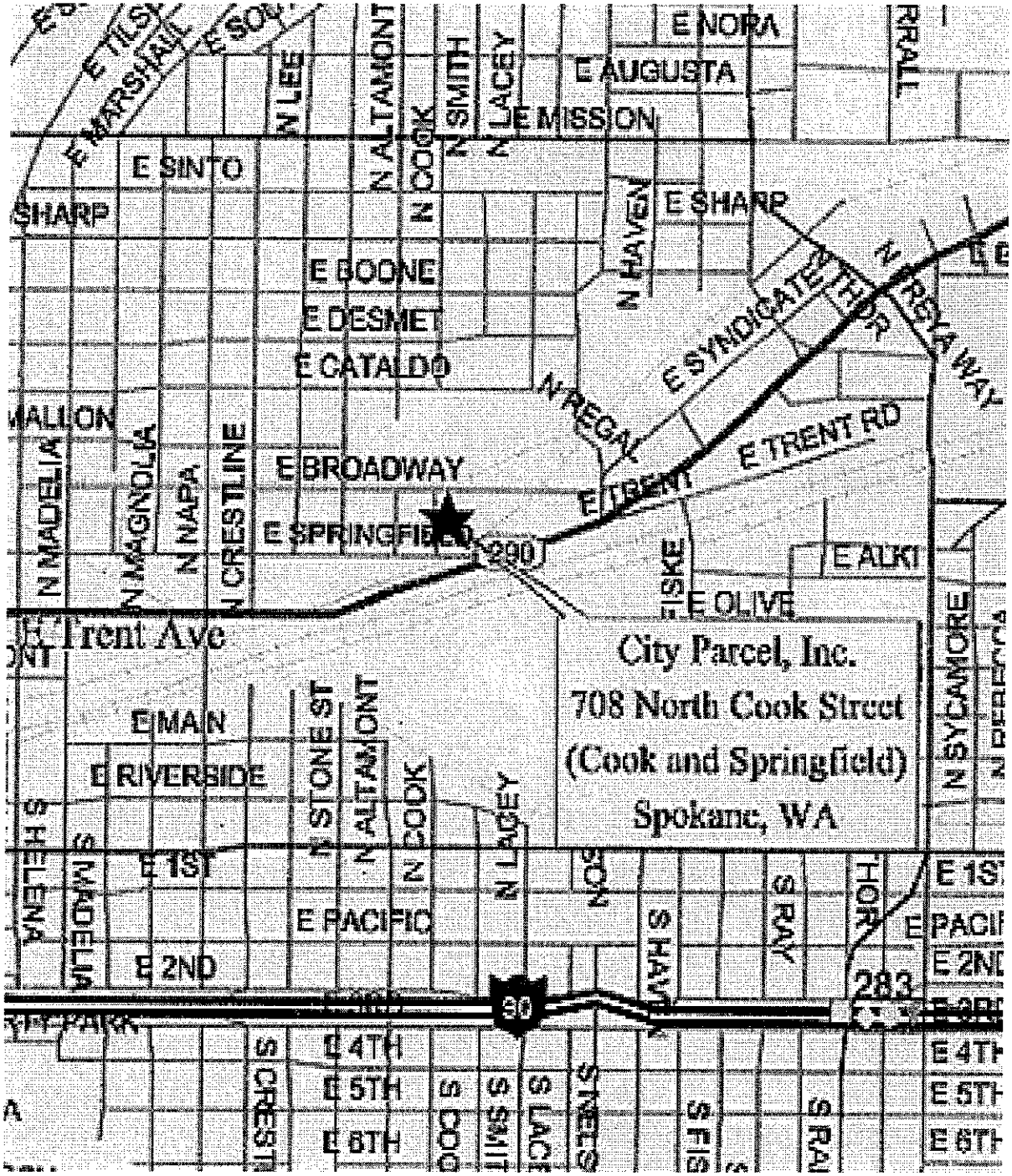
(2) civil penalties of up to $25,000 per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under Chapter 70.105D.060 RCW.

Effective date of this Order: August 16, 2005

Ecology Signature

EXHIBIT A



CITY PARCEL SITE LOCATION

EXHIBIT B

FINAL CLEANUP ACTION PLAN

FINAL CLEANUP ACTION PLAN

CITY PARCEL SITE

SPOKANE, WA

EASTERN REGIONAL OFFICE

TOXICS CLEANUP PROGRAM

AUGUST 2004

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LIST OF ACRONYMS

ARARs	Applicable, Relevant and Appropriate Requirements
CAP	Cleanup Action Plan
DCAP	Draft Cleanup Action Plan
FCAP	Final Cleanup Action Plan
CFR	Code of Federal Register
EPA	Environmental Protection Agency
FS	Feasibility Study
MTCA	Model Toxics Control Act
PCBs	Polychlorinated Biphenyls
PLPs	Potentially Liable Parties
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RI	Remedial Investigation
SAIC	Science Applications International Corporation
TPH-D	Diesel Range Total Petroleum Hydrocarbons
TSCA	Toxics Substance Control Act
VOCs	Volatile Organic Compounds
WAC	Washington Administrative Code

1.0 INTRODUCTION

1.1 The Cleanup Process and the Cleanup Action Plan

The Cleanup Action Plan (CAP) is one of a series of documents used by Ecology in the cleanup process conducted under the Model Toxics Control Act, Chapter 70.105D RCW, and implemented under Chapter 173-340 WAC. A CAP is developed using Remedial Investigation (RI) information that defines the extent and magnitude of contamination at a site and applicable technologies from the Feasibility Study (FS). The Draft Cleanup Action Plan (DCAP) is subject to public review and comment before it is finalized. After review and consideration of the comments received during the public comment period, the department shall issue a Final Cleanup Action Plan (FCAP).

WAC 173-340-380(1)(a) describes the requirements of a DCAP. The DCAP shall include: a general description of the proposed cleanup action developed in accordance with WAC 173-340-350 through 173-340-390; a summary of the rationale for selecting the proposed alternative; a brief summary of other cleanup action alternatives evaluated in the feasibility study; cleanup standards; the schedule for implementation including, if known, restoration time frame; institutional controls; applicable state and federal laws; a preliminary determination by the department that the proposed cleanup action will comply with WAC 173-340-360; and, where the cleanup action involves on-site containment, specification of the types, levels, and amounts of hazardous substances remaining on site and the measures that will be used to prevent migration and contact with those substances.

1.2 Purpose and Objectives

The public comment period for the DCAP was conducted from July 21 through August 19, 2004. No written comments were received during this comment period. Ecology is therefore issuing this FCAP for the City Parcel Site.

This decision document presents Ecology's selected cleanup action for the City Parcel Site (the Site). The selected cleanup action is chosen based upon information in the following documents:

- SAIC, Final Remedial Investigation Report for the City Parcel Site, November 27, 2002. (The Remedial Investigation Report was made available for public review and comment from January 16 through February 28, 2003.)

- SAIC, City Parcel Site, Post-RI Groundwater Sampling Technical Memorandum, June 30, 2003.

- Ecology, Final Feasibility Study Report, April 2004. (The Draft Feasibility Study Report was made available for public review and comment from February 26 through March 26, 2004)

Portions of the text and the figures of this CAP are taken directly from these documents.

1.3 Declaration

Ecology's selected cleanup action will comply with WAC 173-340-360. This selected remedy is protective of human health and the environment, and is consistent with the preference for permanent solutions to the maximum extent practicable requirement under RCW 70.105D.030(1)(b).

1.4 Applicability

This Cleanup Action Plan is applicable only to the City Parcel Site. Cleanup standards and cleanup actions have been developed as an overall remediation process being conducted under the MTCA, and should not be considered as setting precedents for other sites.

1.5 Administrative Record

The documents used to make decisions discussed in this cleanup action plan are constituents of the administrative record for the Site. The entire administrative record for the Site is available for public review by appointment at Ecology's Eastern Regional Office, 4601 N. Monroe, Spokane, WA 99205-1295. Documents that were made available for public comment and review are also available at the Spokane Public Library – East Side, 524 South Stone, Spokane, WA 99201.

2.0 BACKGROUND INFORMATION

2.1 Site Description

The City Parcel Site is located at 708 N. Cook St in Spokane, Washington (see Figure 1). This property was formerly occupied from 1961 through 1979 by Spokane Transformer, Inc. which was a transformer repair and recycling facility. A package delivery service has, since 1979, been operated at this Site.

The City Parcel property measures approximately 28,400 square feet (0.65 acres). The existing building, which is a square shaped combination masonry block and steel-sided structure, is roughly 19,000 square feet and covers 67% of the property. Aerial views of the City Parcel Building additions, with a building schematic included, are shown in Figure 2. A fenced gravel covered parking area (9,372 square feet or about 0.2 acres) located north of the building, serves as an outdoor storage area for vehicles and other equipment.

The City Parcel property is bounded to the west by Cook Street, to the south by Springfield Avenue, to the north by a private property, and to the east by an alleyway that separates the City Parcel property from an adjoining property (formerly the John Barrier Trust Property) that was purchased by the City of Spokane in 2003. The alleyway is a deeded City of Spokane right-of-way.

The Site is located in an area zoned as M1 Light Industrial. It is located on flat terrain and is predominantly surrounded by commercial light industrial use. The few residences proximate to the site appear to be associated with the surrounding commercial activities.

2.2 Site History

The Environmental Protection Agency (EPA) conducted investigations at the Site in 1976, 1986 and 1987. High concentrations of polychlorinated biphenyls (PCBs) were found in soils in the parking lot and in the alleyway, in drain sediments inside the building, and in storm drains adjacent to the property. Studies done in 1997 by the current owner of the property detected PCBs in soil and in groundwater. Figure 3 shows a graphic depiction of historic soil and sediment sample locations and results. The presence of PCBs in ground water was inconclusive in the 1997 study. The initial sampling event reported PCB detection above regulatory level, but a subsequent sampling event had no reported detection.

City Parcel and its owners, Paul and Mary Ann Gisselberg, filed a lawsuit as a private right of action under MTCA against Spokane Transformer's past owners/operators Richard E. and Mary K. Boyce, and Jerry E. and Jane Doe Overton in December 1994. This lawsuit was tried in Spokane County Superior Court from July 19-22, 1999. On September 28, 1999, Judge Linda Thompkins issued Findings of Fact and Conclusions of Law imposing liability of 37.5 % for Mr. Boyce, 37.5 for Mr. Overton, and 25% for Mr. Gisselberg as contribution for remedial action costs under MTCA.

In 1998, the Spokane Regional Health District completed a site hazard assessment (SHA) of the property, as required under MTCA. The Site was ranked a "2", on a scale of 1 (highest risk) to 5 (lowest risk).

In December 2000, the owner of the adjacent "Barrier Trust Property" conducted a limited investigation along the western boundary of the property adjacent to the alleyway. PCBs were detected in soils ranging from 2.0 to 9.0 mg/kg (or parts per million, ppm) PCBs.

In certified correspondence dated March 21, 2001, Ecology notified Mr. Gisselberg, Mr. Boyce, and Mr. Overton of the preliminary finding of potential liability and requested comment on those findings. On April 12, 2001, Ecology notified Mr. Gisselberg, Mr. Boyce, and Mr. Overton of their status as "potentially liable persons" under RCW 70.105D.040 for the release of hazardous substances at the City Parcel Site.

In 2002, Ecology tried to negotiate with the Potentially Liable Persons (PLPs) to complete a Remedial Investigation (RI)/Feasibility Study (FS) as required under MTCA. The RI is to determine the nature and extent of contamination and the FS is to evaluate cleanup alternatives for the Site. These negotiations were not successful and Ecology hired Science Applications International Corporation (SAIC) as its contractor to conduct a Remedial Investigation (RI) at the Site. The Remedial Investigation involved field studies of the following: (a) drainage features and underground utilities as well as other subsurface structures; (b) soil; and, (c) ground water. These investigations were conducted from April 2002 to July 2002. Additional ground water studies were conducted in 2003 to verify the ground water results that were inconclusive during the 2002 investigations. This 2003 ground water study confirmed that PCBs are not of concern in ground water. Ecology completed a Feasibility Study (FS) for this Site in April 2004.

2.3 Site Physical Characteristics

2.3.1 Drainage Features and Utilities

The Remedial Investigation included the study of drainage features, and underground structures and utilities on Site. The following are some relevant findings of these investigations (see Figure 4):

- Sewer service for the City Parcel building is provided through a 6-inch sewer line approaching from the north and traveling south located under Cook Street, about 5-feet west of the building. The sewer line elbows to the east at Springfield Avenue and runs parallel to the building approximately 4 feet south of the building.

- Storm water from the roof of the building flows down a series of drain lines on the south wall of the building, discharging into a sewer line that runs along the

south side of the building. Storm water from the east side of the alley infiltrates into the soil or flow into the dry well on the southeast corner of the property. Storm water in the gravel parking area to the north of the building infiltrate into the soils.

- Drainage features inside the building were documented through drain tracing video and electronic detection methods. In general, liquid releases to the floor inside the building may connect into one of nine floor drains. One floor drain serves a dual role as a floor drain and a dry well. One drain appears to drain towards the sewer line area but could not be confirmed due to blockage.

- Natural gas is supplied to the City Parcel building through a gas line that is located under the alleyway on the east side of the building. The gas line tees and approaches the building at a right angle to the main line near the electrical power pole in the alleyway.

- An underground storage tank is still present beneath the concrete floor near the southeast corner of the building. Although the underground extent of the tank is unknown, a cap is located approximately 26 feet north of the southern wall of the building. Video tracing showed that the tank is connected to a 4-inch diameter standpipe located outside of the building just one foot south of the southern wall. At the time of the investigation, the tank contained about two inches of an unknown liquid.

- A 4-foot by 7-foot concrete footprint of an abandoned vault is visible on the west inside the building.

2.3.2 Site Geology

Geologic units on the Site are generally characterized by poorly graded gravels and cobbles with up to 20% fine to coarse sands. Geological materials generally increase in size from fine to medium gravels with sand at the surface to cobbles and gravels with little sand at approximately 55 feet below ground surface. Water table conditions were encountered at approximately 50 feet below ground surface at the time of drilling operations.

2.3.3 Site Hydrogeology

Groundwater was encountered at approximately 50 to 51 feet below ground surface at the time of well installations. The flow of ground water is generally from southeast to northwest across the site, with a slight east to west component of flow at the southern end of the Site (see Figure 5). A data logger installed in one of the monitoring wells (MW5) recorded water levels every four hours. For the 10-month period of monitoring (April 2002 through May 2003), a maximum of 11 feet fluctuation was recorded. The highest elevations occurred in the spring of 2002; the lowest water table elevation occurred in the fall and early winter of 2002.

3.0 NATURE OF CONTAMINATION

3.1 Surface Soils

Analytical results of the shallow soil samples analyzed indicate the presence of PCBs in soils in the north parking area and exposed soils in the alleyway of the City Parcel building. Figure 6 shows the PCB concentrations for each shallow soil sample location from the April 2000 soil investigation. The highest concentrations of PCBs (up to 11,500 milligrams per kilogram (mg/kg)) were found in the 0 to 6-inch samples; however, substantial PCB concentrations (up to 1,740 mg/kg) were detected in samples from 6 to 12 inches below ground surface.

Diesel range and lube oil range hydrocarbons were detected in several shallow soil samples, but mostly at levels below the MTCA Method A cleanup level of 2,000 mg/kg for unrestricted land use. One shallow soil sample contained Diesel Range Total Petroleum Hydrocarbons (TPH-D) at a level of 2,040 mg/kg which is just slightly above the Method A cleanup level. Some volatile hydrocarbons and volatile organic compounds (VOCs) were also detected below MTCA Method A levels in a limited number of shallow soil samples.

Table 1 shows a summary of the soil analytical results.

3.2 Subsurface Soils

Subsurface soil investigation during the RI included an evaluation of soils to a maximum of 60 feet below ground surface from four exploratory borings and five monitoring well borings. One monitoring well boring and four exploratory borings were located inside the building. Subsurface soil analytical results indicate little PCB contamination with depth at the site. Of the 26 subsurface soil samples analyzed for PCBs, only four had detectable concentrations of PCBs. Analytical results for TPH and PCBs detected in subsurface soil samples are also shown in Table 1.

3.3 Ground Water

Five monitoring wells (MW-2 through MW-6, shown in Figure 5) were installed by Ecology during the 2002 remedial investigations. MW-2 is a background well; MW-3, MW-4, and MW-5 are down gradient wells. MW-1, installed in 1997 by City Parcel, is on the south end of the alleyway. MW-6 is located inside the building near a dry well. Results of four events of ground water investigations from April 2002 through May 2003 are shown in Table 2 for MW-1, MW-4, MW-5, and MW-6. No PCBs were detected in ground water samples from MW-2 and MW-3 for all four sampling events. PCBs were found in MW-1 at a concentration of 1.88 micrograms per liter (ug/L) in April 2002 but were not detected in the subsequent three sampling events. PCBs were not detected in ground water from the rest of the wells for all sampling events.

3.4 Contaminants and Media of Concern

The results that are summarized in Tables 1 and 2 show that PCBs (Aroclor 1260) is the only contaminant of concern and shallow soil is the only medium to consider.

PCB-1260 is also referred to as Aroclor 1260. PCBs are a group of chemicals that contain 209 individual compounds called congeners. PCBs made in the United States were marketed under the trade name Aroclor and are identified by a four digit numbering code in which the first two digits indicate that the parent molecule is a biphenyl. For the 1200 series aroclors, the last two digits indicate the chlorine content by weight; Aroclor 1260 has 60 percent chlorine. The persistence of PCBs increases with an increase in the degree of chlorination. PCBs are probable carcinogens in humans.

Total PCB analysis has been reported as total aroclor equivalents. However, since the aroclor patterns in environmental samples are often degraded, quantification of individual PCB congeners are obtained. Results of the congener analysis provided background information on the distribution of congeners present. For the City Parcel Site, the congener analysis results show that PCB contamination consists primarily of congeners with high degrees of chlorination. This confirms the finding that the PCB contamination is characterized as Aroclor 1260, a mixture of highly chlorinated of PCBs.

3.5 Current and Potential Pathways of Exposure

- A current exposure pathway for the shallow soils is ingestion, dermal contact, or inhalation. Disturbances to the temporary gravel cover and the shallow soils may cause ingestion or dermal contact with soils and inhalation of dust emissions.

