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SUPERIOR COURT  
SPOKANE COUNTY, WA

STATE OF WASHINGTON  
SPOKANE COUNTY SUPERIOR COURT

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

DCO MANAGEMENT, LLC (formerly  
Kaiser Aluminum & Chemical  
Corporation, LLC)

Defendant.

NO. 13202067-4

CONSENT DECREE

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1 I. INTRODUCTION

2 A. The mutual objective of the State of Washington, Department of Ecology  
3 (Ecology) and DCO Management, LLC (Defendant) under this Decree is to provide for remedial  
4 action at a facility where there has been a release or threatened release of hazardous substances.  
5 This Decree requires Defendant to undertake the remedial actions specified in Section 8.0 of the  
6 Final Cleanup Action Plan (CAP) attached to this Decree as Exhibit B.

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

9 B. The Complaint in this action is being filed simultaneously with this Decree. An  
10 Answer has not been filed, and there has not been a trial on any issue of fact or law in this case.  
11 In entering into this Decree, Defendant does not admit the allegations of the Complaint or  
12 Ecology's Findings of Fact set forth herein. However, the Parties wish to resolve the issues  
13 raised by Ecology's Complaint. In addition, the Parties agree that settlement of these matters  
14 without litigation is reasonable and in the public interest, and that entry of this Decree is the most  
15 appropriate means of resolving these matters.

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

18 D. By entering into this Decree, the Parties do not intend to discharge non-settling  
19 parties from any liability they may have with respect to matters alleged in the Complaint. The  
20 Parties retain the right to seek reimbursement, in whole or in part, from any liable persons for  
21 sums expended under this Decree.

22 E. This Decree shall not be construed as proof of liability or responsibility for any  
23 releases of hazardous substances or cost for remedial action nor an admission of any facts;  
24 provided, however, that Defendant shall not challenge the authority of the Attorney General and  
25 Ecology to enforce this Decree.  
26

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

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

## 4 II. JURISDICTION

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

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

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

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

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

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

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

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

## 24 III. PARTIES BOUND

25 This Decree shall apply to and be binding upon the Parties to this Decree, their  
26 successors and assigns. The undersigned representative of each party hereby certifies that he or

1 she is fully authorized to enter into this Decree and to execute and legally bind such party to  
2 comply with this Decree. Defendant agrees to undertake all actions required by the terms and  
3 conditions of this Decree. No change in ownership or corporate status shall alter Defendant's  
4 responsibility under this Decree. Defendant shall provide a copy of this Decree to all agents,  
5 contractors, and subcontractors retained to perform work required by this Decree, and shall  
6 ensure that all work undertaken by such agents, contractors, and subcontractors complies with  
7 this Decree.

#### 8 IV. DEFINITIONS

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

11 A. Site: The Site is referred to as the Heglar Kronquist Site and is generally located  
12 near the intersection of E. Heglar and E. Kronquist Roads approximately 10 miles northeast of  
13 downtown Spokane, Washington. The Site is more particularly described in the Site Diagram  
14 (Exhibit A). The Site constitutes a Facility under RCW 70.105D.020(5).

15 B. Parties: Refers to the State of Washington, Department of Ecology and DCO  
16 Management, LLC (formerly Kaiser Aluminum & Chemical Corporation, LLC).

17 C. Defendant: Refers to DCO Management, LLC.

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

#### 21 V. FINDINGS OF FACTS

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

24 A. The Site is located in a rural area approximately 10 miles northeast of downtown  
25 Spokane, Washington as shown in Exhibit A. The Site was originally a gravel pit that closed in  
26 1969.

1 B. From 1969 to 1974, Kaiser Aluminum & Chemical Corporation's Trentwood  
2 Works in Spokane Valley, WA sent black dross for disposal in this nearly 4-acre closed gravel  
3 pit.

4 C. According to Kaiser Aluminum & Chemical Corporation's data, the black dross  
5 was composed of 39% sodium chloride, 19% potassium chloride, 35% aluminum oxide, 4% free  
6 aluminum, 2% cryolite, and 1% carbides and nitrides. Up to 55,000 cubic yards of black dross is  
7 believed to have been disposed at the Site.

