EXP07

STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. B.S.B. DIVERSIFIED COMPANY, INC., Defendant.	NO. 11-2-27288-5 ORDER ENTERING CONSENT DECREE [PROPOSED]

Having reviewed the Joint Motion for Entry of the Consent Decree, it is hereby ORDERED AND ADJUDGED that the Consent Decree in this matter is entered and that the Court shall ~~retain jurisdiction~~ over the Consent Decree to enforce its terms.

~~DATED this~~ 10 ~~day of~~ August, 2011.

~~Superior Court Judge/Commissioner~~

Presented by:

ROBERT M. MCKENNA
Attorney General

ANDREW A. FITZ, WSBA #22169
Senior Counsel
(360) 586-6752

BEVERIDGE LAW P.S.

WITH PERMISSION

R. PAUL BEVERIDGE, WSBA #16732
(206) 325-3051

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Ecology Division
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STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. B.S.B. DIVERSIFIED COMPANY, INC., Defendant.	NO. _____ SUMMONS

TO: R. Paul Beveridge, Beveridge Law P.S., attorney for B.S.B. Diversified Company, Inc.;

A lawsuit has been started against you in the above-entitled court by the State of Washington, Department of Ecology. Plaintiff's claim is stated in the written Complaint, a copy of which is served upon you with this Summons.

The parties have agreed to resolve this matter by entry of a Consent Decree, a copy of which is also attached. Accordingly, this Summons shall not require the filing of an Answer.

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Further, all disputes arising under this cause shall be resolved under the terms of the Consent Decree.

DATED this 5th day of August, 2011.

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ANDREW A. FITZ, WSBA #22169
Senior Counsel

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STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. B.S.B. DIVERSIFIED COMPANY, INC., Defendant.	NO. DECLARATION OF HIDEO FUJITA

I, Hideo Fujita, declare as follows:

1. I am over twenty-one years of age and am competent to testify herein. The facts set forth in this declaration are from my personal knowledge.

2. I am employed by the Washington State Department of Ecology as a Site Manager in the Hazardous Waste and Toxics Reduction Program. I am the designated Site Manager for, and am therefore knowledgeable about, matters relating to the Kent Facility Site (Site).

3. The Site is located in Kent, Washington.

4. Ecology has determined that releases and/or potential releases of hazardous substances (principally, chlorinated compounds) have occurred at the Site above applicable standards as set forth in the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC.

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5. Ecology has determined that contamination at the Site presents a threat to human health or the environment.

6. Ecology has given notice to B.S.B. Diversified Company, Inc. (BSB) of Ecology's determination that it is a potentially liable person (PLP) for the Site, as required by RCW 70.105D.020(21) and WAC 173-340-500.

7. The Consent Decree and Cleanup Action Plan were available for public comment between April 18 and May 19, 2008. Ecology has considered the public comment received and prepared a summary in response to those comments. Ecology has determined that no additional public comment is required.

8. Ecology has determined that the actions to be taken pursuant to the Consent Decree are necessary to protect public health and the environment, and will lead to a more expeditious cleanup of hazardous substances at the Site in compliance with cleanup standards established under RCW 70.105D.030(2)(e) and Chapter 173-340 WAC.

I declare under penalty of perjury of the laws of the state of Washington that the foregoing is true and correct.

DATED this 3rd day of August, 2011, in Bellevue, Washington.

H Fujita

HIDEO FUJITA

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STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. B.S.B. DIVERSIFIED COMPANY, INC., Defendant.	NO. _____ JOINT MOTION FOR ENTRY OF CONSENT DECREE

I. INTRODUCTION

Plaintiff, State of Washington, Department of Ecology (Ecology), and Defendant, B.S.B. Diversified Company, Inc. (BSB), bring this motion seeking entry of the attached Consent Decree (Decree). This motion is based upon the pleadings filed in this matter, including the Declaration of Hideo Fujita, a Site Manager for Ecology's Hazardous Waste and Toxics Reduction Program.

II. RELIEF REQUESTED

The Parties request that the Court approve and enter the attached Consent Decree, which governs the cleanup of contamination at the Kent Facility Site (Site) in Kent, Washington, pursuant to the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. The parties also request that the Court retain jurisdiction over this action until the work required by the Consent Decree is completed and the Parties request a dismissal of this action.

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III. AUTHORITY

Authority is conferred upon the Washington State Attorney General by RCW 70.105D.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if, after public notice and any required hearing, Ecology finds the proposed settlement would lead to a more expeditious cleanup of hazardous substances. RCW 70.105D.040(4)(b) requires that such a settlement be entered as a consent decree issued by a court of competent jurisdiction.

IV. AGENCY DETERMINATIONS SUPPORTING ENTRY OF DECREE

A. Ecology has determined that a release or threatened release of hazardous substances has occurred at the Site that is the subject of this Decree. Fujita Decl. ¶ 4.

B. Ecology has determined that contamination at the Site presents a threat to human health and the environment. Fujita Decl. ¶ 5.

C. Ecology has given notice to BSB of Ecology's determination that it is a potentially liable person (PLP) for the Site, as required by RCW 70.105D.020(21) and WAC 173-340-500. Fujita Decl. ¶ 6.

D. This Decree has been subject to public notice and comment. A public comment period was held from April 18 to May 19, 2008. Ecology has considered the public comment received and prepared a summary in response to those comments. Ecology has determined that no additional public comment is required. Fujita Decl. ¶ 7.

E. Ecology has determined that the actions to be taken pursuant this Decree are necessary to protect public health and the environment, and will lead to a more expeditious cleanup of hazardous substances at the Site in compliance with cleanup standards established under RCW 70.105D.030(2)(e) and Chapter 173-340 WAC. Fujita Decl. ¶ 8.

V. CONCLUSION

The Parties believe it is appropriate for the Court to exercise its discretion and approve the attached Consent Decree, and hereby request that the Court enter the attached Order. The

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parties further request that the Court retain jurisdiction to enforce the terms of the Consent Decree.

DATED this 8th day of August, 2011.

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Senior Counsel
Attorney for State of Washington
Department of Ecology
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EXP07

STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

B.S.B. DIVERSIFIED COMPANY, INC.,

Defendant.

NO. 11-2-27288-5

CONSENT DECREE

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XXXII. PRIOR AGREEMENTS

Entry of this Decree by the Court will satisfy and replace Defendant's obligations under Agreed Order No. DE 2551, with the exception of: completing a Deep Aquifer Investigation as provided under Section VII.2 of the Agreed Order; and (2) the payment of any outstanding costs under the Agreed Order. The terms and conditions of Agreed Order No. DE 2551 will continue in force with respect to these obligations under First Amended Agreed Order No. DE 2551, except where inconsistent with the terms and conditions of this Decree.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Katherine B Seiler
Katherine Seiler, Program Manager
Hazardous Waste & Toxics Reduction Program
(360) 407-6702

Date: 8/9/11

ROBERT M. MCKENNA
Attorney General

Andrew A. Fitz, WSBA #22169
Senior Counsel
(360) 586-6752

Date: August 8, 2011

B.S.B. DIVERSIFIED COMPANY, INC.

John FitzSimons
Vice President
(212) 885-1651

Date: August 4, 2011

ENTERED this 10 day of August 2011.

~~JUDGE~~
King County Superior Court

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EXP07

STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. B.S.B. DIVERSIFIED COMPANY, INC., Defendant.	NO. 11-2-27288-5 ORDER ENTERING CONSENT DECREE [PROPOSED]

Having reviewed the Joint Motion for Entry of the Consent Decree, it is hereby ORDERED AND ADJUDGED that the Consent Decree in this matter is entered and that the Court shall retain jurisdiction over the Consent Decree to enforce its terms.

DATED ~~this~~ 10 day of August, 2011.

~~Superior Court Judge~~/Commissioner

Presented by:

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EXP07

STATE OF WASHINGTON
KING COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

B.S.B. DIVERSIFIED COMPANY, INC.,

Defendant.

NO. 11-2-27288-5

CONSENT DECREE

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I. INTRODUCTION

A. The mutual objective of the State of Washington, Department of Ecology (Ecology) and B.S.B. Diversified Company, Inc. (Defendant) under this Decree is to provide for Remedial Action at a portion of a facility (the "Property" defined below) where there has been a release or threatened release of hazardous substances. As more fully described in the attached Cleanup Action Plan (Exhibit A), this Decree requires Defendant to: install and maintain a slurry wall within the perimeter of the Property to form a containment area; install and maintain a cap over the containment area; perform gradient control within the containment area and treat groundwater using zero valent iron (ZVI) reactor vessels; implement institutional controls on the Property; provide for compliance monitoring of the Cleanup Actions implemented on the Property; and provide for financial assurance sufficient to maintain institutional and engineering controls on the Property and sufficient to maintain compliance monitoring of the Cleanup Actions implemented on the Property.

Ecology has determined that these actions are necessary to protect human health and the environment.

B. The Complaint in this action is being filed simultaneously with this Decree. An answer has not been filed, and there has not been a trial on any issue of fact or law in this case. However, the Parties wish to resolve the issues raised by Ecology's Complaint. In addition, the Parties agree that settlement of these matters without litigation is reasonable and in the public interest, and that entry of this Decree is the most appropriate means of resolving these matters.

C. By signing this Decree, the Parties agree to its entry and agree to be bound by its terms.

D. By entering into this Decree, the Parties do not intend to discharge non-settling parties from any liability they may have with respect to matters alleged in the Complaint.

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The Parties retain the right to seek reimbursement, in whole or in part, from any liable persons for sums expended under this Decree.

E. The requirements of this Decree will, once incorporated into the Permit, concurrently satisfy Defendant's obligations for corrective action and post-closure care (including financial assurance for such obligations), as set forth in WAC 173-303-64620 and WAC 173-303-610(7). Ecology will modify the Permit to incorporate the requirements of the Decree following entry of the Decree.

F. This Decree shall not be construed as proof of liability or responsibility for any releases of hazardous substances or cost for Remedial Action nor an admission of any facts; provided, however, that Defendant shall not challenge the authority of the Attorney General and Ecology to enforce this Decree.

G. The Court is fully advised of the reasons for entry of this Decree, and good cause having been shown:

Now, therefore, it is HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

II. JURISDICTION

A. This Court has jurisdiction over the subject matter and over the Parties pursuant to the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

B. Authority is conferred upon the Washington State Attorney General by RCW 70.105D.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if, after public notice and any required hearing, Ecology finds the proposed settlement would lead to a more expeditious cleanup of hazardous substances. RCW 70.105D.040(4)(b) requires that such a settlement be entered as a consent decree issued by a court of competent jurisdiction.

C. Ecology has determined that a release or threatened release of hazardous substances has occurred at the Site, a portion of which is the subject of this Decree.

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D. Ecology has given notice to Defendant of Ecology's determination that Defendant is a PLP for the Site, as required by RCW 70.105D.020(21) and WAC 173-340-500.

E. The actions to be taken pursuant to this Decree are necessary to protect public health and the environment.

F. This Decree has been subject to public notice and comment.

G. Ecology finds that this Decree will lead to a more expeditious cleanup of hazardous substances at the Site in compliance with the cleanup standards established under RCW 70.105D.030(2)(e) and Chapter 173-340 WAC.

H. Defendant has agreed to undertake the actions specified in this Decree and consents to the entry of this Decree under MTCA.

III. PARTIES BOUND

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

IV. DEFINITIONS

Unless otherwise specified herein, all definitions in RCW 70.105D.020 and WAC 173-340-200 shall control the meanings of the terms in this Decree.

1. BSB: Refers to B.S.B. Diversified Company, Inc., a Delaware corporation.

2. Carr: Refers to Carr Prop II, LLC, a Washington Limited Liability Company.

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3. Cleanup Action Plan or CAP: Refers to the Cleanup Action Plan (CAP) (Exhibit A) issued by Ecology relating to the Property, which occupies a portion of the Site, and all attachments to the CAP. The CAP relating to the Property will in the future be followed by further cleanup action plan(s) relating to the remainder of the Site.

4. Consent Decree or Decree: Refers to this Consent Decree and each of the exhibits to this Decree. All exhibits are integral and enforceable parts of this Consent Decree. The terms "Consent Decree" or "Decree" shall include all exhibits to this Decree.

5. Defendant: Refers to B.S.B. Diversified Company, Inc.

6. Ecology: Refers to the State of Washington, Department of Ecology and the Director, employees and designated agents, and representatives thereof.

7. EPA: Refers to the United States Environmental Protection Agency and the Administrator, employees and designated agents, and representatives thereof.

8. Hazardous Substance: Refers to "hazardous substance" as defined in RCW 70.105D.020(10) and, for purposes of this Decree only, includes "dangerous waste constituents" listed in WAC 173-303-9905, the ground-water monitoring list in 40 C.F.R. Part 264 Appendix IX, and any constituent which caused a waste to be listed or designated as dangerous under the provisions of Chapter 173-303 WAC.

9. Hexcel: Refers to Hexcel Corporation, a Delaware Corporation.

10. Hexcel Parcels: Refers to parcels A, B, C, D, and E currently owned and controlled by Hexcel Corporation, located at 19819 84th Avenue South in Kent, Washington. These parcels are more particularly described in Exhibit B to this Decree, which is a detailed parcel diagram.

11. Hytek: Refers to Hytek Finishes Company.

12. MTCA: Refers to the Washington State Model Toxics Control Act, Chapter 70.105D RCW.

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13. Parcel F: Refers to the parcel F property currently owned and controlled by Carr, located at 8311 South 200th Street in Kent, Washington. This parcel is more particularly described in Exhibit B to this Decree, which is a detailed parcel diagram.

14. Parcel G: Refers to the parcel G property currently owned and controlled by BSB, located at 8202 South 200th Street in Kent, Washington. This parcel is more particularly described in Exhibit B to this Decree, which is a detailed parcel diagram.

15. Parties: Refers to Ecology and BSB.

16. Permit: Refers to the Dangerous Waste Management Permit for Remedial (Corrective) Action issued by Ecology to Defendant under authority of the Washington Hazardous Waste Management Act (Chapter 70.105 RCW) and RCRA and effective November 10, 2005.

17. Property: Refers to Parcel G which is more particularly described in Exhibit B to this Decree, which is a detailed parcel diagram.

18. RCRA: Refers to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k.

19. RCW: Refers to the Revised Code of Washington.

20. Remedial Action: Refers to "remedial action" as defined in RCW 70.105D.020(21) and, for purposes of this Decree only, includes investigations, studies, characterizations, corrective actions, and corrective measures undertaken in whole or in part to fulfill the requirements of WAC 173-303-64610.

21. Site: The Site is referred to as the Kent Facility and consists of Parcels A through G which are generally located near the intersection of 84th Avenue South and South 200th Street in Kent, Washington, as well as wherever Hazardous Substances from releases on Parcels A through G have come to be located. The Site is more particularly described in the Site Diagram (Exhibit B). The Site constitutes a Facility under RCW 70.105D.020(5).

22. WAC: Refers to the Washington Administrative Code.

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V. FINDINGS OF FACTS

Ecology makes the following findings of fact without any express or implied admissions of such facts by Defendant.

1. BSB currently owns the Property. The Property is commonly referred to as Parcel G and is bounded on the north by South 200th Street and on the east by Parcel F, a contiguous but separately owned parcel. The parcel locations are indicated on Exhibit A.

2. Parcels A, B, C, D, and E are currently owned by Hexcel. Parcel F is currently owned by Carr. Parcels A through E are contiguous parcels located immediately north of, and across South 200th Street from, Parcels G and F. Parcels A through E are bounded on the south by South 200th Street, on the east by 84th Avenue South (East Valley Road), on the north by South 196th Street and on the west by 81st Avenue South.

3. Before 1988, BSB owned Parcels A through G and the two divisions, Hytek and Heath Tecna Aerospace Company, that were located on those parcels.

4. On January 25, 1988, BSB sold Heath Tecna Aerospace Company and Parcels A through F to the Phoenix Washington Corporation, a wholly owned subsidiary of Ciba-Geigy Corporation. BSB transferred Parcels A through D and Parcel F to Phoenix Washington Corporation upon closing. The Phoenix Washington Corporation was subsequently renamed the Heath Tecna Aerospace Company (Heath Tecna). In 1989, BSB moved its Hytek operation from Parcel E to another location in Kent, Washington. Later, in July 1989, BSB transferred Parcel E to Heath Tecna.

5. Heath Tecna merged into the Ciba-Geigy Corporation. By mid 1996, Hexcel had acquired Parcels A through F from the Ciba-Geigy Corporation and acquired all assets and assumed all liabilities of the Ciba-Geigy Corporation relating to Parcels A through F.

6. In 2003, Hexcel sold Parcel F to Carr.

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7. Of the original seven parcels owned by BSB, one parcel, Parcel G, is still owned by BSB, five parcels, Parcels A through E, are currently owned by Hexcel (collectively, the Hexcel Parcels), and one parcel, Parcel F, is currently owned by Carr.

8. Before 1988, Parcels A through G housed BSB's Hytek division and BSB's Heath Tecna Aerospace Company division. BSB's Hytek division provided metal finishing and electroplating services. BSB's Heath Tecna Aerospace Company division manufactured interior aircraft components. Parcels B, C, D, and E housed manufacturing buildings where Hazardous Substances were used. Historic waste disposal may have occurred on these parcels, potentially including pre-sanitary sewer connection waste disposal and waste disposal in areas outside of the current manufacturing building footprint. Pipes running under South 200th Street connected the manufacturing building located on Parcel E, and carried Hazardous Substances to Parcel G. Hexcel continues to pursue aircraft parts manufacturing in the manufacturing buildings on Parcels B, C, D, and E.

9. Parcel G housed impoundments, lagoons, container storage, and similar units for managing waste, including hazardous waste, through storage and disposal. The wastes contained in some of these units included chlorinated compounds. BSB closed the storage and disposal units before 1988. Concentrations of chlorinated compounds remain in the subsurface soils and groundwater under the Site.

10. Groundwater flow in the area generally runs in a north-northeasterly direction from Parcel G (upgradient), under Parcels A-F (downgradient) and across 84th Avenue South (downgradient). Groundwater beneath Parcels A through G is contaminated with chlorinated compounds, including (in various locations) TCE, Vinyl Chloride, and cis-1,2-DCE.

11. Parcels A through G were operated as a dangerous waste management facility on or after November 19, 1980, the date facilities became subject to permitting requirements under RCRA, including authorized state regulations promulgated in Chapter 173-303 WAC.

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12. Effective December 22, 1988, Ecology and EPA jointly issued Post Closure Permit WAD 07-665-5182 (Permit) to Hytek (later BSB) under authority of the Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and RCRA. The Permit identified the permitted facility as Parcels G and E, with recognition that Parcel E was subject to a pending transfer to Heath Tecna (later Hexcel). The Permit did not name Heath Tecna and did not define the permitted facility to include Parcels A, B, C, D, and F based upon the agencies' acceptance of a private agreement between BSB and Heath Tecna (later Hexcel). Under this private agreement, BSB agreed to be named as the sole permittee and Heath Tecna (later Hexcel) agreed to reimburse BSB for certain costs of conducting Remedial Action on the Hexcel Parcels and to allow BSB access to Parcels A, B, C, D and F (and upon transfer, Parcel E) for conducting Remedial Action.

13. The Permit assigned groundwater corrective action and monitoring requirements to Parcels A through G, designated a point of compliance at the downgradient property boundary of Parcel G, and required the achievement of concentration limits in groundwater along 84th Avenue South.

14. In setting forth the above-described conditions, the Permit did not identify or distinguish between the possible sources of groundwater contamination on Parcel G and the possible sources on the Hexcel Parcels that were or may have been responsible for releases, whether historic or current.

15. Pursuant to the Permit and the private agreement, BSB installed a groundwater pump-and-treat system designed to (1) capture contaminated groundwater to prevent it from migrating across South 200th Street from Parcel G, (2) capture contaminated groundwater to prevent it from migrating across 84th Avenue from the Hexcel Parcels, and (3) monitor groundwater conditions at various points. Recovery wells included in this system were located on Parcel G and on the Hexcel Parcels. On-site treatment under this system

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terminated in 1995 when the system began pumping groundwater for discharge to and treatment at a King County publicly owned treatment works.

16. The Permit was issued for an initial ten-year term commencing December 22, 1988. On March 3, 1999, Ecology and EPA issued a letter in which the agencies declared, pursuant to Part I.E.3.b of the Permit: "The B.S.B. Diversified Post Closure Permit issued jointly by the Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) shall continue in force beyond the expiration date until which time the Post Closure Permit is reissued."

17. Effective November 10, 2005, Ecology issued to Hexcel MTCA Enforcement Order No. DE 2552, pursuant to which Hexcel is required to complete a Focused Remedial Investigation Report to collect and evaluate sufficient information to allow selection of a cleanup action for the Hexcel Parcels; complete a Focused Feasibility Study evaluating remedial alternatives for the Hexcel Parcels; maintain current Remedial Actions at the Hexcel Parcels; and perform certain groundwater extraction system separation activities.

18. Effective November 10, 2005, Ecology, Hexcel, and Defendant entered into Agreed Order No. DE 2553, pursuant to which Hexcel and Defendant are required to complete investigation of chemicals found east of 84th Avenue South.

19. Effective November 10, 2005, Ecology and Defendant entered into Agreed Order No. DE 2551, pursuant to which Defendant completed and submitted a Focused Remedial Investigation/Feasibility Study Report (FRI/FS Report) to summarize existing remedial investigation results and develop and evaluate remedial alternatives for the Property; initiated and submitted a Deep Aquifer Investigation; maintained current Remedial Actions and post-closure care at the Property; and performed certain groundwater extraction system separation activities.

20. Effective November 10, 2005, Ecology issued to Defendant a Dangerous Waste Management Permit for Remedial (Corrective) Action (the Permit) to conduct the

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Remedial Action set forth in Agreed Order No. DE 2551. The Permit states that the Remedial Action required by MTCA at the Property meets or exceeds the requirements of the Washington Hazardous Waste Management Act and RCRA.

21. On April 16, 2006, the groundwater extraction system at the Kent facility was separated. Under their respective orders, Hexcel has assumed responsibility for operation of the groundwater extraction system on the Hexcel Parcels and BSB has assumed responsibility for operation of the system on the Property.

22. Pursuant to Agreed Order No. DE 2551, Defendant has completed a draft FRI/FS Report to summarize existing remedial investigation results and develop and evaluate remedial alternatives for the Property. In response to Ecology comments, Defendant subsequently revised the preferred remedial alternative proposed in the FRI/FS Report as described in the Cleanup Action Plan (Exhibit A). The conclusions of the draft FRI/FS Report as amended in the CAP form the basis for the Cleanup Action to be implemented under this Decree.

VI. WORK TO BE PERFORMED

This Decree contains a program designed to protect human health and the environment from the known release, or threatened release, of hazardous substances or contaminants at, on, or from the Property.

A. Defendant will implement the Cleanup Action Plan (Exhibit A), and all attachments to the CAP, under the schedule provided for in the CAP. As more fully described in the CAP, the CAP provides for the following actions: install and maintain a slurry wall within the perimeter of the Property to form a containment area; install and maintain a cap over the containment area; perform gradient control within the containment area and treat groundwater using zero valent iron (ZVI) reactor vessels; implement institutional controls on the Property; provide for compliance monitoring of the Cleanup Actions implemented on the Property; and provide for financial assurance sufficient to

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maintain institutional and engineering controls on the Property and sufficient to maintain compliance monitoring of the Cleanup Actions implemented on the Property.

B. Defendant agrees not to perform any Remedial Actions on the Property that are outside the scope of this Decree or Agreed Order No. DE 2551 unless the Parties agree to modify the Cleanup Action Plan (Exhibit A) or Agreed Order No. DE 2551 to cover these actions, or is otherwise authorized by Ecology. All work conducted by Defendant under this Decree shall be done in accordance with Chapter 173-340 WAC unless otherwise provided herein.

C. Defendant has agreed, for the purposes of the Work to be performed under this Consent Decree, to accept the cleanup standards and points of compliance selected by Ecology in the Cleanup Action Plan (Exhibit A). Defendant reserves all of its rights to assert in the future that different cleanup standards or points of compliance are appropriate for the Site or portions thereof. Ecology agrees that Defendant's acceptance of the cleanup standards and points of compliance for the Remedial Action required by this Consent Decree is not binding on Defendant or otherwise precedential at any other site, other work at this Site beyond the Work to be Performed under this Consent Decree, or in any other circumstances except the implementation of the Work to be Performed under this Consent Decree.

VII. DESIGNATED PROJECT COORDINATORS

The project coordinator for Ecology is:

Hideo Fujita, P.E.
Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452
Telephone: (425) 649-7068
FAX: (425) 649-7098
Email: hfuj461@ecy.wa.gov

The project coordinator for Defendant is:

Ronald A. Burt
Burt Geology & Environmental Applications, PLLC
902 Grapevine Lane
Nashville, TN 37221FAX: (615) 620-4510
E-mail: raburt_pps@yahoo.com

Each project coordinator shall be responsible for overseeing the implementation of this Decree. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and Defendant and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Decree shall be directed through the project coordinators, except with respect to correspondence and other documents related to financial assurance, which shall be directed as provided in Section XXI. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Decree.

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

VIII. PERFORMANCE

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

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

All construction work performed pursuant to this Decree shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision

of a professional engineer. The professional engineer must be registered in the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrologic, or engineering work shall be under the seal of an appropriately licensed professional as required by Chapter 18.220 RCW or RCW 18.43.130.

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

IX. ACCESS

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

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X. SAMPLING, DATA SUBMITTAL, AND AVAILABILITY

With respect to the implementation of this Decree, Defendant shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section XI (Progress Reports), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

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

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

XI. PROGRESS REPORTS

A. Defendant shall submit to Ecology written Progress Reports that describe the actions taken during the previous month to implement the requirements of this Decree. The Progress Reports shall include the following:

1. A list of on-site activities that have taken place during the month;

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2. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests;

3. Description of all deviations from the Cleanup Action Plan (Exhibit A) during the current month and any planned deviations in the upcoming month;

4. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule;

5. All raw data (including laboratory analyses) received by Defendant during the past month and an identification of the source of the sample; and

6. A list of deliverables for the upcoming month if different from the schedule.

B. Progress reports shall be submitted to Ecology in accordance with the following schedule:

1. Monthly, during construction of the slurry wall, cap, and gradient control measures on the Property;

2. Quarterly, beginning in the quarter in which construction of the slurry wall, cap, and gradient control measures on the Property has been completed.

3. No sooner than after the completion of eight (8) consecutive quarters of quarterly reporting, and based on a showing that the slurry wall and gradient control measures have been operating consistent with the Cleanup Action Plan (Exhibit A), Defendant may request a less frequent schedule for submitting Progress Reports. Ecology shall issue written notification of its determination within sixty (60) days after receipt of such request. In no event shall the schedule for submitting Progress Reports provide for less than annual reporting, to be submitted in June of each year, and in no event shall more than twelve (12) months pass between the submission of Progress Reports.

C. All Progress Reports shall be submitted by the twentieth (20th) day of the month in which they are due after the effective date of this Decree. Unless otherwise specified, Progress Reports and any other documents submitted pursuant to this Decree shall be sent by e-mail, confirmed facsimile, or certified mail, return receipt requested, to Ecology's project coordinator at the address provided in Section VII of this Decree.

XII. RETENTION OF RECORDS

During the pendency of this Decree, and for ten (10) years from the date this Decree is no longer in effect as provided in Section XXVIII (Duration of Decree), Defendant shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Decree and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, Defendant shall make all records available to Ecology and allow access for review within a reasonable time.