- PCBs have very low vapor pressure. The rate of volatilization of PCBs from the soil is very low. Therefore, the inhalation of vapor pathway is not a current or potential pathway of exposure.

- Another pathway that relates to soil is the potential for future migration of soil chemicals to ground water. Although current conditions show that the soil chemicals are not migrating to the ground water, a change in Site conditions may have a bearing on the potential of PCBs to migrate. For example, in the presence of organic solvents, PCBs may leach quite rapidly through soil.

- Significant terrestrial ecological receptor exposure is not expected at this Site. The Site is in an industrial area that is not frequented by wildlife.

4.0 CLEANUP STANDARDS

Cleanup standards consist of the following:

(a) Cleanup levels for hazardous substances present at the Site;
(b) The location where these cleanup levels must be met (point of compliance); and,
(c) Other regulatory requirements that apply to the site because of the type of action and/or location of the site ("applicable state and federal laws").

A cleanup level is the concentration of a hazardous substance in soil, water, air, or sediment that is determined to be protective of human health and the environment under specified exposure conditions. Cleanup levels, in combination with points of compliance, typically define the area or volume of soil, water, air, or sediment at a site that must be addressed by the cleanup action.

The first step in setting cleanup levels is to identify the nature of the contamination and the potentially contaminated media, the current and potential pathways of exposure and receptors, and the current and potential land and resource uses.

Based on discussions presented in Section 3, cleanup standards for PCBs in soils are developed in this section for the City Parcel Site. PCBs are the only hazardous substance of concern and the only medium of interest is soil.

4.1 Soil Cleanup Levels

Soil cleanup levels shall be based on the reasonable maximum exposure expected to occur under both current and future site use conditions. MTCA allows for the establishment of soil cleanup levels based on two types of land use – **unrestricted land use** and **industrial land use**. The site use requiring the most protective cleanup levels is residential land use.

For **unrestricted land use**, the soil cleanup level is based on the reasonable maximum exposure expected to occur under residential land use conditions or child exposure scenario. Restrictions on the future use of the land are not required where these soil cleanup levels are met at the point of compliance.

For **industrial land** use, the soil cleanup level is based on an exposure expected to occur under industrial use conditions or on an adult worker exposure scenario. Restrictions on the future use of the land are required if industrial soil cleanup levels are established, even if the cleanup levels are met to ensure the exposure scenario is met.

Various methods are available to establish cleanup levels under MTCA for either land use. MTCA provides for three approaches for establishing soil cleanup levels -- **Method A, Method B, or Method C**. **Method A and Method B** are two options used for

establishing soil cleanup levels for **unrestricted land use**. **Method A and Method C** are the two options used for establishing soil cleanup levels for **industrial land use**.

Method A is used for routine sites or sites that involve relatively few hazardous substances. MTCA provides for the establishment of Method A cleanup levels for either unrestricted land use or industrial land use. Method A soil cleanup levels are set at concentrations at least as stringent as the following concentrations:

- Numerical values provided for in MTCA;
- Concentrations established under applicable state and federal laws; and,
- Concentrations that protect the environment or concentrations that result in no significant adverse effects on the protection and propagation of terrestrial ecological receptors (plants and animals).

The natural background or the practical quantitation limit (PQL), whichever is higher, may be used as the Method A level if numerical values under MTCA or under applicable state and federal laws are not available

Method B may be used to establish soil cleanup levels at any site. Method B cleanup levels are used for residential land use conditions. Standard Method B method uses default formulas, assumptions, and procedures to develop cleanup levels. Under modified Method B, chemical-specific or site-specific information may be used to change certain assumptions to calculate the cleanup levels. Method B soil cleanup levels are developed under WAC 173-340-740(3).

Method C is the standard method for establishing soil cleanup levels at industrial sites and its use is conditioned upon the continued use of the site for industrial purposes. Under method C, cleanup levels are established the same as under Method B with different exposure scenarios. Method C soil cleanup levels are developed under WAC 173-340-745(5).

4.2 Land Use of the Site

The City of Spokane does Comprehensive Planning that is in compliance with Chapter 36.70 RCW (Growth Management Act). The Site is zoned M1 – Light Industrial - which is intended for those light industrial users which produce little noise, odor and smoke and for industrial parks The City Parcel property and the City of Spokane property meet the definition of "Industrial Properties" in WAC 174-340-200.

The City Parcel property is currently occupied by three businesses. City Parcel operates package-sorting and truck-loading businesses each morning and afternoon at the Site. Two other small businesses lease space on the north side of the building as a small engine repair shop and a small storage and truck parking space

The City of Spokane property (former John Barrier Trust property) is being planned for development in 2004. The City intends to develop this property as a washing and storage facility to support the City's Operations Maintenance Facility located north across the street. The entire area will be paved and wastewater will be directed to a treatment system off-property. Public access to this City property will be restricted.

The alleyway east of the building has unrestricted public access. This alleyway separates the City Parcel Property from the former John Barrier Trust Property which was purchased by the City of Spokane in 2003. In the interim, at the request of Ecology, to prevent current exposure to PCB-contaminated surface soils in the alleyway, the City had covered the alleyway with gravel.

Under MTCA [WAC 173-340-745 (1)(a)(i)], the following characteristics shall be considered to determine if the alleyway is "zoned for industrial use":

(A) People do not normally live on industrial property. The primary potential exposure is to adult employees of businesses located on the industrial property;
(B) Access to industrial property by the general public is generally not allowed. If access is allowed, it is highly limited and controlled due to safety or security considerations;
(C) Food is not normally grown/raised on industrial property. (However, food processing operations are commonly considered industrial facilities);
(D) Operations at industrial properties are often (but not always) characterized by use and storage of chemicals, noise, odors and truck traffic;
(E) The surface of the land at industrial properties is often (but not always mostly covered by buildings or other structures, paved parking lots, paved access roads, and material storage areas – minimizing potential exposure to the soil; and
(F) Industrial properties may have support facilities consisting of offices, restaurants, and other facilities that are commercial in nature but are primarily devoted to administrative functions necessary for the industrial use and/or are primarily intended to serve the industrial facility.

The alleyway cannot be considered to be "zoned industrial" since it does not restrict access to the general public.

4.3 Site Cleanup Standards

4.3.1 Site Cleanup Levels

The department has determined that **industrial land use** represents the reasonable maximum exposure for the **City Parcel** property and the **City of Spokane** property. **Residential land use** conditions represent the reasonable maximum exposure in the alleyway.

To use industrial soil cleanup levels, the following criteria must also be met [WAC 173-340-745 (1)(a)(ii)(iii)]:

- The cleanup action provides for appropriate institutional controls to limit potential exposure to residual hazardous substances. This shall include, at a minimum, placement of a covenant on the property restricting use of the area of the site where industrial soil cleanup levels are proposed to industrial property uses; and
- Hazardous substances remaining at the property after remedial action would not pose a threat to human health or the environment at the site or in adjacent nonindustrial areas.

Method A is used to establish soil cleanup levels because PCBs are the only hazardous substance of concern and numerical standards are available in MTCA for PCBs. The Method A cleanup level for PCB mixtures is 1 mg/kg (Table 740-1, Unrestricted land use) or 10 mg/kg (Table745-1, Industrial Properties). These levels are based on an applicable federal law, 40 C.F.R. 761.61, the Toxics Substance Control Act (TSCA)

It is not necessary to establish a PCB soil concentration that results in no significant adverse effects on the protection and propagation of terrestrial ecological receptors for this site. The criteria under WAC 173-340-7491 (1), exclusions from a terrestrial ecological evaluation, will be met at this Site. Upon implementation of the cleanup action, all soils contaminated with PCBs will be covered by buildings, paved, covered with physical barriers, or removed from the Site. The cleanup action would prevent plants or wildlife from being exposed to any PCB contamination remaining on site.

The following are the Site cleanup levels for PCBs in soils:

Property	PCBs Cleanup Level, mg/kg	Notes
City Parcel Property	10	Method A Industrial – cleanup level based on applicable federal law (40 C.F.R. 761.61). This value may be used only if the PCB contaminated soils are capped and the cap maintained by 40 C.F.R. 761.61.
City of Spokane Property (former Barrier Property)	10	
Alleyway	1	Method A Residential – cleanup level based on applicable federal law (40 C.F.R.761.61)

4.3.2 Points of Compliance

The PCBs soil cleanup levels for this Site are based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway. The point of compliance as required under WAC 173-340-740(6)(d) and WAC 173-340-745(7) shall be in the soils throughout the Site from the ground surface to fifteen feet below the ground surface. This represents a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of site development activities.

5.0 MTCA'S SELECTION OF CLEANUP ACTIONS PROCESS

5.1 Minimum Requirements for Cleanup

WAC 173-340-360 describes the minimum requirements and procedures for selecting cleanup actions. The minimum requirements, specified under WAC 173-340-360(2), include the following:

(a) Threshold requirements. The cleanup action shall:
  (i) Protect human health and the environment;
  (ii) Comply with cleanup standards;
  (iii) Comply with applicable state and federal laws;
  (iv) Provide for compliance monitoring.

(b) Other requirements. When selecting a cleanup action alternative that fulfill the threshold requirements, the selected action shall:
  (i) Use permanent solutions to the maximum extent practicable;
  (ii) Provide for reasonable restoration time frame; and,
  (iii) Consider public comments.

When selecting a cleanup action, preference shall be given to permanent solutions, to the maximum extent practicable. A "permanent solution", under WAC 173-340-200, means a cleanup action in which cleanup standards of WAC 173-340-700 through WAC 173-340-760 can be met without further action being required at the site being cleaned up or any other site involved with the cleanup action, other than the approved disposal of any residue from the treatment of hazardous substances. To determine whether a cleanup action uses permanent solutions to the maximum extent practicable, the disproportionate cost analysis shall be used.

5.2 Disproportionate Cost Analysis [WAC 173-3340-360 (3)(e)]

Costs are disproportionate to benefits if the incremental costs of the alternative over that of the lower cost alternative exceed the incremental degree of benefits achieved by the alternative over that of the lower cost alternative. The following criteria are used to evaluate and compare each cleanup action alternative when conducting a disproportionate cost analysis to determine whether a cleanup action is permanent to the maximum extent practicable:

(i) Protectiveness. This involves overall protectiveness of human health and the environment including the degree to which existing risks are reduced, time required to reduce risk at the facility, and attain cleanup standards, on-site and off-site risks resulting from implementing the alternative, and improvement of the overall environmental quality.

(ii) Permanence This is the degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases

and sources of releases, the degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated.

(iii) Cost. This is the cost to implement the alternative, including the cost of construction, the net present value of any long-term costs, and agency oversight costs that are cost recoverable.

(iv) Effectiveness over the long term. This includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time hazardous substances are expected to remain on site at concentrations that exceed cleanup levels, the magnitude of residual risk with the alternative in place, and the effectiveness of controls required to manage treatment residues or remaining wastes. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: Reuse or recycling; destruction or detoxification; immobilization or solidification; on-site or off-site disposal in an engineered, lined and monitored facility; on-site isolation or containment with attendant engineering controls; and institutional controls and monitoring.

(v) Management of short-term risks. This includes the risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to mange such risks.

(vi) Technical and administrative implementability. This is the ability to implement the alternative including whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with existing facility operations and other current or potential remedial actions.

(vii) Consideration of public concerns. This is to address the concerns of the community regarding the alternative.

5.3 Reasonable Restoration Time Frame

To determine whether a cleanup action provides for a reasonable restoration time frame, the factors to be considered include the following:

(i) Potential risks posed by the site to human health and the environment;
(ii) Practicability of achieving a shorter restoration time frame;
(iii) Current use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;
(iv) Potential future use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;
(v) Availability of alternative water supplies;
(vi) Likely effectiveness and reliability of institutional controls;
(vii) Ability to control and monitor migration of hazardous substances from the site;

(viii) Toxicity of the hazardous substances at the site;
(ix) Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the site or under similar site conditions.

A longer period of time may be used for the restoration time frame for a site to achieve cleanup levels at the point of compliance if the cleanup action selected has a greater degree of long-term effectiveness than on-site or off-site disposal, isolation, or containment options. Extending the restoration time frames shall not be used as a substitute for active remedial measures, when such actions are practicable.

5.4 Screening of Alternatives

WAC 173-340-350 (8)(b) states that an **initial screening of alternatives** to reduce the number of alternatives for the final detailed evaluation may be appropriate. The following cleanup action alternatives or components may be eliminated from the detailed evaluation required in feasibility study:

(i) Alternatives that, based on a preliminary analysis, do not meet the minimum requirements specified in WAC 173-340-360. This includes alternatives for which costs are clearly disproportionate under WAC 173-340-360(3)(e);
(ii) Alternatives or components that are not technically possible at the site.

A reasonable number and type of alternatives shall be evaluated after the initial screening. Each alternative may consist of one or more cleanup action components. Each alternative shall be evaluated on the basis of the requirements and the criteria specified in WAC 173-340-360. The feasibility study shall include at least one permanent cleanup action alternative to serve as a baseline against which other alternatives shall be evaluated for the purpose of determining whether the cleanup action is permanent to the maximum extent practicable except under the following conditions:

(i) Where a model remedy is the selected cleanup action;
(ii) Where a permanent cleanup action alternative is not technically possible;
(iii) Where the cost of the most practicable permanent cleanup action alternative is so clearly disproportionate that a more detailed analysis is not necessary.

5.5 Expectations for Cleanup Action Alternatives [WAC 173-340-370]

WAC 173-340-370 lists the expectations for the development of cleanup action alternatives and the selection of cleanup actions. These expectations include:

(1) The department expects that treatment technologies will be emphasized at site containing liquid wastes, areas contaminated with high concentrations of hazardous substances, highly mobile materials, and/or discrete areas of hazardous substances that lend themselves to treatment.
(2) To minimize the need for long-term management of contaminated materials, the department expects that all hazardous substances will be destroyed, detoxified,

and/or removed to concentrations below cleanup levels throughout sites containing small volumes of hazardous substances.

(3) The department recognizes the need to use engineering controls, such as containment, for sites or portions of sites that contain large volumes of materials with relatively low levels of hazardous substances.

(4) To minimize the potential for migration of hazardous substances, the department expects that active measures will be taken to prevent precipitation and subsequent runoff from coming into contact with contaminated soils and waste materials.

(5) When hazardous substances remain on-site at concentrations which exceed cleanup levels, those hazardous substances will be consolidated to the maximum extent practicable where needed to minimize the potential for direct contact and migration of hazardous substances.

(6) For facilities adjacent to a surface water body, active measures will be taken to prevent/minimize releases to surface water via surface runoff and ground water discharges in excess of cleanup levels.

(7) Natural attenuation may be appropriate if: source control has been conducted; leaving contaminants on-site during the restoration time frame does not pose a threat to human health and the environment; there is evidence that natural biodegradation of chemical degradation is occurring and will continue to occur at a reasonable rate; and, appropriate monitoring requirements are conducted to ensure that natural attenuation is occurring.

(8) Cleanup actions will not result in a significantly greater overall threat to human health and the environment.

6.0 PROPOSED CLEANUP ALTERNATIVES

6.1 Cleanup Action Objectives

The primary cleanup action objective for the City Parcel Site is to prevent dermal contact with or ingestion of PCB contaminated soils.

A secondary cleanup objective is to reduce any future potential for the migration of PCBs from soil to ground water.

6.2 Estimated Volumes of PCB Contaminated Soils

Contaminated soils at this Site include surface soils, and soils associated with the two dry wells and the underground storage tank. Table 3 presents volume calculations for soils with greater than 10 mg/kg PCBs. Volumes are calculated for surface soils above 10 mg/kg PCBs for the parking lot, the alleyway, the south side of the building, and underneath the building. Approximate volumes of contaminated soil as a result of the removal of dry wells DW1 and DW2, and the underground storage tank are included.

The calculations in Table 3 assume that for surface soils, PCB concentrations do not exceed 10 mg/kg beyond 2 feet below ground surface. The percentages of soil exceeding 10 mg/kg for the 0 - 1 foot depth and the 1 - 2 feet depth are approximated based on the RI results. The volume of surface soils above 10 mg/kg PCBs concentration underneath the building is based on the assumption that the contaminated soils underneath the building are located in the Northern and Eastern addition areas (aerial photographs show that transformers were placed in these areas before the building expansions).

6.3 Federal Regulations Governing Site PCB Remediation

The Toxic Substance Control Act (TSCA) is the major federal law pertinent to the City Parcel Site. TSCA as codified in 40CFR 761 establishes prohibitions of and requirements for the manufacture, processing and distribution in commerce, use, disposal, storage, and markings of PCBs and PCB items in the United States after January 1, 1978. TSCA regulations of importance to this Site are found in 40 CFR Section 761.60 – 761.79, Subpart C: Storage and Disposal. These sections specify treatment, storage, and disposal requirements based on their form and concentration.

The provisions of TSCA (40CFR761) apply only to materials containing PCBs at concentrations of 50 mg/kg and above. There are three primary options for non-liquid PCBs at concentrations of 50 mg/kg or greater that are compliant with TSCA:

1. Incineration
2. Treatment equivalent to incineration
3. Disposal in a chemical waste landfill.

TSCA does not specify concentration limits for disposal of PCB-containing non-liquids (e.g., soils), but specifies that industrial sludges or dredged materials with PCB concentrations greater than 500 mg/kg may not be landfilled. The determination of whether contaminated materials should be considered a soil or an industrial sludge should be made site specifically consistent with the current process for classifying material subject to the land disposal restrictions as either a pure waste or a soil and debris contaminated with a waste.

Persons generating soils, sediments, or treatment residuals contaminated with PCBs in concentrations equal to or greater than 50 mg/kg must comply with TSCA generator requirements. These requirements include: notification to EPA of PCB-generating activities, shipment of regulated wastes using the Uniform Hazardous Waste Manifest, and disposal at a TSCA-approved disposal facility.

The TSCA regulations for storage requirements specify that materials with PCB concentrations of 50 mg/kg or greater must be destroyed of or disposed of within one year after being placed in storage.

PCBs are not regulated as a hazardous waste under the Resource Conservation and Recovery Act (RCRA). However, if PCBs are mixed with hazardous wastes listed RCRA, the mixture is subject to the RCRA waste regulations. RCRA is not applicable to the Site because there are no RCRA hazardous wastes.