8 D. The Spokane County Health Department (SCHD) sampled groundwater and  
9 springs on nine occasions from 1973 to 1980. At the Amend spring, nitrate was measured at a  
10 maximum concentration of 14 mg/L (for reference, the safe drinking water maximum  
11 contaminant level for nitrate is 10 mg/L) and chloride was measured at a maximum  
12 concentration of 1,125 mg/L (for reference, the secondary safe drinking water maximum  
13 contaminant level for chloride is 250 mg/L). In 1973, the Adams well had a chloride  
14 concentration of 975 mg/L. The Amend spring and the Adams well were both less than 0.1 mile  
15 downgradient from the landfill. SCHD concluded that the disposed black dross was the source  
16 of chloride and sodium levels in a shallow ground water well and in springs used for drinking  
17 water purposes, and recommended an alternative source of drinking water supply.

18 E. Air was also sampled in September 1979. Several organic compounds were  
19 detected in samples collected downwind of the Site. Ammonia was detected at levels up to  
20 230 milligrams per cubic meter. (For reference, the acceptable source impact level (ASIL) for  
21 ammonia is 59.9 milligrams per cubic meter.)

22 F. From 1980 to 1983, various SCHD correspondences directed the then property  
23 owner, Robert Lamon, to cover and secure the dross pile.

24 G. In 1984, Kaiser Aluminum & Chemical Corporation installed a 2-foot interim  
25 clay cover with a vegetated surface over the black dross to prevent the infiltration of precipitation  
26 and constructed drainage ditches. Kaiser Aluminum & Chemical Corporation also installed a gas

1 venting system, constructed a fence, and initiated monitoring of groundwater. Kaiser Aluminum  
2 & Chemical Corporation eventually purchased the property in 1984.

3 H. In 1987, Ecology staff conducted a Site inspection which noted the entire surface  
4 of the Site had been capped and was covered with weeds and grasses, with no evidence of  
5 sinkholes or heaving.

6 I. In 1993, a Site Inspection Prioritization Level I Report prepared for the  
7 U.S. Environmental Protection Agency (EPA) Region 10 recommended no further action at the  
8 Site under the federal Superfund program at that time. The report noted that additional  
9 groundwater and springs water samples were to be collected by Kaiser Aluminum & Chemical  
10 Corporation to fully evaluate the effectiveness of the clay cover.

11 J. Kaiser Aluminum & Chemical Corporation reorganized in 2006. Kaiser  
12 Aluminum & Chemical Corporation, LLC is the survivor of a merger that included Kaiser  
13 Aluminum & Chemical and took ownership of the Site. In 2009, Kaiser Aluminum & Chemical  
14 Corporation, LLC changed its name to DCO Management, LLC.

15 K. Groundwater data from the Amend spring, submitted by Kaiser Aluminum &  
16 Chemical Corporation to Ecology in 2006, showed monthly monitoring (intermittent at times)  
17 from September 1983 through December 1989, November 1993 through December 2003, and  
18 only one sample in September 2004. The concentrations of nitrate measured were at 28 mg/L in  
19 1985 and at 21 mg/L in 1987. The concentrations of chloride measured were at 900 mg/L in  
20 1983 and 1984 and at 270 mg/L in 1987. The data show decreasing concentrations but still  
21 above the primary safe drinking water maximum contaminant level for nitrate and above the  
22 secondary safe drinking water maximum contaminant level for chloride.

23 L. In 2006, Ecology conducted a Site Hazard Assessment of the Site. The Site's  
24 hazard ranking was determined to be a 2 where 1 represents the highest risk and 5 the lowest.

25 M. On July 2, 2008, Ecology notified Kaiser of its preliminary finding that Kaiser is  
26 a potentially liable person (PLP) under MTCA. On August 6, 2008, Kaiser responded to

1 Ecology that, without admitting liability, it was not disputing its PLP status and would conduct a  
2 remedial investigation (RI) and feasibility study (FS) under Ecology's supervision. Ecology  
3 issued Kaiser a final PLP determination on August 13, 2008.

4 N. In December 2008 and January 2009, Kaiser and Ecology conducted a sampling  
5 program in 16 domestic wells and a spring. Parties in the study area with concerns regarding  
6 water quality had the opportunity to be included in the study. No direct impacts from the dross  
7 landfill were observed in the domestic wells that were tested. These results are presented in the  
8 report:

9 *Hart Crowser, Domestic Wells and Spring Analysis, Heglar Kronquist Site,*  
10 *Mead, WA, February 13, 2009.*

11 O. Kaiser Aluminum & Chemical Corporation, LLC entered into an Agreed Order  
12 with Ecology on March 30, 2009. Under the terms of the Agreed Order, an RI was completed in  
13 2011 and an FS was completed in 2012.