XIII. TRANSFER OF INTEREST IN PROPERTY

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Property shall be consummated by Defendant without provision for continued operation and maintenance of any containment system, treatment system, and/or monitoring system installed or implemented pursuant to this Decree.

Prior to Defendant's transfer of any interest in all or any portion of the Property, and during the effective period of this Decree, Defendant shall provide a copy of this Decree to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, Defendant shall notify Ecology of said transfer.

When Defendant contemplates conveyance of the Property, or a portion of the Property, to a proposed successor in interest that agrees to undertake compliance with the terms and conditions of this Decree and to become a party to this Decree, in addition to

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providing notice of the transfer of the Permit under WAC 173-303-830(2), Defendant may request that the Decree be amended to add such successor in interest as a party to the Decree. Ecology shall consent to the amendment adding the proposed successor in interest as a party to the Decree concurrent with modifying the Permit, unless it finds that Defendant or the proposed successor in interest are in violation or will be in violation of a material term of the Decree. An amendment to make a proposed successor in interest a party to the Decree shall not by itself require public notice or comment, consistent with the status of the Permit transfer as a Class 1 modification under WAC 173-303-830(2)(b). In the event that a successor in interest becomes a party to this Decree, Ecology will look first to such successor (as the Permit holder) for performance of the requirements of this Decree and the Permit, unless Ecology determines that such successor is unable to comply with the requirements of this Decree.

XIV. RESOLUTION OF DISPUTES

A. In the event a dispute arises as to an approval, disapproval, proposed change, or other decision or action by Ecology, or an itemized billing statement under Section XXIV (Remedial Action Costs), the Parties shall utilize the dispute resolution procedure set forth below.

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

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

3. Defendant may then request regional management review of the decision. This request shall be submitted in writing to the Northwest Regional

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Section Manager, Hazardous Waste and Toxics Reduction Program, within seven (7) days of receipt of Ecology's project coordinator's written decision.

4. Ecology's Northwest Regional Section Manager shall conduct a review of the dispute and shall endeavor to issue a written decision regarding the dispute within thirty (30) days of Defendant's request for review.

5. If Defendant finds Ecology's Northwest Regional Section Manager's decision unacceptable, Defendant may then request final management review of the decision. This request shall be submitted in writing to the Hazardous Waste and Toxics Reduction Program Manager within seven (7) days of receipt of the Northwest Regional Section Manager's decision.

6. Ecology's Hazardous Waste and Toxics Reduction Program Manager shall conduct a review of the dispute and shall endeavor to issue a written decision regarding the dispute within thirty (30) days of Defendant's request for review of the Northwest Regional Section Manager's decision. The Hazardous Waste and Toxics Reduction Program Manager's decision shall be Ecology's final decision on the disputed matter.

B. If Ecology's final written decision is unacceptable to Defendant, Defendant has the right to submit the dispute to the Court for resolution.

C. The Parties agree that one judge should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under this Decree. In the event Defendant presents an issue to the Court for review, the Court shall review the action or decision of Ecology on the basis of whether such action or decision was arbitrary and capricious and render a decision based on such standard of review.

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

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used. Where either party utilizes the dispute resolution process in bad faith or for purposes of delay, the other party may seek sanctions.

E. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Decree, unless Ecology agrees in writing to a schedule extension, the approval of which shall not be unreasonably withheld, or the Court so orders.

XV. AMENDMENT OF DECREE

The project coordinators may agree to minor changes to the work to be performed without formally amending this Decree. Minor changes will be documented in writing by Ecology.

Substantial changes to the work to be performed shall require formal amendment of this Decree. This Decree may only be formally amended by a written stipulation among the Parties that is entered by the Court, or by order of the Court pursuant to RCW 70.105D.040(4)(c). Such amendment shall become effective upon entry by the Court. Agreement to amend the Decree shall not be unreasonably withheld by any party. Defendant shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request for amendment is received. If the amendment to the Decree is a substantial change, Ecology will provide public notice and opportunity for comment. Reasons for the disapproval of a proposed amendment to the Decree shall be stated in writing. If Ecology does not agree to a proposed amendment, the disagreement may be addressed through the dispute resolution procedures described in Section XIV (Resolution of Disputes).

XVI. EXTENSION OF SCHEDULE

A. An extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the

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deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

1. The deadline that is sought to be extended;

2. The length of the extension sought;

3. The reason(s) for the extension; and

4. Any related deadline or schedule that would be affected if the extension were granted.

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

1. Circumstances beyond the reasonable control and despite the due diligence of Defendant, including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by Defendant;

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

3. Endangerment as described in Section XVII (Endangerment).

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

C. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give Defendant written notification of any extensions granted pursuant to this Decree. A requested extension shall not be effective until approved by Ecology or, if required, by the Court. Unless the extension is a substantial change, it shall not be necessary to amend this Decree pursuant to Section XV (Amendment of Decree) when a schedule extension is granted.

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

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

2. Other circumstances deemed exceptional or extraordinary by Ecology; or

3. Endangerment as described in Section XVII (Endangerment).

XVII. ENDANGERMENT

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

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

If Ecology concurs with or orders a work stoppage pursuant to this section, Defendant's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended, in accordance

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with Section XVI (Extension of Schedule), for such period of time as Ecology determines is reasonable under the circumstances.

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

XVIII. COVENANT NOT TO SUE

As of the date of entry of this Decree, Remedial Action at the Site has been proceeding on different schedules, with different persons undertaking different Remedial Actions for different portions of the Site under three separate administrative orders. A FRI/FS Report has already been completed with respect to the Property, which is a source area of contamination. Similar documents have not yet been completed with respect to the rest of the Site. Given this, Ecology has determined that cleanup of the Site will occur in the most expeditious manner if remedy selection for, and cleanup of, the Property moves forward now, rather than waiting until documentation is completed and a remedy can be selected for the rest of the Site. So that Defendant may proceed with Remedial Action on the Property as soon as possible, this Decree provides the following Covenant Not to Sue to Defendant only for the Property portion of the Site. Ecology and Defendant anticipate amending this Covenant Not to Sue to add the rest of the Site to this Covenant Not to Sue when Ecology has made Cleanup Action decision(s) for the remainder of the Site. While the Covenant Not to Sue does not cover any area of the Site other than the Property, Ecology intends, with the exception of any Remedial Actions provided for in the Cleanup Action Plan (Exhibit A), and based on the premise that the Cleanup Action on the Property will be effective, to look first to Hexcel and/or financial assurance provided by Hexcel to address performance of Remedial Actions (including future Cleanup Actions) required on the Hexcel Parcels and Parcel F.

A. Covenant Not to Sue: In consideration of Defendant's compliance with the terms and conditions of this Decree, Ecology covenants not to institute legal or administrative

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actions against Defendant regarding the release or threatened release of Hazardous Substances covered by this Decree.

This Covenant Not to Sue covers only the Property specifically identified in the Site Diagram (Exhibit B) and those Hazardous Substances that Ecology knows are located on the Property as of the date of entry of this Decree, but does not cover any Remedial Actions that may be necessary on the Property in the future for any deep aquifer contamination. This Covenant Not to Sue does not cover the Hexcel Parcels, Parcel F, or any other Hazardous Substance or area beyond the Property, with the exception of any Remedial Actions beyond the Property that are provided for in the Cleanup Action Plan (Exhibit A). Ecology retains all of its authority relative to any substance or area not covered by this Covenant Not to Sue.

This Covenant Not to Sue shall have no applicability whatsoever to:

1. Criminal liability;

2. Liability for damages to natural resources; and

3. Any Ecology action, including cost recovery, against PLPs not a party to this Decree.

If factors not known at the time of entry of this settlement agreement are discovered and present a previously unknown threat to human health or the environment, either Party may petition the Court to amend this Covenant Not to Sue, pursuant to RCW 70.105D.040(4)(c).

B. Reopeners: Ecology specifically reserves the right to institute legal or administrative action against Defendant to require it to perform additional Remedial Actions at the Property and to pursue appropriate cost recovery, pursuant to RCW 70.105D.050, under the following circumstances:

1. Upon Defendant's failure to meet the requirements of this Decree, including, but not limited to, failure of the Remedial Action to meet the cleanup standards identified in the Cleanup Action Plan (Exhibit A);

2. Upon Ecology's determination that Remedial Action beyond the terms of this Decree is necessary to abate an imminent and substantial endangerment to human health or the environment;

3. Upon the availability of new information regarding factors previously unknown to Ecology, including the nature or quantity of hazardous substances at the Property, and Ecology's determination, in light of this information, that further Remedial Action is necessary at the Property to protect human health or the environment; or

4. Upon Ecology's determination that additional Remedial Actions are necessary to achieve cleanup standards within the reasonable restoration time frame set forth in the CAP.

C. Except in the case of an emergency, prior to instituting legal or administrative action against Defendant pursuant to this Section, Ecology shall provide Defendant with fifteen (15) calendar days notice of such action.

XIX. CONTRIBUTION PROTECTION

With regard to claims for contribution against Defendant, the Parties agree that Defendant is entitled to protection against claims for contribution for matters addressed in this Decree as provided by RCW 70.105D.040(4)(d).

XX. LAND USE RESTRICTIONS

Defendant shall record the attached Restrictive Covenant (Exhibit C) with the office of the King County Auditor within ten (10) days of the completion of the Remedial Action. Defendant shall provide Ecology with a copy of the recorded Restrictive Covenant within thirty (30) days of the recording date.

XXI. FINANCIAL ASSURANCES

A. Defendant shall establish and maintain financial assurance sufficient to implement the Cleanup Actions in the CAP, including maintaining institutional and

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engineering controls on the Property and maintaining compliance monitoring of the Cleanup Actions implemented on the Property. As further provided below, the amount of financial assurance for implementation of the Cleanup Actions in the CAP shall, upon Ecology's approval of adjustments to Defendant's financial assurance estimate, be reduced as the remedial action work is conducted by Defendant.

1. In the absence of final regulations governing financial assurance for corrective action, the Financial Assurance for Corrective Action Proposed Rule, 51 FR 37853 (October 24, 1986), the financial assurance provisions of Corrective Action for Releases from Solid Waste Management Units Advance Notice of Proposed Rulemaking, 61 FR 19432 (May 1, 1996), and the Interim Guidance on Financial Assurance for Facilities Subject to RCRA Corrective Action (U.S. EPA, September 30, 2003), or other guidance that may be available at the time, shall be used as guidance. The financial assurance provisions of the Corrective Action for Solid Waste Management Units at Hazardous Waste Management Facilities, 55 FR 30798 (July 27, 1990), may be used as secondary guidance at the discretion of Ecology. Unless otherwise specified herein, where the language of this Decree conflicts with these proposed rules, notices, and guidance documents, the language of this Decree shall prevail.

2. Acceptable financial assurance mechanisms are trust funds, surety bonds guaranteeing performance, letters of credit, insurance, the financial test, corporate guarantee, or other instruments if Defendant demonstrates to the satisfaction of Ecology that those instruments provide an acceptable level of financial assurance.

3. Defendant shall submit a cost estimate to Ecology for Ecology's approval within ninety (90) days of the effective date of this Decree. The cost estimate shall include the cost of all activities associated with implementation of the Cleanup Action Plan (Exhibit A) including maintaining institutional and engineering

controls on the Property and maintaining compliance monitoring of the Cleanup Actions implemented on the Property. The cost estimate shall also include activities required under the terms of First Amended Agreed Order No. DE 2551 that will continue to be required after entry of this Decree (i.e., the deep aquifer investigation). The cost estimate shall identify all activities associated with implementing the Cleanup Action Plan or Agreed Order No. DE 2551 that Defendant has already performed as of the submission date of the estimate (accompanied with documentation supporting the performance of such work), and subtract the cost of each such activity from the cost of all activities identified to provide a sum total estimate for Ecology's approval. Ecology will either accept Defendant's cost estimate or provide an acceptable cost estimate within sixty (60) days from receipt of Defendant's cost estimate submission. If requested in writing by Defendant, Ecology shall provide a written explanation of the variance between Defendant's proposed cost estimate and Ecology's acceptable amount.

4. Defendant shall establish and maintain continuous coverage of financial assurance in the amount of the accepted cost estimate as demonstrated by the submission of the applicable financial assurance documentation. Defendant shall provide Ecology's project coordinator and Ecology's financial assurance officer with documentation of this financial assurance within thirty (30) days of Ecology's approval of the estimates.

5. Defendant will maintain financial assurance under the terms of Agreed Order No. DE 2551 until such time as Ecology approves the new financial assurance documentation submitted in accordance with paragraphs A.3 and A.4 above. Upon Ecology's approval of the new financial assurance documentation (or upon court approval through dispute resolution under this Decree), Defendant's financial assurance obligations under the terms of Agreed Order No. DE 2551 will be replaced

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by the financial assurance obligations of this Decree and, if a trust fund was used by Defendant to meet its financial assurance obligations, any excess funds in the trust over and above the Defendant's current approved financial assurance obligations shall be approved by Ecology for release to Defendant or, if a mechanism other than a trust fund was used by Defendant to meet its financial assurance obligations, the mechanism amount may be adjusted by Defendant to eliminate coverage for any excess funds.

6. As Defendant implements the remedial action under this Decree, Defendant may request that Ecology approve reductions in the cost estimate required by this Decree and the amount of the corresponding financial assurance instrument to account for work completed by the Defendant. Ecology will either accept Defendant's requested reductions or provide a reduction amount that is acceptable to Ecology within sixty (60) days from receipt of Defendant's proposed reductions. If requested in writing by Defendant, Ecology shall provide a written explanation of the variance between Defendant's proposed reductions and Ecology's acceptable amounts. Upon Ecology's approval (or upon court approval through dispute resolution), if a trust fund was used by Defendant to meet its financial assurance obligations, any excess funds in the trust over and above the Defendant's current approved financial assurance obligations shall be approved by Ecology for release to Defendant. If a mechanism other than a trust fund was used by Defendant to meet its financial assurance obligations, the mechanism amount may be adjusted by Defendant to eliminate coverage for any excess funds.

7. If Defendant elects to use the financial test or corporate guarantee mechanism to fulfill its financial assurance obligation, Defendant will submit annual updated financial assurance documentation within ninety (90) days after the close of Defendant's fiscal year. If Defendant elects to use any method other than the

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financial test or corporate guarantee, the date that final original financial assurance documentation is received by Ecology's financial assurance officer will be the new "financial assurance anniversary date."

8. Upon approval by Ecology, which approval shall not be unreasonably withheld, Defendant may elect to use a pay-in period for its financial assurance obligations for the estimated cost of maintaining the institutional controls and engineering controls called for by this Consent Decree. If a pay-in period is used, it shall not exceed five (5) years from the financial assurance anniversary date; funding of any pay-in period will follow the following formula:

$$\text{Next Payment} = (CE - CV)/Y$$

where CE is the current Ecology-accepted cost estimate amount, CV is the current value of the financial assurance mechanism, and Y is the number of years remaining in the pay-in period. If not prohibited by federal regulations at that time, Defendant may request that Ecology approve a "net present value" adjustment (discount rate) for the estimated long-term costs associated with the institutional controls and engineering controls. In evaluating the request, Ecology will consider financial information available at the time the request is made (e.g., inflation rates and rates of return) and the financial risk to the state over the timeframe for which the adjustment is requested.

B. Defendant shall adjust the financial assurance coverage and provide Ecology's project coordinator and Ecology's financial assurance officer with documentation of the updated financial assurance for:

1. Inflation, annually, within thirty (30) days of the financial assurance anniversary date, as defined in paragraph A.5 above; and

2. Changes in cost estimates due to Ecology approval of an amendment to the Cleanup Action Plan (Exhibit A) which shall be submitted to Ecology within

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thirty (30) days of Ecology's approval of the amendment to the Cleanup Action Plan (Exhibit A) that results in changes to the cost or expected duration of the Remedial Action under this Decree. Within one hundred twenty (120) days of Ecology's approval of the change in cost estimate, Defendant shall adjust the financial assurance coverage and provide Ecology's project coordinator and Ecology's financial assurance officer with documentation of the updated financial assurance. This submission of updated financial assurance shall not change either the Defendant's financial test/corporate guarantee due date nor the financial assurance anniversary date, as applicable.

C. Defendant shall notify Ecology's project coordinator and Ecology's financial assurance officer by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding under Title 7 or Title 11, United States Code, naming Defendant as debtor, within ten (10) days after commencement of the proceeding. A guarantor of a corporate guarantee must make such a notification if he is named as debtor as required under the terms of the corporate guarantee.

D. Once Defendant has established financial assurance with an acceptable mechanism as mentioned above, Defendant will be deemed to be without the required financial assurance:

1. In the event of bankruptcy of the trustee or issuing institution; or

2. If the authority of the trustee institution to act as trustee has been suspended or revoked; or

3. If the authority of the institution issuing the surety bond, letter or credit, or insurance policy has been suspended or revoked.

In the event of bankruptcy of the trustee or a suspension or revocation of the authority of the trustee institution to act as a trustee, Defendant must establish financial assurance pursuant to this Section within one hundred twenty (120) days after such an event.

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Ecology's financial assurance officer is:

Kimberly Goetz
Department of Ecology
Hazardous Waste and Toxics Reduction Program
P.O. Box 47600
Olympia, Washington 98504-7600
Telephone: (360) 407-6754
FAX: (360) 407-6715
E-mail: kgoe461ecy.wa.gov

XXII. INDEMNIFICATION

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

XXIII. COMPLIANCE WITH APPLICABLE LAWS

A. All actions carried out by Defendant pursuant to this Decree shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090. The permits or other federal, state, or local requirements that the agency has determined are applicable and that are known at the time of entry of this Decree have been identified in the CAP (Exhibit A).

B. Pursuant to RCW 70.105D.090(1), Defendant is exempt from the procedural requirements of Chapters 70.94, 70.95, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, Defendant shall comply with the substantive requirements of such permits or approvals. The exempt permits or approvals and the applicable substantive requirements of those permits or approvals, as

they are known at the time of entry of this Decree, have been identified in the CAP (Exhibit A).

Defendant has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the Remedial Action under this Decree. In the event either Ecology or Defendant determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the Remedial Action under this Decree, it shall promptly notify the other party of this determination. Ecology shall determine whether Ecology or Defendant shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, Defendant 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 Defendant and on how Defendant must meet those requirements. Ecology shall inform Defendant in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Decree. Defendant shall not begin or continue the Remedial Action potentially subject to the additional requirements until Ecology makes its final determination.

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 that is necessary for the State to administer any federal law, the exemption shall not apply and Defendant 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.

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
(360) 586-6770

XXIV. REMEDIAL ACTION COSTS

Defendant shall pay to Ecology costs incurred by Ecology pursuant to this Decree and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Property under Chapter 70.105D RCW, including Remedial Actions and Decree preparation, negotiation, oversight, and administration. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Defendant shall pay the required amount within ninety (90) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly. Payments shall be directed to:

Department of Ecology
Cashiering Unit
P.O. Box 47611
Olympia, WA 98504-7611

Pursuant to RCW 70.105D.055, Ecology has authority to recover unreimbursed Remedial Action costs by filing a lien against real property subject to the Remedial Actions.

XXV. IMPLEMENTATION OF REMEDIAL ACTION

If Ecology determines that Defendant has failed without good cause to implement the Remedial Action, in whole or in part, Ecology may, after notice to Defendant, perform any or all portions of the Remedial Action that remain incomplete. If Ecology performs all or portions of the Remedial Action because of Defendant's failure to comply with its obligations under this Decree, Defendant shall reimburse Ecology for the costs of doing such work in accordance with Section XXIV (Remedial Action Costs), provided that Defendant is not

obligated under this Section to reimburse Ecology for costs incurred for work inconsistent with or beyond the scope of this Decree.

Except where necessary to abate an emergency situation, Defendant shall not perform any Remedial Actions at the Property outside those Remedial Actions required by this Decree or Agreed Order No. DE 2551, unless Ecology concurs, in writing, with such additional Remedial Actions pursuant to Section XV (Amendment of Decree).

XXVI. PERIODIC REVIEW

As Remedial Action, including groundwater monitoring, continues at the Property, the Parties agree to review the progress of Remedial Action at the Property, and to review the data accumulated as a result of monitoring the Property as often as is necessary and appropriate under the circumstances. At least every five (5) years after the initiation of cleanup action at the Property the Parties shall meet to discuss the status of the Property and the need, if any, for further Remedial Action at the Property. At least ninety (90) days prior to each periodic review, Defendant shall submit a report to Ecology that documents whether human health and the environment are being protected based on the factors set forth in WAC 173-340-420(4). Ecology reserves the right to require further Remedial Action at the Property under the circumstances described in the reopeners paragraph of this Decree, Subsection XVIII.B. This provision shall remain in effect for the duration of this Decree.

XXVII. PUBLIC PARTICIPATION

A Public Participation Plan (Exhibit D) is required for this Property. Ecology shall review any existing Public Participation Plan to determine its continued appropriateness and whether it requires amendment, or if no plan exists, Ecology shall develop a Public Participation Plan alone or in conjunction with Defendant.

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

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
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A. If agreed to by Ecology, develop appropriate mailing list, prepare drafts of public notices and fact sheets at important stages of the Remedial Action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

B. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before major meetings with the interested public and local governments. Likewise, Ecology shall notify Defendant prior to the issuance of all press releases and fact sheets, and before major meetings with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by Defendant that do not receive prior Ecology approval, Defendant shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

C. When requested by Ecology, participate in public presentations on the progress of the Remedial Action at the Property. Participation may be through attendance at public meetings to assist in answering questions, or as a presenter.

D. When requested by Ecology, arrange and/or continue information repositories at the following locations:

1. Kent Regional Library
212 2nd Avenue North
Kent, Washington 98032

2. Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008-5452

At a minimum, copies of all public notices, fact sheets, and press releases; all quality assured monitoring data; and Remedial Action plans and reports, supplemental remedial planning

documents, and all other similar documents relating to performance of the Remedial Action required by this Decree shall be promptly placed in these repositories.

XXVIII. DURATION OF DECREE

The remedial program required pursuant to this Decree shall be maintained and continued until Defendant has received written notification from Ecology that the requirements of this Decree have been satisfactorily completed. Defendant may request such determination at any time, and Ecology shall issue its written notification of its determination within sixty (60) days after receipt of such request. This Decree shall remain in effect until dismissed by the Court. When dismissed, Section XVIII (Covenant Not to Sue) and Section XIX (Contribution Protection) shall survive.

XXIX. CLAIMS AGAINST THE STATE

Defendant hereby agrees that it will not seek to recover any costs accrued in implementing the Remedial Action required by this Decree from the State of Washington or any of its agencies; and further, that Defendant will make no claim against the State Toxics Control Account or any local Toxics Control Account for any costs incurred in implementing this Decree. Except as provided above, however, Defendant expressly reserves its right to seek to recover any costs incurred in implementing this Decree from any other person or entity. This Section does not limit or address funding that may be provided under Chapter 173-322 WAC.

XXX. EFFECTIVE DATE

This Decree is effective upon the date it is entered by the Court.

XXXI. WITHDRAWAL OF CONSENT

If the Court withholds or withdraws its consent to this Decree, it shall be null and void at the option of either party and the accompanying Complaint shall be dismissed without costs and without prejudice. In such an event, no party shall be bound by the requirements of this Decree.

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XXXII. PRIOR AGREEMENTS

Entry of this Decree by the Court will satisfy and replace Defendant's obligations under Agreed Order No. DE 2551, with the exception of: completing a Deep Aquifer Investigation as provided under Section VII.2 of the Agreed Order; and (2) the payment of any outstanding costs under the Agreed Order. The terms and conditions of Agreed Order No. DE 2551 will continue in force with respect to these obligations under First Amended Agreed Order No. DE 2551, except where inconsistent with the terms and conditions of this Decree.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Katherine B Seiler
Katherine Seiler, Program Manager
Hazardous Waste & Toxics Reduction Program
(360) 407-6702

Date: 8/9/11

ROBERT M. MCKENNA
Attorney General

Andrew A. Fitz, WSBA #22169
Senior Counsel
(360) 586-6752

Date: August 8, 2011

B.S.B. DIVERSIFIED COMPANY, INC.

John H. FitzSimons
John FitzSimons
Vice President
(212) 885-1651

Date: August 4, 2011

ENTERED this _____ day of _____ 20____.

JUDGE
King County Superior Court

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
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EXHIBIT A.
Cleanup Action Plan

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
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FINAL
CLEANUP ACTION PLAN
BSB PROPERTY
KENT, WASHINGTON

AUGUST 5, 2011

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LIST OF ACRONYMS AND ABBREVIATIONS

BSB B.S.B. Diversified Company, Inc.

CAA Cleanup Action Alternative
CAP Cleanup Action Plan
CLARC Cleanup Levels and Risk Calculation
CMS Corrective Measures System
CAO Cleanup Action Objectives
CSM Conceptual Site Model
CUL Cleanup Level
CVOC Chlorinated Volatile Organic Compound

DCE Dichlorethene
DNAPL Dense Nonaqueous Phase Liquid

Ecology Washington State Department of Ecology
EP Toxicity Extraction Procedure Toxicity Test

FFS Focused Feasibility Study

HWMA Hazardous Waste Management Act
HVOC Halogenated Volatile Organic Compound
Hytek Hytek Finishes Company

IHS Indicator Hazardous Substances

MCL Maximum Contaminant Level
mg/kg milligrams per kilogram (same as parts per million)
mg/L milligrams per liter (same as parts per million)
MRL Method Reporting Limit
MTCA Model Toxics Control Act

NAPL Nonaqueous Phase Liquid
NGVD 29 National Geodetic Vertical Datum of 1929
NPV Net Present Value

O&M Operation & Maintenance

PCB Polychlorinated Biphenyl
PCE Perchloroethene (Tetrachloroethene)
PID Photoionization Detector
POC Point of Compliance
PVC Polyvinyl Chloride

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

RCRA Resource Conservation and Recovery Act
RI/FS Remedial Investigation/Feasibility Study
RCW Revised Code of Washington

SVOC Semi-volatile Organic Compound

TCA Trichlroethane
TCE Trichloroethene
TSDF Treatment, Storage, Disposal Facility

USEPA United States Environmental Protection Agency

VC Vinyl Chloride
VOC Volatile Organic Compound

WAC Washington Administrative Code

ZVI Zero Valent Iron

µg/L micrograms per liter (same as parts per billion)

1.0 INTRODUCTION

1.1 Purpose

This cleanup action plan (CAP) describes the selected cleanup action for a portion of the Kent Facility Site (Site) located in Kent, Washington (see Figure 1, Parcel and Property Diagram). Specifically, this CAP selects a cleanup action for the B.S.B. Diversified Company, Inc. (BSB) property located at 8202 South 200th Street, Kent, Washington (referred to as the Property or Parcel G; see Figure 1), which is a source area of hazardous substances at the Site, with the exception of any deep aquifer zone (Layers D and E) contamination that might underlie that property. The CAP has been developed in accordance with the Model Toxics Control Act (MTCA) under Chapter 70.105D of the Revised Code of Washington (RCW) and Chapter 173-340 of the Washington Administrative Code (WAC). Ecology will make cleanup action decisions for the remainder of the Site through a future CAP.

The selected cleanup action is based on site-specific data provided in the Focused Remedial Investigation Summary/Feasibility Study Report (FRI/FS) (PES Environmental 2008 and 2005) and documents referenced therein. The FRI/FS is on file at the Washington State Department of Ecology's (Ecology) northwest regional office located at 3190 160th Avenue SE, Bellevue, Washington, 98008-5452.

1.2 Document Organization

The work plan is organized into five sections. A brief description of each section is presented below.