6.4 State Regulations Governing PCBs

PCB wastes are also regulated by the Dangerous Waste Regulations, Chapter 173-303 WAC. The requirements of both the Dangerous Waste Regulations and TSCA must be met for any PCB waste. However, the Dangerous Waste Regulations typically exclude from regulation any waste regulated under TSCA.

Soils and other waste materials that have been contaminated with 2 mg/kg PCB or greater are regulated as W001 dangerous waste if the contamination resulted from the salvaging, rebuilding or discarding of transformers, capacitors, or bushings. These wastes may be excluded under the conditions in WAC 173-303-071(3)(k) and may also qualify for the conditional special waste exclusion waste under WAC 173-303-073. Otherwise, wastes with PCB concentrations between 2 and 50 mg/kg must be managed as dangerous wastes.

6.5 Summary of Feasibility Study Cleanup Alternatives

Remedial technologies that are applicable to PCBs in soils were evaluated in the Feasibility Study Report. An initial screening eliminated technologies that were not applicable to the Site based on criteria identified under MTCA. The technologies that were considered for implementation to Site soils were:

2 Capping
3 In-situ Solidification/stabilization
4 Excavation/Off-site incineration
5 Excavation/Off-site disposal

These remedial technologies were assembled into cleanup alternatives. These alternatives are developed to present several options to sufficiently compare alternatives against one another.

Because soil cleanup levels are developed using industrial criteria, all alternatives will require institutional controls to limit access to the property and future uses. The following cleanup alternatives were presented in the Feasibility Study:

Alternative 1: Building Demolition, Capping, and Institutional Controls

Alternative 2: Building Demolition, In-situ Solidification/Stabilization, and Institutional Controls

Alternative 3: Deferred Building Demolition, Excavation, Off-site Disposal, and Institutional Controls

Alternative 4: Building Demolition, Excavation, Off-Site Disposal, and Institutional Controls

Alternative 5: Building Demolition, Excavation, Off-Site Incineration, and Institutional Controls

These alternatives were described at a conceptual level because actual quantities, dimensions, and engineering parameters will be determined in the remedial design phase. Cost figures were preliminary, order-of-magnitude estimates, which were developed primarily for the purpose of comparing remedial alternatives during the remedy selection

PCB concentrations in the City of Spokane property are below the industrial cleanup level of 10 mg/kg. However, because industrial cleanup levels are used, the soils will have to be capped and maintained in accordance with 40 C F R. 761.61. The City's plan to pave the property will meet this requirement. Deed restrictions limiting site use is also required.

6.5 1 Alternative 1: Building Demolition, Capping and Institutional Controls

This alternative combines containment measures and institutional controls to reduce the risk of exposure to PCBs. Under this alternative, the building would be demolished, the underground storage tank, drywells DW1 and DW2, and the drain lines would all be removed. The contaminated soils would remain in place and would be covered with gravel. This alternative would include the following major elements:

- Building demolition;
- Removal of the underground storage tank, drywells DW1 and DW2, and drain lines;
- Incineration of PCB liquid and sediments;
- 12" gravel cap for the City Parcel property and the alleyway (the City of Spokane property will be capped by the City in a proposed development);
- Deed restrictions for the following properties:
  - City Parcel and City of Spokane properties limiting use to industrial; and
  - Alleyway to protect integrity of the gravel cap.
- Inspection and maintenance of the gravel cap to assure the long-term integrity of the cap.

The parking lot area of the City Parcel Property and the alleyway are already covered with gravel. Additional gravel may have to be added to make a 12" gravel cap.

6.5.2 Alternative 2: Building Demolition, In-situ Solidification/Stabilization, and Institutional Controls

This alternative makes use of in-situ solidification/stabilization to treat the PCBs in soil. Solidification agents would be mixed with the surface soils to 2 feet deep using a backhoe. The major elements of Alternative 2 are:

- Building demolition;
- Removal of the underground storage tank, dry wells DW1 and DW2, and drain lines;
- Incineration of liquid PCB and sediments;
- In-situ solidification/stabilization of soils in PCB-contaminated areas;
- Soil cover over solidified soils;
- Deed restrictions for the following properties:
  - City Parcel and City of Spokane properties limiting use to industrial; and,
  - Alleyway to protect integrity of the soil cap and the solidified soils,; and,
- Inspection and maintenance of the cap to assure the long-term integrity of the cap.

6.5.3 Alternative 3: Deferred Building Demolition, Excavation, Off-Site Disposal, and Institutional Controls

The major element of this alternative is the excavation of surface soils with PCB concentrations greater than 10 mg/kg. Soils with PCB concentrations greater than 10 mg/kg associated with the removal of DW1, DW2, and the underground storage tank would also be removed. The soils would be disposed off-site at a TSCA permitted landfill; the closest disposal facility is located in Arlington, Oregon approximately 215 miles from Spokane. Industrial cleanup levels would be met in the City Parcel property; the residential cleanup level of 1 mg/kg would not be met in the alleyway. Restrictive covenants would be required for the City Parcel and City of Spokane properties because

Under this alternative, the building would remain in place and would be assumed to be removed sometime in the future. The removal of DW2, the underground storage tank, and the drain lines would take place prior to the building demolition. For purposes of cost calculations, the building would be assumed to be removed ten (10) years after the initiation of this alternative. Additional cleanup of contaminated soils that were underneath the building would take place after the building is removed

The following are the major elements of this alternative:

- Removal of the underground storage tank, drywells DW1 and DW2, and drain lines;
- Incineration of liquid PCB and sediments;
- Excavation of surface soil above 10 mg/kg PCBs in the north parking lot area and in the alleyway;
- Excavation of soils above 10 mg/kg PCBs associated with the removal of the dry wells and the underground storage tank;
- Off-site disposal of soil in a TSCA-permitted landfill.
- Backfilling with clean soil
- Deed restrictions for the following properties:
  - City Parcel property limiting the use to industrial, maintaining the integrity of the soil cap, and requiring the excavation and off-site disposal of contaminated soils underneath the building when the building is removed;
  - City of Spokane property limiting Site use to industrial; and,
  - Alleyway to protect integrity of the soils cap; and
- Building removal with additional soil cleanup in year 10

6.5.4 Alternative 4. Building Demolition, Excavation, Off-Site Disposal and Institutional Controls

The major elements of this alternative are the following:

- Building demolition
- Limited soil sampling
- Removal of the underground storage tank, drywells DW1 and DW2, and drain lines;
- Off-site incineration of liquid PCB and sediments;
- Excavation of surface soil above 10 mg/kg PCBs in the City Parcel property and in the alleyway;
- Excavation of soils above 10 mg/kg PCBs associated with the removal of the dry wells and the underground storage tank;
- Off-site disposal of soil in a TSCA-permitted landfill;
- Backfilling with clean soil; and,
- Deed restriction for the following properties;
  - City Parcel and City of Spokane properties limiting the site to industrial use;

- Deed restriction for the following properties;
  - City Parcel and City of Spokane properties limiting the site to industrial use;
  - Alleyway to maintain integrity of the soil cap.

6.5.5 Alternative 5: Building Demolition, Excavation, Off-Site Incineration, and Institutional Controls

This alternative will consist of the following:

- Building demolition.
- Limited soil sampling.
- Removal of the underground storage tank, drywells DW1 and DW2, and drain lines;
- Excavation of surface soil above 10 mg/kg PCBs in the City Parcel property, and in the alleyway;
- Excavation of soils above 10 mg/kg PCBs associated with the removal of the dry wells and the underground storage tank;
- Off-site incineration of soil, liquid PCBs, and sediments;
- Backfilling with clean soil;
- Deed restriction for the following properties:
  - City Parcel and City of Spokane properties limiting the site to industrial use.
  - Alleyway to maintain integrity of the soil cover.

7.0 EVALUATION AND COMPARISON OF ALTERNATIVES

A detailed evaluation and comparison of the five alternatives that are discussed in Section 6 are presented in the Final Feasibility Study Report (April 2004). Tables 4 and 5 are taken from this FS report; Table 4 shows a summary of the detailed evaluation while Table 5 shows a qualitative/quantitative comparison of the five alternatives.

The following is a summary of the evaluation and comparison of Alternatives 1 through 5:

7.1 Threshold Requirements

Protect human health and the environment

The cap in Alternative 1, along with institutional controls, would prevent direct contact with and ingestion of PCB contaminated soils. Solidification of PCB contaminated soils and a cap under Alternative 2 would also prevent direct contact and ingestion of contaminated soils. The potential for future migration of chemical to ground water is not eliminated under Alternatives 1 and 2. PCB contaminated soils would be excavated under Alternatives 3, 4, and 5. All PCB contaminated soils with concentrations above 10 mg/Kg would be excavated under Alternatives 4 and 5. Soil underneath the building would remain in Alternative 3 until the building is removed and additional soils would be excavated. Excavation of the PCB contaminated soils would prevent direct contact with and ingestion of impacted soils, and would eliminate the potential for future migration of PCBs to ground water.

Comply with cleanup standards

The PCBs cleanup level would not be met at the point of compliance for Alternatives 1 and 2; however, compliance with cleanup standards could be attained under the requirements of WAC 173-340-740(6)(f). Under this section, cleanup actions involving containment may be determined to comply with cleanup standards if: the selected remedy is permanent to the maximum extent practicable; the cleanup action is protective of human health; the cleanup action is demonstrated to be protective of terrestrial ecological receptors; institutional controls are put in place; compliance monitoring and periodic reviews are designed to ensure the long-term integrity of the containment system; and, the types, levels, and amount of hazardous substances remaining on-site and the measures that will be used to prevent migration and contact with those substances are specified in the draft cleanup action plan.

The PCBs cleanup level would be met at the points of compliance for the industrial properties under Alternatives 3, 4, and 5. The cleanup level of 1 mg/kg would not be met in the alleyway but cleanup standards could be complied with under WAC 173-340-740(6)(f).

Comply with Applicable State and Federal Laws

All the five alternatives could comply with the applicable and federal laws that are listed in Table 6.

Provide for Compliance Monitoring

Protection monitoring would be conducted to confirm that human health and the environment are adequately protected during implementation of the cleanup action. Confirmational sampling under Alternatives 3, 4, and 5 would be conducted to verify that soils remaining after the excavation are less than 10 mg/Kg.

7.2 Other Requirements

Use permanent solutions to the maximum extent practicable

Protectiveness: This involves the overall protectiveness of human health and the environment. Alternative 5 ranks the highest because all PCB-contaminated soil with concentrations above the industrial cleanup level would be removed from the Site and the PCBs would be destroyed by incineration off-site. Like Alternative 5, Alternative 4 would involve the excavation of all PCB-contaminated soil with concentrations above the cleanup level. Alternative 4 ranks lower than Alternative 5 because the PCBs would not be destroyed but would be contained off-site. Alternative 3 ranks lower than Alternative 4 since PCB-contaminated soils would still remain underneath the building. Alternative 1 ranks the lowest in protectiveness since no PCBs would be removed and would just be contained on Site. Alternative 2, where the PCBs would be immobilized and contained on Site, ranks higher than Alternative 1.

Permanence: This is the degree to which the alternative permanently reduces the toxicity, mobility or volume of the hazardous substances. Alternative 5 ranks the highest in terms of permanence since the PCBs in soils that are excavated would be permanently destroyed by the incineration process. Alternative 4 ranks less than Alternative 5 because the PCBs in the soils that are excavated would be not destroyed but would be contained off-site. Alternative 3 ranks less than Alternative 4 since soils underneath the building would not be immediately removed. Alternative 1 ranks the lowest in permanence as this alternative would not reduce the toxicity, mobility, or volume of the PCBs in soils. Alternative 2, because the mobility of PCBs would be reduced through solidifaction/stabilization, ranks higher than Alternative 1.

Cost: Table 7 is a summary of the costs of the five alternatives. The Final Feasibility Study Report presents the cost estimates for the various alternatives. These costs figures are preliminary, order-of-magnitude estimates, which are developed primarily for the purpose of comparing remedial alternatives during the remedy selection. Actual quantities, dimensions, and engineering parameters, and cost estimates will be determined in the remedial design phase. Alternative 1 is the least costly and Alternative

5 is the most expensive. Alternative 3 costs more than Alternative 4 The removal of one drywell and the underground storage tank inside the building in Alternative 3 would cost more if the building remains, versus removing these following demolition of the building.

Long-term Effectiveness: This includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time hazardous substances are expected to remain on-site at concentrations that exceed cleanup levels, the magnitude of residual risk, and the effectiveness of controls required to manage treatment residues or remaining risks. Following the guidance under WAC 173-340-360(3)(e)(iv), Alternative 5, which involves the destruction of PCBs, ranks the highest in terms of long-term effectiveness. Alternative 4 ranks next to Alternative 5 because this entails off-site disposal in an engineered, lined, and monitored facility. Alternative 3, which is Alternative 4 without immediate building removal, ranks a little less than Alternative 4. Alternative 1, which is on-site isolation or containment, ranks the lowest in terms of long-term effectiveness. Alternative 2 ranks higher than Alternative 1

Management of short-term risks: This is a measure of the risk to human health and the environment during construction and implementation, and the effectiveness of measures that would be undertaken to manage such risks. For all the alternatives, remedial workers risk exposure to dust or gases For Alternatives 3, 4, and 5, off-site disposal would result in certain exposure risks through fugitive dust emissions or spills in transit. These risks are managed through proper handling and treatment methods. Alternatives 4 and 5 rank the lowest in terms of short-term risks because of the building demolition, soil excavation, and the soil transport to the landfill or to the incinerator Alternative 3 scores higher because no immediate building demolition would take place. Alternative 2 involves short-term risks associated with soil mixing and would rank higher than Alternative 3. Alternative 1 ranks the highest since no soil excavation and transportation are involved.

Implementability: This evaluates the ability to implement the alternatives at the Site. Alternative 1 is the easiest to implement. Alternative 2 ranks next followed by Alternatives 4 and 5 It is harder to implement Alternative 3 than Alternative 4 or Alternative 5 because work inside the building is required

Public concerns consideration: The public had an opportunity to comment on these five alternatives during the public comment period for the draft Feasibility Study Report No written comments were received during this period.

Based on the analysis of these requirements, Ecology has determined that the alternative that is permanent to the maximum extent practicable is Alternative 4, as illustrated in Table 5.

Provide for reasonable restoration time frame

Criteria for evaluating reasonable restoration time frame are outlined in WAC 173-340-360(4) and are listed in Section 5.3. Alternatives 4 and 5 rank the highest in terms of

providing for reasonable restoration time frame. Alternative 3 ranks a little lower since contaminated soils would be left underneath the building until the building is removed and soils underneath would be excavated. Alternative 2 scores lower since the PCBs in soils are immobilized and contained but not removed. Alternative 1 scores the lowest.

Consider public comments

The draft FS Report was made available for public review and comment. No written comments were received; the Feasibility Report was finalized in April 2004. The public would have the opportunity to comment on the proposed cleanup action in the Draft Cleanup Action Plan.

7.3 Expectations for Cleanup Action Alternatives

Under WAC 173-340-370, it is Ecology's expectation that all hazardous substances will be destroyed, detoxified, and/or removed to concentrations below cleanup levels throughout sites containing small volumes of hazardous substances, in order to minimize the need for long-term management of contaminated materials. Alternatives 3, 4, and 5 would meet this expectation; Alternatives 1 and 2 would not.

8.0 SITE CLEANUP ACTION

8.1 Selected Cleanup Action

The cleanup action selected is Alternative 4 which is the alternative that is permanent to the maximum extent practicable Alternative 4 consists of the following major elements:

- Building demolition;
- Limited soil sampling;
- Removal of the underground storage tank, dry wells DW1 and DW2, and drain lines;
- Incineration of liquid PCB and sediments;
- Excavation of surface soil above 10 mg/Kg PCB in the City Parcel property and in the alleyway;
- Excavation of soil above 10 mg/kg PCBs associated with the removal of the dry wells and the underground storage tank;
- Off-site disposal of soil in a TSCA-permitted landfill;
- Backfilling with clean soil;
- Deed restriction for the following properties;
  - City Parcel and City of Spokane properties limiting the site to industrial use.
  - Alleyway to protect integrity of the soil cover

8.2 Evaluation of the Cleanup Action with Respect to MTCA Criteria

8.2.1 Threshold Requirements

Protect human health and the environment

All PCB contaminated soils with concentrations greater than 10 mg/kg (the PCB industrial cleanup level) will be excavated The excavated soils will be disposed off-site in a TSCA-permitted landfill. This will provide a high level of protection of human health and the environment. Remedial action objectives will be met with a high degree.

Comply with cleanup standards

The PCBs cleanup level will be attained at the point of compliance in the City Parcel and City of Spokane property which are industrial properties The PCBs cleanup level of 1 mg/kg will not be met at the point of compliance in the alleyway; cleanup standards will be complied with under the requirements of WAC 173-340-740(6)(f).

Comply with applicable state and federal law

Off-site disposal of PCB contaminated soils in a permitted landfill, and incineration of any liquid PCB and sludges would meet the TSCA action ARARs Other ARARs that are listed in Table 6 could be complied with.

Provide for compliance monitoring

Protection monitoring, to confirm that human health and the environment are adequately protected, would be conducted during building demolition, excavation and loading to confirm that human health and the environment are adequately protected. Important elements including dust suppression, storm runoff, and access restrictions during the cleanup will be described in the safety and health plan.

Confirmation soil sampling would be conducted to verify that soil cleanup levels are met. One round of ground water sampling and analysis for PCBs will be performed to ensure that there continues to be no PCB impact to ground water.

8.2.2 Other Requirements

Use permanent solutions to the maximum extent practicable

(i) Protectiveness: This alternative will provide a very high degree of protection of human health and the environment.
(ii) Permanence: This alternative will be a permanent remedy.
(iii) Cost: The capital cost, and operation and maintenance costs are given in Table 8. The total present value of Alternative 4 will be $649,465.
(iv) Effectiveness over the long-term. Off-site disposal in an engineered, lined and monitored facility is third in the descending order in the assessment of the relative degree of long-term effectiveness under WAC 173-340-360(3)(e)(iv).
(v) Management of short-term risks. All short-term risks will be easily controlled during the removal activities. Risks during excavation, loading, and transportation of PCB-contaminated soils will be controlled. During the excavation and loading activities, dusts suppression methods will be implemented to prevent the potential impact to the surrounding community. Air monitoring will be conducted to ensure that fugitive dusts will not pose a threat. Risks incurred by offsite transport due to potential for spills of accidental loss of materials will be mitigated.
(vi) Technical and administrative implementability: Excavation, hauling, and backfilling operations of soils is easily implemented. Off-site disposal will occur at an existing permitted off-site facility.
(vii) Consider public concerns: The public will have an opportunity to comment on this selected cleanup action.