14 P. Findings from the RI showed that leaching of constituents from the dross results  
15 in concentrations of chloride and nitrate in shallow groundwater that exceed standards. During  
16 the RI, nitrate concentrations in groundwater impacted by the landfill were measured at 31 and  
17 42 mg/L (the area background for nitrate is 14 mg/L) and the maximum chloride concentration  
18 impacted by the landfill was measured was at 778 mg/L (background chloride concentration is  
19 approximately 20 mg/L). The RI findings are described in the following report:

20 *Exponent, Final Remedial Investigation Report, Heglar Kronquist Landfill,*  
21 *Mead, WA, September 2011.*

22 Q. Two remedial alternatives were fully evaluated under MTCA criteria in the FS.  
23 Alternative 1 involves removal of the dross while Alternative 2 involves a cap enhancement to  
24 contain the dross, and prevent infiltration that leads to leaching. The FS is in the following  
25 report:



1                    *Exponent, Final Feasibility Study, Heglar Kronquist Landfill, Mead, WA,*  
2                    *May 2012.*

3                    R.        Based upon the results of the RI and the FS, Ecology prepared a Draft Cleanup  
4 Action Plan (DCAP). Ecology selected Alternative 2, the enhanced capping option, along with  
5 other protection requirements to ensure that the remedy continues to be protective of human  
6 health and the environment.

7                    **VI.        WORK TO BE PERFORMED**

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

11                  A.        Defendants shall implement the cleanup action selected in Section 8 of the Final  
12 CAP (Exhibit B) as set forth in the Scope and Work and Schedule (Exhibit C), which establishes  
13 the required remedial actions at the Site.

14                  B.        As more fully described in Section 8 of the Final CAP and Exhibit C, the cleanup  
15 action, consists of: cap enhancement, dispersion/dilution of groundwater, compliance  
16 monitoring, institutional controls that include a Restrictive Covenant and a financial assurance  
17 mechanism, and periodic reviews. The "conceptual" design presented in the CAP may be  
18 modified during final design, but will meet the criteria described in Section 8 of the CAP.

19                  C.        Ecology will review the Engineering Design Report, Compliance Monitoring  
20 Plan, Institutional Controls Plan and Specifications, and the Operations and Maintenance Plan  
21 (hereinafter plans) submitted pursuant to Exhibit C. These plans shall not be implemented, nor  
22 shall any other remedial activity take place at the Site, without Ecology's approval. Once these  
23 plans, and any required revisions, are approved by Ecology, the plans and the schedule shall  
24 become integral and enforceable elements of this Decree.

25                  D.        Defendant agrees not to perform any remedial actions outside the scope of this  
26 Decree unless the Parties agree to modify the Scope of Work and Schedule (Exhibit C) to cover

1 these actions. All work conducted by Defendant under this Decree shall be done in accordance  
2 with Chapter 173-340 WAC unless otherwise provided herein.

### 3 **VII. DESIGNATED PROJECT COORDINATORS**

4 The project coordinator for Ecology is:

5 Teresita Bala  
6 Department of Ecology  
7 Eastern Regional Office  
8 4601 N. Monroe St.  
9 Spokane, WA 99205  
10 (509) 329-3543

11 The project coordinator for Defendant is:

12 J.W. (Bill) Vinzant  
13 DCO Management, LLC  
14 9141 Interline Ave., Suite 1A  
15 Baton Rouge, LA 70809  
16 (225) 231-5116

17 Each project coordinator shall be responsible for overseeing the implementation of this  
18 Decree. Ecology's project coordinator will be Ecology's designated representative for the Site.  
19 To the maximum extent possible, communications between Ecology and Defendant and all  
20 documents, including reports, approvals, and other correspondence concerning the activities  
21 performed pursuant to the terms and conditions of this Decree shall be directed through the  
22 project coordinators. The project coordinators may designate, in writing, working level staff  
23 contacts for all or portions of the implementation of the work to be performed required by this  
24 Decree.

25 Any party may change its respective project coordinator. Written notification shall be  
26 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

1 direct supervision of an engineer registered in the State of Washington, except as otherwise  
2 provided for by Chapters 18.220 and 18.43 RCW.

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

6 All construction work performed pursuant to this Decree shall be under the direct  
7 supervision of a professional engineer or a qualified technician under the direct supervision of a  
8 professional engineer. The professional engineer must be registered in the State of Washington,  
9 except as otherwise provided for by RCW 18.43.130.