- **Section 1 – Introduction.** Section 1 contains an overview of the CAP.
- **Section 2 – Background.** Section 2 provides a summary of the Property description and history, the investigations conducted at the Property, and the cleanup actions previously performed at the Property.
- **Section 3 – Site Conditions.** Section 3 discusses the hydrogeology and groundwater conditions at the Property.
- **Section 4 – Nature and Extent of Contamination.** Section 4 discusses the nature and extent of contamination in Property soil and groundwater.
- **Section 5 – Risks to Human Health and the Environment.** Section 5 outlines contaminant sources, exposure pathways, and receptors to Property contamination.
- **Section 6 – Cleanup Standards.** Section 6 discusses groundwater cleanup levels, points of compliance, and areas exceeding cleanup levels.

- **Section 7 – Summary of Cleanup Action Alternatives Evaluated.** Section 7 briefly presents the three cleanup action alternatives that were evaluated in the feasibility study.

- **Section 8 – Selected Cleanup Action.** Section 8 discusses the selected cleanup action, including the implementation approach and preliminary design considerations.

1.3 Declaration

In accordance with WAC 173-340-360(2)(a), the selected cleanup action meets the threshold requirements, is protective of human health and the environment, complies with applicable state and federal laws, and provide for compliance monitoring. The selected remedy is consistent with the preference of the State of Washington as stated in RCW 70.105D.030(1)(b) for permanent cleanup solutions.

1.4 Applicability

The cleanup standards and the selected cleanup action have been developed as an overall remediation process under Ecology oversight using MTCA authority; they should not be considered as setting precedents for other sites.

1.5 Administrative Record

The documents used to make the decisions discussed in this CAP are part of the administrative record for the Site. The entire administrative record for the Site is available for public review by appointment at Ecology's northwest regional office. To review or obtain copies of the above documents, contact Sally Perkins (Public Disclosure Coordinator) at (425) 649-7190.

2.0 BACKGROUND

2.1 Site Description

The Site includes Parcels A-F and G where Hazardous Substances have been deposited, stored, disposed of, placed, or otherwise come to be located and wherever Hazardous Substances from releases on Parcels A, B, C, D, E, F and G have come to be located. The Hexcel Parcels refer to parcels A, B, C, D, and E, currently owned and controlled by Hexcel Corporation, located at 19819 84th Avenue South in Kent, Washington. Parcel F is currently owned and controlled by Carr Prop II, LLC, located at 8311 South 200th Street. Parcel G refers to the parcel G property currently owned and controlled by BSB, located at 8202 S. 200th Street, Kent, Washington. These parcels are more particularly described in Figure 1, Parcel and Property Diagram, which is a detailed parcel diagram.

Remedial action at the Site has been proceeding on different schedules, with different persons undertaking different remedial actions for different portions of the Site under three separate administrative orders. A Focused Remedial Investigation/Feasibility Study (FRI/FS) has already

been completed with respect to the Property, which is a source area of contamination. Similar documents have not yet been completed with respect to the rest of the Site. Ecology has determined that cleanup of the Site will occur in the most expeditious manner if remedy selection for, and cleanup of, the Property moves forward now, rather than waiting until documentation is completed and a remedy is selected for the areas of the Site beyond the Property.

2.2 Property Description

The BSB Property is located in Township 22 North, Range 4 East, Section 1H at a latitude of 47 degrees 25' 22" North and a longitude of 122 degrees 13' 51" West. The 4.2-acre Property is currently a fenced, vacant lot that slopes gently to the north. The area surrounding the Property is topographically flat and is zoned "Limited Industrial." The Property is bounded on the north by South 200th Street and the Hexcel industrial facility. Commercial and industrial park properties are located to the west and south of the Property, and the Carr industrial facility is immediately to the east of the Property.

2.3 Property Ownership History

The Hytek Finishes Company (Hytek), a division of Criton Technologies, operated a metal finishing and electroplating plant at 8202 South 200th Street (now part of the Hexcel Facility). Criton Technologies also had an adjacent composite products manufacturing division named Heath Tecna Aerospace Company at 19819 84th Avenue South (also now part of the Hexcel facility). The Hytek division ceased Treatment, Storage, and Disposal Facility (TSDF) operations regulated under the federal Resource Conservation and Recovery Act (RCRA) and Washington's Hazardous Waste Management Act (HWMA) in 1985. In 1987, BSB obtained both the Hytek and Heath Tecna Aerospace divisions, including real property described as Parcels A through G (Figure 2). In 1988, BSB sold the Heath Tecna Aerospace division and Parcels A through F to the Phoenix Washington Corporation, a wholly owned subsidiary of Ciba-Geigy. The Phoenix Washington Corporation subsequently changed its name to Heath Tecna Aerospace Company. BSB relocated Hytek's operations off-site and sold the division in 1989, retaining ownership of Parcel G. By mid 1996, Hexcel had acquired Heath Tecna Aerospace Company, including Parcels A through F, and assumed obligations of Heath Tecna regarding Parcels A through F. Parcel F, located adjacent to Parcel G to the east, was sold by Hexcel in August 2003 to Carr Prop II, LLC.

2.4 Historical Waste Treatment Operations

A variety of industrial and hazardous wastes that were generated on Parcels A through E were formerly treated and stored in a waste treatment area located on Parcel G (Figure 3). The waste treatment area was located in the northeast and southern portions of Parcel G; a parking lot was located in the northwest portion of the parcel. Waste handling reportedly occurred on Parcel G between the mid 1950s, when electroplating operations were begun on the property north of South 200th Street, and 1985, when Hytek TSDF activities ceased.

Wastewater generated on Parcels A through E was transferred to Parcel G through pipes under South 200th Street (Hytek, 1985a). The pipe run entered the northeast corner of Parcel G and

discharged into an equalizing lagoon; the discharged wastewater contained metals and inorganics. Approximately 40,000 gallons of wastewater were generated daily in 1981.

The waste treatment area was equipped to batch treat large volumes of dilute wastewater as well as highly concentrated plating baths. Treatment occurred in four 22,000-gallon treatment tanks located to the immediate west of the equalizing lagoon. The processes that were available included reduction/oxidation of chromium, cyanide, and nickel; neutralization of acids; precipitation of heavy metals; and dewatering of metal hydroxide sludges. The treated solution from the tanks was pumped into an unlined sludge settling lagoon (Figure 3); according to Hytek, (1985a), the sludge settling lagoon was used until approximately 1965 when it was filled and paved over. Treated water was then pumped into the sanitary sewer, and the wet sludge was pumped into drying beds located on the southeastern (late 1960s until 1979) or southwestern (1979 through 1985) portions of the property. Approximately 200,000 to 260,000 gallons of sludge were generated yearly.

A drum storage area was formerly located in the central portion of Parcel G. The area was used to store raw materials, store hazardous wastes awaiting shipment to disposal facilities or recyclers, and transfer chemicals. This area was used between the early 1960s and 1979. According to Hytek (1985a), the hazardous materials stored in this area primarily consisted of degreasing and paint stripping chemicals, including methyl ethyl ketone, trichloroethene (TCE), methylene chloride, phenol (in paint strips), hydrofluoric acid, nitric acid, and chromium and lead compounds. Any spills or container leakage that may have taken place in this area would have flowed to an unlined ditch running in an east-west direction near the southern boundary of this area; Hytek (1985a) states that the ditch was located near the fence line along the southern boundary of the northeastern waste treatment area.

2.5 Previous Investigations

In the early 1980s, the United States Environmental Protection Agency (USEPA) initiated investigations at the former Hytek Finishes Facility and Heath Tecna Aerospace Company properties. BSB conducted a series of investigations in subsequent years both on and off the BSB Property. The investigations on the Property (see Figure 4) included the following:

- Drilling 112 temporary borings;
- Installing 28 wells or piezometers, with subsequent abandonment of 10 of them;
- Analysis of 23 soil gas samples for volatile organic compounds (VOCs);
- Chemical analysis of 8 sludge samples, 1 effluent sample, 218 soil samples, and over 700 groundwater samples;
- Physical parameter analysis of 19 soil samples;
- Measurement of over 2,000 groundwater levels; and
- Field hydraulic conductivity testing at 14 locations.

The investigations off the Property (both upgradient and downgradient) included the following:

- Drilling 35 temporary borings;
- Installing 47 wells or piezometers, with subsequent abandonment of 6 of them;
- Analysis of 45 soil gas samples for VOCs;
- Chemical analysis of 10 soil samples and over 1,230 groundwater samples;
- Physical parameter analysis of 1 soil sample;
- Measurement of over 5,030 groundwater levels; and
- Field hydraulic conductivity testing at 24 locations.

During the September 2009 operation of deep aquifer dewatering wells during treatment vault construction, elevated concentrations of TCE, cis-1,2-dichloroethene (cDCE), and vinyl chloride were measured in samples of the groundwater discharged from the deep aquifer. Concentrations of cDCE and vinyl chloride were in the range of halogenated volatile organic compound (HVOC) concentrations in the shallow aquifer source area and much higher than previously observed in a deep aquifer well. Due to these elevated HVOC concentrations in the deep aquifer dewatering wells, deep aquifer investigations focusing on the BSB Property (Parcel G) were initiated in November 2009. The investigations included the following (see Figure 5):

- Collecting groundwater samples from 22 temporary direct-push borings;
- Installing 28 deep aquifer monitoring wells with detailed lithologic logs recorded;
- Monthly measurement of groundwater levels in all deep aquifer monitoring wells;
- Periodic collection of groundwater samples from all deep aquifer monitoring wells with laboratory analysis of all samples for VOCs and selected samples for natural attenuation parameters; and
- Laboratory analysis of selected soil samples for grain size and vertical hydraulic conductivity.

These investigations are summarized in Table 1.

2.6 Property Remediation

Soil and groundwater cleanup actions have been conducted at the Property as part of RCRA and HWMA closure activities in the late 1980s and early 1990s. These cleanup actions have included:

- Removal and closure of solid and hazardous waste management units;
- Removal of contaminated solids from the former sludge settling lagoon and the former equalizing lagoon;
- Excavation of approximately 2,000 cubic yards of contaminated soil from the primary source area on the Property;
- Consolidation, stabilization, and isolation of dangerous waste solids in the former sludge drying beds;

- Capping of potentially impacted portions of the Property; and
- Installation and operation of a groundwater extraction and treatment corrective measures system (CMS).

Since August 1992, the CMS has removed groundwater contaminated with halogenated VOCs (HVOCs) beneath the former Hytek Finishes and Heath Tecna Aerospace Company Facilities. The CMS includes six groundwater recovery wells, an automated control system that monitors water levels and flow rates and controls pumping rates, a treatment system, and piping allowing discharge to the publicly-owned treatment works. Two of the recovery wells (HYR-1 and HYR-2) are located on the BSB property, and four of the recovery wells (CG-1 through CG-4) are located on the Heath Tecna/Hexcel property. The system was separated by location of the recovery wells in April 2006, with BSB taking responsibility for HYR-1 and HYR-2, and Hexcel taking responsibility for CG-1 through CG-4. BSB's recovered groundwater is currently pre-treated through an air stripper prior to discharge to the King County sewer treatment system.

As a result of these cleanup actions, conditions at the Property have stabilized, contaminated soil and waste has been treated and/or removed from the Property, over 10,000 pounds of VOCs have been removed and treated by operation of the existing CMS, and the potential risks to human health and the environment have been reduced and controlled. The CMS is designed to control off-Property migration of VOCs. Other potential Property exposures are also being controlled through a combination of engineering and institutional controls. However, residual VOC concentrations in groundwater and potential nonaqueous phase liquid (NAPL) may remain in the primary source area of the Property.

3.0 SITE CONDITIONS

3.1 Environmental Setting

The BSB Property lies in the Duwamish Valley between the Covington Plain on the east and the Des Moines Plain on the west. The Duwamish Valley is in the Duwamish-Green River Watershed, where major surface water bodies include the Green River, the Black River, the Duwamish River, Mill Creek, and Springbrook Creek. The closest surface water body to the Property is a ditch located about 2,000 feet northeast of the Property (Figure 1).

The Duwamish Valley is filled with over 300 feet of Quaternary alluvium interbedded with marine sand deposited after the last glaciation. Groundwater is found at shallow depths throughout the valley, with groundwater elevations in deeper wells generally higher than in shallower wells. Although 20 likely existing water supply wells were found within a 1-mile radius of the Property, none are downgradient of the Property, all but one are located east of Highway 167, and none are likely completed in the same hydrogeologic unit as the units investigated and monitored at the Property.

3.2 Hydrogeology

Figure 6 presents a typical cross section across the Property (location shown on Figure 4). Five hydrostratigraphic units (labeled by letter from shallowest to deepest) have been identified at the Property: two aquifers (referred to as Layers B and D) and three low-permeability zones (referred to as Layers A, C, and E/F). Layers A, C, E, and F are fine grained and exhibit low permeability. Layers B and D are composed of relatively high permeability sand.

Layer A. The uppermost portion of this unit is unsaturated or only seasonally saturated. The unit is laterally continuous and likely serves as a barrier to downward groundwater movement.

Layer B. The entire thickness of Layer B is saturated, and the Layer B sand forms the shallow aquifer at the Property. An intermediate silt largely divides Layer B into two subunits. For the purpose of assessing groundwater flow and the nature and extent of contamination, Layer B has historically been divided into two aquifer zones. The shallow aquifer zone is defined as the upper portion of Layer B, above the intermediate silt, and the intermediate aquifer zone is defined as the lower portion of Layer B, below the intermediate silt. Wells or piezometers at the Property monitor the shallow and/or intermediate aquifer zones. Both extraction wells at the Property intercept the shallow aquifer zone and upper portion of the intermediate aquifer zone.

Layer C. The silt of Layer C was encountered throughout the Property. This unit serves as an aquitard to vertical groundwater flow and a restriction to the vertical transport of contaminants at the Property. No wells or piezometers at the Property are screened in Layer C.

Layer D. This unit forms the deeper aquifer at the Property and consists primarily of saturated fine to medium sand with interbeds of silty sand. Layer D contains occasional interbeds of sandy silt, silt, and organic soil and occasional accumulations of shell fragments and wood fragments. During the recent deep aquifer investigations, Layer D was fully penetrated in 17 monitoring well borings locations at and immediately north of the BSB Property. In these borings, the top of Layer D was found as shallow as 41 feet bgs (HY-110) and as deep as 49.5 feet bgs (HY-127 and HY-128); the Layer D thickness ranged from 22 to 36 feet in the recent deep aquifer investigation monitoring well borings at and near the BSB Property. Although no aquifer tests have been conducted in the Layer D sand, it is likely that the horizontal hydraulic conductivity of the Layer D sand is similar to Layer B. Parcel G monitoring wells or piezometers monitor both the upper and lower portions of the deep aquifer.

Layer E/F. Layer E was identified during the 1987 groundwater investigation as a transitional unit between the Layer D sand and the underlying fine-grained Layer F; it was defined as consisting of silty sand with increasing interbeds of silt with depth, typically less than 8 feet thick. During the recent deep aquifer investigations, drilling was typically halted once a 1-foot silt unit was identified at the bottom of Layer D (especially in the borings drilled early in the investigation) to minimize the chance of drilling through a layer that could retard the downward movement of any potentially existing non-aqueous phase liquid (DNAPL); therefore, when silt layers were encountered at the base of Layer D, they were considered part of the underlying fine-grained layer, designated Layer E/F since it was undifferentiated in the depth range typically explored. At two locations (HY-106 and HY-112), silty sand at the base of Layer D included thin interbeds of silt (in the bottom 5.5 feet of Layer D at HY-106) or silt and sand (in the bottom

16 feet of HY-112). Although these interbeds may have been labeled Layer E at the time of the 1987 groundwater investigation, they were considered part of Layer D in the recent deep aquifer investigations due to the predominance of coarse-grained material.

Layer E/F, the deepest unit encountered during on- or off-property investigations, consists of laminated to massive, gray, moderate to high plasticity silt and clay. The unit contains trace fine sand and fine to coarse gravel, with occasional scattered shell fragments and wood fragments. As discussed above, the upper few feet of the unit can also include interbedded silty sand. The top of Layer E/F was encountered in recent deep aquifer investigation borings at depths ranging from approximately 69 to 83.5 feet bgs. At boring HY-124, 62 feet of Layer E/F was penetrated before the boring was halted and abandoned; with the exception of a 1.5-foot-thick sand interbed encountered at 126 feet bgs, silt and clay were encountered from 78 to 140 feet bgs. Similar to the Layer C silt, the silt and clay of transitional Layer E and Layer F serve as an aquitard to vertical groundwater flow and a restriction to the vertical transport of contaminants at the Property.

3.3 Groundwater

3.3.1 Occurrence

Depth to groundwater at the Property has varied from approximately 2 to 12 feet below grade, and groundwater elevations at the Property have varied from approximately 17.5 to 25 feet (relative to the North American Vertical Datum of 1988 [NAVD 88]) in wells screened in Layers A and B, and from approximately 18 to 28 feet in wells screened in Layers D and E. In well clusters, the Layer D potentiometric heads were generally higher than the Layer B potentiometric heads. Downward vertical gradients across Layer C occurred periodically during winter and spring recharge. Groundwater elevations have varied up to approximately 6.5 feet seasonally in wells completed in Layers A and B and up to approximately 5 feet seasonally in wells completed in Layers D and E. Groundwater elevations were highest winter to spring and lowest in the fall, lagging approximately 2 to 4 months behind precipitation.

3.3.2 Aquifer Properties

Horizontal hydraulic conductivities determined from a short-term pumping test in HYR-1 ranged from 43 to 56 feet/day (1.51×10^{-2} to 1.96×10^{-2} cm/sec). No aquifer tests were conducted in Layer D at the Property, but one conducted in a deep well on the Hexcel property yielded horizontal hydraulic conductivity results of 57 to 85 feet/day (2×10^{-2} to 3×10^{-2} cm/sec). The vertical hydraulic conductivities of the Layer B intermediate silt samples were 6.9×10^{-7} and 3.5×10^{-6} cm/sec, respectively, and the vertical hydraulic conductivities of the Layer C silt samples were 1.1×10^{-7} to 5.1×10^{-6} cm/sec. The vertical hydraulic conductivity of a Layer F soil sample collected east of 84th Avenue South was 3.6×10^{-7} cm/sec, and the vertical hydraulic conductivity of a Layer F soil sample collected in the center of the BSB Property was 3.2×10^{-8} cm/sec.

3.3.3 Flow Direction and Velocity

Figure 7 presents a groundwater potentiometric surface contour map in the shallow aquifer zone for October 2003. This contour map, which includes off-Property wells and piezometers to provide areal context, is typical of those generated using data collected during periods of groundwater extraction. Groundwater flow in the shallow, intermediate, and deep aquifer zones is generally toward the northeast, with the contours showing groundwater capture by the extraction wells. Groundwater recharge likely occurs by precipitation and surface water (drainage ditches) infiltration in significant unpaved areas to the southwest of the Property. Groundwater discharge likely occurs to the 196th East Valley Highway Drainage Ditch, the closest reach of which is located about 2,000 feet northeast of the Property. A north-northeast to northeast flow direction was indicated by historical data collected before the groundwater extraction system was installed, with seasonal variations within a 20- to 30-degree range.

Using average horizontal hydraulic gradients, a typical effective porosity, and a range in horizontal hydraulic conductivities, the horizontal groundwater flow rate in the shallow, intermediate, and deep aquifer zones varied from 135 to 175, 115 to150, and 110 to 165 feet per year, respectively. Based on mean upward gradients, a conservative effective porosity, and a range in vertical hydraulic conductivities, the estimated upward groundwater flow rate across Layer C beneath the Property was 0.4 to 12 feet per 100 years.

4.0 NATURE AND EXTENT OF CONTAMINATION

4.1 Soil

4.1.1 Inorganic Constituents

Arsenic, chromium, and lead were not detected in the Extraction Procedure Toxicity Test (EP Toxicity) analyses of confirmation samples collected during closure of the equalizing and settling lagoons, and the southwestern drying beds. Copper, nickel, and zinc were not detected in the EP Toxicity analyses of confirmation samples from the southwestern drying beds. EP Toxicity cadmium was only detected (0.53 mg/L) in one drying bed confirmation sample, and EP Toxicity copper was only detected in two (0.2 and 1.0 mg/L) lagoon samples. EP Toxicity cadmium, nickel, and zinc were detected at low levels in most lagoon confirmation samples, ranging from 0.01 to 2.5 mg/L, 0.2 to 0.8 mg/L, and 0.1 to 0.2 mg/L, respectively.

4.1.2 Organic Constituents

Total chlorinated VOCs (CVOCs) detected in soil samples collected above the water table in the former drum storage area ranged from less than the laboratory Method Reporting Limit (MRL) to 111.6 mg/kg. Twelve VOCs were detected in at least one of the confirmation soil samples collected above the water table in the former drum storage area after excavation and off-Property disposal of soil, with TCE (0.1 to 130 mg/kg), cis-1,2-dichloroethene (cDCE; 0.1 to 36 mg/kg), vinyl chloride (0.1 to 2 mg/kg), and methylene chloride (0.1 to 0.4 mg/kg) the compounds detected the most frequently.

The highest VOC concentrations and most frequent VOC detections in soil samples collected above and below the water table were in borings located in the former drum storage area and along the former ditch. TCE (0.002 to 2,000 mg/kg), trichloroethane (TCA) (0.002 to 61 mg/kg), trans-1,2-dichloroethene (tDCE; 0.011 to 21 mg/kg), vinyl chloride (0.012 to 3.7 mg/kg), methylene chloride (0.012 to 0.084 mg/kg), toluene (0.010 to 60 mg/kg), and total xylenes (0.10 to 40 kg/kg) were detected the most often. Locations with few and relatively low-concentration VOC detections included the small drying bed north of the southwestern drying bed, the southwestern and southeastern drying beds, the east end of the former ditch, and the area north of the former waste handling facility.

Figure 8 presents total VOC isoconcentration contours in soil in both the upper and lower portions of Layer B that were generated during the 2000 Property source area investigation. The primary VOCs found during the source area investigation were TCE, cDCE, and vinyl chloride. Consistent with the previous soil sampling, the extent of contamination was centered around the location of the former drum storage area. Total VOC concentrations above 10 mg/kg were found between depths of 17 and 34 feet below grade, with maximum VOC concentrations typically located within or directly above the confining layers (i.e., intermediate silt layer in Layer B and the top of Layer C). The maximum total VOC concentration in the depth range of the intermediate silt was 329 mg/kg at a depth of 20 feet in SP-9, and the maximum total VOC concentration at the base of Layer B was 600 mg/kg at a depth of 34 feet in SP-11. Although these soil sampling investigations included monitoring for Dense Nonaqueous Phase Liquid (DNAPL), none was observed. While the Photoionization Detector (PID) readings measured during drilling were helpful in identifying soil samples for laboratory analysis, their inconsistent correlation with laboratory VOC results made them far less useful in identifying potential DNAPL zones. The highest soil laboratory VOC results indicate the potential presence of DNAPL, and the concentrations of TCE in groundwater are consistent with the likely presence of DNAPL.

4.2 Groundwater

This section provides a discussion of groundwater quality in monitoring wells installed within the boundaries of the Property and immediately north of the Property (between the Property and South 200th Street). Off-Property results are discussed when necessary to provide clarity to the results from investigations conducted at the Property.

4.2.1 Metals

In general, metals were either infrequently detected or detected at low concentrations in groundwater from Property wells. The results were low enough that only arsenic was considered in the development of indicator hazardous substances in Section 6.1.1.1. A brief discussion of the metals results follows.

Dissolved arsenic was infrequently detected in groundwater samples from shallow wells HYCP-3s, HYCP-5, and HYCP-6, but dissolved arsenic was frequently detected in groundwater samples from shallow wells HY-1s, HYCP-2, HYCP-4, and HYO-2. Detections ranged from the MRL of 5 µg/L to 34 µg/L, with the higher detections in HYCP-2 and HYCP-4. These detected

concentrations were similar to those in upgradient shallow well HY-11s, where dissolved arsenic was frequently detected at concentrations ranging from 5 to 37 µg/L. Dissolved arsenic was not detected in intermediate wells HY-1i, HYCP-1i, and upgradient intermediate well HY-11i, but dissolved arsenic was frequently detected in intermediate well HYCP-3i at concentrations ranging from 6 to 19 µg/L. In the deep aquifer zone, dissolved arsenic was infrequently detected in HYCP-1d and frequently detected in upgradient well HY-11d. Detections ranged from 5 to 10 µg/L. The relatively uniform spread of arsenic results from upgradient to downgradient across the Property and the generally decreasing arsenic concentrations with depth indicate that the source of arsenic is shallow and either area-wide or upgradient of the Property. It should be noted that the Property is located in an area likely affected by the former Tacoma metals smelter that processed high-arsenic ore (Area-Wide Soil Contamination Task Force, 2003). Table 2 provides the dissolved arsenic data generated during groundwater sampling between 1999 and 2003.

Dissolved barium was detected in all but one HYCP-2, HYCP-5, and HY-1d samples, ranging from 7 to 32 µg/L. Dissolved cadmium was only detected in one HY-1s sample just above the MRL. Dissolved trivalent chromium was detected in one HY-1s sample near the MRL, and dissolved trivalent and hexavalent chromium, not detected in HYCP-2 and only detected once in HY-1s, was detected in all HYCP-5 and HY-1d samples, varying from 7.8 to 18 µg/L. Dissolved copper, largely undetected in HYCP-2 and HYCP-5, was detected in both of the HY-1d samples and some of the HY-1s samples; copper detections ranged from 2 to 26 µg/L. Dissolved nickel was not detected in HY-1s, HYCP-2, or HY-1d. HYCP-5 dissolved nickel concentrations varied from 48 to 114 µg/L. Dissolved zinc, infrequently detected in HYCP-2 and HYCP-5 but detected in all analyzed HY-1s and HY-1d samples, ranged from 2 to 120 µg/L. Dissolved antimony, beryllium, hexavalent chromium, lead, mercury, selenium, and silver were not detected in the HY-1s samples analyzed for those constituents.

4.2.2 Organic Constituents

No Polychlorinated Biphenyls (PCBs) or pesticides were detected in the groundwater samples analyzed, and only two Semi-volatile Organic Compounds (SVOCs) were detected at low concentrations in the analyzed groundwater samples.

VOCs in Direct-Push Borings. Fifteen VOCs were detected in groundwater samples collected from the direct-push borings drilled at the Property (sampled in the shallow and intermediate aquifer zones) in 1999 and 2000. The constituents with the highest detections were TCE, cDCE, and vinyl chloride; the detected concentrations were similar to those in monitoring well samples. The highest concentrations of VOCs were in borings located near and downgradient of the former drum storage area (GP-1b, GP-2b, GP-13b, and SP-12B), two borings at the north end of the former southeastern drying bed (SP-13 and SP-24), and four borings located near the western (upgradient) boundary of the Property (SP-15, SP-17, SP-18, and SP-21).

VOCs in Monitoring Wells. Since sampling of the wells began in the mid-1980s, 14 VOCs have been detected routinely during at least part of the sampling history. A summary of these VOC results for groundwater samples collected from the Property monitoring wells between 1999 and 2003 is presented in Table 2. TCE, cDCE, and vinyl chloride were detected at the highest concentrations and were the most frequently detected compounds. Groundwater VOC

concentrations have decreased at the Property since implementation of the groundwater extraction system in August 1992.

Of less importance, a number of other constituents were detected between 1999 and 2003. Perchloroethene (Tetrachloroethene (PCE)) and 1,1-DCA were detected at least once in upgradient shallow well HY-11s, toluene was detected twice in upgradient intermediate well HY-11i, and vinyl chloride, 1,1-DCA, and toluene were detected at least once in upgradient deep well HY-11d. Except for one toluene detection in HY-11d (11 µg/L), the upgradient VOC detections were below 1 µg/L. Other VOCs that have been detected infrequently and at low concentrations in the Property monitoring wells have included acetone, chloroethane, carbon disulfide, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene. Two of these (acetone and carbon disulfide) are chemicals used in analytical laboratories and may represent laboratory contamination of the samples.