Provide for reasonable restoration time frame

The PCBs cleanup level at the Site would be immediately complied with at the point of compliance after excavation and backfilling with clean soils for all industrial properties.

Consider public concerns

The public review and comment period for the draft Cleanup Action Plan was conducted from July 21 through August 19, 2004. No written comments were received during this period.

8.2.3 Expectations for Cleanup Action Alternatives

Alternative 4 will meet Ecology's expectation that for sites containing small volumes of hazardous substances, all hazardous substances will be destroyed, detoxified, and/or removed to concentrations below cleanup levels in order to minimize the need for long-term management of contaminated materials.

8.3 Implementation Schedule

The implementation schedule for the Cleanup Action Plan has not been determined at this time.

9.0 REFERENCES

Ecology, Draft Cleanup Action Plan, July 2004.

Ecology, Final Feasibility Study Report, April 2004.

EPA, A Guide on Remedial Actions at Superfund Sites with PCB Contamination, August 1990.

EPA Engineering Issue, Technology Alternatives for the Remediation of PCB-Contaminated Soil and Sediment, October 1993.

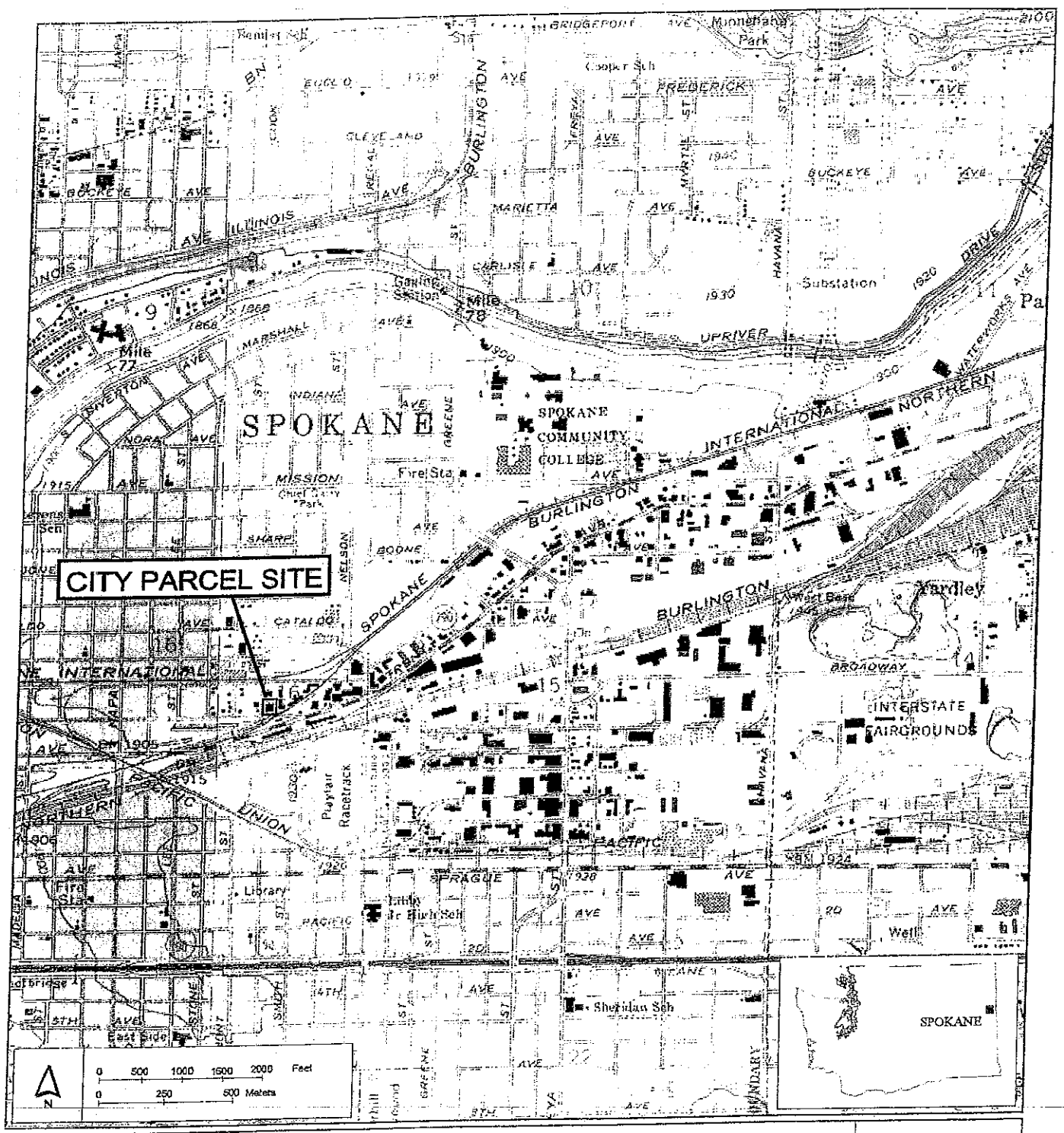
EPA, Guidance on Remedial Actions for Superfund Site with PCB Contamination, August 1990.

EPA, Office of Solid Waste and Emergency Response, Remediation of PCBs at Superfund Sites.

SAIC, Final Remedial Investigation Report for the City Parcel Site, November 27, 2002.

SAIC, City Parcel Site Post –RI Groundwater Sampling Technical Memorandum, June 30, 2003.

FIGURES



City Parcel Site
Remedial
Investigation

Figure 1
City Parcel Site Location Map

Spokane, WA

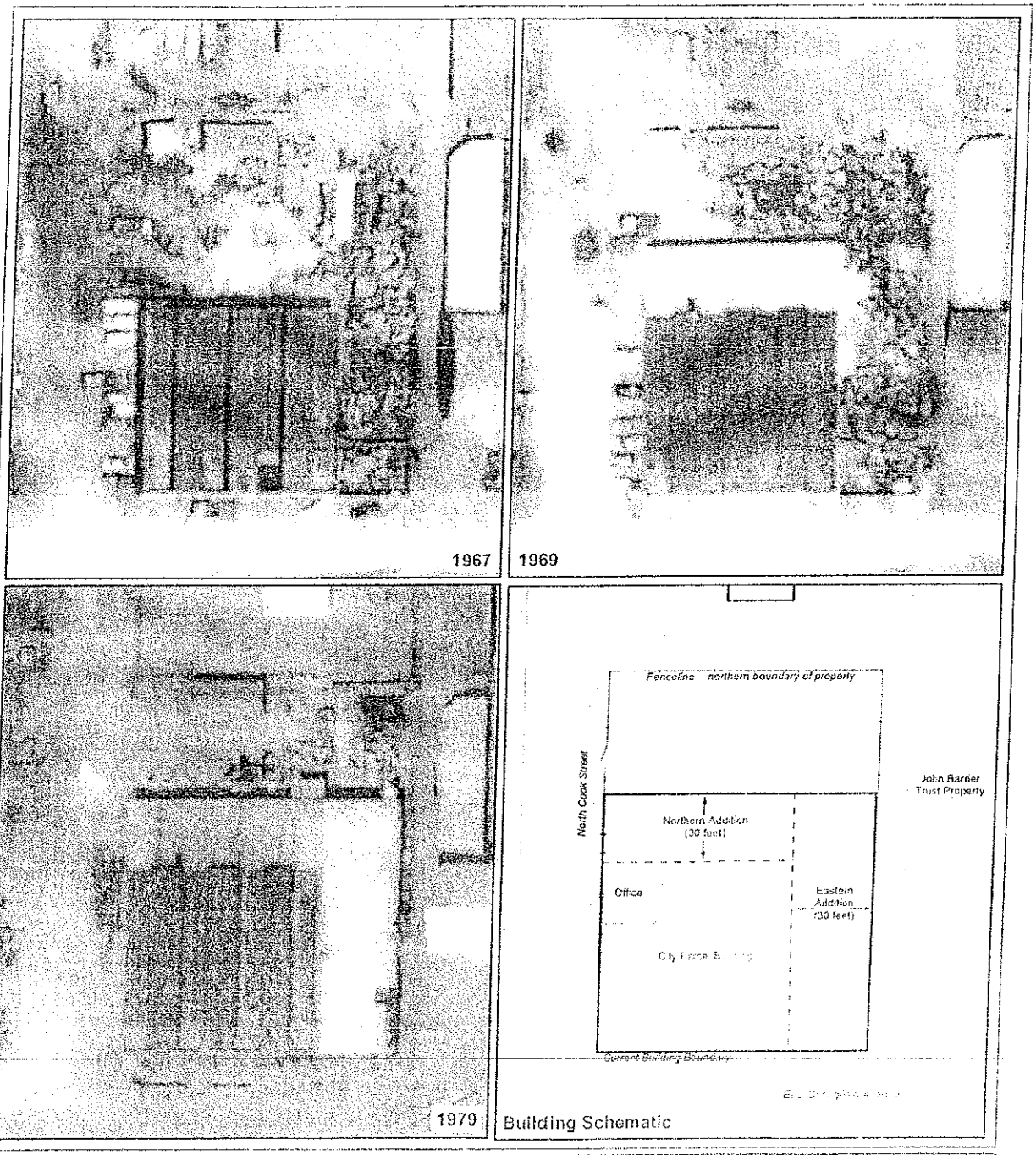


Figure 2
Aerial View of
City Parcel Building Additions (1967-1979)
City Parcel Site
Spokane, WA

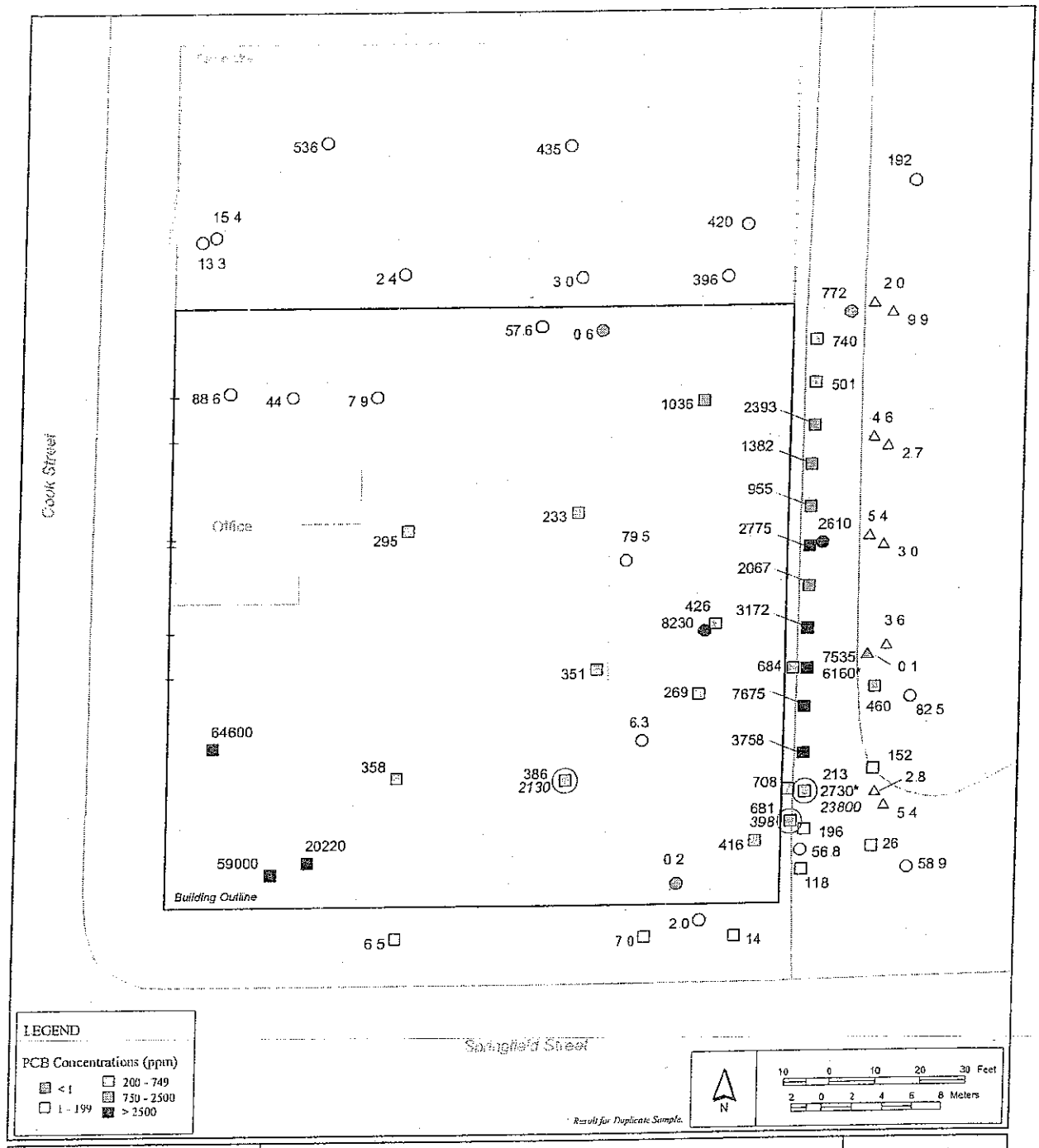


Figure 3
City Parcel Site – Historic Sample Results

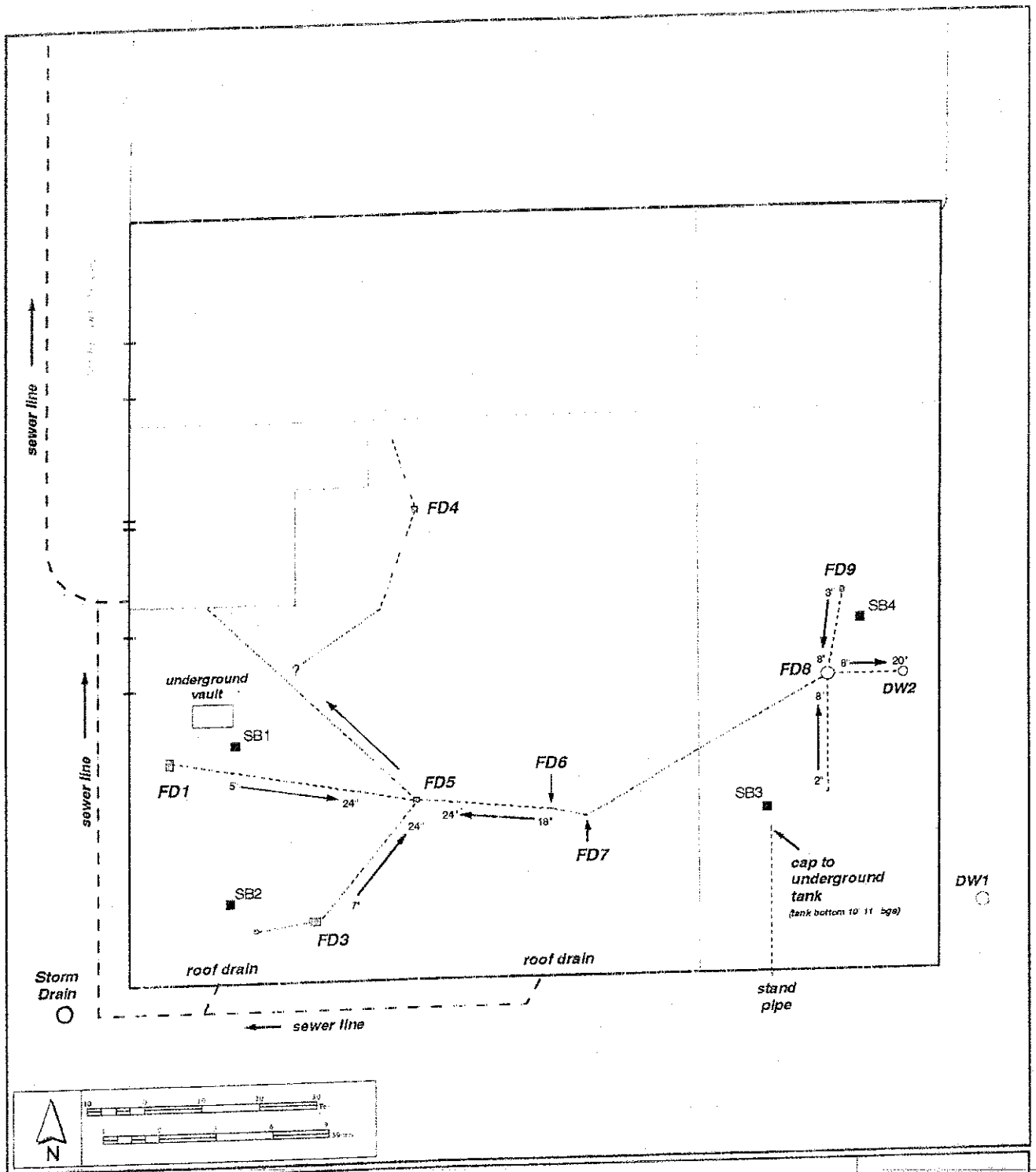
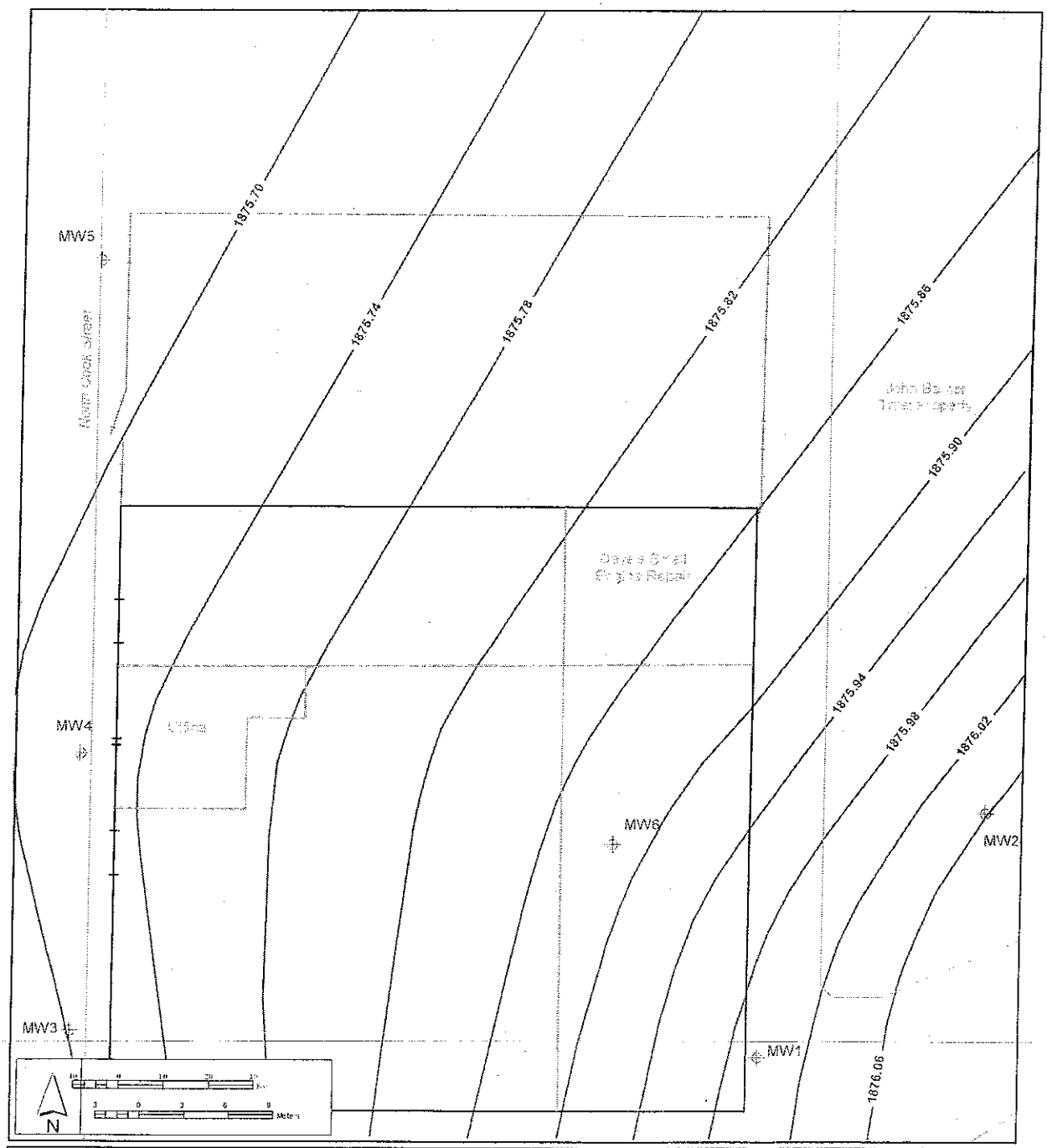


Figure 4
Site Drainage Feature Locations
City Parcel Site
Spokane, WA

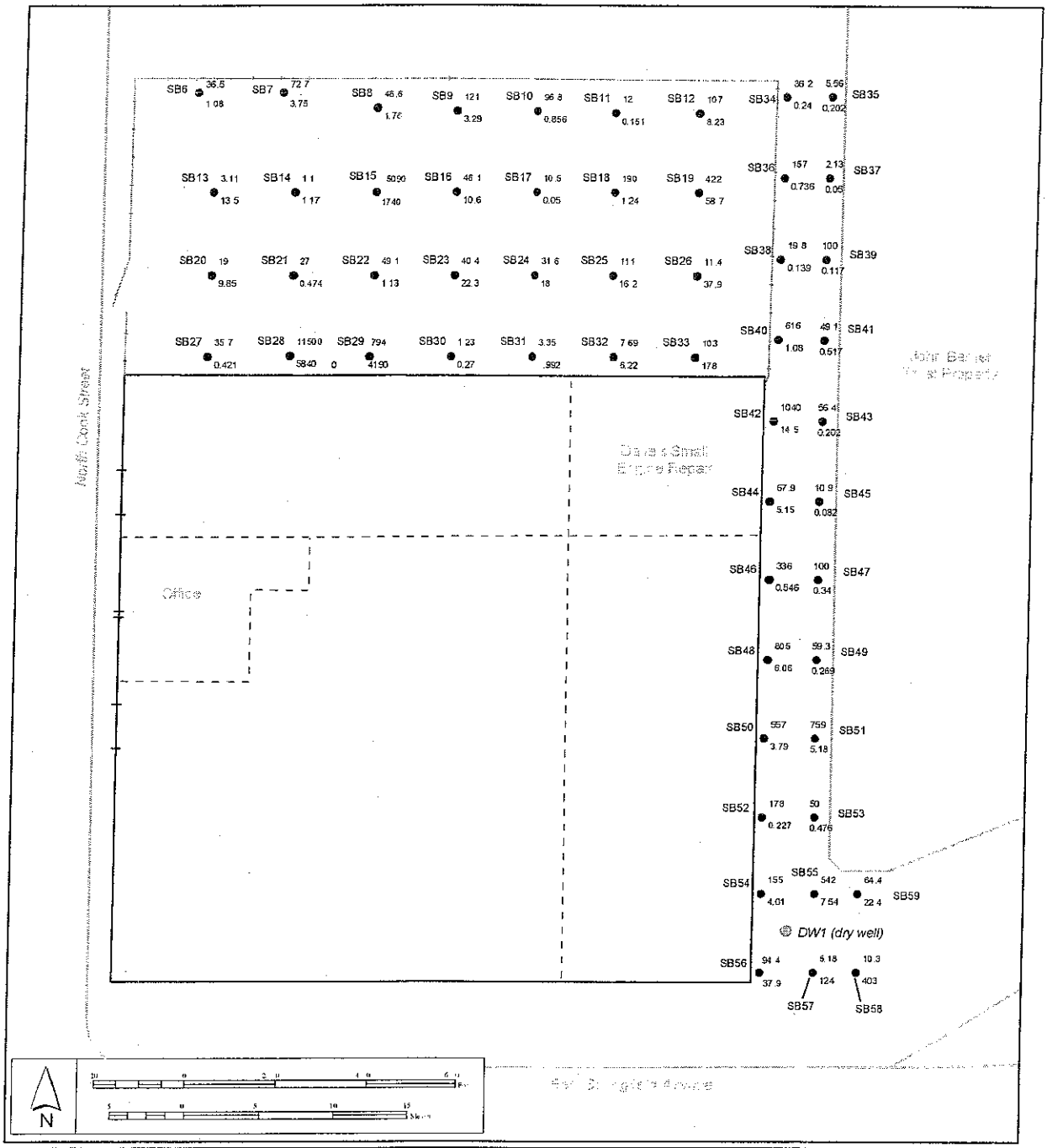


LEGEND

Monitoring Well

1875 Groundwater Contour
(Elevation values are in feet above MSL)

Figure 5
Groundwater Contours
April 2002
City Parcel Site



LEGEND

- Shallow Soil Sampling Stations
- Deep Soil Boring Inside Building
- Monitoring Well

LABEL KEY:

STATION — Surface Soil Results (0-6" bgs) / Subsurface Soil Results (6-12" bgs)

**Results are for PCB-1260 reported in ppm

Figure 6
Surface Soil Analytical Results on Site Map
City Parcel Site

TABLES

TABLE 1. SUMMARY OF SOIL ANALYTICAL RESULTS

Analyte	No. of Samples	No. of Detections	% Detection	Range of Concentrations, mg/kg	Cleanup Level, mg/kg	Basis	No. of samples above cleanup levels
SURFACE SOILS							
PCB-1260	111	106	95.5	0.0815 - 28,200	1	A - Unrestricted	78
					10	A - Industrial	53
Congener 87	1	1	7.14	160			
Congener 101	14	10	71.4	0.00536 - 1080			
Congener 110	14	13	92.6	0.00352 - 569			
Congener 138	14	13	92.6	0.0124 - 1160			
Congener 141	14	14	100	0.0239 - 2590			
Congener 151	14	14	100	0.007 16 - 736			
Congener 153	14	14	100	0.0288 - 3050			
Congener 170	14	14	100	0.0288 - 1270			
Congener 180	14	14	100	0.0326 -2650			
Congener 183	14	14	100	0.0084 - 707			
Congener 187	14	14	100	0.0146 - 1270			
Congener 206	14	1	7.14	0.00224			
TPH-D	11	11	100	15.7-2040	2000	A - Unrestricted	1
					2000	A - Industrial	1
Lube Oil	11	11	100	52.6 - 989	2000	A - Unrestricted	0
					2000	A - Industrial	0
1,2,3-Trichlorobenzene	2	1	50	3.58	Not available		
1,2,4-Trichlorobenzene	2	1	50	0.111	800	B - Unrestricted	0
					3500	B - Industrial	
1,2-DCA	2	2	100	4.78 - 4.91	Not available		
4-BFB	2	2	100	3.96 - 4.91	Not available		
Hexachlorobutadiene	2	1	50	0.414	12.8	B - Unrestricted	0
					1680	B - Industrial	0
Toluene	2	2	100	4.39 - 4.44	7	A - Unrestricted	0
					7	A - Industrial	0
SUBSURFACE SOILS							
PCB -1260	26	3	11.5	0.05 - 1.36	1	A - Unrestricted	1
					10	A - Industrial	0
TPH-D		3		10 - 15.2	2000	A - Unrestricted	0
					2000	A - Industrial	0

TABLE 2 - SUMMARY OF GROUND WATER ANALYTICAL RESULTS

Analyte	Concentration, ug/L															
	MW-1				MW-4				MW-5				MW-6			
	04/02	07/02	02/03	05/03	04/02	07/02	02/03	05/03	04/02	07/02	02/03	05/03	04/02	07/02	02/03	05/03
Congener 101	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 110	0.04	nd	nd	nd	nd	nd	nd	0.01J	nd	nd	nd	nd	nd	nd	nd	nd
Congener 138	0.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 141	0.16J	nd	nd	nd	nd	nd	nd	nd	0.01J	nd	nd	nd	0.01J	nd	nd	nd
Congener 151	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 153	0.19	nd	nd	nd	nd	nd	nd	nd	0.02	nd	nd	nd	0.01	nd	nd	nd
Congener 170	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 180	0.19	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 183	0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Congener 187	0.10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		
PCB -1260	1.88	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	nd	nd	nd	nd	nd	nd	na	na	nd	nd	2.08J	nd	nd	nd	na	na

nd - not detected
na - not analyzed for
J - Qualified as estimated during data validation

TABLE 3. VOLUME/TONNAGE CALCULATIONS FOR SOILS WITH >10 PPM PCBS

		Area, Yd^2	Depth, feet	% >10 ppm PCBs[a]	Volume, Yd^3	Weight, tons [b]
Parking Lot		980	0-1'	100%	326.67	490.00
			1'-2'	50%	163.33	245.00
	Subtotal				490.00	735.00
Under the Building						
Eastern Addition		457	0-1'	50%	76.17	114.25
			1'-2'	20%	30.47	45.70
Northern Addition		357	0-1'	50%	59.50	89.25
			1'-2'	20%	23.80	35.70
	Subtotal				189.93	284.90
South side		100	0-1'	100%	33.33	50.00
			1'-2'	30%	10.00	15.00
	Subtotal				43.33	65.00
Alleyway		450	0-1'	100%	150.00	225.00
			1'-2'	30%	45.00	67.50
	Subtotal				195.00	292.50
Others						
DW1					400.00	600.00
DW2 and tank removal					40.00	60.00
	Subtotal				440.00	660.00
	Total	**2344**			**1358.27**	**2037.40**

[a] % of soils >10 ppm PCBs were approximated based on RI analytical results for the parking lot and the alleyway. Percentages for the south side area and underneath the building were assumed.

[b] @1.5 tons/Yd^3

TABLE 4. DETAILED EVALUATION OF ALTERNATIVES

CRITERIA AND DESCRIPTION	ALTERNATIVE 1: BUILDING DEMOLITION, CAPPING, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 2: BUILDING DEMOLITION, IN-SITU SOLIDIFICATION/STABILIZATION, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 3: DEFERRED BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 4: BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 5: BUILDING DEMOLITION, EXCAVATION, OFF-SITE INCINERATION, AND INSTITUTIONAL CONTROLS
THRESHOLD REQUIREMENTS					
Protect human health and the environment	PCBs remain on site but contained;land use restricted	PCBs remain on site but demobilized and contained;land use restricted	PCB contaminated soil above cleanup levels except for those underneath the building removed and contained off-site.	PCB contaminated soil removed from the site and contained off-site.	PCB contaminated soil removed from the site and destroved off-site.
Comply with cleanup standards	Cleanup levels will not be met at the point of compliance. Cleanup standards will be complied with under WAC 173-340-740(6)(f).	Cleanup levels will not be met at the point of compliance. Cleanup standards will be complied with under WAC 173-340-740(6)(f).	Cleanup levels will be met at the point of compliance.	Cleanup levels will be met at the point of compliance.	Cleanup levels will be met at the point of compliance.
Comply with applicable state and federal law	Meets all ARARs.	Meets all ARARs.	Meets all ARARs,	Meets all ARARs.	Meets all ARARs.
Provide for compliance monitoring	Protection monitoring during site work will be conducted.	Protection monitoring during site work will be conducted.	Soil sampling will be conducted to verify that cleanup levels are met. Protection monitoring will be conducted during excavation and loading.	Soil sampling will be conducted to verify that cleanup levels are met. Protection monitoring will be conducted during excavation and loading.	Soil sampling will be conducted to verify that cleanup levels are met. Protection monitoring will be conducted during excavation and loading.
OTHER REQUIREMENTS					
Use permanent solutions to the maximum extent practicable					
1. Protectiveness					
Degree of risk reduction	Exposure to PCBs in soils eliminated.	Exposure to PCBs in soils eliminated. Mobility of PCBs is reduced	Exposure to PCBs in soils is eliminated. Future potential migration of PCBs to GW is eliminated. Possible PCBs in soils underneath the building may be left on site.	Exposure to PCBs in soils is eliminated. Future potential migration of PCBs to GW is eliminated.	Exposure to PCBs in soils is eliminated. Future potential migration of PCBs to GW is eliminated.
Time required to reduce risk and attain cleanup standards	Risks to exposure to PCBs reduced after capping and institutional controls are in plade. Cleanup levels will not be met at the point of compliance.	Risks to exposure to PCBs reduced after solidification/stabilization and after deed restrictions are in place. Cleanup lvels will not be met at the point of compliance.	Risks to exposure to PCBs in soils and to potential future migration of PCBs in GW reduced. Cleanup levels will be met at the point of compliance.	Risks to exposure to PCBs in soils and to potential future migration of PCBs in GW reduced. Cleanup levels will be met at the point of compliance.	Risks to exposure to PCBs in soils and to potential future migration of PCBs in GW reduced. Cleanup levels will be met at the point of compliance.
On-site and off-site risk	None	Exposure risk during mixing with solidification agents.	Exposure to dust and/or vapors during excavation and loading. Off-site transport risks.	Exposure to dust and/or vapors during excavation and loading. Off-site transport risks.	Exposure to dust and/or vapors during excavation and loading. Off-site transport risks.
Overall improvement of environmental quality	PCBs remain on site but contained;land use restricted	PCBs remain on site but demobilized and contained;land use restricted	PCBs on site are below industrial cleanup levels; land use restricted. PCBs contained off-site.	PCBs on site are below cleanup industrial levels; land use restricted. PCBs contained off-site.	PCBs on site are below cleanup industrial levels; land use restricted. PCBs destroved off-site..

TABLE 4. DETAILED EVALUATION OF ALTERNATIVES

CRITERIA AND DESCRIPTION	ALTERNATIVE 1: BUILDING DEMOLITION, CAPPING, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 2: BUILDING DEMOLITION, IN-SITU SOLIDIFICATION/STABILIZATION, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 3: DEFERRED BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 4: BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 5: BUILDING DEMOLITION, EXCAVATION, OFF-SITE INCINERATION, AND INSTITUTIONAL CONTROLS
2. *Permanence*					
Degree of permanently reducing the toxicity, mobility, or volume of PCBs	No reduction of toxicity, mobility or volume of PCBs.	Mobility of PCBs are reduced.	Volume of PCBs on site greatly reduced. PCBs are contained on site.	All PCB contaminated soils on site above cleanup levels are removed and contained on site.	All PCB contaminated soils on site above cleanup levels are removed and PCBs are destroyed off-site.
Adequacy of alternative in destroying PCBs	No PCBs destroyed.	Some PCBs may be destroyed but not all.	PCBs are not destroyed but contained off-site.	PCBs are not destroyed but contained off-site.	PCBs are destroyed.
Reduction or elimination of PCB releases and sources of releases	PCBs are contained and still present future potential for migration to ground water	PCBs are solidified with soil, future potential for migration to ground water reduced.	PCB-contaminated soil above cleanup levels removed from the site eliminating PCB releases and sources of releases.	PCB-contaminated soil above cleanup levels removed from the site eliminating PCB releases and sources of releases.	PCB-contaminated soil above cleanup levels removed from the site eliminating PCB releases and sources of releases.
Degree of irreversibility of treatment	No treatment - not applicable	Partial treatment only.	No treatment.	No treatment.	PCBs are incinerated/destroyed.
Characteristic and quantity of treatment residuals generated.	No treatment - not applicable	Stabilized soil mass.	No treatment.	No treatment.	Off-gas from incinerator treated by the facility.
3. *Cost (See Table13)*					
4. *Long-term effectiveness*					
Degree of certainty that alternative will be successful	Cap provides reliable containment; not a permanent remedy	Effective containment/immobilization of PCBs; not a permanent remedy	PCB contaminated soils removed from site, High degree of success.	PCB contaminated soils removed from site, High degree of success.	PCB contaminated soils removed from site, High degree of success.
Reliability of the alternative during the period of time PCBs remain on site that exceed cleanup levels	Controls required; reliability depends on continued maintenance and enforcement.	Controls required; reliability depends on continued maintenance and enforcement.	PCB cleanup levels will be met at the point of compliance (except for those that may still exist under the building.)	PCB cleanup levels will be met at the point of compliance.	PCB cleanup levels will be met at the point of compliance.
Magnitude of residual risk	PCBs remain on site but contained.	PCBs remain contained and immobilized.	Some PCBs may still be underneath the building; however, they are contained and covered.	No risks based on industrial use remain.	No risks based on industrial use remain.
Effectiveness of controls required to manage treatment residues or remaining wastes	Institutional controls and periodic inspection and maintenance of the cap required.	Institutional controls must continue to be enforced.	Deed restrictions will limit site use .	Deed restrictions will limit site use.	Deed restrictions will limit site use.
5. *Management of short-term risks*					
Risk associated during the construction and implementation	Minimal disturbance. No excavation or off-site transport.	Fugitive dust or possibly vapor hazard during mixing of solidification agent with soil	Fugitive dusts, off-site transport risks.	Fugitive dusts, off-site transport risks.	Fugitive dusts, off-site transport risks.
Effectiveness of measures that will be taken to manage risks.	Worker protection to be achieved with standard safety practices.	Dust or vapor hazards mitigated by dust control and other measures.	Effective dust control and other safety measures are available.	Effective dust control and other safety measures are available.	Effective dust control and other safety measures are available.
6. *Implementability*	Capping is conventional technology that is readily installed/maintained.	Solidification/Stabilization is a demonstrated technology and can be implemented. Available site area may be a constraint.	Excavation/off-site disposal easily implemented. TSCA-permitted landfill is available within 200 miles.	Excavation/off-site disposal easily implemented. TSCA-permitted landfill is available within 200 miles.	Excavation/ off-site incineration readily implemented. Off-site incinerators are available.