VOCs Detected in the Recent Deep Aquifer Investigations. Between 2005 and February 2011, 14 VOCs were detected at least once in the deep aquifer monitoring wells. The primary constituents detected were TCE (less than the laboratory method reporting limit [MRL] to 1,200 µg/L), cDCE (less than the MRL to an approximate concentration of 10,000 µg/L), tDCE (less than the MRL to 123 µg/L), and vinyl chloride (less than the MRL to 5,600 µg/L). The other ten VOCs detected at least once (PCE, 1,1-dichlorethene, 1,1-dichloroethane, chloromethane, bromomethane, chloroform, 1,4-dichlorobenzene, chloroethane, 1,2-dichlorobenzene, and chlorobenzene) were only detected infrequently and at concentrations near the laboratory method reporting limits.

4.2.3 Layer B VOC Time Trends and Spatial Distribution

VOC Time Trends. TCE, cDCE and tDCE, and vinyl chloride concentrations have varied in each well over time, with much of the shorter-term variation likely due to seasonal changes. VOC concentrations in Layer B (shallow and intermediate aquifer zone) monitoring wells have decreased significantly since activation of the groundwater recovery system in August 1992. VOC concentrations in wells located near the former drum storage area (HYCP-3s, HYCP-3i, and HYCP-4) have fluctuated the most with less significant longer-term VOC concentration declines than those apparent in Layer B monitoring wells installed further from the former drum storage area (HYCP-1i, HYCP-2, HYCP-5, HYCP-6, HYO-2, and Ls).

Spatial Distribution of VOCs. VOC concentrations were typically higher in the groundwater samples collected from the upper portion of Layer B (i.e., above the intermediate silt layer) compared to groundwater samples collected from the lower portion of Layer B. The intermediate silt layer appears to have been effective in mitigating VOC migration into the lower portion of Layer B. At four locations (GP-1, GP-13, GP-14, and the HYCP-3 groundwater monitoring well pair), however, groundwater VOC concentrations were higher in the lower portion of Layer B.

The horizontal distributions of TCE, cDCE, and vinyl chloride beneath the Property, the Hexcel Corporation property, and the Carr property are presented in isoconcentration contour maps for TCE, cDCE, and vinyl chloride prepared using the 2003 data (Figures 9, 10, and 11).

Groundwater impacted with VOCs at the Property originates primarily near the former drum storage area and adjacent ditch. Although groundwater analytical results from some borings (e.g., SP-18, SP-21, SP-30) installed upgradient of the former drum storage area and downgradient of the former sludge drying beds indicated elevated levels of cDCE, minimal levels of TCE were detected. Because much higher levels of TCE and cDCE have been detected within and near the former drum storage area (e.g., HYCP-3i, SP-12b) than have been detected at the downgradient edge of the former sludge lagoons (SP-19, SP-20, and SP-22), the investigation results indicate that the predominant source at the Property is located in the former drum storage area, not in the former sludge drying beds.

Another source of comparatively low-level VOCs in groundwater beneath the Property appears to be from a location to the southwest of the Property. Monitoring wells HY-1s and HY-1i, located cross-gradient of the former drum storage area, have had consistent detections of VOCs since installation with significant increases in VOC concentrations after activation of the groundwater recovery system. Groundwater samples collected from direct-push borings SP-15, SP-16, SP-17, SP-18, SP-19, and SP-21, located upgradient or cross-gradient of the former drum storage area, also contained elevated concentrations of cDCE or vinyl chloride.

The VOC plume extends from the former drum storage area to the northeast, in the direction of local groundwater flow. The maximum extent of the VOC plume is depicted in the vinyl chloride plot (Figure 11). Groundwater recovery at HYR-1, HYR-2, CG-1, CG-2, CG-3, and CG-4, has resulted over time in a slightly smaller VOC plume footprint with considerably lower VOC concentrations in the plume. The continued presence of cDCE and vinyl chloride beyond the northern boundary of the Property (where groundwater is captured by recovery wells HYR-1 and HYR-2) is likely due to (1) dissolution or desorption into groundwater of secondary or residual source material north of the Property, (2) undiscovered sources near the former Hytek building, and/or (3) an off-Property VOC source southwest of the Property.

4.2.4 Layer D VOC Time Trends and Spatial Distribution

TCE DNAPL entry into the deep aquifer years ago, propelled by gravity from the shallow aquifer source area through the Layer C silt and clay unit into the deep aquifer, has resulted in a northeast-trending VOC plume beneath the BSB Property containing primarily TCE, cDCE, and vinyl chloride. The plume was formed by residual TCE DNAPL dissolving into passing groundwater with the resulting dissolved HVOCs sequentially biodegrading. The plume has migrated as far as the vicinity of the northern BSB Property boundary. Currently, TCE concentrations in the deep aquifer near the source area are low, indicating that the TCE DNAPL introduced to the deep aquifer has been largely depleted. The remaining source of HVOCs is now primarily composed of cDCE and vinyl chloride.

The concentrations of chloride in the deep aquifer indicate that the mass of HVOCs dechlorinated to date exceeds the mass of remaining dissolved HVOCs by several orders of magnitude. The deep aquifer retains the methanogenic reducing conditions that are appropriate for continued reductive dechlorination of the HVOCs. Long-term trends, limited to data from a single location at HYCP-2d, suggest that the front of the plume may be relatively stable. Contraction of the plume margins is apparent in data from wells Hd and Gd. Recent short-term trends are at least consistent with, if not yet definitive of, ongoing reductive dechlorination.

BSB is investigating the deep aquifer under Agreed Order No. DE 2551. The results of the deep aquifer investigation will be evaluated to determine if any additional cleanup actions are needed to address the deep aquifer. Regardless of whether further cleanup actions related to the deep aquifer are needed, Ecology has determined that the cleanup actions outlined in this CAP are now necessary and appropriate to undertake.

4.2.5 DNAPL

Direct-push drilling, continuous coring, visual examination of soil samples, PID screening of soil cores, and laboratory VOC analysis of soil and groundwater samples were used at the Property to try to identify the presence of DNAPL. DNAPL was not observed during drilling at the Property, but the highest soil laboratory VOC results indicate the potential presence of DNAPL. Similarly, DNAPL has not been observed in any monitoring well at the Property; however, two lines of indirect evidence indicate that DNAPL is likely present in or near the former drum storage area:

- **Groundwater VOC concentrations.** A common indicator for the potential presence of DNAPL upgradient of the area monitored is VOC concentrations greater than 1 percent of the water solubility of the DNAPL component of interest. The highest concentration of TCE in the 1999 through 2003 data set was 76,000 µg/L (HYCP-3i, April 2002), which is 7 percent of the solubility limit of TCE in water (1,100 mg/L); and

- **Persistence of contamination.** Contamination persistent at a location may be indicative of DNAPL upgradient of the location. TCE concentrations in recovery well HYR-1 have been fairly consistent for the last 9 years, indicating the likelihood of an upgradient DNAPL source.

5.0 RISKS TO HUMAN HEALTH AND THE ENVIRONMENT

5.1 Contaminant Sources and Migration Mechanisms

Based on historical waste treatment operations at the Property and the distribution of contaminants at the Property, it appears that the VOCs in the subsurface were sourced primarily by releases in the former drum storage area. The data also suggest contribution from a source upgradient of the Property. Possible release mechanisms in the former drum storage area include spillage during product transfer, leaks from product drums, and surface spillage of raw products washed into the former ditch at the southern edge of the former drum storage area.

Potential migration of contaminants in unsaturated soil is considered very limited due to the age of the releases, the presence of surface pavement, and the thin unsaturated zone. Pure-phase migration in the unsaturated zone is not considered an active migration pathway due to the age of the releases, contaminant leaching from the unsaturated zone to groundwater is not considered a significant migration pathway due to the presence of the surface pavement, and vapor transport by diffusion through the unsaturated zone is likely limited due to the thin unsaturated zone.

Elevated groundwater VOC concentrations and the persistence of VOC contamination at the Property indicate that DNAPL is likely present in or near the former Property drum storage area. The probable presence of DNAPL coupled with the difficulty of finding it with wells and borings suggests that it occurs at the Property primarily as disseminated residuals, blobs, and ganglia rather than extensive pooled accumulations. Given the age of the releases, the DNAPL source zone is likely stable, and the current active migration mechanism in saturated soil and groundwater is groundwater flow through the DNAPL source zone with subsequent transport of contaminants by groundwater to the groundwater recovery system.

5.2 Exposure Pathways and Receptors

Figure 12 presents the conceptual site model (CSM), which is based on the current and future industrial land use, the results of the water supply well search, the soil and groundwater sampling results, and the active and potentially active fate and transport mechanisms.

5.2.1 Soil

Currently, the vast majority of the Property is covered by asphalt pavement, an asphalt concrete cap, or concrete foundations. Property characterization data and confirmation soil sampling data indicate that VOCs are present in unsaturated and saturated soil in and around the former drum storage area. The potential future exposure pathways and receptors for contaminants in soil are the following:

- Exposure to site workers through direct contact with, ingestion of, or inhalation of vapors emanating from contaminated soil during Property maintenance or construction activities that disturb the existing structures or pavement (i.e., soil excavation); and

- Exposure to indoor workers in a future Property occupational setting through inhalation of vapors originating from contaminated soil and migrating up through a future building floor. This is not a current pathway because there are no structures on the Property. However, there is a potential that future Property development could include commercial or industrial buildings.

There is the potential for exposure to site workers or off-Property residents/workers through consumption of contaminants that may leach from soil to groundwater. This is currently an incomplete pathway because (1) leaching is limited by the presence of the asphalt cap, (2) migration of contaminated Property groundwater is controlled by the Property groundwater recovery system, and (3) there are currently no groundwater supply wells located within the extent of the plume or within 1-mile downgradient of the Property. Furthermore, future cleanup actions will all include maintenance of (or improvements to) the existing cap. As a result, this is not considered a significant future exposure pathway.

Because the residual contaminated soil is located entirely beneath pavement, there is no potential for exposure to terrestrial ecological receptors. Furthermore, the Property qualifies for an exclusion from a terrestrial ecological evaluation in accordance with the requirements of

WAC 173-340-7491(c). Specifically, there is no area of contiguous undeveloped land on the Property or within 500 feet of the contaminated soil (requirement is less than 1.5 acres), and the Property does not contain any of the hazardous substances of concern listed in WAC 173-340-7491(1)(c)(ii). As a result, this is not considered a significant future exposure pathway.

5.2.2 Groundwater

Property groundwater is currently captured and extracted by two groundwater recovery wells (HYR-1 and HYR-2). Local groundwater flow outside of the Property capture zone flows to the northeast. Some of this groundwater is currently captured by the CG extraction wells located along 84th Avenue South on the Hexcel parcels. The remainder of the groundwater not captured by the CG extraction wells continues flowing northeast, eventually discharging into the 196th East Valley Highway Drainage Ditch, approximately 2,000 feet northeast of the Property.

Groundwater contamination in areas of the Site downgradient of the Property in the shallow aquifer (e.g., on the Hexcel property), as well as the contamination in the deep aquifer, are both being addressed through separate investigations and cleanup activities and are not addressed in this CAP.

5.2.2.1 Potential Groundwater Ingestion Exposure Pathways

Twenty water supply wells may be located within a 1-mile radius of the Property. However, none of the potential water supply wells are located closer than 2,000 feet of the Property; none are reported to be between the Property and the 196th East Valley Highway Drainage Ditch, the local point of discharge for downgradient groundwater; and all are completed either at significantly greater depths than the deepest impacts at the Property or at significantly higher elevations (beneath the Covington Plain) than the Property impacts. Residences and businesses in the Kent valley adjacent to the Property are serviced by public water districts, so there is a low probability that groundwater in an aquifer hydraulically connected to the shallow aquifer at the Property will be used for water supply in the future.

King County's Groundwater Protection Program 2002 Annual Report indicates that arsenic is present at naturally elevated concentrations in the glacial and bedrock aquifers that feed the alluvial aquifer in the vicinity of the Property. Furthermore, background monitoring well HY-11s, which represents background for the Property, contains dissolved arsenic at concentrations of up to 37 µg/L. Background arsenic levels are therefore above the drinking water standard (Maximum Contaminant Level (MCL)) of 10 µg/L and orders of magnitude higher than the MTCA Method B groundwater cleanup level of 0.0583 µg/L.

Regardless, unless in the future the groundwater beneath the Property and between the Property and the 196th East Valley Highway Drainage Ditch is determined by Ecology to be nonpotable, the groundwater at the Site is considered potable and the potential groundwater ingestion pathway must be considered by Ecology (WAC 173-340-720(1), (2)). If a determination of nonpotability is made in the future, then cleanup levels based on the protection of drinking water beneficial uses will no longer apply.

5.2.2.2 Potential Groundwater to Indoor Air Exposure Pathway

Indoor workers in a future Property occupational setting could potentially be exposed through inhalation of vapors originating from contaminated groundwater and migrating up through the soil and a building floor. This is not a current pathway because there are no structures on the Property. However, there is a potential that future Property development could include commercial or industrial buildings. Therefore, this is a potential future pathway.

5.2.2.3 Potential Groundwater to Surface Water Exposure Pathway

Groundwater downgradient of the Hexcel property (across 84th Avenue South) has been the subject of an ongoing groundwater investigation being conducted jointly by BSB and Hexcel in accordance with a separate agreed order. Based on the available information, the low VOC concentrations in the wells located east of 84th Avenue South, the presence of active containment systems at the Hexcel and BSB properties, and the distance to the drainage ditch indicate that the ditch is not likely a current receptor. In the absence of ongoing containment at the Property and at the Hexcel parcels, however, VOCs would have the potential to migrate to the ditch and enter surface water. Therefore, this is a potential future exposure pathway.

Possible receptors associated with the potential future surface water exposure pathway include humans through consumption of aquatic organisms and through consumption of surface water (i.e., drinking water scenario). As noted above, residences and businesses in the Kent valley adjacent to the Property are serviced by public water districts, so the probability is extremely low that surface water from the drainage ditch would be used as a drinking water source. There is the small potential, however, that persons may attempt to catch fish from the ditch and consume these fish. In addition to the potential human exposures considered above, aquatic organisms that may use the 196th East Valley Highway Drainage Ditch as habitat also have the potential to be exposed to VOCs in the future if remedial action is not undertaken.

5.2.2.4 Summary of Groundwater Exposure Pathways

Summarizing the above discussion, the potential future exposure pathways and receptors for contaminants in groundwater associated with the Property are the following:

- Potential exposure, if drinking water wells are installed, to drinking water users through ingestion of groundwater;
- Potential exposure to recreational (fishing) users of the surface water (i.e., the 196th East Valley Highway Drainage Ditch) through consumption of aquatic organisms;
- Potential exposure of aquatic organisms in surface water (i.e., the 196th East Valley Highway Drainage Ditch) via direct contact; and
- Potential exposure to indoor workers in a Property occupational setting through inhalation of vapors originating from contaminated shallow groundwater that may migrate up through a future building floor.

6.0 CLEANUP STANDARDS

6.1 Groundwater Cleanup Levels

MTCA-defined cleanup standards (WAC 173-340-700(2)) are composed of three separate components: cleanup levels, points of compliance, and additional regulatory requirements. Groundwater cleanup levels and points of compliance are the two primary components and are described in the following sections. Soil cleanup standards are not discussed since soil remediation (excavation, on-site soil stabilization, and/or capping) has already been completed.

Cleanup levels have not been developed for the groundwater-to-indoor air and soil-to-indoor air pathways as part of the Focused Feasibility Study (FFS). These potential pathways are only a concern if future Property development includes construction of habitable structures on the Property. Any future development of the Property will have to consider this pathway and incorporate engineering controls (e.g., vapor barriers) as appropriate to control potential exposures, subject to Ecology's written approval. These engineering controls are well established. A restrictive (environmental) covenant to be recorded with the deed for the Property that will require future property owners to obtain Ecology's written approval before undertaking any activities, including construction, that could create a new exposure pathway for hazardous substances or release hazardous substances to the environment.

6.1.1 Development of Cleanup Levels

6.1.1.1 Selection of Indicator Hazardous Substances

The investigation results indicate that 14 individual VOCs, dissolved arsenic, and total cyanide have been detected during routine groundwater sampling at the Property. Table 2 summarizes the Property VOC, dissolved arsenic, and total cyanide detections between 1999 and 2003, including the frequency of detection, maximum detected concentration, and minimum detected concentration. These results were evaluated consistent with the approach presented in WAC 173-340-703, which reduces the number of hazardous substances being considered during development of cleanup actions by eliminating those substances that contribute a small percentage of the overall threat to human health and the environment. The remaining hazardous substances are designated as indicator hazardous substances (IHSs) for purposes of defining Property cleanup requirements.

The parameters listed in Table 2 were first evaluated based on their frequency of detection, with parameters detected less than 5 percent of the time dropped from consideration. Benzene, methylene chloride, PCE, and 1,1,1-TCA were dropped as IHSs based on frequencies of detection less than 5 percent.

The remaining parameters were then evaluated to determine if any were detected at concentrations below naturally occurring background concentrations. Based on this evaluation, arsenic was dropped as an IHS based on the similarity of the frequency and range of arsenic detections in the Property wells and upgradient well HY-11s. As noted above, arsenic has been

detected at concentrations up to 37 µg/L in HY-11s, while the maximum concentration detected in the remaining Property monitoring wells was 27 µg/L in well HYCP-2.

The remaining 11 parameters include 10 VOCs and total cyanide and are considered potential IHSs. Further screening of these potential IHSs was conducted by comparing the detected concentrations of these parameters against the range of published cleanup levels and standards. The range of published groundwater cleanup levels was identified using Ecology's online *Cleanup Levels and Risk Calculation (CLARC)* tool (https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx) and other published standards including water quality criteria established under USEPA's National Toxic Rule (40 CFR 131). Both MTCA Method A and Method B cleanup levels were identified. Table 3 summarizes these published cleanup levels and standards for the 10 VOCs and cyanide as well as the frequency of detection and maximum detected concentration for each parameter.

As can be seen in Table 3, the maximum concentrations of 1,1-DCA, ethylbenzene, toluene, and total xylenes were less than any of the published cleanup levels or standards; these four VOCs are dropped from consideration as IHSs. Of the remaining six VOCs, TCE, vinyl chloride, and cDCE were frequently detected and detected at concentrations well above their published cleanup levels and standards; these three VOCs were retained as IHSs. The three remaining VOCs (tDCE, 1,1-DCE, and 1,2-DCA) are co-located with, and present in much lower concentrations than, the detections of TCE, cDCE, and vinyl chloride. The maximum concentrations for all three of these VOCs were much lower than the published surface water standard that would apply to the groundwater-to-surface water pathway. Based on this analysis, tDCE, 1,1-DCE, and 1,2-DCA do not contribute a significant percentage of the overall risk to human health and were dropped from consideration as IHSs.

Cyanide was detected in 18 percent of samples and at a maximum concentration of 40 µg/L. This maximum concentration is well below the lowest of the published cleanup level or standard based on the protection of human health (140 µg/L), but above both the chronic and acute surface water quality standards based on protection of aquatic organisms (5.2 µg/L and 22 µg/L, respectively). It should be noted that the cyanide results reported in Tables 2 and 3 are for total cyanide, while the published water quality standards are for free or dissociable cyanide. Free cyanide values would be lower than the total cyanide values. A careful review of the data in shows that of the 20 detections, eight are at the Method Reporting Limit (MRL) of 10 µg/L. Nine of the 12 remaining detections, including the maximum detected value, are from monitoring well HYCP-3i located in the center of the source area.

Monitoring results downgradient of the Property on the Hexcel property also show sporadic, low-level detections of cyanide at or slightly above the MRL. Downgradient of the Hexcel property, the cyanide detections are even more sporadic than immediately downgradient of the Property. Because the intermittent presence of low-level cyanide on and downgradient of the Property does not represent a risk to human health, and the potential impacts on the receiving water are minimal given the distance between the detections that are marginally above the standards and the receiving water, cyanide was not considered an IHS for purposes of cleanup alternative development.

To summarize, the following hazardous substances were selected as IHSs:

- TCE;
- cDCE; and
- Vinyl chloride.

6.1.1.2 Determination of Cleanup Levels

MTCA provides several methods for determining cleanup levels for IHSs, including Method A (tables and applicable state and federal laws), Method B (universal method), and Method C (conditional method). Method C is typically used where Method A or B cleanup levels are impracticable to achieve or for certain industrial properties. The applicability of Method A is described in WAC 173-340-704(1). Method A may be used to establish cleanup levels at sites that have few hazardous substances and meet one of the following criteria:

- Sites undergoing a routine cleanup action as defined by WAC 173-340-200; or

- Sites where numerical standards are available either in the MTCA regulations or applicable state and federal laws for all IHSs.

The three IHSs for this Property have numerical standards. Furthermore, the cleanup actions contemplated for the Property are consistent with the criteria listed in WAC 173-340-200 under the definition of "routine cleanup action," and there are a limited range of cleanup actions available. Therefore, cleanup levels for the Property cleanup action were determined using Method A.

Based on the potential future pathways identified in the conceptual site model (Figure 12), groundwater cleanup levels were identified for the IHSs for the groundwater-to-surface water pathway for the following receptor: protection of humans through consumption of aquatic organisms (TCE, cDCE, and vinyl chloride). No cleanup levels have been developed for the potential aquatic ecological receptors for these substances because there are no promulgated standards available and the human health standards are assumed to be protective. Method A cleanup levels based on protection of surface water receptors are described in WAC 173-340-730(2). Consistent with this chapter, the numerical standards for each of the IHSs are (Table 3):

- TCE – 30 µg/L;
- cDCE – 70 µg/L; and
- Vinyl Chloride – 2.4 µg/L.

With the exception of cDCE, these standards are from USEPA's water quality criteria established under the National Toxics Rule (40 CFR Part 131) for protection of human health from consumption of aquatic organisms. There is no surface water standard for cDCE, so the lowest available human health based standard of 70 µg/L was used (state MCL).

Ecology has decided that for this CAP the vinyl chloride cleanup level will be the MTCA Method A cleanup level for the protection of groundwater (0.2 µg/L). This cleanup level is based on the protection of drinking water beneficial uses. If cleanup levels based on the

protection of drinking water beneficial uses no longer apply in the future, this CAP will be amended accordingly.

6.2 Groundwater Point of Compliance

The point of compliance (POC) refers to the point or points where cleanup levels will be attained. Under the RCRA Post-closure Permit (WAD 07 665 5182) the POC is the downgradient property boundary. In addition, given the nature of groundwater contamination on the Property (see Section 4.2), and as discussed in detail in the focused feasibility study, the source area at the Property does not lend itself to aggressive active treatment. Ecology has thus determined that it is not practicable to attain cleanup levels throughout all groundwater on the Property. The Property boundary will therefore be used as the conditional point of compliance for the purposes of evaluating potential cleanup alternatives (WAC 173-340-720(8)(c)).

6.3 Areas Exceeding Groundwater Cleanup Levels

The current distributions of TCE, cDCE, and vinyl chloride in Layer B groundwater are presented in Figures 9, 10, and 11, respectively. Layer B groundwater beneath the northern half of the Property exceeds the cDCE and vinyl chloride cleanup levels. A wedge-shaped section of Layer B groundwater from the former drum storage area northeast to the Property boundary exceeds the TCE cleanup level.

In the deep aquifer (Layer D), a VOC plume with TCE, cDCE, and vinyl chloride concentrations above the cleanup levels lies beneath the northeastern portion of the BSB Property, extending from the former drum storage area northeast to the Property boundary. The downgradient terminus of the VOC plume in the deep aquifer occurs in the vicinity of the northern BSB Property boundary, with only one current point of detection north of South 200th Street that exceeds cleanup levels.

6.4 Applicable Local, State, and Federal Laws

Cleanup actions must comply with applicable local, state, and federal laws (WAC 360(2)(a)(iii); WAC 173-340-710; RCW 70.105D.090). In certain cases, obtaining a permit is required. In other cases, the cleanup action must comply with the substantive requirements of the law, but is exempt from the procedural requirements of the law (RCW 70.105D.090; WAC 173-340-710(9)).

Persons conducting remedial actions have a continuing obligation to determine whether additional permits or approvals are required, or whether substantive requirements for permits or approvals must be met. In the event that either BSB or Ecology becomes aware of additional permits or approvals or substantive requirements that apply to the remedial action, they shall promptly notify the other party of this knowledge (WAC 173-340-710(9)(e)).

6.4.1 Required Permits

The cleanup Action at Parcel G will require the following permits:

- A Discharge Authorization from King County Industrial Waste will be required for the sanitary sewer discharge.

6.4.2 Substantive Requirements

The Cleanup Action at Parcel G will meet the applicable substantive requirements of the following exempt permits or approvals (as identified at the time of entry of this Decree):

- **City of Kent Grade and Fill Permit.** The grade and fill work will meet the minimum substantive requirements of the City of Kent Design and Construction Standards and Kent City Code; traffic control and street use and cut work will meet the minimum substantive requirements of Development Assistance Brochure #6-5, Traffic Control Plans and the Development Assistance Brochure #11.

- **Sanitary Sewer Connection.** The sanitary sewer work will meet the minimum substantive requirements of the City of Kent Design and Construction Standards and Kent City Code; traffic control and street use and cut work will meet the minimum substantive requirements of Development Assistance Brochure #6-5, Traffic Control Plans and the Development Assistance Brochure #11.

BSB has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) are required for the remedial actions to be conducted under the Consent Decree.

7.0 SUMMARY OF CLEANUP ACTION ALTERNATIVES EVALUATED

7.1 Cleanup Action Objectives

Cleanup Action Objectives (CAOs) form the basis for evaluating potential cleanup technologies and actions for the Property. CAOs are based on an evaluation of the data collected during previous investigations and on the established cleanup levels. The focus of the CAOs is protection of human health. As described above, the Property qualifies for an exclusion from a terrestrial ecological evaluation in accordance with the requirements of WAC 173-340-7491(c). Therefore, no terrestrial ecological-based CAOs are developed. Although the site conceptual model (Figure 12) identifies the groundwater-to- surface water pathway as a potentially complete future pathway for aquatic organisms, there are no IHSs for this pathway because there are no promulgated standards for these substances and the human health standards are assumed to be protective. Therefore, there are no aquatic ecological-based CAOs for this FFS.

The following human health-based CAOs are proposed for use at the Property.

7.1.1 Soil Cleanup Action Objectives

The CAO for soil at the Property is as follows: Control incidental ingestion of and dermal contact with soil, and inhalation of particulates and vapors from soil, by future subsurface

construction workers on the Property. Contain groundwater that may be impacted by soils containing contaminants of concern.

7.1.2 Groundwater Cleanup Action Objectives

The CAOs for groundwater at the Property are as follows:

- Control ingestion of groundwater containing IHSs at concentrations exceeding the applicable cleanup levels;
- Control migration of groundwater containing IHSs at concentrations exceeding the applicable cleanup levels to surface water from the Property; and
- Control inhalation of VOC-containing vapors from groundwater by subsurface construction workers on the Property.

7.2 General Response Actions

General response actions are the general approaches that can be used, either alone or in combination with other response actions, to meet the CAOs. Like the CAOs, general response actions are medium specific.

7.2.1 Presumed Response Actions

For both soil and groundwater, CAOs address potential exposure of subsurface construction workers on the Property. In order to address this potential future exposure pathway, BSB incorporated a presumed response action into all Cleanup Action Alternatives (CAAs) developed. This presumed response action establishes specific procedures to ensure that the potential risks to workers on the Property are adequately assessed prior to and during invasive work on the Property and that adequate protective measures (e.g., personal protective clothing, respiratory protection) are used.