TABLE 4. DETAILED EVALUATION OF ALTERNATIVES

CRITERIA AND DESCRIPTION	ALTERNATIVE 1: BUILDING DEMOLITION, CAPPING, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 2: BUILDING DEMOLITION, IN-SITU SOLIDIFICATION/STABILIZATION, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 3: DEFERRED BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 4: BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 5: BUILDING DEMOLITION, EXCAVATION, OFF-SITE INCINERATION, AND INSTITUTIONAL CONTROLS
7. Public concerns consideration	Will address public comments.	Will address public comments.	Will address public comments.	Will address public comments.	Will address public comments.
Provide for reasonable restoration time frame	PCBs are not destroved; just contained and not expected to undergo natural degradation. This does not provide for a reasonable restoration time frame.	PCBs are contained and immobilized, Ranks a little higher than Alterantive Does not provide for a reasonable restoration time frame.	Cleanup levels are met. Provides for a reasonable restoration time frame.	Cleanup levels are met. Provides for a reasonable restoration time frame.	Cleanup levels are met. Provides for a reasonable restoration time frame.
Consider public concerns	Public comment will be addressed during the public review and comment period for the draft FS Report and the draft CAP.	Public comment will be addressed during the public review and comment period for the draft FS Report and the draft CAP.	Public comment will be addressed during the public review and comment period for the draft FS Report and the draft CAP.	Public comment will be addressed during the public review and comment period for the draft FS Report and the draft CAP.	Public comment will be addressed during the public review and comment period for the draft FS Report and the draft CAP.
Ecology Expectations	Would not meet expectation that for sites containing small volumes of hazardous substances, the hazardous substances will be destroved, detoxified, and.or removed fo concentrations below cleanup levels	Would not meet expectation that for sites containing small volumes of hazardous substances, the hazardous substances will be destroved, detoxified, and.or removed fo concentrations below cleanup levels	Would partially meet expectation that for sites containing small volumes of hazardous substances, the hazardous substances will be destroved, detoxified, and.or removed fo concentrations below cleanup levels.	Would meet expectation that for sites containing small volumes of hazardous substances, the hazardous substances will be destroved, detoxified, and.or removed fo concentrations below cleanup levels.	Would meet expectation that treatment technology will be emphasized and that for sites containing small volumes of hazardous substances, the hazardous substances will be destroved, detoxified, and.or removed fo concentrations below cleanup levels

TABLE 5. QUALITATIVE/QUANTITATIVE COMPARISON OF ALTERNATIVES

CRITERIA	ALTERNATIVE 1: BUILDING DEMOLITION, CAPPING, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 2: BUILDING DEMOLITION, IN-SITU SOLIDIFICATION/STABILIZATION, AND INSTITUIONAL CONTROLS	ALTERNATIVE 3: DEFERRED BUILDING DEMOLITION, EXCAVATION,OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS	ALTERNATIVE 4: BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, INSTITUTIONAL CONTROLS	ALTERNATIVE 5: BUILDING DEMOLITION, EXCAVATION, OFF-SITE INCINERATION, AND INSTITUTIONAL CONTROLS
Threshold Requirements					
Protect human health and the environment	YES	YES	YES	YES	YES
Comply with cleanup standards	YES	YES	YES	YES	YES
Comply with applicable state and federal law	YES	YES	YES	YES	YES
Provide for compliance monitoring	YES	YES	YES	YES	YES
Other Requirements					
Use permanent solutions to the maximum extent practicable*	LOW	LOW	MODERATE	HIGH	MODERATE-HIGH
Protectiveness	*1*	*2*	*4*	*5*	*5*
Permanence	*1*	*2*	*3*	*4.5*	*5*
Cost	*5*	*4*	*3.5*	*3*	*1*
Long-term Effectiveness	*1*	*2*	*3*	*4.5*	*5*
Management of short term risks	*5*	*4*	*3*	*2*	*2*
Implementability	*5*	*4*	*2*	*3*	*3*
Public concerns consideration	*5*	*5*	*5*	*5*	*5*
TOTAL POINTS	*23*	*23*	*23.5*	*27*	*26*
**Rankings range from 1 (LOW) to 5(HIGH)*					
Provide for reasonable restoration time frame	LOW	LOW-MODERATE	MODERATE	HIGH	HIGH
Consider public comments	HIGH	HIGH	HIGH	HIGH	HIGH
Ecology Expectations	NO	NO	YES	YES	YES

TABLE 6. FEDERAL AND STATE APPLICABLE, RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

ACTION	CITATION	COMMENT
Cleanup Standards	Chapter 70.105D RCW; Chapter 173-340 WAC	Model Toxics Control Act
Soil Remediation	40 CFR Part 761	Toxic Substance Control Act; primary regulation affecting PCBs.
	40 CFR Part 50	National Primary and Secondary Ambient Air Quality Standards
	Chapter 70.105 RCW; Chapter 173-303 WAC	Washington State Dangerous Waste Management Law and Regulation
	Chapter 70.95 RCW; Chapter 173-304 WAC	Washington State Solid Waste Management Law and Regulation
	Chapter 70.105D RCW; Chapter 173-340 WAC	Model Toxics Control Act
	Chapter 173-400 WAC	Washington State General Requirements for Air Pollution Sources
	Chapter 173-403	Implementation of Regulations for Air Contaminant Sources
	Chapter 173-470 WAC	Washington State Ambient Air Quality Standards for Particulates
	Chapter 174-50 WAC	Accreditation of Environmental Laboratories
Cleanup Action Construction	29 CFR 1910	Occupational Safety and Health Act
	Chapter 296-155 WAC	Safety Standards for Construction
	Chapter 43.51 RCW; Chapter 197-11 WAC	State Environmental Policy Act and Rules
	Chapter 296-62 WAC	Occupational Health Standards -- Safety Standards for Carcinogens, Part P Hazardous Waste Operations and Emergency Response
	Chapter 173-340 WAC	Model Toxics Control Act

TABLE 7. COMPARISON OF PRESENT VALUE OF THE FIVE REMEDIAL ALTERNATIVES

Remedial Alternative	Initial Capital Cost	Annual O & M Cost	Period of Analysis	Building Demolition (at year 10)	Total Cost	Present Value at 7%
Alternative 1	$177,465	$2,600	30	$0	$255,465	$209,731
Alternative 2	$352,959	$2,600	30	$0	$430,959	$385,222
Alternative 3	$681,762	$1,300	30	$99,060	$819,822	$748,216
Alternative 4	$633,333	$1,300	30	0	$672,333	$649,465
Alternative 5	$5,028,240	$1,300	30	0	$5,067,240	$5,044,373

TABLE 8. COST ESTIMATES FOR ALTERNATIVE 4

ALTERNATIVE 4. BUILDING DEMOLITION, EXCAVATION, OFF-SITE DISPOSAL, AND INSTITUTIONAL CONTROLS

COST ITEMS	QTY	UNIT	UNIT COST	TOTAL COST	
Capital Costs					
Construction Costs					
Mobilization/Demobilization	1	Lump Sum	$10,000	$10,000	
Building Demolition	1	Lump Sum	$20,000	$20,000	Includes debris disposal.
Soil sampling	20	Samples	$200	$4,000	
Remove DW1, DW2, ust, and drains	1	Lump Sum	$10,000	$10,000	
Incinerate liquid PCBs, sediments	3	tons	$2,300	$6,900	
Site clearing/Preparation	0.65	acres	$10,000	$6,500	
Excavate soils	1360	Cubic Yards	$4	$5,440	
Soils handling/staging	1360	Cubic Yards	$13	$17,680	
Laboratory confirmation	75	Samples	$200	$15,000	
Disposal Fee - soils	1360	Cubic Yards	$180	$244,800	
Backfill/soil compacting	1360	Cubic Yards	$14	$19,040	
Subtotal				$359,360	
Contingency	30%			$107,808	
Subtotal				$467,168	
Project Management	8%			$37,373.44	
Remedial Design	15%			$70,075	
Construction Management	10%			$46,716.80	
Institutional Controls					
Institutional Controls Plan	1	Lump Sum	$5,000	$5,000	
Deed Restrictions	1	Lump Sum	$5,000	$5,000	
Fences	1	Lump Sum	$2,000	$2,000	
Subtotal				$12,000	
Total Capital Cost				**$633,333**	
Annual O & M Cost					
Fence Maintenance	1	Lump Sum	$1,000	$1,000	
Subtotal				$1,000	
Contingency	30%			$300	
Total Annual O & M Costs				**$1,300**	

PRESENT VALUE ANALYSIS

COST TYPE	YEAR	TOTAL COST	TOTAL COST/YEAR	DISCOUNT FACTOR (7%)	PRESENT VALUE
Capital Cost	0	$633,333	$633,333	1	$633,333.44
Annual O&M Cost	1 - 30	$39,000	$1,300	12.409	$16,131.70
			TOTAL PRESENT VALUE OF ALTERNATIVE 4		**$649,465.14**

EXHIBIT C

SCOPE OF WORK, SUBMITTAL REQUIREMENTS, AND SCHEDULE FOR CLEANUP ACTION CITY PARCEL SITE

This Scope of Work is to be used by the PLPs and their consultants to develop and execute plans and reports for the City Parcel Site. The PLPs shall furnish all personnel, materials, and services necessary for or incidental to preparing plans and reports, and for the implementation of the cleanup action as defined in the Final Cleanup Action Plan (FCAP), or with specific modifications that allow the building on Site to remain. Submittals of deliverables shall be prepared in accordance with WAC 173-340-840, General Submittal Requirements.

Task I. Letter of Intent

A letter of intent clearly defining the PLPs intent to abide by this Enforcement Order in good faith will be delivered to Ecology's Project Coordinator within 15 days of issuance of this Order.

Task II. Remedial Action Plan

The Remedial Action Plan shall include the contents of the following reports in accordance with WAC 173-340-400:

a) Engineering Design Report and the Construction Plans and Specifications under WAC 173-340-400 (4)(a) and (b), as appropriate to the Site and to the cleanup action specified in the FCAP or with Ecology's proposed modifications. This shall include a soil excavation plan, tank, drywell and drains removal plan, building removal plan (or building testing and cleaning plan), information on backfill emplacement, testing, compaction, final grading, and schedule, and copies of permits.

b) Compliance Monitoring Plan

This plan shall describe the monitoring to be performed during construction (protection monitoring), and during soil removal (performance monitoring) to meet the requirements of WAC 173-340-410. A Sampling and Analysis Plan/Quality Assurance Procedures Plan meeting the requirements of WAC 173-340-820 shall be included. After completion of the cleanup and removal activities, one round of

groundwater sampling shall be conducted to confirm that PCBs are not in groundwater.

c) Institutional Controls Plan

Institutional controls are required for the City Parcel and the City of Spokane properties because industrial soil cleanup levels were established for these areas. Institutional controls for the alleyway would be required if PCB levels above the unrestricted land use soil cleanup level will remain in the area.

This plan shall describe the measures to be undertaken to limit or prohibit activities that may interfere with the integrity of the cleanup action as required under WAC 173-340-440.

A copy of the draft restrictive covenant and legal descriptions of properties requiring the restrictive covenant shall be included.

If applicable, a financial assurance mechanism shall be included that would cover the cost associated with future building removal (if appropriate) and associated cleanup activities that would be required.

d) Health and Safety Plan

This plan is required for remedial actions as specified in WAC 173-340-810.

Deliverables: Remedial Action Plan – Draft
Remedial Action Plan – Final

Task III. Implementation of the Cleanup Action

Implementation of the cleanup action shall begin no later than 60 days after approval of the final Remedial Action Plan.

A Restrictive Covenant shall be recorded not later than 60 days after approval of the final Remedial Action Plan.

Construction shall be conducted in accordance with the Remedial Action Plan prepared under this Scope of Work.

Detailed records shall be kept of all aspects of the work performed during the operation and construction including materials used, items installed, tests and measurements performed.

Deliverables: Recorded Restrictive Covenant
Financial Assurance Mechanism (if necessary)
Progress Reports

Task IV. Cleanup Action Report

At the completion of cleanup implementation, a Cleanup Action Report is required. The engineer responsible for the supervision of the construction shall prepare:

1. As-builts reports that shall contain as built drawings and a documentation of all activities.
2. Documentation of any changes or modifications that were necessary and approved during the course of implementing cleanup actions.
3. Results of compliance monitoring.

Deliverables: Cleanup Action Report – Draft
Cleanup Action Report – Final

SCHEDULE OF TASKS/DELIVERABLES

Effective Date of Enforcement Order	**Start**
Task I	
Confirmation Letter to Ecology on Intent to Abide by Enforcement Order	15 days after start
Task II	
Remedial Action Plan - Draft	75 days after start
Remedial Action Plan – Final	30 days after receipt of Ecology's comments
Task III – Implementation of Cleanup Action	
Start of implementation	No later than 60 days after approval of Remedial Action Plan
Recorded Restrictive Covenant	60 days after approval of Remedial Action Plan
Progress reports	10th of every month
Task IV	
Cleanup Action Report – Draft	60 days after completion of construction
Cleanup Action Report – Final	30 days following receipt of Ecology's comments

EXHIBIT D

PUBLIC PARTICIPATION PLAN

CITY PARCEL SITE

DRAFT PUBLIC PARTICIPATION PLAN

ENFORCEMENT ORDER TO IMPLEMENT THE CLEANUP ACTION PLAN

PREPARED BY:

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Para asistencia Espanol
Antonio Valero (509) 454-7840
aval461@ecy.wa.gov

AUGUST 2005

INTRODUCTION

OVERVIEW OF PUBLIC PARTICIPATION PLAN

This Amended Public Participation Plan (Plan) focuses on public participation activities for the City Parcel Site located at 708 North Cook Street in the City of Spokane, Spokane County, Washington. The Site was used as a transformer repair and recycling operation called Spokane Transformer, Inc. from 1961 until 1979. Since 1980 the site has been used for a parcel delivery service called City Parcel, Inc. Now, most business activities have been moved to a Trent Avenue location in Spokane.

The contaminants at the site include Polychlorinated biphenyls (PCBs) and chlorinated hydrocarbons in soils. A groundwater sample taken in 1997 also showed PCBs above acceptable state levels. However, follow-up sampling did not detect PCBs in groundwater. PCBs are described in more detail on page 6.

This Plan has been developed by the Washington Department of Ecology (Ecology) and complies with the Washington State Model Toxics Control Act (MTCA), (Chapter 173-340-600 WAC). It is being amended to reflect previous and current public participation at the site. Ecology will determine final approval as well as any future amendments to the Plan.

The purpose of the Plan is to promote public understanding of the Washington Department of Ecology's responsibilities, planning, and cleanup activities at hazardous waste sites. It also serves as a way of gathering information from the public that will assist Ecology to cleanup the Site in a way that is protective of human health and the environment. The Plan will help the community living near the City Parcel Site, as well as the general Spokane community, to be informed regarding Site cleanup activities and contribute to the decision making process.

Documents relating to the cleanup may be reviewed at the repositories listed on page 7. If individuals want to know more or comment about the Site or Plan, please contact:

Ms. Teresita Bala, Site Manager Washington State Department of Ecology Toxics Cleanup Program 4601 North Monroe Spokane, WA 99205 509-329-3543 E-mail: tbal461@ecy.wa.gov Mrs. Johnnie Landis Public Disclosure Washington State Department of Ecology 4601 North Monroe Spokane, WA 99205 509-329-3415 E-mail: johh@ecy.wa.gov	Carol Bergin, Public Involvement Washington State Department of Ecology Toxics Cleanup Program 4601 North Monroe Spokane, WA 99205 509-329-3546 E-mail: cabe461@ecy.wa.gov **Para asistencia Espanol:** Antonio Valero Washington State Department of Ecology Toxics Cleanup Program 15 West Yakima Avenue, Suite 200 Yakima, WA 98902-3401 509-454-7840 E-mail: aval461@ecy.wa.gov

PUBLIC PARTICIPATION AND THE MODEL TOXICS CONTROL ACT

The Model Toxics Control Act (MTCA) is a "citizen-mandated" law that became effective in 1989 to provide guidelines for the clean up of contaminated sites in Washington State. This law sets up strict standards to make sure the clean up of sites is protective of human health and the environment. Ecology's Toxic Cleanup Program investigates reports of contamination that may threaten human health or the environment. If an investigation confirms the presence of contaminants, the site is ranked and placed on a Hazardous Sites List. Current or former owner(s) or operator(s), as well as any other potentially liable persons (PLPs), of a site may be held responsible for cleanup of contamination according to the standards set under MTCA. After notice and opportunity for comment, Ecology notified Mr. Richard Boyce, Mr. Jerry Overton and Mr. Paul Gisselberg, in a letter dated April 12, 2001, that they were potentially liable persons for the City Parcel site under RCW 70.105D.040. Details of site ownership are found under the heading site Description and History below.

Public participation is an important part of the MTCA process during cleanup of sites. The participation needs are assessed at each site according to the level of interest by the public and degree of risk posed by contaminants. Individuals who live near the site, community groups, businesses, organizations and other interested parties are provided an opportunity to become involved in commenting on the cleanup process. The Public Participation Plan includes requirements for public notice such as: identifying reports about the site and the repositories where reports may be read; providing public comment periods; and holding public meetings or hearings. Other forms of participation may be interviews, citizen advisory groups, questionnaires, or workshops. Additionally, citizen groups living near contaminated sites may apply for public participation grants (during open application periods) to receive technical assistance in understanding the cleanup process and to create additional public participation avenues.