All CAAs include a surface cap either through maintenance of the existing cap, replacement or repair of the cap should it be damaged during implementation of other CAA technologies, and/or incorporation of buildings and other impervious features when the property is redeveloped. All CAA's will include completion of the on-going deep aquifer investigation.

All CAAs include establishing institutional controls to prevent the extraction of groundwater for domestic or agricultural use.

The general response actions that address the remaining CAOs are described below.

7.2.2 Soil General Response Actions

The presumed response actions described above address all of the CAOs for unsaturated soil at the Property and no additional general response actions are required.

7.2.3 Groundwater General Response Actions

The general response actions for groundwater at the Property are as follows:

- Institutional controls (e.g., monitoring, environmental covenant);
- Engineering controls (e.g., surface cap, vapor barriers);
- Groundwater containment (e.g., hydraulic controls, vertical barriers);
- Ex situ groundwater treatment/discharge; and
- In situ groundwater source treatment (e.g., in situ oxidation, enhanced bioremediation).

The first four of these groundwater general response actions are currently being utilized at the Property.

7.3 Cleanup Action Alternatives Evaluated

7.3.1 Alternative 1 – Enhanced Groundwater Extraction System

The enhanced groundwater extraction system alternative builds on the existing extraction system and consists of a total of seven extraction wells located along the downgradient boundary of the Property, discharge of extracted groundwater to the King County sanitary sewer system for treatment, and maintenance of the existing capping at the Property. A detailed description of the installation, operations and maintenance, monitoring, performance evaluation, and reporting for the enhanced groundwater extraction system is provided in PES' report[1] dated June 1, 2004 (PES, 2004b). Figure 13 provides the proposed locations of the existing and new extraction wells.

Under this alternative, BSB would enhance the existing extraction system at the Property with the addition of five new extraction wells to assure and significantly augment future performance. Groundwater would be extracted from each well with a submersible pump and transferred through individual, underground conveyance lines to an aboveground manifold. At the manifold, the individual conveyance lines from HYR-1 through HYR-7 would be joined together into a common header from which extracted groundwater would be discharged to the sanitary sewer under the existing waste discharge permit.

Twenty-seven monitoring wells are currently located on the Property and immediately adjacent to the north, east, and southwest sides of the Property (Figure 13). Thirteen of these wells are shallow, six are intermediate, and eight are deep. To supplement existing monitoring points, one

[1] This report, entitled *Corrective Action and Postclosure Monitoring and Implementation Plan,* was developed to describe how the enhanced groundwater extraction system approach would be implemented. To avoid confusion with the current Interim CAPMIP included in Exhibit D of BSB's Agreed Order, it will be referred to as PES 2004b.

new monitoring well (G4) and 13 piezometers (P-1 through P-13) would be installed in Unit B in conjunction with extraction well installation.

The cap for the Property would consist of the existing cap that covers the former settling basin, the former equalization lagoon, and the former sludge drying beds that encompass an approximate total area of 75,000 square feet. Each cap consists of two geotextile layers, a Polyvinyl Chloride (PVC) liner, a granular backfill layer, a crushed rock base layer, and asphalt concrete pavement.

Institutional controls (which include property use restrictions through an environmental covenant (including a prohibition on domestic or agricultural use of groundwater)), maintenance requirements for engineered controls (e.g. inspections), and financial assurances, will be implemented to limit or prohibit activities that may interfere with the integrity of the cleanup action. The environmental covenant will limit activities that may create a new exposure pathway (e.g., indoor air pathway or subsurface worker pathway) without Ecology's approval.

Total capital costs for this Alternative 1 would be approximately $390,000. The Net Present Value (NPV) of recurring and future costs over the 30-year project life would be approximately $4,150,000. The total estimated NPV for this alternative is $4,540,000.

7.3.2 Alternative 2 – Soil-Bentonite Cutoff Wall Containment and Gradient Control Using Zero Valent Iron (ZVI) Reactor Vault

Alternative 2 includes installing a cutoff wall around, and a cap over, all of the Property and gradient control within the Property containment area using a ZVI reactor vault.

Figure 14 provides a conceptual layout of the cutoff wall alignment, capped area, and location of the ZVI reactor vault system.

In this alternative, the entire Property would be (1) capped and (2) contained by a soil-bentonite cutoff wall keyed into the Layer C silt aquitard and equipped with a ZVI reactor vault. The cutoff wall would follow the perimeter of the Property, and the reactor vault would be located within the northeast (i.e., downgradient) corner of the wall (Figure 14). The cap would minimize surface water infiltration, the cutoff wall would prevent groundwater from passing into the contaminated area, and the ZVI reactor vault would destroy contaminants in the groundwater that is allowed to exit the containment cell by directing it through a ZVI-containing reactor vault. This alternative is similar to a funnel-and-gate arrangement, but differs in that the funnel is closed at the top (upgradient boundary) so that flow through both the contaminated area and the ZVI reactor vault is nearly eliminated except for small amounts of water that may infiltrate the cutoff wall and cap, and for flows induced by seasonal changes in water levels in the surrounding aquifer. Minimizing flow through the reactor vault in this manner significantly reduces the mass of ZVI needed and maximizes its effective treatment life.

The wall would be approximately 2-ft thick, 1,600 ft long, and extend to an average depth of approximately 40 ft bgs (average depth to Layer C). The cutoff wall used at the Property would be made of soil from the Property and bentonite mixed on-site to provide a designed maximum hydraulic conductivity of 1×10^{-7} cm/sec.

The reactor vault would be constructed such that they would contain sufficient ZVI to provide the required contact time at the maximum anticipated flow velocities through the vault. The reactor vault system would consist of the following major components:

- A collection trench located inside the cutoff wall surrounding the ZVI reactor vault in the northeast corner of the containment area;

- The concrete reactor vault, which would consist of a series of six chambers that would contain the required amount of ZVI;

- A discharge pipe from the reactor vault that would lead through the cutoff wall to the sanitary sewer main in South 200th Street located at depth outside the wall[2]; and

The amount of ZVI required to effectively treat groundwater flowing through the vault, is based primarily on: (1) the reaction kinetics of the ZVI with contaminants in Property groundwater, (2) the flow rate of groundwater out of the containment area (i.e., system hydraulics), and (3) the limits applicable to the discharge of treated groundwater to the sanitary sewer. Based on the evaluation of these factors, approximately 920 cubic feet of ZVI would provide the required contact time and treatment. With this amount of ZVI and the hydraulic parameters defined below, the reactor vault would provide at least the minimum required residence time of 2.2 days and would effectively treat the groundwater discharging from the vault to below the applicable KCIW discharge limits.

After the cutoff wall construction is complete, the portions of the existing low permeability asphalt cap that are damaged during the construction of the cutoff wall would be repaired to their original condition. The northern portion of the Property would have a new asphalt cover installed in a manner that would result in a continuous cover system over all of the Property. Approximately 1,000 to 2,000 cubic yards of imported fill would be used to create adequate surface grades on the new asphalt cover to promote runoff of precipitation. Runoff from the capped areas would be directed into culverts, pipes, or ditches and ultimately into the storm sewer system along South 200th Street.

Performance monitoring for Alternative 2 would include direct sampling of the discharge from the vault to ensure that the groundwater exiting the vault through the ZVI reactor vault was being treated to achieve discharge limits. Discharge from the vault would occur based on water levels measurements conducted monthly to determine whether water levels outside the cutoff wall were falling or rising and whether the valve on the discharge side of the reactor vault would be open or closed. When groundwater elevations on the outside of the containment cell are higher than groundwater elevations inside the cell, the valve would be closed. Otherwise, the valve would be open to allow pre-treated groundwater to discharge to the sanitary sewer.

Water samples will be collected from the treatment system for compliance with the KCIW discharge authorization and to confirm that the required treatment objectives are being achieved.

[2] Note: This represents a change to Alternative 2 from the alternative presented in the draft version of this CAP. As presented in the draft CAP, discharge from the ZVI reactor vault would be to an infiltration gallery located outside the slurry wall in the northeast corner of the Property that would infiltrate the treated groundwater from the ZVI reactor vault back into the shallow aquifer.

Compliance samples will be collected from the treatment system discharge pipe at the frequency specified in the discharge authorization; the samples will be analyzed for the parameters required by the authorization. System performance monitoring samples will be collected from the inlet of the first reactor chamber and the discharge pipe leading from the last chamber to the sanitary sewer on a frequency specified in the forthcoming compliance monitoring plan.

Institutional controls (which include property use restrictions through an environmental covenant [including a prohibition on domestic or agricultural use of groundwater]), maintenance requirements for engineered controls (e.g. inspections), and financial assurances, will be implemented to limit or prohibit activities that may interfere with the integrity of the cleanup action. The environmental covenant will limit activities that may create a new exposure pathway (e.g., indoor air pathway or subsurface worker pathway) without Ecology's approval.

Total capital costs for Alternative 2 would be approximately $2,350,000. The NPV of recurring and future costs over the 30-year project life would be approximately $820,000. The total estimated NPV for this alternative is $3,170,000.

7.3.3 Alternative 3 – Cutoff Wall Containment and Gradient Control Using Groundwater Extraction

Alternative 3 includes installing a cutoff wall around, and a cap over, all of the Property, hydraulic gradient control within the containment area using groundwater extraction, and treatment of the extracted groundwater prior to discharge to the sanitary sewer. Figure 15 provides a conceptual layout of the cutoff wall alignment, capped area, and location of the gradient control extraction wells.

This alternative is very similar to Alternative 2, except that that the ZVI reactor vault used in Alternative 2 for gradient control are replaced with groundwater extraction within the cutoff wall containment area. In Alternative 3, the entire Property would be (1) capped and (2) contained by a soil-bentonite cutoff wall keyed into the Layer C silt aquitard. The cutoff wall would follow the entire perimeter of the Property, and three to five groundwater extraction wells would be installed within the containment area (Figure 15). The cap and cutoff wall would deflect the bulk of surface infiltration and groundwater from passing into the contaminated area, and groundwater extraction wells would pump groundwater at a rate sufficient to prevent groundwater from flowing out of the containment area through the cutoff wall or Layer C.

The wall would be approximately 2-ft thick and 1,600 ft long and extend to an average depth of approximately 40 ft bgs (average depth to Layer C). The cutoff wall used at the Property would be made of soil from the Property and bentonite mixed on-site to provide a designed maximum hydraulic conductivity of 1×10^{-7} cm/sec. The cutoff wall would effectively eliminate the movement of VOC-contaminated groundwater from the Property. To ensure that contaminated groundwater does not leave the Property containment area, groundwater would be extracted with wells from within the containment cell to ensure maintenance of inward hydraulic gradients across the cutoff wall and Layer C.

The extracted groundwater would ultimately be discharged to the sanitary sewer under a King County Waste Discharge Permit. Because of the VOC concentrations in the groundwater inside

the cutoff wall, it is assumed that the extracted groundwater would require pretreatment prior to discharge. Given the relatively low flow rate of 0.6 gpm (i.e., 860 gallons per day), the groundwater would be treated on a batch basis using air stripping. Extracted groundwater would be collected in a 2,000-gallon receiving tank, and then processed through a small air stripper in approximately 500-gallon batches at a rate of approximately 5 gpm. Emissions from the air stripper would be treated using two activated carbon adsorption vessels. The treated groundwater would be discharged into the sanitary sewer. The cap for this alternative would be the same as described for Alternative 2.

Institutional controls (which include property use restrictions through an environmental covenant (including a prohibition on domestic or agricultural use of groundwater)), maintenance requirements for engineered controls (e.g. inspections), and financial assurances, will be implemented to limit or prohibit activities that may interfere with the integrity of the cleanup action. The environmental covenant will limit activities that may create a new exposure pathway (e.g., indoor air pathway or subsurface worker pathway) without Ecology's approval.

Total capital costs for Alternative 3 would be approximately $1,610,000. The NPV of recurring and future costs over the 30-year project life would be approximately $2,850,000. The total estimated NPV for this alternative is $4,460,000.

7.4 Cleanup Action Evaluation Criteria

Per WAC 173-340-360(2), the criteria for evaluating cleanup action alternatives include the following:

Threshold Requirements

- Protect human health and the environment;
- Comply with cleanup standards (WAC 173-340-700 through –760);
- Comply with applicable state and federal laws (WAC 173-340-710); and
- Provide for compliance monitoring.

Other Requirements

- Use permanent solutions to the maximum extent practicable;
- Provide for a reasonable restoration time frame; and
- Consider public concerns.

In addition to these criteria, Ecology's expectations for cleanup actions are listed in WAC 173-340-370. If the evaluation of cleanup action alternatives concludes that more than one alternative meets the cleanup action selection criteria, a disproportionate cost analysis can be conducted pursuant to WAC 173-340-360(3)(e) to determine if the incremental costs of one alternative over that of a lower cost alternative exceed the incremental degree of benefits achieved by the alternative over that of the other lower cost alternative.

7.5 Evaluation of Cleanup Action Alternatives

7.5.1 Protectiveness

All of the alternatives would achieve containment of VOCs at the downgradient Property boundary, thereby protecting the potential human receptors for the groundwater to surface water pathway. All three alternatives address the potential exposure of subsurface construction workers on the Property in the same fashion by ensuring that the potential risks to workers are adequately assessed prior to and during subsurface work and that adequate protective measures (e.g., personal protective clothing, respiratory protection) are used. Similarly, all three alternatives address the potential future indoor air pathway by requiring that this pathway be evaluated and engineering controls (e.g., vapor barriers) incorporated, as appropriate, to control potential exposures if future Property development includes construction of habitable structures. Finally, all three alternatives include establishing institutional controls to prevent the domestic or agricultural use of groundwater and provide for the maintenance of the remedy.

7.5.2 Compliance With Cleanup Standards

All three alternatives would achieve compliance with the groundwater cleanup standards by controlling migration of VOC-containing groundwater from the Property to downgradient receptors. The primary difference between the alternatives would be the technology employed to achieve containment.

All three alternatives would achieve the cleanup standard for protection of future outside and indoor workers at the Property through the use of institutional controls to require the use of appropriate engineering controls and evaluation of the indoor air pathway if future Property development activities result in the construction of a habitable building.

7.5.3 Compliance with Regulatory Requirements

All of the alternatives would comply with the applicable legal requirements, including MTCA. Where off-Property management and disposal of wastes is required, the applicable solid and dangerous waste regulations would govern cleanup activities. All three alternatives include discharge of groundwater to the sanitary sewer and a King County Industrial Waste Discharge Permit or Authorization would be obtained and complied with. Alternative 3 also includes emission control equipment to prevent the discharge of VOCs from the groundwater treatment system to the atmosphere; this system would meet the substantive requirements of the Puget Sound Clean Air Agency regulations.

7.5.4 Compliance Monitoring

All three cleanup action alternatives include compliance monitoring to assess the ongoing performance of the alternative and to monitor compliance with cleanup goals. Of the three alternatives, Alternative 1 would have the most involved compliance monitoring (see the PES 2004b report for details), with significant water quality sampling, water level monitoring, and numerical modeling required to document compliance with the performance objectives. The

compliance monitoring associated with Alternatives 2 and 3 would be simpler and the performance objectives easier to document compared to Alternative 1.

7.5.5 Use of Permanent Solutions

The comparative evaluation of this criterion is presented in the Focused Feasibility Study. The sub-criteria that are most important in differentiating the three alternatives, and will be used as the basis for the disproportionate cost analysis, are permanence, long-term effectiveness, and cost. These three sub-criteria are discussed below, while the disproportionate cost analysis is presented in the Focused Feasibility Study.

7.5.5.1 Permanence

The main differentiating factors regarding the permanence of the three alternatives are: (1) the amount and complexity on the long-term Operation & Maintenance (O&M) activities required to maintain containment and (2) how well the alternative maintains containment should O&M activities be interrupted. Alternative 1 would be the most O&M intensive, as it would require the ongoing O&M of seven extraction wells, periodic replacement of the extraction wells, and the associated control and discharge systems. Performance monitoring associated with Alternative 1 would also be more intensive than the other two alternatives, and include significant data evaluation and modeling to demonstrate system performance. Alternative 3 would be the next most O&M intensive alternative. Although the cutoff wall would function without maintenance, the groundwater extraction and treatment systems would require ongoing O&M similar in nature to Alternative 1 in order to maintain hydraulic control inside the containment cell. Alternative 2 would be the least dependent on ongoing O&M actions to maintain its effectiveness in that the encircling cutoff wall would provide containment without maintenance, and the ZVI reactor vault would function passively with only minor adjustments of the control valve on the discharge side of the vault to regulate discharge to the sanitary sewer and the potential need for periodic "refreshing" of the ZVI every several decades, if at all.

In summary, Alternative 2 rates the highest of the three alternatives under the permanence criterion. Alternative 3 rates lower and Alternative 1 rates the lowest due to their need for significant regular ongoing O&M.

7.5.5.2 Long-Term Effectiveness

The main factors evaluated relative to the long-term effectiveness of the three alternatives are: (1) the certainty of success of the alternative and (2) how reliable the alternative would be. With respect to the certainty of success factor, there is a high degree of certainty that all three alternatives will be effective at preventing migration of VOCs from the Property over the long term.

The reliability of the three alternatives would also be high. In general, Alternative 1 would be the least reliable because it would require more O&M compared to Alternatives 2 and 3. The reliability of both Alternatives 2 and 3 would also be high due to the use of the cutoff wall as the primary mechanism for containment. The differences between Alternatives 2 and 3 would be how hydraulic gradients inside the containment cell would be managed. The ZVI reactor vault

used in Alternative 2 would function completely passively and with the exception of adjustment of the valve on the discharge side of the vault to regulate the discharge to the sanitary sewer and the potential need for infrequent "refreshing" of the ZVI (e.g., every 30 years), would require no active maintenance.

The positive aspect of the reliability of Alternative 3's approach to gradient control is the well understood and somewhat simpler technology used (groundwater extraction), which has been demonstrated effective over the long term at many sites. On the other hand, the reliability of this approach would be adversely affected by the need for ongoing O&M including periodic replacement of the extraction wells and the significant O&M required for the air stripper system.

Ecology believes Alternative 2 would be the most effective over the long term because it would utilize passive controls that do not require regular O&M. Ecology believes that Alternatives 1 and 3, although still effective over the long term, would be somewhat less reliable than the Alternative 2 due to their relatively greater ongoing O&M demands.

7.5.5.3 Cost

Based on the overall net present value (capital costs plus 30 years of O&M), Alternatives 1 and 3 have essentially the same cost of $4.5 million. The major cost factor for these two alternatives is the costs associated with ongoing O&M of the groundwater extraction systems. Alternative 2, although it has the highest capital costs, has an overall net present value cost of approximately $3.2 million because it does not have high ongoing O&M costs.

7.5.6 Restoration Time Frame

All three alternatives rely on containment as the primary means to provide protection of human health and the environment and achieve compliance with cleanup standards. Contaminant destruction is a secondary process for all three alternatives with timeframes that are difficult to accurately project. As a result, all three alternatives will all have essentially the same restoration time frame and the comparison of the alternatives for this criterion is not a differentiating factor between the alternatives.

7.5.7 Public Acceptance

During the preparation of the Focused Feasibility Study, Ecology carefully considered input from the downgradient property owner (Hexcel) with respect to how the cleanup action alternatives may or may not affect Hexcel's property investigation and cleanup activities. Additional consideration of public concerns occurred after public review and comment on a draft version of this CAP. Ecology has prepared a responsiveness summary addressing the comments received during this comment period. This final CAP reflects one change that corresponds to a comment received. As indicated in Section 7.3.2, discharge from the ZVI reactor vault in Alternative 2 will be to the sanitary sewer, as opposed to a subsurface infiltration gallery.

8.0 SELECTED CLEANUP ACTION

8.1 Selected Cleanup Action

Based on the evaluation above, Ecology believes Alternative 2 is superior to Alternatives 1 and 3 under the evaluation criteria, including the "use of permanent solutions to maximum extent practicable" criterion. Alternative 1 compares less favorably to the criteria than both Alternatives 2 and 3. Alternative 2 is also the least costly alternative over the long term; Alternative 2 costs $3.2 million followed by Alternatives 1 and 3 which both cost approximately $4.5 million. Therefore under the MTCA regulations [WAC 173-340-360(3)(e)(ii)(C)], Alternative 2 is selected as the preferred alternative for implementation at the Property.

Ecology Expectations. WAC 173-340-370 outlines a series of eight expectations that Ecology has regarding selection and implementation of cleanup actions. Selection of Alternative 2 for implementation at the Property is consistent with these expectations in that it:

- Uses engineering controls (containment) to contain large volumes of materials where treatment is impracticable;
- Minimizes migration of hazardous substances by preventing precipitation and runoff from contacting contaminated soils and waste materials;
- Takes active measures to prevent releases of hazardous substances to surface waters via groundwater discharges; and
- Does not result in a greater overall threat to human health and the environment compared to other alternatives.

There is an expectation or preference for treatment technologies. However, this expectation is applicable to "areas of hazardous substances that lend themselves to treatment." The ZVI reactor vault will provide treatment for the VOCs that pass through it, although at a low rate. As discussed in detail in the focused feasibility study, the source area at the Property does not lend itself to more aggressive treatment and, therefore, alternatives based on aggressive treatment technologies were not developed or evaluated as part of the FFS. (Note also that the historical cleanup actions at the Property have included significant treatment of contaminants in both soil and groundwater.)

8.2 Implementation of Selected Cleanup Action

8.2.1 Overall Implementation Approach

The final selection and implementation of Alternative 2 as the preferred cleanup action will include the following general steps:

- BSB or a third party will prepare a detailed design of the alternative;

- Following Ecology's approval of the final design, BSB or a third party will construct the cleanup action (e.g., cutoff wall, ZVI reactor vault, surface cap);

- BSB or a third party will conduct long-term operations, maintenance, and compliance monitoring activities; and

- BSB or a third party will conduct periodic reviews (WAC 173-340-429) to evaluate the effectiveness of the remediation. Additional remediation or contingency plans will be implemented if Ecology determines that contaminated groundwater above cleanup levels is issuing from the BSB property due to failure of the ZVI reactor vault system.

8.3 Additional Requirements

8.3.1 Institutional Controls

Institutional controls will be incorporated in the cleanup action since contaminants exceeding the MTCA Method B cleanup levels will remain on the Property (WAC 173-340-440(4)(a)). The intent of the institutional controls will be to preserve the integrity of the cleanup action. Institutional controls will include filing an environmental covenant under chapter 64.70 RCW in the real property records to notify potential purchasers of the Property of this Cleanup Action Plan. The environmental covenant will limit activities that may create a new exposure pathway (e.g., indoor air pathway or subsurface worker pathway), result in the release of hazardous substances, or interfere with the integrity of the Cleanup Action without Ecology's written approval. Any future development of the Property will have to consider the indoor air pathway and incorporate engineering controls (e.g., vapor barriers) as appropriate to control potential exposures, subject to Ecology's written approval.

8.3.2 Financial Assurances

Financial assurances will be established and maintained sufficient to implement this Cleanup Action Plan, including maintaining institutional and engineering controls on the Property and maintaining compliance monitoring (WAC 173-340-440(11); WAC 173-303-64620).

8.3.3 Substantive Requirements

Chapter 70.105D RCW exempts cleanup actions conducted under a consent decree from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. The selected cleanup action will be conducted in compliance with the substantive requirements of local government regulations. There are no federal or state permits required for the selected cleanup action.

8.3.4 Work Plans

Work plans for the selected cleanup action will be prepared and submitted to Ecology for review. Work plans will include an engineering design report, construction plans and specifications,

compliance monitoring plan, and an operation and maintenance (O&M) plan. The engineering design report will document the selected cleanup action design in sufficient detail that construction plans and specifications may be developed. The elements of WAC 173-340-400(4)(a) will be included in the engineering design report, and the elements listed in WAC 173-340-400(4)(b) will be included in the construction plans and specifications. The compliance monitoring plan will include a sampling and analysis plan and a discussion of data analysis and evaluation procedures. The compliance monitoring plan will discuss protection monitoring, performance monitoring, and confirmational monitoring (WAC 173-340-410), including the method of confirming that the discharge from the ZVI reactor vault has met cleanup levels in a reasonable restoration time frame after installation. In accordance with WAC 173-340-400(4)(c), an O&M plan will be prepared detailing the plans to ensure the effective operation of the selected cleanup action.

8.3.5 Periodic Review

Per WAC 173-340-420, a periodic review is required at sites where an institutional control is part of the cleanup action. The review is to be performed within 5 years of the start of cleanup and at a frequency no greater than every 5 years, thereafter. Since an institutional control is included in the selected cleanup action, a periodic review will be conducted to document the performance of the cleanup action.

8.4 Schedule

The remedy design and construction of the cleanup action will be completed in accordance with the attached Schedule (Appendix A).