SITE BACKGROUND

SITE DESCRIPTION AND HISTORY

The City Parcel site is located at 708 North Cook Street at the intersection of North Cook and East Springfield Avenue (Figure 1). For approximately 18 years, the Site was used for a transformer repair and recycling operation called Spokane Transformer, Inc. Mr. Richard Boyce owned and operated the property and facility from 1961 until 1974. He leased the site in 1974 to Mr. Jerry Overton who became the owner/operator of the Spokane Transformer, Inc. facility until 1979. Paul and Mary Ann Gisselberg bought the property and facility in 1980. They began operating City Parcel, Inc. a parcel delivery service which operated at the site until recently. Now, most business activities have been moved to a location on Trent Avenue.

EPA conducted investigations at the Site in 1976, 1986 and 1987. Soil samples collected showed elevated concentrations of PCBs. These levels exceed the MTCA standards of 1 part per million (ppm) for unrestricted land use and 10 ppm for industrial properties. The

following maximum PCB concentrations were observed in these studies:

- 16,400 ppm in soils;
- 64,000 ppm in drain sediments inside the building;
- 415 ppm in building floor and wall scrape samples; and,
- 681 ppm in sediment samples from storm drains.

Chlorinated hydrocarbons were also detected in soils at the Site.

Mr. Gisselberg hired a consultant in 1997 to conduct additional investigations. The soil samples collected confirmed the presence of PCBs on-site. The maximum PCB soil concentration detected in an alleyway on the east side of the building was 1,620 ppm. The consultant also installed one monitoring well adjacent to a dry well. PCBs were detected in soil samples collected during the well installation. Groundwater was found at about 53 feet below ground surface. PCBs were found in a ground water sample from this well at 2.88 parts per billion (ppb) concentration, which is above the 0.1 ppb Method A cleanup level. A subsequent ground water sample collected after pumping a larger volume of water from the well did not detect PCBs.

In September 1997, Ecology's Toxics Cleanup Program assumed the lead investigation of the City Parcel site. An initial investigation was conducted and an early notice letter was sent to Mr. Gisselberg requiring additional remedial action.

Mr. Gisselberg submitted a proposed independent cleanup plan in 1998 for review under Ecology's Voluntary Cleanup Program. Ecology provided written review, comments and recommendations. Recommendations were for additional investigations and immediate actions to cover exposed soils in the parking lot and to inform workers and visitors of the potential exposure risk. The parking lot was later covered with gravel and the soil pile in the parking lot was covered with plastic. The soil pile is still on site and has not been treated.

In 1998, the Spokane Regional Health District completed a site hazard assessment (SHA) of the property, as required under MTCA, and the site was ranked "2". A rank of 1 represents the highest risk and 5 the lowest.

Remedial Investigation/Feasibility Study

In 2002 remedial investigation activities were conducted to further determine the nature and extent of contamination at the site. Results confirmed extensive PCB contamination in soils in the parking lot and alleyway. Groundwater sampling in 2002 and 2003 showed no PCB contamination during those sampling events.

A temporary cover was placed over the contaminated soils in the alleyway and subsequently the City covered the soils with gravel to reduce exposure. The feasibility study evaluated several cleanup options.

Cleanup Action Plan
A draft Cleanup Action Plan was prepared after the cleanup options were evaluated. The purpose of the DCAP was to select cleanup options that would do the following:

- Protect human health and the environment
- Prevent PCB-contaminated soils from coming into contact with skin or being eaten through contact with dirt
- Reduce any potential movement of PCBs from soil to ground water in the future
- Comply with cleanup standards and applicable state and federal laws
- Provide compliance monitoring
- Use cleanup solutions that will be as permanent as possible
- Provide a time frame for restoration that is reasonable
- Consider public concerns

Ecology selected the following actions to accomplish the goals of the Draft Cleanup Action Plan:

- Tear down the City Parcel building
- Remove the underground storage tank, dry wells, and drain lines
- Remove shallow soils that have contamination above 10 mg/kg* of PCBs
- Remove soils during the removal of the underground storage tank and dry wells if PCBs are greater than 10 mg/kg *
- Dispose of PCB-contaminated soil in a landfill that meets federal requirements for acceptance of PCB contamination
- Incinerate any liquid PCBs found in the tank and sediments in the drain lines (incineration will take place off-site in an approved facility)
- Apply deed restrictions to the property

Enforcement Order
The Enforcement Order requires previous owners Mr. Jerry Overton and Mr. Richard Boyce along with current owner Mr. Paul Gisselberg to implement the following:

- The Cleanup Action Plan as finalized in August 2004 after a 30-day public comment period. The Plan for cleanup of polychlorinated biphenyls (PCBs) in soil includes requirements to remove the building, soils, drain lines, dry wells and an underground storage tank as well as other details. The Order provides a cleanup option that applies the August 2004 Cleanup Action Plan with modifications that allow the building to remain on site instead of being removed.
- Record a Restrictive Covenant on the property to limit or prohibit site activities that could interfere with maintaining the cleanup after completion.
- Provide progress reports on a monthly basis until the cleanup action is finished.
- Produce a cleanup action report after construction is finished that summarizes all construction activities and changes or modifications

Because each owner either declined to conduct the work voluntarily or did not respond to Ecology's request to negotiate an Agreed Order or Consent Decree to implement the final Cleanup Action Plan, Ecology issued the Enforcement Order.

CONTAMINANTS OF CONCERN

Results of investigations at the site show extensive PCB contamination in soils from 0 to 12 inches below the ground surface. These soils are found in the gravel parking area on the north side of the building and in the alleyway east of the property. One dry well outside the building also contains PCB contamination. Contamination is also found inside the building in dry wells, an underground storage tank and drain lines. A groundwater sample taken in 1997 showed PCBs were above acceptable state levels. Follow-up sampling did not detect PCBs in groundwater. PCBs are not a concern in ground water.

PCBs are a group of manufactured chemicals, either solids or oily liquids. They may range from colorless to light yellow in color and have no smell or taste. These chemicals have been used as coolants and lubricants in transformers, capacitors or other electrical equipment. The manufacture of PCBs stopped in the United States in 1977 because of evidence they build up in the environment and cause harmful health effects.

Exposure may occur by breathing air near sites containing PCBs; contact with contaminated soils, drinking contaminated well water; eating contaminated foods such as dairy, fish and meat. Exposure may also occur during maintenance, or repair of transformers. Accidents, spills or fires involving transformers, fluorescent lights and other old electrical devices and disposal of PCB materials may also result in exposure. For details regarding PCB health effects, please see the Agency for Toxic Substances and Disease Registry (ATSDR) website at www.atsdr.cdc.gov/tfacts17.html.

COMMUNITY BACKGROUND

COMMUNITY PROFILE

City Parcel, Inc. is located on a relatively small property surrounded by a blend of businesses and residential homes within the city of Spokane. The community is made up of people from diverse backgrounds. The city name Spokane comes from some of the original settlers of the area who were Native American Indians from a Tribe called the "Spokanes." The name means "children of the sun" or "sun people."

Spokane currently boasts a population of more than 180,000 and encompasses an area of over 57 square miles. The population, although predominantly Caucasian, continues to become more diverse as the city grows. It is still home to Native Americans, primarily the Spokane and Coeur d'Alene Tribes. More than 30,000 people of Slavic heritage now live in the area, and the Hmong, Hispanic and Asian communities are continuing to grow.

As the largest city between Seattle and Minneapolis, Spokane is recognized as the financial, medical, educational, and economic hub of the Inland Northwest region. It comprises much of eastern Washington, northern Idaho, and western Montana.

COMMUNITY PROFILE AND CONCERNS

During a public meeting held November 15, 2001 in the City Parcel neighborhood, several concerns were raised about the site. People wanted to know if a comprehensive

study had been done of PCB contamination in the neighborhood and how many people in the area have cancer that might be related to exposure. They asked if employees of City Parcel were aware of the problem and how soon the cleanup would begin. Questions were raised regarding air quality, water quality and how the contamination is affecting the aquifer and drinking water. Citizens expressed concern that warning signs were not posted at the site and in the alleyway to warn the community of PCB contamination and possible exposure. Several questions were asked about the nature of PCBs, the high level of PCB contamination, why cleanup hadn't begun earlier and why there wasn't more publication about the issue. Ecology addressed these issues in a response dated December 20, 2001.

PUBLIC PARTICIPATION ACTIVITIES AND TIMELINE

The following are public participation efforts that have occurred and will continue until the cleanup actions are completed:

- A **mailing list** was developed of individuals who reside within the potentially affected area of the Site. The potentially affected vicinity covers the Site itself, adjacent properties and homes and/or businesses within a few blocks radius of the Site. These persons receive copies of all fact sheets developed regarding the cleanup process of the Site via first class mail. Additionally, individuals, organizations, local, state and federal governments, and any other interested parties will be added to the mailing list as requested. Other interested persons may request to be on the mailing list at any time by contacting Carol Bergin at the Department of Ecology (see page 2 for addresses/phone and e-mail).

- **Public Repositories** - documents may be reviewed at the following locations:

  Washington Department of Ecology
  4601 North Monroe
  Spokane, WA 99205-1295
  (509) 456-2926

  Spokane Public Library
  East Side Branch
  524 South Stone
  Spokane, WA 99202
  (509) 444-5375

  Ecology's Web page at www.ecy.wa.gov/programs/tcp/sites/city_parcel/city_parcel_hp.html

- During each stage of cleanup **fact sheets** are created by Ecology then distributed to individuals on the mailing list. These fact sheets explain the stage of cleanup, the site background, what happens next in the cleanup process and ask for comments from the public. A **30-day comment period** allows interested parties time to comment on the process. The information from these fact sheets is also published in a **Site Register** which is distributed to the public as requested. Persons interested in receiving the Site Register should contact Linda Thompson at 360-407-6069 or e-mail Ltho461@ecy.wa.gov The fact sheets are also posted on Ecology's Web page under the Toxics Cleanup Program at www.ecy.wa.gov/programs/tcp/sites/sites.html.

- **Display ads or legal notices** are published in the Spokesman Review to inform the general public. These notices correlate with the 30-day comment period and associated stage of cleanup. They are also used to announce public meetings and workshops or public hearings.

- **Public meetings, workshops, open houses and public hearings** are held based upon the level of community interest. If ten or more people request a public meeting or hearing based on the subject of the public notice, Ecology will hold a meeting or hearing and gather comments. These meetings will be held in a location near the community and will be announced in a legal notice in the Spokesman Review.

- Written comments which are received during the 30-day comment period will be responded to in a **Responsiveness Summary**. The Responsiveness Summary will be sent to those who make the written comments and will be available for public review at the Repositories.

ANSWERING QUESTIONS FROM THE PUBLIC

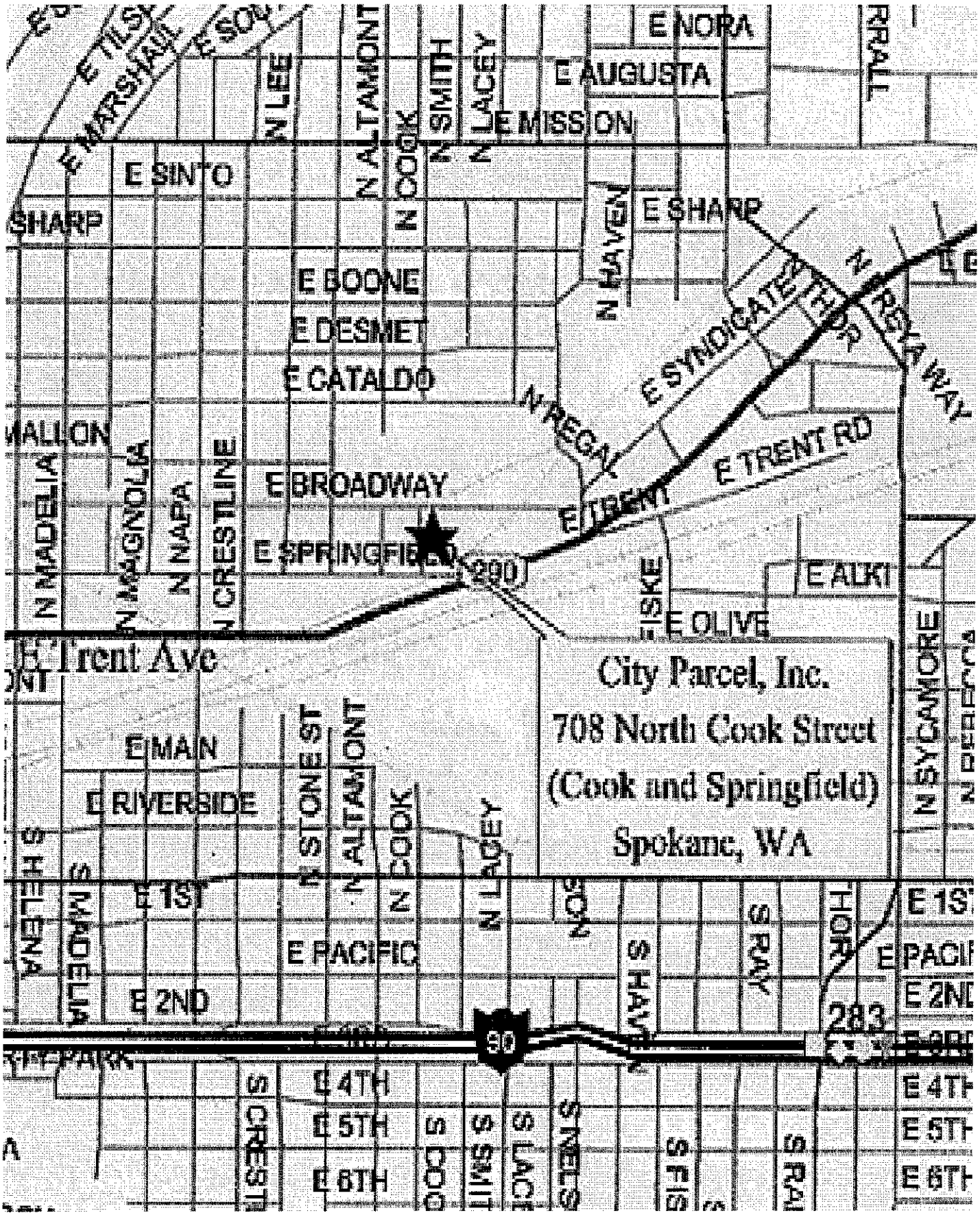
Individuals in the community may have questions they want to ask so they may better understand the cleanup process. Page 2 lists the contacts for the City Parcel, Inc. Site. People are encouraged to phone or e-mail the listed contacts to obtain information about the Site, the process and potential decisions.

PUBLIC NOTICE AND COMMENT PERIODS – TIME LINE

DATE	ACTION TAKEN
October 11, - November 9, 2001	Fact Sheet: Remedial Investigation/Feasibility Study and 30-day comment period
November 15, 2001	Public meeting held in City Parcel neighborhood to introduce the project and answer questions
January 16 – February 18, 2003	Fact Sheet: Remedial Investigation Report and 30-day comment period
February 26 – March 26, 2004	Fact Sheet: Feasibility Study Report and 30-day comment period
July 21 – August 19, 2004	Fact Sheet: Draft Cleanup Action Plan and SEPA DNS
August - September 2005	Fact Sheet: Enforcement Order

APPENDIX A

FIGURE 1


E NORA
E AUGUSTA
E MISSION
E SINTO
E SHARP
E BOONE
E DESMET
E CATALDO
E BROADWAY
E SPRINGFIELD
E TRENT RD
E SYNDICATE
E ALKI
E OLIVE
E MAIN
E RIVERSIDE
E 1ST
E PACIFIC
E 2ND
E 4TH
E 5TH
E 6TH
N LEE
N ALTAMONT
N COOK
N SMITH
N LACEY
N HAVEN
N REGAL
N MADELIA
N MAGNOLIA
N NAPA
N CRESTLINE
N SYCAMORE
E TRENT AVE
City Parcel, Inc.
708 North Cook Street
(Cook and Springfield)
Spokane, WA
90
290
283

APPENDIX B
CURRENT MAILING LIST

CITY PARCEL, INC. SITE

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NEWS DIRECTOR
KPBX FM
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SPOKANE, WA 99205-4586

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WA STATE REPRESENTATIVE
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327 JOHN L O'BRIEN BLDG
OLYMPIA, WA 98504-0600

MR JERRY OVERTON
1138 ORO VISTA
LITCHFIELD PARK, AZ 85340

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ADM MILLING COMPANY
CENTENNIAL MILLS DIVISION
2301 E TRENT
SPOKANE, WA 99202-3867

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ALEXANDER'S TOWING
3129 E TRENT
SPOKANE, WA 99202-3860