TABLES

Table 1

Summary of Site Investigations Performed
BSB Property, Kent, Washington

Investigation	Year	Purpose	Summary of Work Performed
FIT investigation	1980 -1981	Initial investigation of waste treatment area by USEPA	Installation of 6 on-site wells, soil/groundwater sampling, and water level measurement
Phase 1 investigation	1982	Provide for additional on-site and off-site groundwater monitoring as recommended by USEPA	Installation of 4 on-site and off-site wells, groundwater sampling, water level measurement, and hydraulic conductivity testing
Phase 2 investigation	1983 - 1984	Provide for additional waste treatment area sampling and groundwater monitoring as agreed to with USEPA	Sampling of equalizing basin soil and water, sampling of drying bed sludge, installation and sampling of 5 off-site wells, sampling groundwater in 6 off-site test holes, water level measurement, and hydraulic conductivity testing
Phase 3 investigation	1984	Provide for additional groundwater monitoring as agreed to with USEPA	Sampling 14 on-site and off-site soil borings, installation of 3 off-site wells and 3 temporary off-site piezometers, groundwater level measurement, groundwater sampling, hydraulic conductivity testing, surface water sampling, and sewer monitoring
Compliance well installation	1984 - 1985	Provide for additional on-site soil sampling and on-site well installation	Sampling 5 on-site soil borings, installation of 14 on-site wells, 4 off-site wells, and two temporary on-site piezometers, groundwater level measurement, and hydraulic conductivity testing
Soil gas survey	1986	Evaluate the extent of the groundwater VOC plume	Collect soil gas samples from 69 on-site and off-site temporary soil gas probes
Groundwater investigation	1987	Fulfill investigation requirements of RCRA Section 3013 order	Sludge drying bed sampling, sampling 35 on-site and off-site soil borings, installation of 6 on-site and off-site piezometers and 15 on-site and off-site wells, collecting groundwater samples from 4 test borings, groundwater level measurement, hydraulic conductivity testing, and groundwater sampling
Parcel G unsaturated soil investigation	1988	Evaluate the extent of VOCs in Parcel G unsaturated soil	Sampling 25 shallow, on-site soil borings
Pilot recovery program investigation	1989	Fulfill requirements of post-closure permit	Installation of 2 on-site wells, replacement of 2 on-site wells, installation of 1 on-site and 4 off-site recovery wells, installation of 5 off-site observation wells, recovery well and aquifer testing, and recovery well groundwater sampling

Table 1

Summary of Site Investigations Performed
BSB Property, Kent, Washington

Investigation	Year	Purpose	Summary of Work Performed
Groundwater monitoring	1988 - 2011	Provide baseline data prior to remediation system operation and assess groundwater conditions during remediation system operation	Monthly water level measurements in and biannual to quarterly groundwater sampling of up to 43 on-site and off-site wells
Parcel G source area investigation	1999 - 2000	Investigate the extent of VOCs beneath Parcel G, especially near the former drum storage area	Sampling 58 on-site soil borings, grain size analysis, vertical hydraulic conductivity testing, and in-situ hydraulic conductivity testing
Parcel G deep aquifer investigation	2008 - 2011	Investigate the nature and extent of VOCs beneath and downgradient of Parcel G	Sampling groundwater from 22 direct-push borings, installation and detailed lithologic logging of 28 deep aquifer monitoring wells, periodic sampling of all deep aquifer monitoring wells, grain size analysis, and vertical hydraulic conductivity testing

Table 2

Summary Statistics for Groundwater Samples Collected Between 1999 and 2003
BSB Property, Kent, Washington

Constituent	Total Samples Analyzed	Non-Detections	Qualified Detections	Unqualified Detections	Frequency of Detection	Maximum Detection (µg/L)	Minimum Detection (µg/L)	Comments
Vinyl Chloride	124	10	3	111	92%	8,200	0.84	Highest concentrations in intermediate zone
Methylene Chloride	124	119	0	5	4.0%	110	6	Highest concentrations in intermediate zone, not detected in deep zone
trans-1,2-Dichloroethene	124	62	3	59	50%	190	0.14	Highest concentrations in intermediate zone, not detected in deep zone
cis-1,2-Dichloroethene	124	18	4	102	85%	42,000	0.6	Highest concentrations in intermediate zone
1,1-Dichloroethene	124	88	4	32	29%	80	0.18	Highest concentrations in shallow zone, not detected in deep zone
1,1-Dichloroethane	124	61	8	55	51%	270	0.18	Highest concentrations in shallow zone, not detected in deep zone
1,2-Dichloroethane	124	116	2	6	6.5%	1.1	0.66	Not detected in deep zone
1,1,1-Trichloroethane	124	122	0	2	1.6%	78	1.5	Not detected in intermediate/deep zones
Trichloroethene	124	77	1	46	38%	76,000	1.2	Highest concentrations in intermediate zone, not detected in deep zone
Tetrachloroethene	124	123	0	1	0.8%	3.8	3.8	Not detected in shallow/deep zones
Toluene	112	83	10	19	26%	180	0.12	Highest concentrations in intermediate zone
Ethylbenzene	112	104	1	7	7.1%	55	0.24	Not detected in deep zone
Total Xylenes	112	98	0	14	13%	130	1	Not detected in deep zone
Benzene	112	111	0	1	0.9%	1.6	1.6	Not detected in shallow/deep zones
Dissolved Arsenic	110	57	0	53	48%	0.0274	0.0051	Decreasing concentrations with depth
Total Cyanide	110	90	0	20	18%	0.04	0.01	

tential Concern	Frequency of Detection (%)	Maximum Detected Concentration (µg/L)	Potentially Applicable Cleanup Levels and Standards							
			Surface Water Cleanup Levels and Standards (µg/L)					Groundwater Cleanup Levels and Dri Maximum Contaminant Levels		
			Protection of Human Health			Protection of Aquatic Organisms				
			Method B Surface	EPA Recommended Criteria (National Toxics Rule)		State Surface Water Quality Standards				
				Water + Organism	Organism Only	Freshwater Acute	Freshwater Chronic	Method A	Method B	State MCL
	18	40	51,900	140	140	22.0[b]	5.2[b]	–	320	200
,1-DCA)	51	270	–	–	–	–	–	–	800	–
,1-DCE)	29	80	1.93	330	7,100	–	–	–	400	7[a]
,2-DCA or EDC)	6.5	1.1	59.4	0.38	37	–	–	5	0.481	5[a]
e (cDCE)	85	42,000	–	–	–	–	–	–	80	70[a]
ene (tDCE)	50	190	32,800	140	10,000	–	–	–	160	100[a]
	7.1	55	6,910	530	2,100	–	–	700	800	700[a]
)	38	76,000	55.6	2.5	30	–	–	5	0.11	5[a]
	26	180	48,500	1,300	15,000	–	–	1,000	1,600	1,000[a]
	13	130	–	–	–	–	–	1,000	1,600	10,000[a]
	92	8,200	3.69	0.025	2.4	–	–	0.2	0.0291	2[a]

– = not available.

er cleanup levels from WAC 173-340-900, Table 720-1.

er and surface water cleanup levels from Ecology's on-line Cleanup Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation (CLARC) tool, w/ecy/clarc/CLARCHome.aspx).

gton State maximum contaminant level (from WAC 246-290-310).

ral maximum contaminant level (from http://www.epa.gov/safewater/mcl.html#mcls; last accessed 5/26/05).

face water quality standards from WAC 173-201A-040.

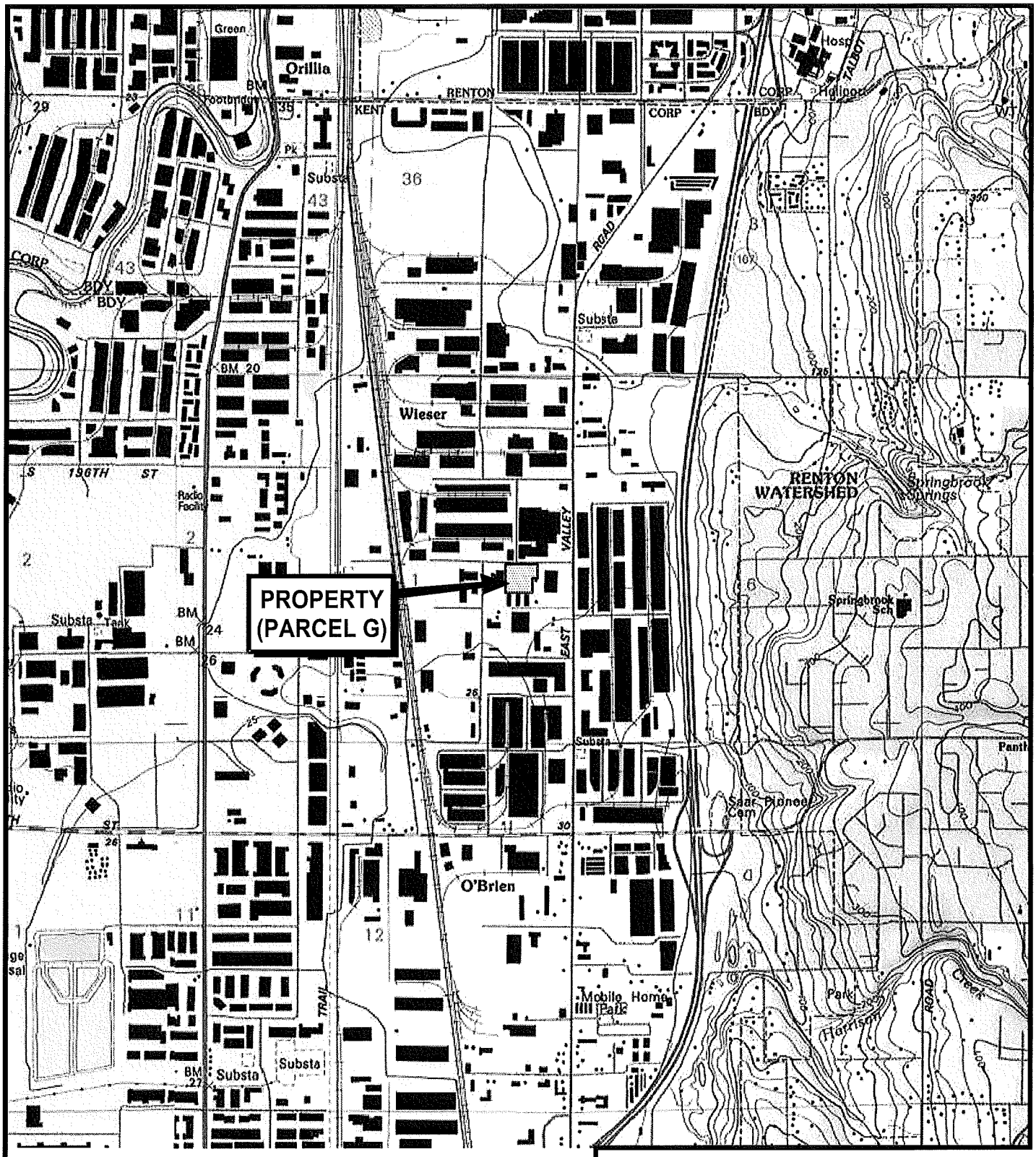
mended Water Quality Criteria from http://www.epa.gov/waterscience/criteria/wqcriteria.html; last accessed 5/26/05.

l by reference.

ls are for free cyanide; test results represent total cyanide.

ationale regarding not including cyanide as an IHS.

FIGURES



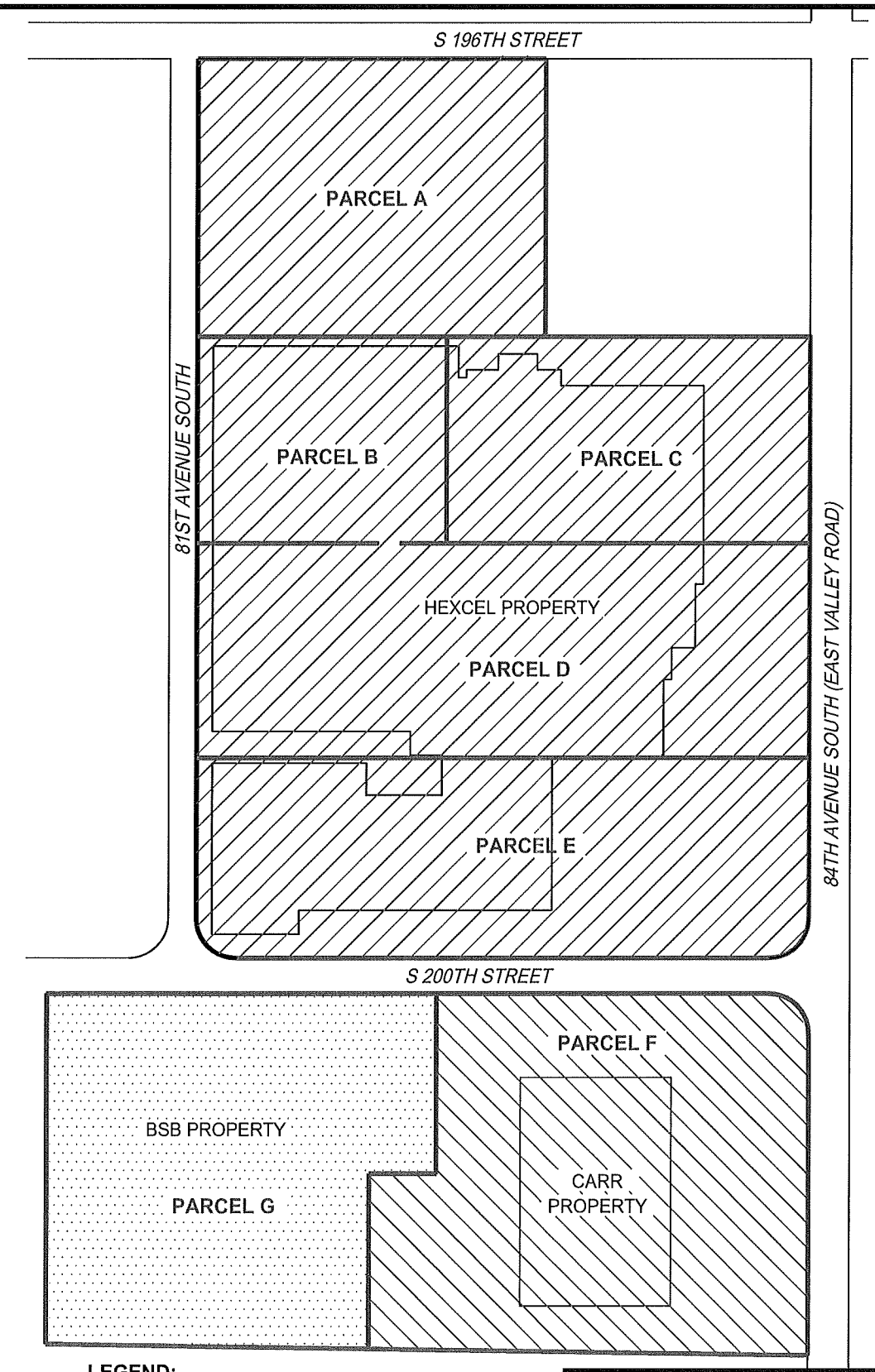
U.S.G.S. Topo Map - Renton, WA, 7.5-minute quadrangle.1949 revised 1994.

PES Environmental, Inc.
Engineering & Environmental Services

Property Location Map
BSB Property
Kent, Washington

FIGURE
1

827.001.27.006	82700127006_FCAP_01	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



LEGEND:

- BSB PARCEL
- HEXCEL PARCELS
- CARR PARCEL

N

0 200

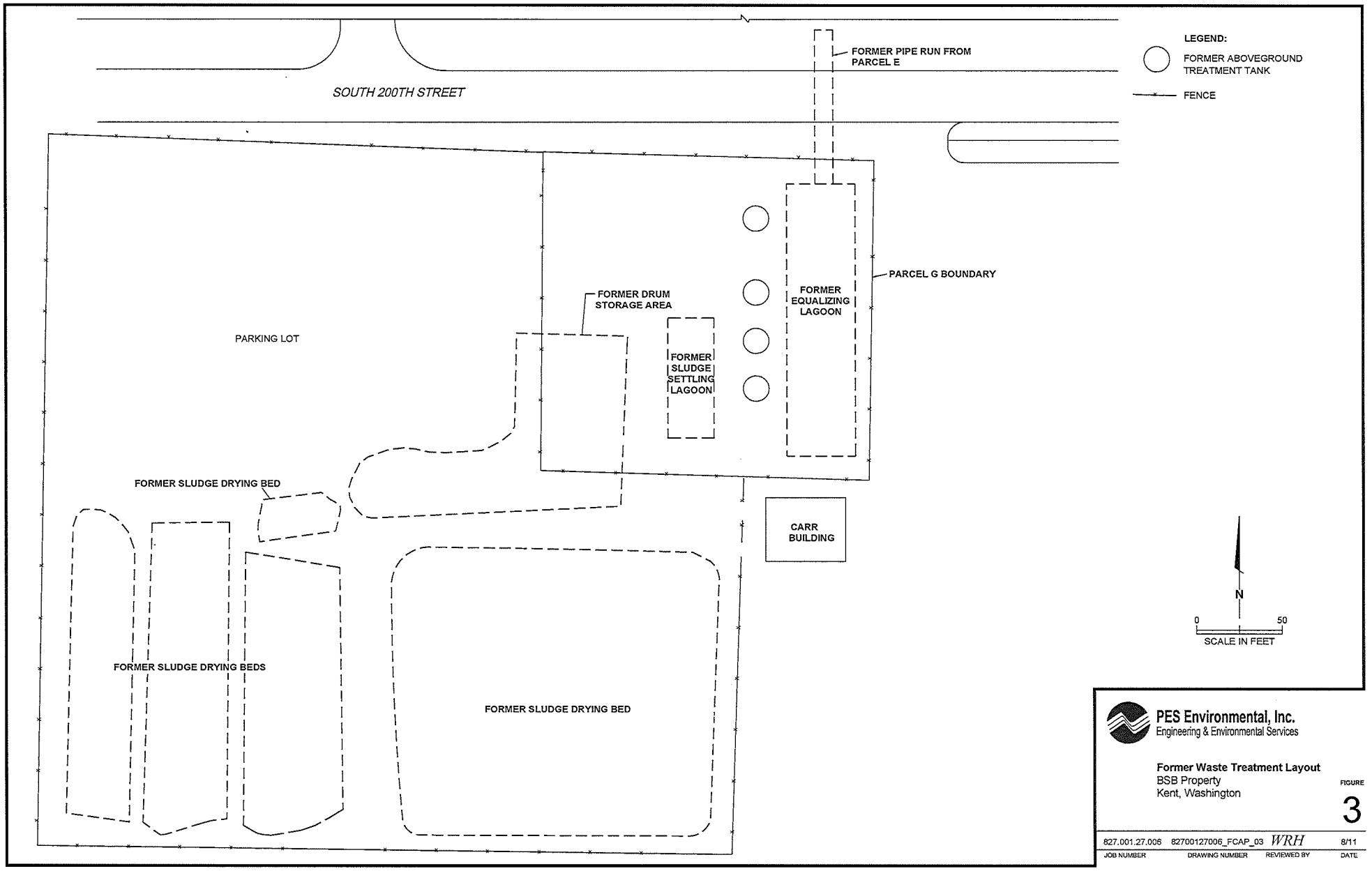
SCALE IN FEET

PES Environmental, Inc.
Engineering & Environmental Services

Parcel Location Map
BSB Property
Kent, Washington

FIGURE
2

827.001.27.006	82700127006_FCAP_02	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

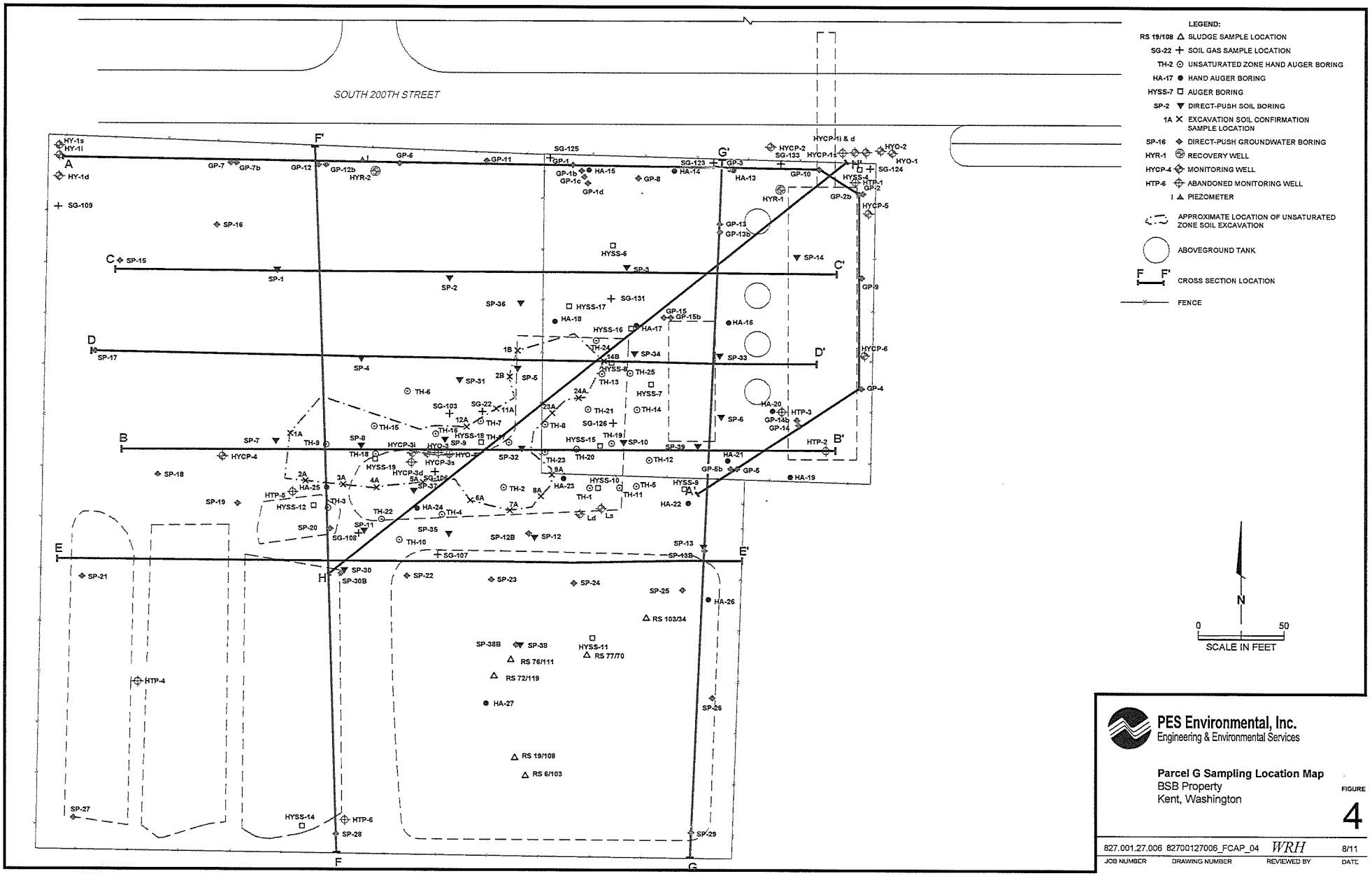


PES Environmental, Inc.
Engineering & Environmental Services

Former Waste Treatment Layout
BSB Property
Kent, Washington

FIGURE
3

827.001.27.006	82700127006_FCAP_03	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

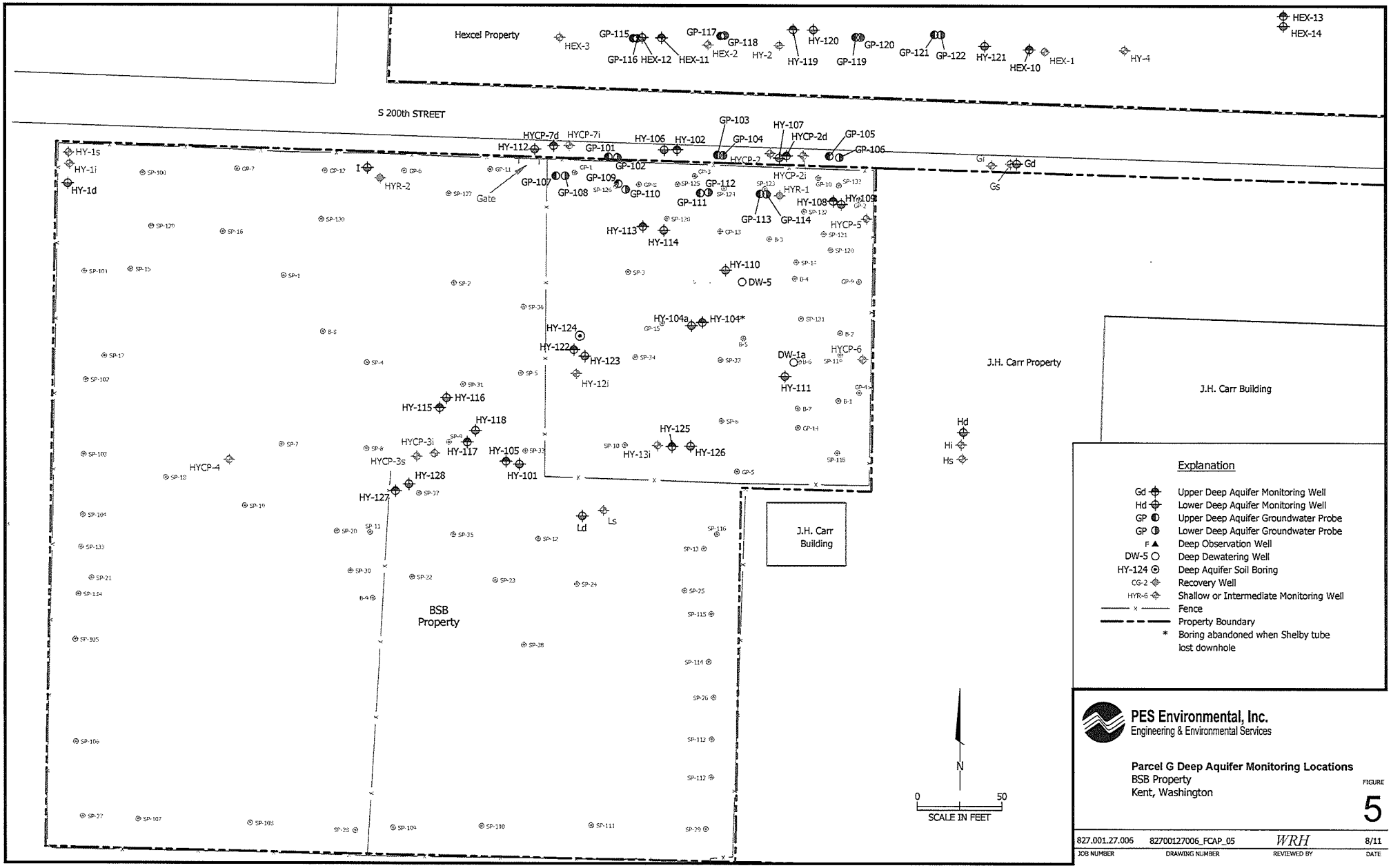


PES Environmental, Inc.
Engineering & Environmental Services

Parcel G Sampling Location Map
BSB Property
Kent, Washington

FIGURE
4

827.001.27.006	82700127006_FCAP_04	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

Gd ⊕	Upper Deep Aquifer Monitoring Well
Hd ⊕	Lower Deep Aquifer Monitoring Well
GP ◐	Upper Deep Aquifer Groundwater Probe
GP ◑	Lower Deep Aquifer Groundwater Probe
F ▲	Deep Observation Well
DW-5 ○	Deep Dewatering Well
HY-124 ⊙	Deep Aquifer Soil Boring
CG-2 ⊕	Recovery Well
HYR-6 ⊕	Shallow or Intermediate Monitoring Well
x	Fence
	Property Boundary
*	Boring abandoned when Shelby tube lost downhole

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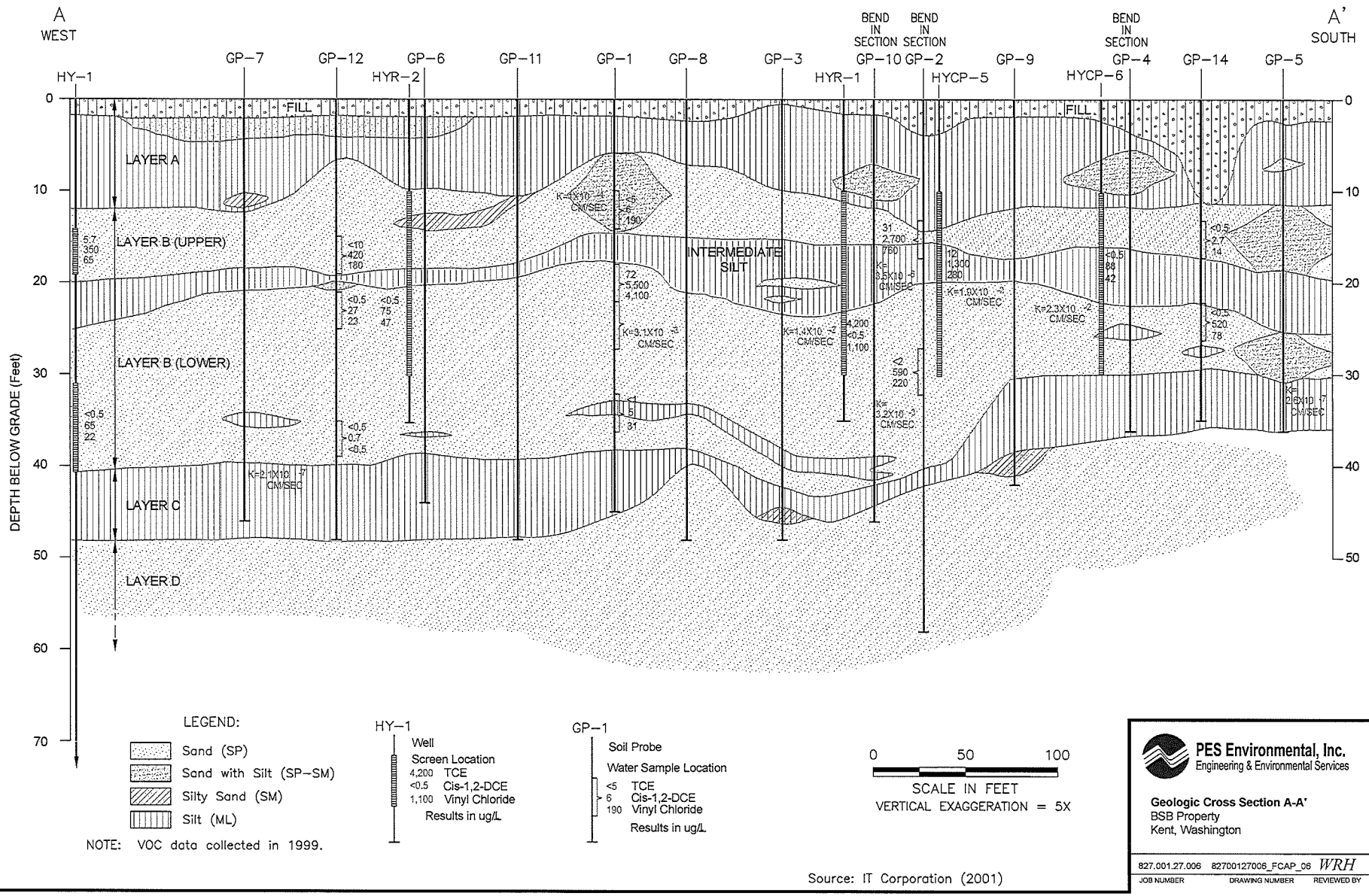
Engineering & Environmental Services

Parcel G Deep Aquifer Monitoring Locations
BSB Property
Kent, Washington

FIGURE
5

827.001.27.006	82700127006_FCAP_05	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



LEGEND:

- Sand (SP)
- Sand with Silt (SP–SM)
- Silty Sand (SM)
- Silt (ML)

NOTE: VOC data collected in 1999.