OWNER/MANAGER
ALSIDE
909 N NELSON # 10
SPOKANE, WA 99202-3729

OWNER/MANAGER
BATEMAN TOWING & REPAIR
2406 E TRENT
SPOKANE, WA 99202-3849

OWNER/MANAGER
BURKES DISTRIBUTING
910 N NELSON
SPOKANE, WA 99202-3770

OWNER/MANAGER
CLYDE WEST
3107 E TRENT
SPOKANE, WA 99202-3849

OWNER/MANAGER
CONCESSIONS SUPPLY
2440 E TRENT
SPOKANE, WA 99202-3849

OWNER/MANAGER
CUSTOM PRODUCTIONS STONE FIXTURES
2202 E BROADWAY
SPOKANE, WA 99202-3722

OWNER/MANAGER
JENNINGS & SON
738 N COOK
SPOKANE, WA 99202-3834

OWNER/MANAGER
KEIGLEY & CO., INC.
704 N STONE
SPOKANE, WA 99202-3782

OWNER/MANAGER
LAZY BOY FURNITURE
3200 E TRENT, STE C
SPOKANE, WA 99202-4456

OWNER/MANAGER
LIBBY OWNES FORD
3200 E TRENT, STE D
SPOKANE, WA 99202-4456

OWNER/MANAGER
LINCOLN CONTAINER & PACKAGING
3038 E TRENT
SPOKANE, WA 99202-3859

OWNER/MANAGER
LINK-BELT FORESTRY EQUIPMENT
3211 E TRENT
SPOKANE, WA 99202-4410

OWNER/MANAGER
METAL SALES & MANUFACTURING CORP.
2727 E TRENT
SPOKANE, WA 99202-3852

OWNER/MANAGER
MITCHELL WATER & WASTE
2502 E TRENT
SPOKANE, WA 99202-3873

OWNER/MANAGER
MR. SERVICE, INC.
728 N COOK
SPOKANE, WA 99202-3734

OWNER/MANAGER
NORDAR PRODUCTS
3200 E TRENT, STE D
SPOKANE, WA 99202-4456

OWNER/MANAGER
SPECIALTY WINDOWS
2222 E MALLON
SPOKANE, WA 99202-3756

OWNER/MANAGER
SPOKANIMAL
710 N NAPA
SPOKANE, WA 99202-2867

OWNER/MANAGER
ST. VINCENT DE PAUL
2901 E TRENT
SPOKANE, WA 99202-3856

OWNER/MANAGER
TATE TECHNOLOGY CENTER
3102 E TRENT
SPOKANE, WA 99202-3800

OWNER/MANAGER
TRIAD MACHINERY, INC.
3211 E TRENT
SPOKANE, WA 99202-4410

OWNER/MANAGER
TRIPLE PLATE CHROME
2302 E TRENT
SPOKANE, WA 99202-3848

OWNER/MANAGER
UPS CITY PARCEL
3023 E TRENT
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OWNER/MANAGER
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2932 E TRENT
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RESDIENT
705 N ALTAMONT
SPOKANE, WA 99202-3701

RESIDENT
704 N ALTAMONT
SPOKANE, WA 99202-3702

RESIDENT
707 N ALTAMONT
SPOKANE, WA 99202-3701

RESIDENT
728 N ALTAMONT
SPOKANE, WA 99202-3702

RESIDENT
727 N ALTAMONT
SPOKANE, WA 99202-3701

RESIDENT
2008 E BOONE
SPOKANE, WA 99202-2712

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2018 E BOONE
SPOKANE, WA 99202-2712

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2023 E BOONE
SPOKANE, WA 99202-2711

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2024 E BOONE
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2111 E BOONE
SPOKANE, WA 99202-2713

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2118 E BOONE APT 1
SPOKANE, WA 99202-2721

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2118 E BOONE APT 2
SPOKANE, WA 99202-2721

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2118 E BOONE APT 3
SPOKANE, WA 99202-2721

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SPOKANE, WA 99202-3714

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SPOKANE, WA 99202-3714

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2518 E BOONE
SPOKANE, WA 99207-3716

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2526 E BOONE
SPOKANE, WA 99202-3716

RESIDENT
2604 E BOONE
SPOKANE, WA 99202-3718

RESIDENT
2614 E BOONE APT 2
SPOKANE, WA 99202-3718

RESIDENT
2618 E BOONE
SPOKANE, WA 99202-3718

RESIDENT
2623 E BOONE APT 3
SPOKANE, WA 99202

RESIDENT
2628 E BOONE APT 1
SPOKANE, WA 99202-3718

RESIDENT
2628 E BOONE APT 2
SPOKANE, WA 99202-3718

RESIDENT
2628 E BOONE APT 3
SPOKANE, WA 99202-3718

RESIDENT
2702 E BOONE
SPOKANE, WA 99202-3720

RESIDENT
2709 E BOONE
SPOKANE, WA 99202-3719

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2714 E BOONE
SPOKANE, WA 99202-3720

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2711 E BOONE
SPOKANE, WA 99202-3719

RESIDENT
2717 E BOONE
SPOKANE, WA 99202-3719

RESIDENT
2403 E BOONE
SPOKANE, WA 99202-3713

RESIDENT
2018 E BROADWAY
SPOKANE, WA 99202-2802

RESIDENT
2121 E BROADWAY
SPOKANE, WA 99202-2804

RESIDENT
2204 E CATALDO
SPOKANE, WA 99202-3728

RESIDENT
2207 E CATALDO
SPOKANE, WA 99202-3706

RESIDENT
2213 E CATALDO
SPOKANE, WA 99202-3706

RESIDENT
2227 E CATALDO
SPOKANE, WA 99202-3706

RESIDENT
2003 E CATALDO
SPOKANE, WA 99202-2816

RESIDENT
2002 E CATALDO
SPOKANE, WA 99202-2817

RESIDENT
2024 E CATALDO APT 2
SPOKANE, WA 99202-2817

RESIDENT
2024 E CATALDO APT 3
SPOKANE, WA 99202-2817

RESIDENT
2023 E CATALDO
SPOKANE, WA 99202-2816

RESIDENT
2018 E CATALDO
SPOKANE, WA 99202-2817

RESIDENT
2017 E CATALDO
SPOKANE, WA 99202-2816

RESIDENT
2227 E CATALDO
SPOKANE, WA 99202-3727

RESIDENT
2213 E CATALDO
SPOKANE, WA 99202-3727

RESIDENT
2204 E CATALDO
SPOKANE, WA 99202-3728

RESIDENT
2130 E CATALDO
SPOKANE, WA 99202-2819

RESIDENT
2129 E CATALDO
SPOKANE, WA 99202-2818

RESIDENT
2119 E CATALDO APT 1
SPOKANE, WA 99202-2818

RESIDENT
2119 E CATALDO APT 2
SPOKANE, WA 99202-2818

RESIDENT
2119 E CATALDO APT 3
SPOKANE, WA 99202-2818

RESIDENT
2118 E CATALDO
SPOKANE, WA 99202-2819

RESIDENT
2123 E CATALDO APT 3
SPOKANE, WA 99202-2818

RESIDENT
2123 E CATALDO APT 1
SPOKANE, WA 99202-2818

RESIDENT
2115 E CATALDO APT 1
SPOKANE, WA 99202-2812

RESIDENT
2115 E CATALDO APT 2
SPOKANE, WA 99202-2812

RESIDENT
2115 E CATALDO APT 3
SPOKANE, WA 99202-2812

RESIDENT
2108 E CATALDO
SPOKANE, WA 99202-2819

RESIDENT
2104 E CATALDO
SPOKANE, WA 99202-2819

RESIDENT
1107 N CRESTLINE
SPOKANE, WA 99202-2717

RESIDENT
1108 N CRESTLINE
SPOKANE, WA 99202-2718

RESIDENT
1022 N CRESTLINE
SPOKANE, WA 99202-2716

RESIDENT
1019 N CRESTLINE APT 8
SPOKANE, WA 99202-2739

RESIDENT
1017 N CRESTLINE APT 2
SPOKANE, WA 99202-2739

RESIDENT
1015 N CRESTLINE APT 5
SPOKANE, WA 99202

RESIDENT
1015 N CRESTLINE APT 1
SPOKANE, WA 99202-2739

RESIDENT
1015 N CRESTLINE APT 6
SPOKANE, WA 99202-2739

RESIDENT
2717 E DESMET NO 1
SPOKANE, WA 99202-3745

RESIDENT
2717 E DESMET NO 2
SPOKANE, WA 99202-3745

RESIDENT
2513 E DESMET
SPOKANE, WA 99202-3700

RESIDENT
2327 E DESMET NO B
SPOKANE, WA 99202-3723

RESIDENT
2327 E DESMET NO A
SPOKANE, WA 99202-3723

RESIDENT
2305 E DESMET
SPOKANE, WA 99202-3723

RESIDENT
2228 E DESMET APT 3
SPOKANE, WA 99202-3724

RESIDENT
2228 E DESMET APT 2
SPOKANE, WA 99202-3724

RESIDENT
2228 E DESMET APT 1
SPOKANE, WA 99202-3724

RESIDENT
2211 E DESMET
SPOKANE, WA 99202-3740

RESIDENT
2205 E DESMET
SPOKANE, WA 99202-3740

RESIDENT
2207 E DESMET
SPOKANE, WA 99202-3740

RESIDENT
2202 E DESMET
SPOKANE, WA 99202-3724

RESIDENT
2128 E DESMET
SPOKANE, WA 99202-2736

RESIDENT
2124 E DESMET
SPOKANE, WA 99202-2736

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2123 E DESMET
SPOKANE, WA 99202-2735

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2117 E DESMET
SPOKANE, WA 99202-2735

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2116 E DESMET
SPOKANE, WA 99202-2736

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SPOKANE, WA 99202-2735

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2112 E DESMET
SPOKANE, WA 99202-2736

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2108 E DESMET
SPOKANE, WA 99202-2736

RESIDENT
2107 E DESMET
SPOKANE, WA 99202-2735

RESIDENT
2008 E DESMET
SPOKANE, WA 99202-2734

RESIDENT
2017 E DESMET
SPOKANE, WA 99202-2733

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2022 E DESMET
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2111 E MALLON
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2124 E MALLON
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738 N STONE
SPOKANE, WA 99202-3782

RESIDENT
734 N STONE
SPOKANE, WA 99202-3782

RESIDENT
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RESIDENT
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CHAIR PERSON
CHIEF GARRY PARK NEIGHBORHOOD COUNCIL
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SPOKANE, WA 99207

SCAPCA
1101 W COLLEGE AVE # 230
SPOKANE, WA 99201-2094

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APPENDIX C
GLOSSARY

Agreed Order: A legal document issued by Ecology which formalizes an agreement between the department and potentially liable persons (PLPs) for the actions needed at a site. An agreed order is subject to public comment. If an order is substantially changed, an additional comment period is provided.

Applicable State and Federal Law: All legally applicable requirements and those requirements that Ecology determines are relevant and appropriate requirements.

Area Background: The concentrations of hazardous substances that are consistently present in the environment in the vicinity of a site which are the result of human activities unrelated to releases from that site.

Carcinogen: Any substance or agent that produces or tends to produce cancer in humans.

Chronic Toxicity: The ability of a hazardous substance to cause injury or death to an organism resulting from repeated or constant exposure to the hazardous substance over an extended period of time.

Cleanup: The implementation of a cleanup action or interim action.

Cleanup Action: Any remedial action, except interim actions, taken at a site to eliminate, render less toxic, stabilize, contain, immobilize, isolate, treat, destroy, or remove a hazardous substance that complies with cleanup levels; utilizes permanent solutions to the maximum extent practicable; and includes adequate monitoring to ensure the effectiveness of the cleanup action.

Cleanup Action Plan: A document which identifies the cleanup action and specifies cleanup standards and other requirements for a particular site. After completion of a comment period on a Draft Cleanup Action Plan, Ecology will issue a final Cleanup Action Plan.

Cleanup Level: The concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

Cleanup Process: The process for identifying, investigating, and cleaning up hazardous waste sites.

Consent Decree: A legal document approved and issued by a court which formalizes an agreement reached between the state and potentially liable persons (PLPs) on the actions needed at a site. A decree is subject to public comment. If a decree is substantially changed, an additional comment period is provided.

Containment: A container, vessel, barrier, or structure, whether natural or constructed, which confines a hazardous substance within a defined boundary and prevents or minimizes its release into the environment.

Contaminant: Any hazardous substance that does not occur naturally or occurs at greater than natural background levels.

Enforcement Order: A legal document, issued by Ecology, requiring remedial action. Failure to comply with an enforcement order may result in substantial liability for costs and penalties. An enforcement order is subject to public comment. If an enforcement order is substantially changed, an additional comment period is provided.

Environment: Any plant, animal, natural resource, surface water (including underlying sediments), ground water, drinking water supply, land surface (including tidelands and shorelands) or subsurface strata, or ambient air within the state of Washington.

Exposure: Subjection of an organism to the action, influence or effect of a hazardous substance (chemical agent) or physical agent.

Exposure Pathways: The path a hazardous substance takes or could take form a source to an exposed organism. An exposure pathway describes the mechanism by which an individual or population is exposed or has the potential to be exposed to hazardous substances at or originating from the site. Each exposure pathway includes an actual or potential source or release from a source, an exposure point, and an exposure route. If the source exposure point differs from the source of the hazardous substance, exposure pathway also includes a transport/exposure medium.

Facility: Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly-owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed or, placed, or otherwise come to be located.

Feasibility Study (FS): A study to evaluate alternative cleanup actions for a site. A comment period on the draft report is required. Ecology selects the preferred alternative after reviewing those documents.

Free Product: A hazardous substance that is present as a nonaqueous phase liquid (that is, liquid not dissolved in water).

Groundwater: Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation, and other purposes.

Hazardous Sites List: A list of sites identified by Ecology that requires further remedial action. The sites are ranked from 1 to 5 to indicate their relative priority for further action.

Hazardous Substance: Any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) (any discarded, useless, unwanted, or abandoned substances including, but not limited to, certain pesticides, or any residues or containers of such substances which are disposed of in such quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes; (a) have short-lived, toxic properties that may cause death, injury, or illness or have mutagenic, teratogenic, or carcinogenic properties; or (b) are corrosive, explosive, flammable, or may generate pressure through decomposition or other means,) and (6) (any dangerous waste which (a) will persist in a hazardous form for several years or more at a disposal site and which in its persistent form presents a significant environmental hazard and may affect the genetic makeup of man or wildlife; and is highly toxic to man or wildlife; (b) if disposed of at a disposal site in such quantities as would present an extreme hazard to man or the environment), or any dangerous or extremely dangerous waste as designated by rule under Chapter 70.105 RCW: any hazardous substance as defined in RCW 70.105.010 (14) (any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the characteristics or criteria of hazardous waste as described in rules adopted under this chapter,) or any hazardous substance as defined by rule under Chapter 70.105 RCW; petroleum products.

Hazardous Waste Site: Any facility where there has been a confirmation of a release or threatened release of a hazardous substance that requires remedial action.

Independent Cleanup Action: Any remedial action conducted without Ecology oversight or approval, and not under an order or decree.

Initial Investigation: An investigation to determine that a release or threatened release may have occurred that warrants further action.

Interim Action: Any remedial action that partially addresses the cleanup of a site.

Mixed Funding: Any funding, either in the form of a loan or a contribution, provided to potentially liable persons from the state toxics control account.

Model Toxics Control Act (MTCA): Washington State's law that governs the investigation, evaluation and cleanup of hazardous waste sites. Refers to RCW 70.105D. It was approved by voters at the November 1988 general election and known is as Initiative 97. The implementing regulation is WAC 173-340.

Monitoring Wells: Special wells drilled at specific locations on or off a hazardous waste site where groundwater can be sampled at selected depths and studied to determine the direction of groundwater flow and the types and amounts of contaminants present.

Natural Background: The concentration of hazardous substance consistently present in the environment which has not been influenced by localized human activities.

National Priorities List (NPL): EPA's list of hazardous waste sites identified for possible long-term remedial response with funding from the federal Superfund trust fund.

Owner or Operator: Any person with any ownership interest in the facility or who exercises any control over the facility; or in the case of an abandoned facility, any person who had owned or operated or exercised control over the facility any time before its abandonment.

Polynuclear Aromatic Hydrocarbon (PAH): A class of organic compounds, some of which are long-lasting and carcinogenic. These compounds are formed from the combustion of organic material and are ubiquitous in the environment. PAHs are commonly formed by forest fires and by the combustion of fossil fuels.

Potentially Liable Person (PLP): Any person whom Ecology finds, based on credible evidence, to be liable under authority of RCW 70.105D.040.

Public Notice: At a minimum, adequate notice mailed to all persons who have made a timely request of Ecology and to persons residing in the potentially affected vicinity of the proposed action; mailed to appropriate news media; published in the local (city or county) newspaper of largest circulation; and opportunity for interested persons to comment.

Public Participation Plan: A plan prepared under the authority of WAC 173-340-600 to encourage coordinated and effective public involvement tailored to the public's needs at a particular site.

Recovery By-Products: Any hazardous substance, water, sludge, or other materials collected in the free product removal process in response to a release from an underground storage tank.

Release: Any intentional or unintentional entry of any hazardous substance into the environment, including, but not limited to, the abandonment or disposal of containers of hazardous substances.

Remedial Action: Any action to identify, eliminate, or minimize any threat posed by hazardous substances to human health or the environment, including any investigative and monitoring activities of any release or threatened release of a hazardous substance and any health assessments or health effects studies.

Remedial Investigation (RI): A study to define the extent of problems at a site. When combined with a study to evaluate alternative cleanup actions it is referred to as a Remedial Investigation/Feasibility Study (RI/FS). In both cases, a comment period on the draft report is required.

Responsiveness Summary: A compilation of all questions and comments to a document open for public comment and their respective answers/replies by Ecology. The Responsiveness Summary is mailed, at a minimum, to those who provided comments and its availability is published in the Site Register.

Risk Assessment: The determination of the probability that a hazardous substance, when released into the environment, will cause an adverse effect in exposed humans or other living organisms.

Sensitive Environment: An area of particular environmental value, where a release could pose a greater threat than in other areas including: wetlands; critical habitat for endangered or threatened species; national or state wildlife refuge; critical habitat, breeding or feeding area for fish or shellfish; wild or scenic river; rookery; riparian area; big game winter range.

Site: See Facility.

Site Characterization Report: A written report describing the site and nature of a release from an underground storage tank, as described in WAC 173-340-450 (4) (b).

Site Hazard Assessment (SHA): An assessment to gather information about a site to confirm whether a release has occurred and to enable Ecology to evaluate the relative potential hazard posed by the release. If further action is needed, an RI/FS is undertaken.

Site Register: Publication issued every two weeks of major activities conducted statewide related to the study and cleanup of hazardous waste sites under the Model Toxics Control Act. To receive this publication, please call (360) 407-7200.

Surface Water: Lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the state of Washington or under the jurisdiction of the state of Washington.

TCP: Toxics Cleanup Program at Ecology

Total Petroleum Hydrocarbons (TPH): A scientific measure of the sum of all petroleum hydrocarbons in a sample (without distinguishing one hydrocarbon from another). The "petroleum hydrocarbons" include compounds of carbon and hydrogen that are derived from naturally occurring petroleum sources or from manufactured petroleum products (such as refined oil, coal, and asphalt).

Toxicity: The degree to which a substance at a particular concentration is capable of causing harm to living organisms, including people, plants and animals.

Underground Storage Tank (UST): An underground storage tank and connected underground piping as defined in the rules adopted under Chapter 90.76 RCW.

Washington Ranking Method (WARM): Method used to rank sites placed on the hazardous sites list. A report describing this method is available from Ecology.