HY–1
Well
Screen Location
4,200 TCE
<0.5 Cis-1,2-DCE
1,100 Vinyl Chloride
Results in ug/L

GP–1
Soil Probe
Water Sample Location
<5 TCE
6 Cis-1,2-DCE
190 Vinyl Chloride
Results in ug/L

0 50 100
SCALE IN FEET
VERTICAL EXAGGERATION = 5X

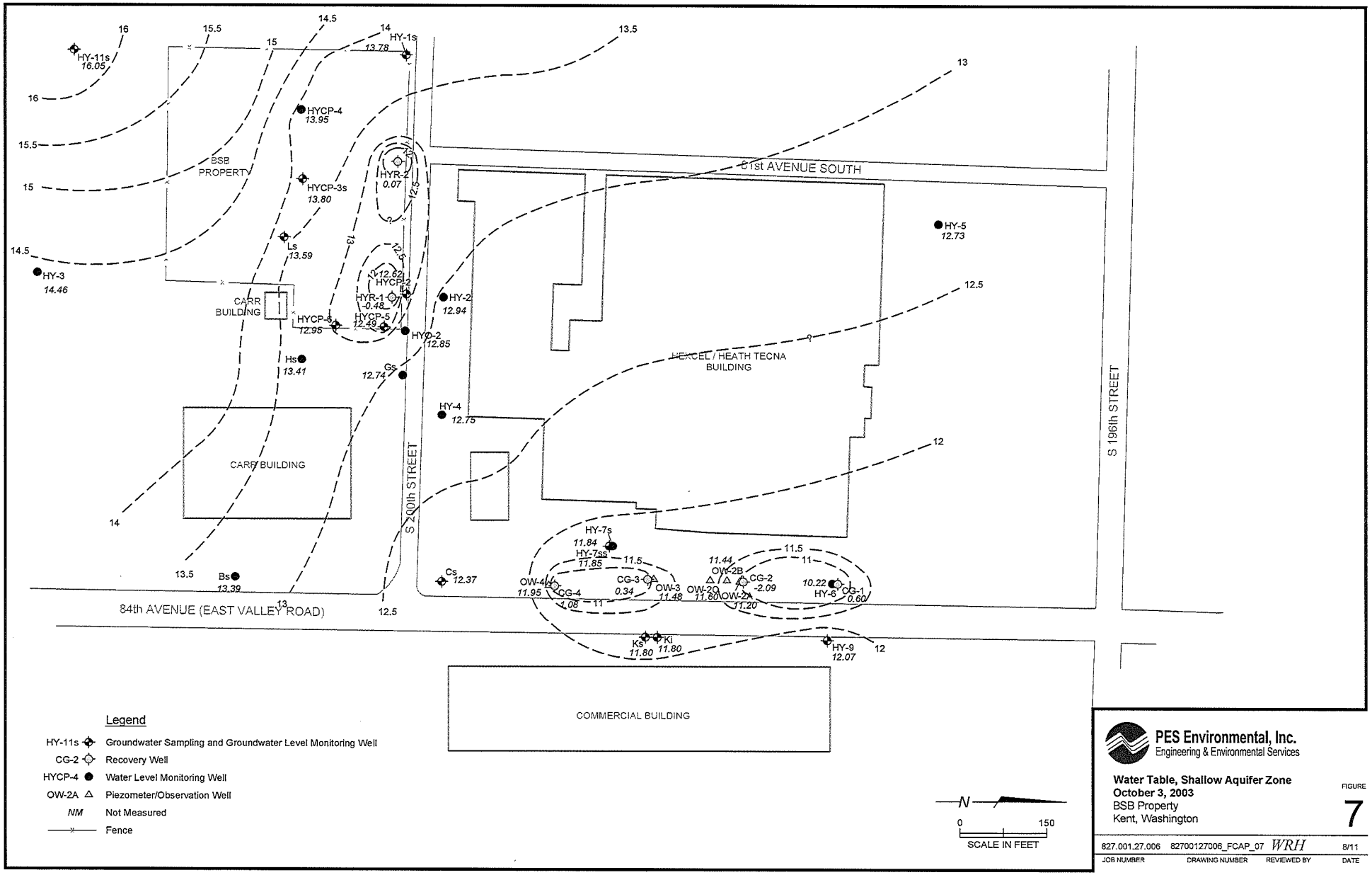
Source: IT Corporation (2001)

PES Environmental, Inc.
Engineering & Environmental Services

Geologic Cross Section A-A'
BSB Property
Kent, Washington

FIGURE
6

827.001.27.006	82700127006_FCAP_06	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



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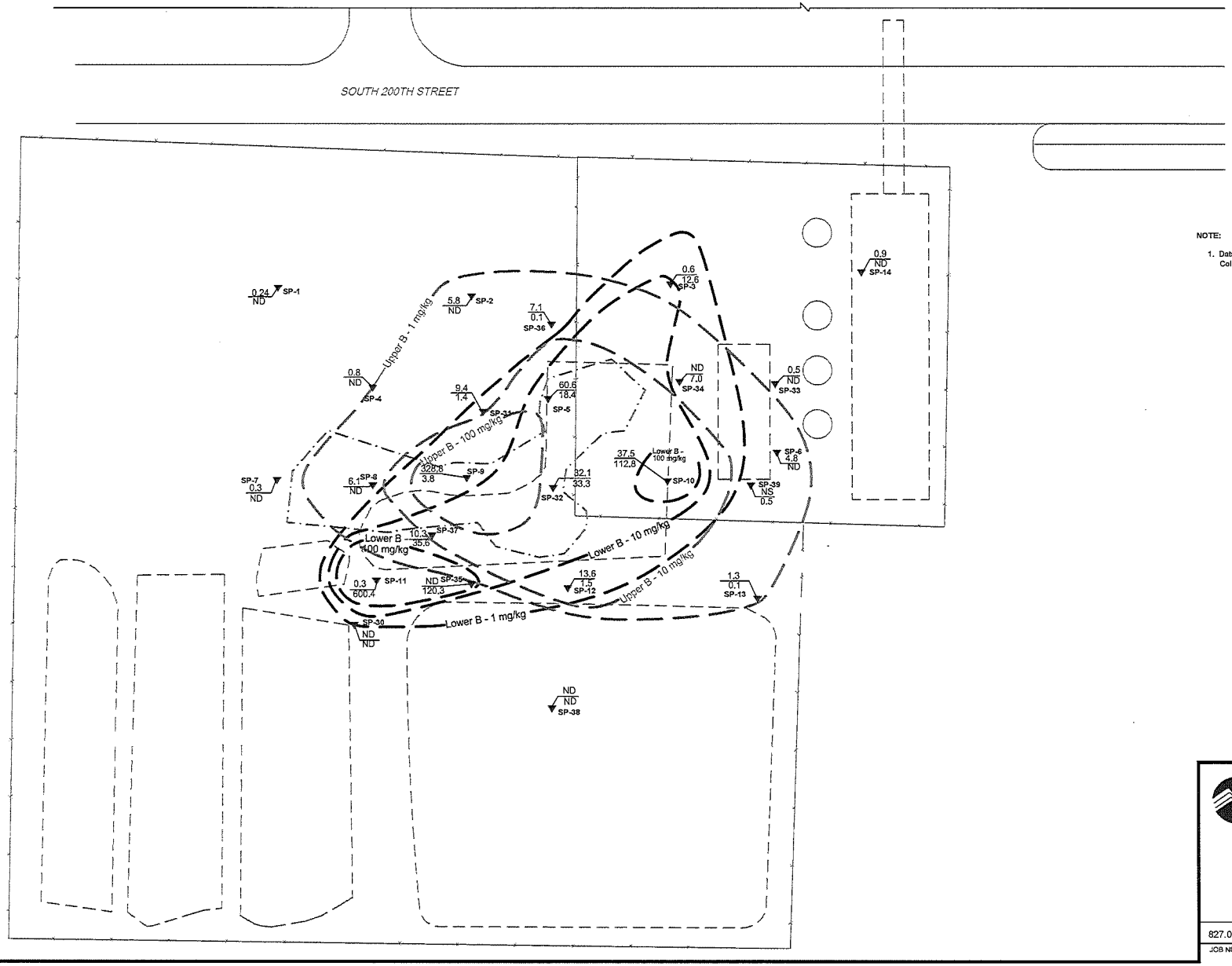
Water Table, Shallow Aquifer Zone
October 3, 2003
BSB Property
Kent, Washington

FIGURE
7

827.001.27.006	82700127006_FCAP_07	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

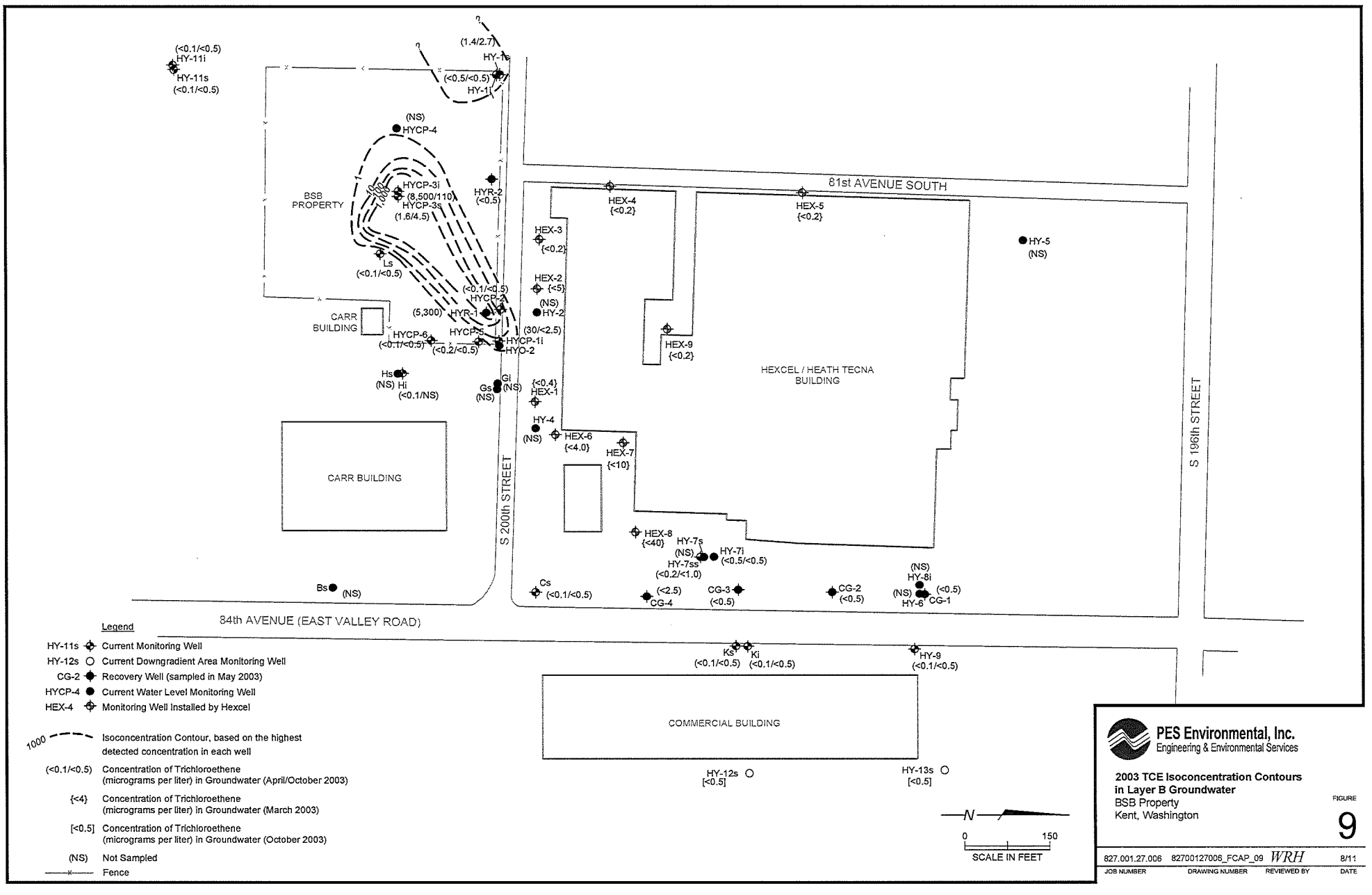


PES Environmental, Inc.
Engineering & Environmental Services

Extent of VOCs in BSB Property Soil
BSB Property
Kent, Washington

FIGURE
8

827.001.27.006	82700127006_FCAP_08	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Legend

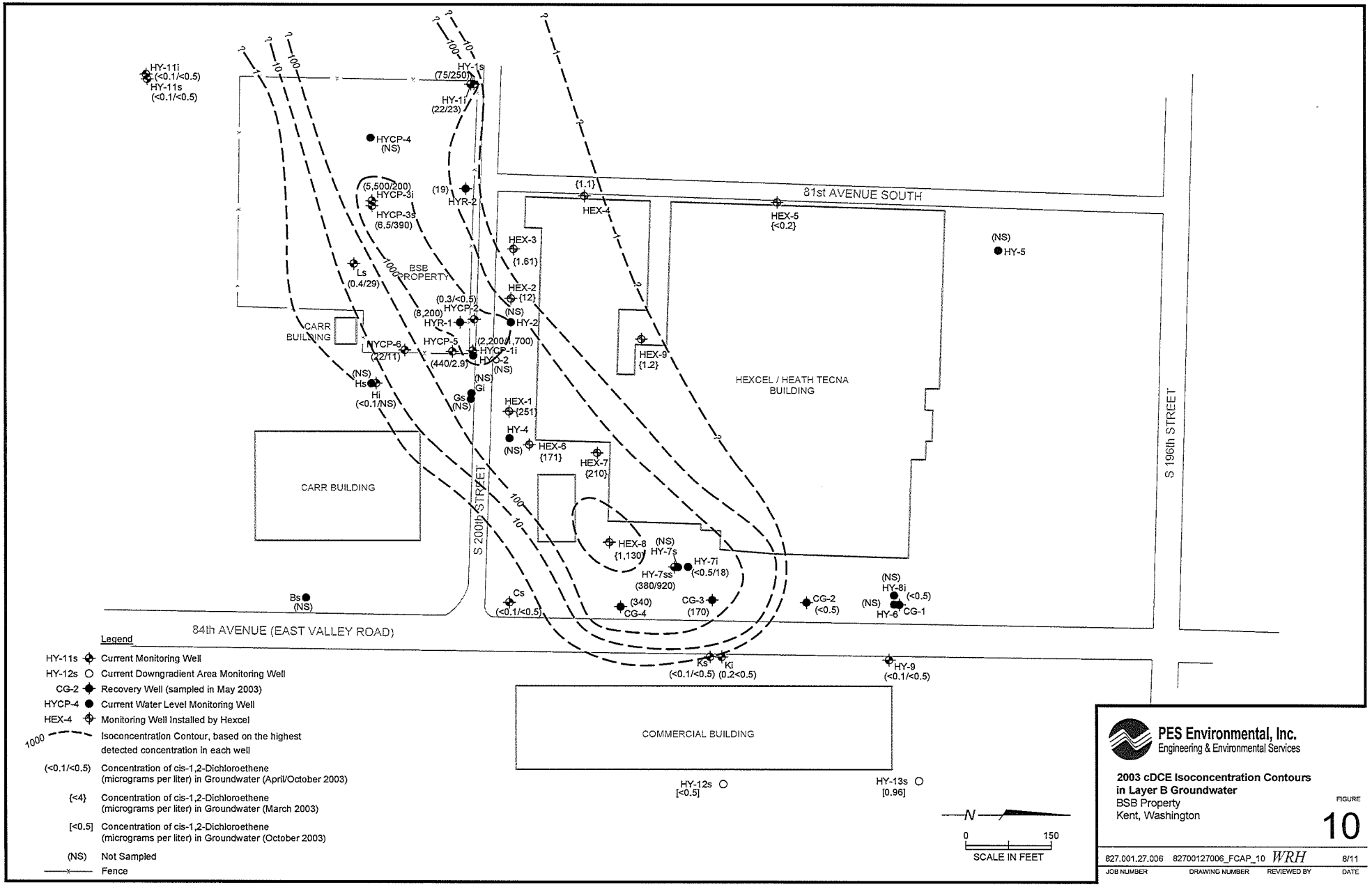
- HY-11s — Current Monitoring Well
- HY-12s — Current Downgradient Area Monitoring Well
- CG-2 — Recovery Well (sampled in May 2003)
- HYCP-4 — Current Water Level Monitoring Well
- HEX-4 — Monitoring Well Installed by Hexcel
- 1000 — Isoconcentration Contour, based on the highest detected concentration in each well
- (<0.1/<0.5) — Concentration of Trichloroethene (micrograms per liter) in Groundwater (April/October 2003)
- {<4} — Concentration of Trichloroethene (micrograms per liter) in Groundwater (March 2003)
- [<0.5] — Concentration of Trichloroethene (micrograms per liter) in Groundwater (October 2003)
- (NS) — Not Sampled
- Fence

PES Environmental, Inc.
Engineering & Environmental Services

2003 TCE Isoconcentration Contours in Layer B Groundwater
BSB Property
Kent, Washington

FIGURE 9

JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE
827.001.27.006	82700127006_FCAP_09	WRH	8/11

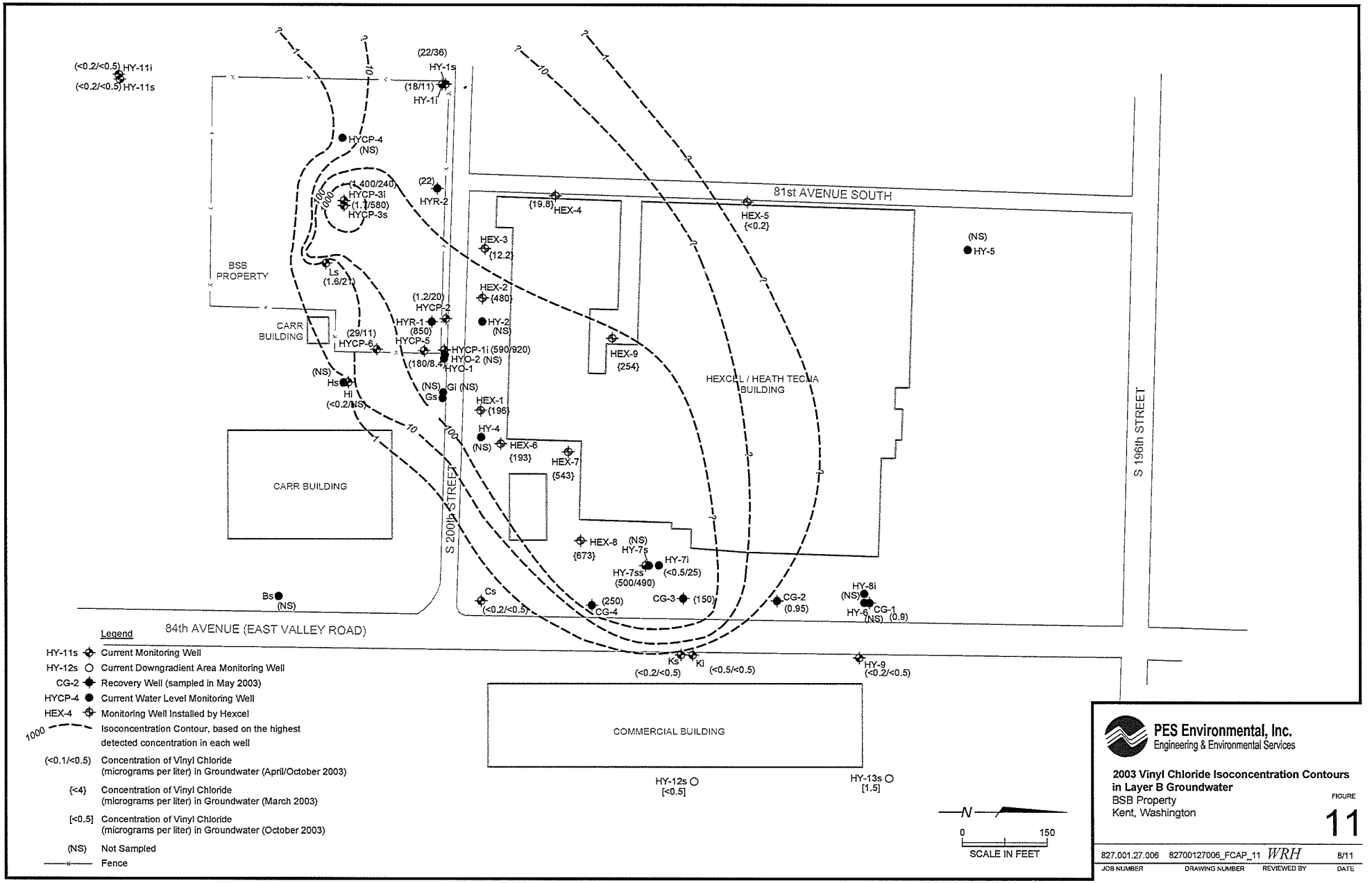


PES Environmental, Inc.
Engineering & Environmental Services

2003 cDCE Isoconcentration Contours in Layer B Groundwater
BSB Property
Kent, Washington

FIGURE
10

827.001.27.006	82700127006_FCAP_10	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Legend

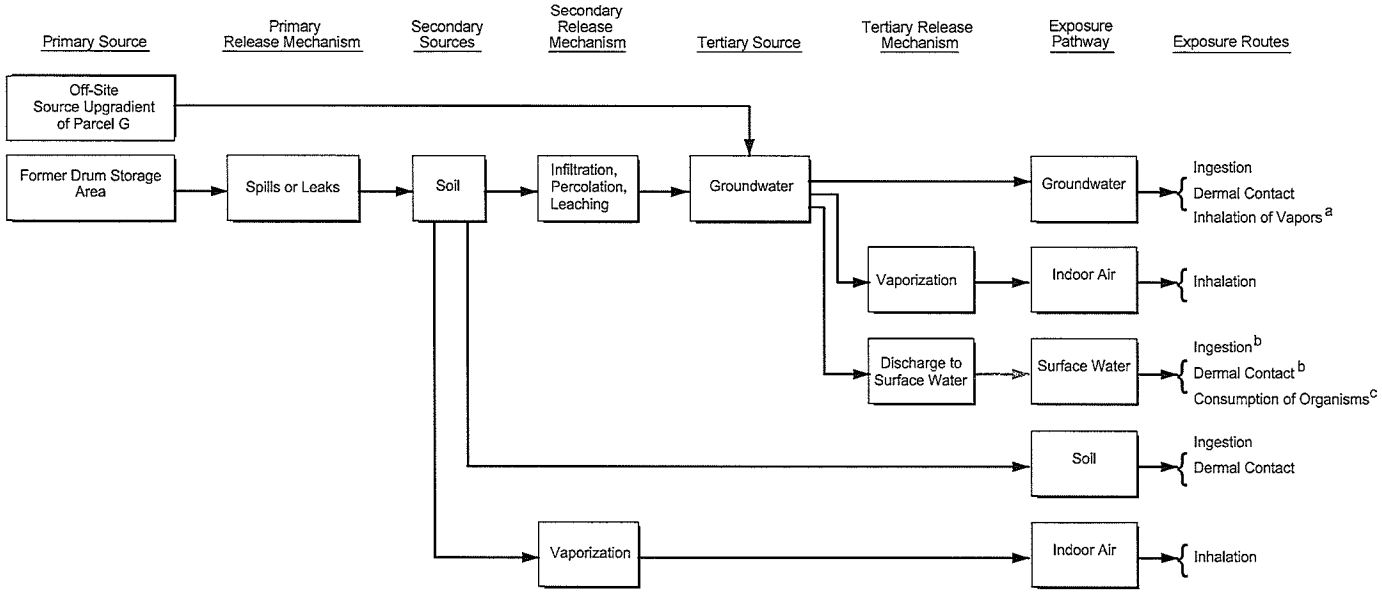
- HY-11s — Current Monitoring Well
- HY-12s — Current Downgradient Area Monitoring Well
- CG-2 — Recovery Well (sampled in May 2003)
- HYCP-4 — Current Water Level Monitoring Well
- HEX-4 — Monitoring Well Installed by Hexcel
- 1000 — Isoconcentration Contour, based on the highest detected concentration in each well
- (<0.1/<0.5) — Concentration of Vinyl Chloride (micrograms per liter) in Groundwater (April/October 2003)
- {<4} — Concentration of Vinyl Chloride (micrograms per liter) in Groundwater (March 2003)
- [<0.5] — Concentration of Vinyl Chloride (micrograms per liter) in Groundwater (October 2003)
- (NS) — Not Sampled
- Fence

PES Environmental, Inc.
Engineering & Environmental Services

2003 Vinyl Chloride Isoconcentration Contours in Layer B Groundwater
BSB Property
Kent, Washington

FIGURE 11

827.001.27.006	82700127006_FCAP_11	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



RECEPTORS		
On-Site	Off-Site	
Site/ Office Worker	Site Worker/ Resident	Ecological
X	X	
O	X	
	O	O
O	X	
O	X	

LEGEND:
- ● Current Complete Pathway
- O Potential Future Pathway
- X Incomplete Pathway

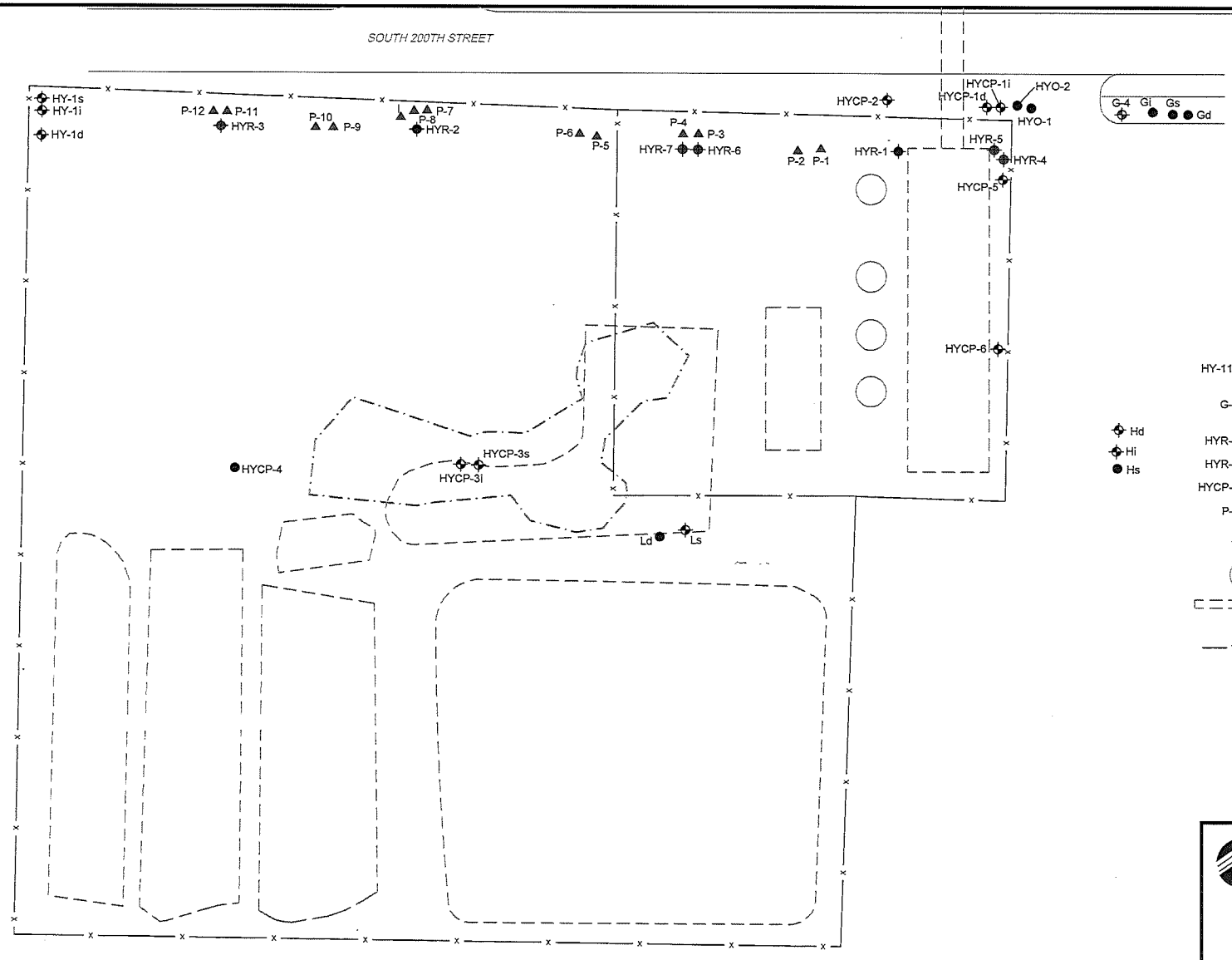
FOOTNOTE:
- a From household use, such as showering.
- b Ecological exposure route.
- c Human exposure route.

PES Environmental, Inc.
Engineering & Environmental Services

Conceptual Site Model
BSB Property
Kent, Washington

FIGURE
12

827.001.27.006	82700127006_FCAP_12	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

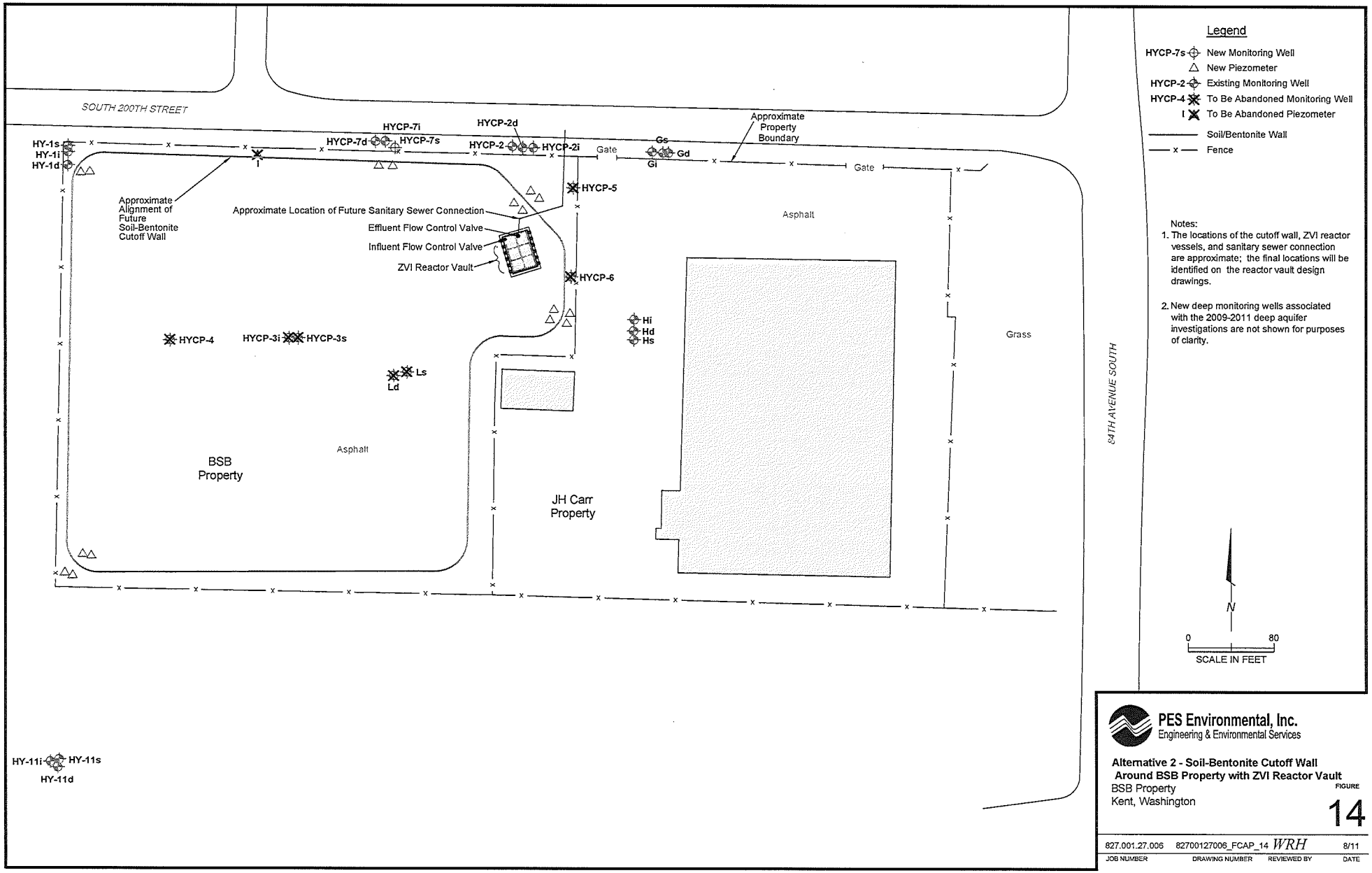


PES Environmental, Inc.
Engineering & Environmental Services

Alternative 1 - Enhanced Groundwater Extraction System
BSB Property
Kent, Washington

FIGURE
13

827.001.27.006	82700127006_FCAP_13	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Legend

- HYCP-7s — New Monitoring Well
- New Piezometer
- HYCP-2 — Existing Monitoring Well
- HYCP-4 — To Be Abandoned Monitoring Well
- I — To Be Abandoned Piezometer
- Soil/Bentonite Wall
- Fence

Notes:

1. The locations of the cutoff wall, ZVI reactor vessels, and sanitary sewer connection are approximate; the final locations will be identified on the reactor vault design drawings.
2. New deep monitoring wells associated with the 2009-2011 deep aquifer investigations are not shown for purposes of clarity.

N

0 80

SCALE IN FEET

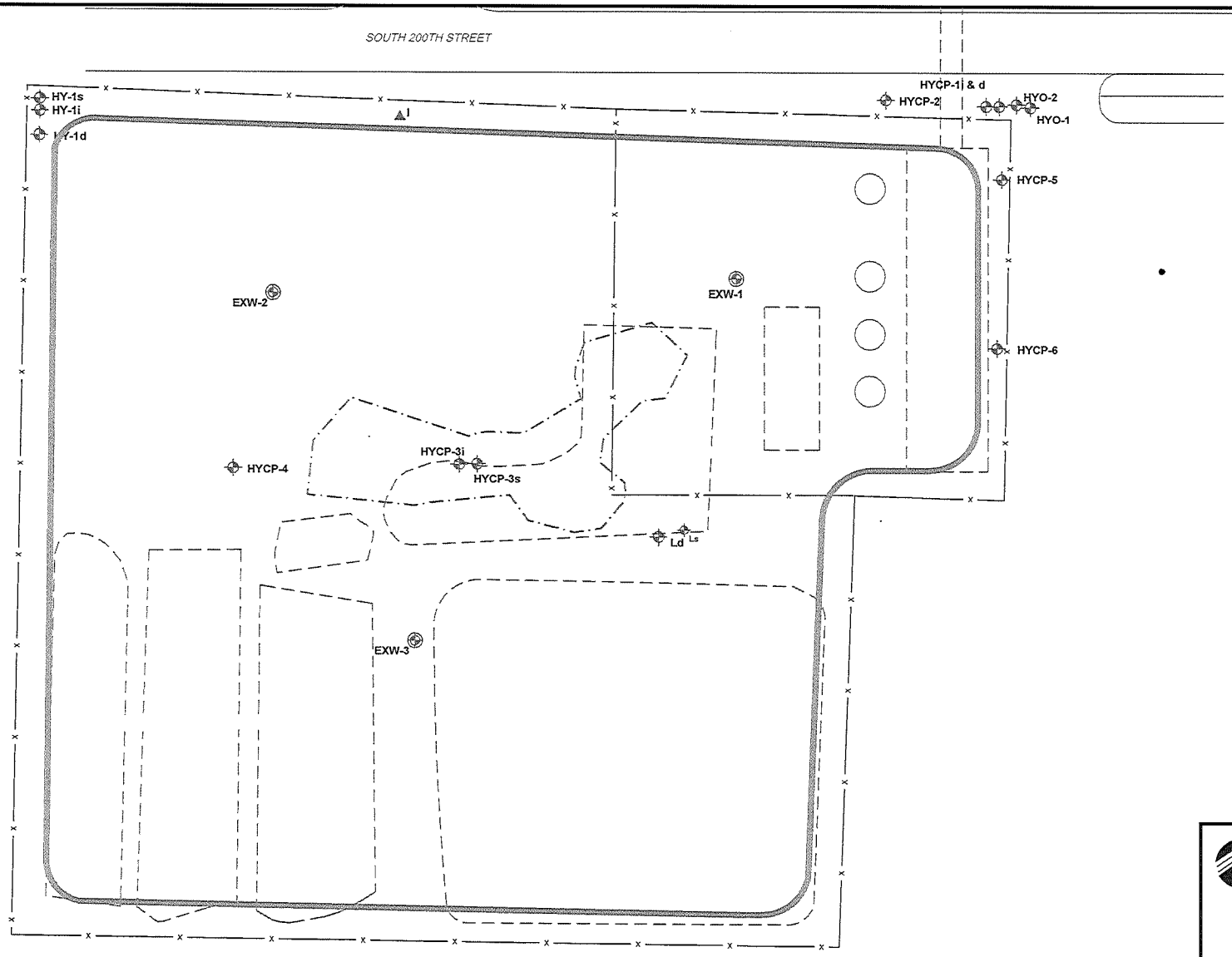
PES Environmental, Inc.
Engineering & Environmental Services

Alternative 2 - Soil-Bentonite Cutoff Wall Around BSB Property with ZVI Reactor Vault

BSB Property
Kent, Washington

FIGURE
14

827.001.27.006	82700127006_FCAP_14	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Legend

- HYR-1 Recovery Well
- EXW-1 Monitoring Well
- I Piezometer
- Approximate Location of Unsaturated Zone Soil Excavation
- Former Aboveground Tank
- Former Lagoon, Drying Bed, or Drum Storage Area
- Proposed Slurry Wall
- Fence

Note: The location of the slurry wall and ZVI gate are approximate; the final locations will be determined during remedial design, considering additional geologic data and contractor input.

N

0 50

SCALE IN FEET

PES Environmental, Inc.
Engineering & Environmental Services

Alternative 3 - Soil-Bentonite Cutoff Wall Around BSB Property With Limited Pumping for Gradient Control

BSB Property
Kent, Washington

FIGURE 15

827.001.27.006	82700127006_FCAP_15	WRH	8/11
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX A

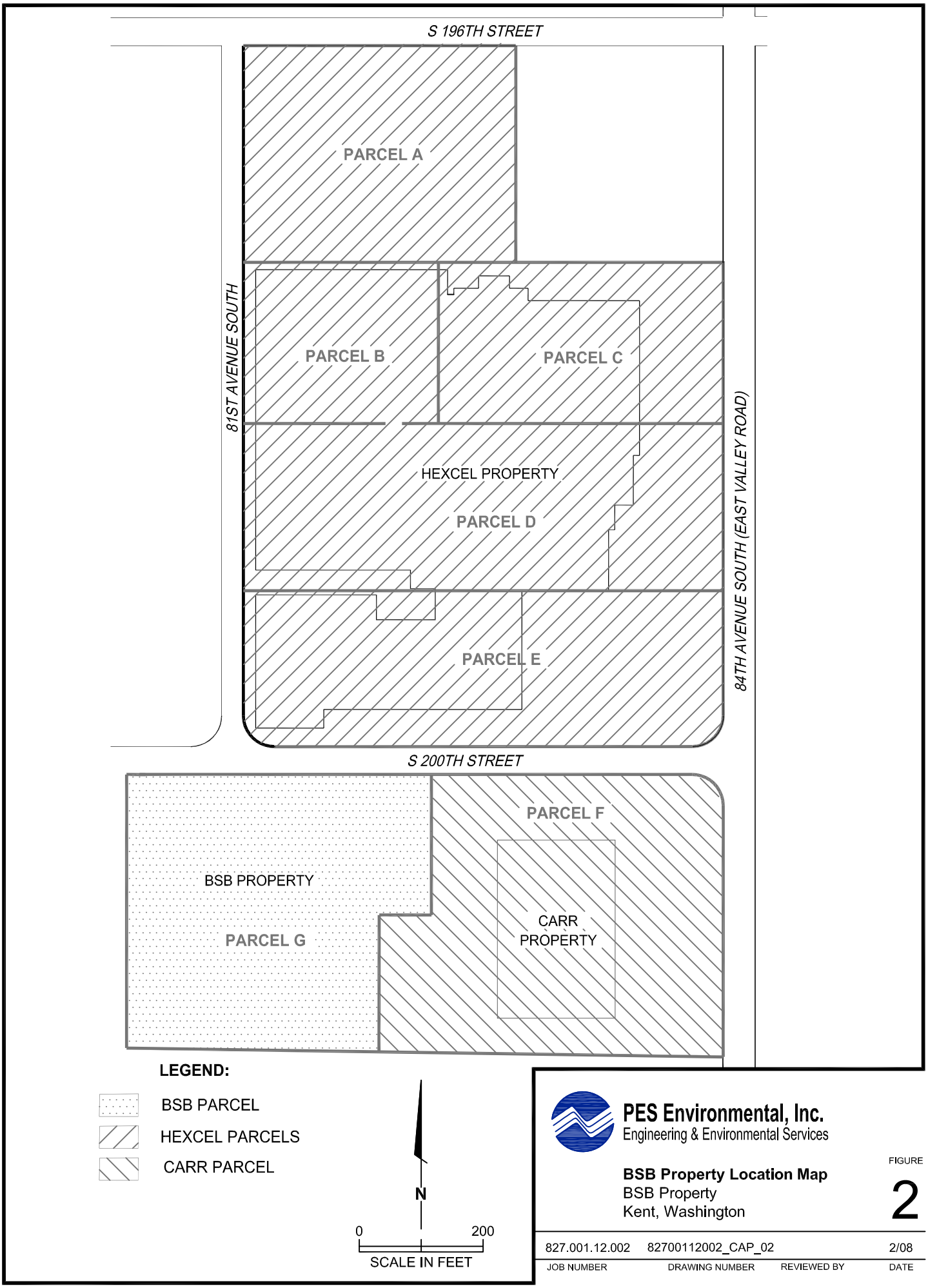
SCHEDULE FOR 2011 DESIGN AND CONSTRUCTION

SCHEDULE

Deliverable	Date Due
Effective date of Consent Decree	Start
BSB submits final Construction Plans and Specifications	15 days after Start
BSB submits final Engineering and Design Report, Operations and Maintenance Plan, and Compliance Monitoring Plan for approval	90 days after Start
BSB begins constructing cleanup action	Within 10 days of Start
Construction is complete	Within 180 days of Start
BSB submits As Built Report (WAC 173-340-400(6)(b)(ii))	120 days after construction complete
BSB submits Progress Reports	In accordance with Section XI of Decree

EXHIBIT B.
Site Diagram

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
(360) 586-6770



PES Environmental, Inc.
Engineering & Environmental Services

BSB Property Location Map
BSB Property
Kent, Washington

FIGURE
2

827.001.12.002	82700112002_CAP_02		2/08
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

EXHIBIT C.
Restrictive Covenant

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
(360) 586-6770

Restrictive (Environmental) Covenant

After Recording Return to:
Hideo Fujita
Department of Ecology
Northwest Regional Office
3190 - 160 Avenue SE
Bellevue, WA 98008-5452

Environmental Covenant

Grantor:	BSB Diversified Company, Inc.
Grantee:	State of Washington, Department of Ecology
Legal:	See Exhibit A
Tax Parcel Nos.:	0122049117

Grantor, BSB Diversified Company, Inc. hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights described under this environmental covenant (hereafter "Covenant") made this 7th day of March, 2012 in favor of the State of Washington Department of Ecology and its successors and assigns (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, Chapter 64.70 RCW.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Grantor its successors and assigns, and Ecology.

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following documents:

[INSERT THE DATE AND TITLE FOR THE CONSENT DECREE AND CLEANUP ACTION PLAN].

These documents are on file at Ecology's Northwest Regional Office in Bellevue, Washington.

This Covenant is required because the Remedial Action resulted in residual concentrations of vinyl chloride, cis-1,2-dichloroethene, and trichloroethene which exceed the Model Toxics Control Act Cleanup Level(s) for soil and groundwater established for the Site in the Cleanup Action Plan.

The undersigned Grantor is the fee owner of real property (hereafter "Property") in the County of King, State of Washington, that is subject to this Covenant. The Property is legally described in Exhibit A of this covenant (and made a part hereof by reference).

Grantor makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of the Property (hereafter "Owner").

Section 1. No groundwater may be taken for domestic or agricultural use from the Property. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology. Some examples of activities that are prohibited without Ecology approval in the capped area include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway (e.g., indoor air pathway or subsurface worker pathway), is prohibited without prior written approval from Ecology.

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey the Property. No conveyance of title, easement, lease,

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5. The Owner must restrict leases to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any use substantially inconsistent with the Remedial Action only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples (provided that, upon request, Ecology allows the Owner to take split or duplicate samples, provided that doing so does not interfere with Ecology's sampling), to inspect remedial actions conducted at the property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

BSB Diversified Company, Inc

John H. FitzSimons
Vice President

Dated: March 7, 2012

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

K Seiler
Katherine Seiler
Program Manager
Hazardous Waste & Toxics Reduction Program

Dated: 3/20/12

STATE OF New York
COUNTY OF New York

On this 7 day of March, 2012 I certify that John H. FitzSimons personally appeared before me, acknowledged that he is the Vice President of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument for said corporation.

Linda L. Portner
Notary Public in and for the State of
New York, residing at 42 Farley Dr Stony Point NY 10980
My appointment expires 12/7/13.

Linda L. Portner
Notary Public, State of New York
No. 01PO6214523
Qualified in Rockland County
Commission Expires December 7, 2013

EXHIBIT A
LEGAL DESCRIPTION

PORTION N HALF NE QTR SE QTR STR 01-22-04 DAF BEG AT NE CORNER SAID SUBD TH SOUTH ALONG E LINE SAID SUBD 219.82 FT TH N89-24-44W 990.05 FT TH NORTH PARALLEL TO E LINE SAID SUBD TO N LINE SAID SUBD TH ELY ALONG SAID N LINE 990.11 FT MORE OR LESS TO TPOB EXC ROADS; TGW PORTION N HALF NE QTR SE QTR STR 01-22-04 DAF: BEG AT NE CORNER SAID SUBD TH SOUTH ALONG E LINE SAID SUBD 219.82 FT TO TPOB TH N89-24-44W 990.05 FT TH SOUTH PARALLEL TO E LINE SAID SUBD 224.18 FT TH S89-39-52E 990.02 FT TO E LINE SAID SUBD TH NORTH ALONG SAID E LINE 219.52 FT TO TPOB EXC ROADS EXC PORTION THEREOF DAF: BEG NE CORNER SAID SUBD TH N89-07-52W ALONG N LINE SAID SUBD 504.88 FT TH SOUTH PARALLEL TO E LINE SAID SUBD 222.30 FT TH N80-24-44W 77 FT TH SOUTH PARALLEL TO E LINE SAID SUBD 222.38 FT TH S89-39-52E 581.83 FT TO E LINE SAID SUBD TH NORTH ALONG SAID LINE 439.64 FT TO POB (AKA LOT 2 AS DELINEATED PER CITY OF KENT LOT LINE ADJUSTMENT NO LL-37-27 RECORDING NO 8712231186)

EXHIBIT D.
Public Participation Plan

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
(360) 586-6770

Public Participation Plan

Kent Facility Parcel G Remedial Action

Introduction and Overview

This Public Participation Plan (Plan) outlines the public involvement activities for the draft Consent Decree, Cleanup Action Plan, Focused Remedial Investigation/Feasibility Study (FRI/FS), and the SEPA Checklist for Parcel G of the Kent Facility, owned by BSB Diversified Company, Inc. and located in Kent, Washington (the Property). The Property is a portion of a larger site as defined under the Model Toxics Control Act (MTCA), RCW Chapter 70.105D and WAC Chapter 173-340, that includes the Property; Parcels A through E owned by the Hexcel Corporation; Parcel F, owned by Carr Prop II, LLC; and wherever hazardous substances from releases on Parcels A through G have come to be located. The legal agreement, called a Consent Decree, between Ecology and BSB Diversified Company, Inc. (BSB), will ensure that the cleanup meets the requirements of MTCA. The Cleanup Action Plan, which is being implemented under the Consent Decree, describes the Ecology-approved cleanup action and the work to be performed at the Property. The FRI/FS describes the investigation of the Property and the selection process for the cleanup action. The SEPA checklist describes the potential environmental impacts of Ecology's cleanup decisions. For more information about the Property's history and previous and ongoing remedial actions, please review the Consent Decree, Cleanup Action Plan and FRI/FS, and the SEPA Checklist.

The Property is also permitted as a dangerous waste management facility (for corrective action only) under the Hazardous Waste Management Act (HWMA), RCW Chapter 70.105, and the Dangerous Waste Regulations, WAC Chapter 173-303. BSB is the owner/operator under Dangerous Waste Management Permit for Remedial (Corrective) Action, I.D. Number WAD 07 665 5182, issued November 10, 2005 ("Permit"). Ecology intends for the Ecology-approved cleanup work implemented under the Consent Decree to satisfy BSB's obligation to perform

corrective action under the Permit. After the Consent Decree is entered with the court, Ecology intends to modify the Permit to incorporate the cleanup action obligations and schedules of the Decree into the Permit.

The activities set forth in this Plan are designed to involve the affected community in the cleanup and permit process in a meaningful way and at facilitating open communication among the community, Ecology, and BSB.

While certain aspects of a public participation plan are prescribed by regulation, this Plan has been tailored to meet the needs of the public based on the stage and nature of the cleanup, the level of public concern and the risks posed by the site.

Public Involvement

Ecology uses a variety of tools that are aimed at facilitating public participation in the planning and cleanup of a MTCA site. The following is a list of these tools, their purpose and when and how they will be used during this site cleanup.

Formal Public Comment Period

Comment periods are the primary way Ecology obtains feedback from the public on proposed cleanup decisions. Comment periods usually last 30 days and are required at key points of the cleanup process before final decisions are made. During a comment period, the public can comment in writing. Oral comments are taken if a public hearing is held.

For the proposed cleanup action, a 30-day public comment period is anticipated to begin by mid-April 2008 and end by mid-May 2008. During this time, the community will have the opportunity to comment on the draft Consent Decree, the Cleanup Action Plan, the FRI/FS, the SEPA checklist and this Public Participation Plan.

Public Meetings and Hearings

Under MTCA, if ten or more people request a public hearing during the public comment period, Ecology will hold a public hearing for the purpose of taking oral comments on the draft documents on or about May 20, 2008.

Responsiveness Summaries

After every public comment period, Ecology reviews and responds to all comments received, both oral and written, in a responsiveness summary. Ecology considers changes or revisions based on the input from the public. If significant changes are recommended by Ecology, then a second comment period is held. If no significant changes are recommended, then the Consent Decree is considered final and is signed by a judge in the Washington State Superior Court in King County. After the Consent Decree is signed by the judge, Ecology will amend the HWMA/RCRA Permit by issuing a Class 1 modification. All of those who submit comments will be advised when the responsiveness summary is available. The responsiveness summary also will be made available at the Information Repository listed below.

Information Repositories

Information repositories are convenient places where you may review site information. The information repositories are often at Ecology offices, libraries or community sites where the public has access. During the comment period, the site documents will be available for review at each repository. Documents remain at the repository for the duration of the cleanup. Ecology's Central Files can make copies of documents for a fee.

For this site, drafts of the documents will be available for public review at Ecology’s Northwest Regional Office in Bellevue, Washington. In addition, copies of all public notices, fact sheets, and press releases; all quality-assured monitoring data; remedial action plans and reports, supplemental remedial planning documents, and all other similar documents relating to

performance of the remedial action required by the Consent Decree will be promptly placed in the repository at Ecology's Northwest Regional Office: 3190 160th Avenue SE, Bellevue, WA 98008.

Site Register

One of the communication tools of Ecology's Toxics Cleanup Program is the Site Register. All public meetings and comment periods as well as many other activities are published in this bimonthly report. The public comment period for this site will be announced in an upcoming edition of the Site Register. To receive the Site Register, contact Carol Dorn at (360) 407-7224 or register at www.ecy.wa.gov/programs/tcp/pub_inv/pub_inv2.html.

Mailing List

Ecology has compiled a mailing list for the site. The list includes all residences and businesses adjacent to the site, individuals, groups, public agencies, elected officials, and private businesses and industries that request site-related mailings, as well as other known interested parties. The list will be maintained at Ecology's Northwest Regional Office and will be updated as needed. Everyone on the list will be notified by Ecology of their opportunity to comment on the draft Consent Decree, Cleanup Action Plan, FRI/FS, and SEPA Checklist.

Fact Sheets

Fact sheets are site-specific newsletter like publications that are mailed to interested persons, business and government agencies in and around affected communities. The fact sheet is used to inform them of comment periods and important site activities. Fact sheets are also used to informally update the community on the progress of the site cleanup.

Amendments to Plan

The Cleanup Action Plan may be updated as the project proceeds. If the Cleanup Action

Plan is substantially amended, the revised plan will be submitted to the public for comment.

Public Points of Contact

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