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

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

#### 16 IX. ACCESS

17 Ecology or any Ecology authorized representative shall have full authority to enter and  
18 freely move about all property at the Site that Defendant either owns, controls, or has access  
19 rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs,  
20 and contracts related to the work being performed pursuant to this Decree; reviewing  
21 Defendant's progress in carrying out the terms of this Decree; conducting such tests or collecting  
22 such samples as Ecology may deem necessary; using a camera, sound recording, or other  
23 documentary type equipment to record work done pursuant to this Decree; and verifying the data  
24 submitted to Ecology by Defendant. Defendant shall make all reasonable efforts to secure access  
25 rights for those properties within the Site not owned or controlled by Defendant where remedial  
26 activities or investigations will be performed pursuant to this Decree. Ecology or any Ecology

1 authorized representative shall give reasonable notice before entering any Site property owned or  
2 controlled by Defendant unless an emergency prevents such notice. All Parties who access the  
3 Site pursuant to this Section shall comply with any applicable Health and Safety Plan(s).  
4 Ecology employees and their representatives shall not be required to sign any liability release or  
5 waiver as a condition of Site property access.

6 **X. SAMPLING, DATA SUBMITTAL, AND AVAILABILITY**

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

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

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

1 **XI. PROGRESS REPORTS**

2 Defendant shall submit to Ecology written Progress Reports, in accordance with the  
3 schedule described herein, that describe the actions taken during the previous period to  
4 implement the requirements of this Decree. The Progress Reports shall include the following:

5 A. A list of on-site activities that have taken place during the previous reporting  
6 period;

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

9 C. Description of all deviations from the Scope of Work and Schedule (Exhibit C)  
10 during the current period and any planned deviations in the upcoming period;

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

13 E. All raw data (including laboratory analyses) received by Defendant during the  
14 past period and an identification of the source of the sample; and

15 F. A list of deliverables for the upcoming period if different from the schedule.

16 All Progress Reports shall be prepared in accordance with the following schedule: For  
17 Tasks I through V, on a quarterly basis, for Task VI, on a monthly basis, the last of which shall  
18 be submitted after completion of Task VI. No separate Progress Reports shall be required for  
19 Tasks VII, VIII and IX as those tasks have their own scheduled deliverables. Progress Reports  
20 shall be submitted by the fifteenth (15<sup>th</sup>) day of the month in which they are due after the  
21 effective date of this Decree. Unless otherwise specified, Progress Reports and any other  
22 documents submitted pursuant to this Decree shall be sent by certified mail, return receipt  
23 requested, to Ecology's project coordinator.

24 **XII. RETENTION OF RECORDS**

25 During the pendency of this Decree, and for ten (10) years from the date this Decree is no  
26 longer in effect as provided in Section XXVIII (Duration of Decree), Defendant shall preserve all

1 records, reports, documents, and underlying data in its possession relevant to the implementation  
2 of this Decree and shall insert a similar record retention requirement into all contracts with  
3 project contractors and subcontractors. Upon request of Ecology, Defendant shall make all  
4 records available to Ecology and allow access for review within a reasonable time.

### 5 **XIII. TRANSFER OF INTEREST IN PROPERTY**

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

10 Prior to Defendant's transfer of any interest in all or any portion of the Site, and during  
11 the effective period of this Decree, Defendant shall provide a copy of this Decree to any  
12 prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least  
13 thirty (30) days prior to any transfer, Defendant shall notify Ecology of said transfer. Upon  
14 transfer of any interest, Defendant shall restrict uses and activities to those consistent with this  
15 Consent Decree and notify all transferees of the restrictions on the use of the property.

### 16 **XIV. RESOLUTION OF DISPUTES**

17 A. In the event a dispute arises as to an approval, disapproval, proposed change, or  
18 other decision or action by Ecology's project coordinator, or an itemized billing statement under  
19 Section XXIV (Remedial Action Costs), and except as specified in XVII, Endangerment, herein,  
20 the Parties shall utilize the dispute resolution procedure set forth below.

21 1. Upon receipt of Ecology's project coordinator's written decision, or the  
22 itemized billing statement, Defendant has fourteen (14) days within which to notify  
23 Ecology's project coordinator in writing of its objection to the decision or itemized  
24 statement.  
25  
26

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

4           3.     Defendant may then request regional management review of the decision.  
5 This request shall be submitted in writing to the Eastern Regional Toxics Cleanup  
6 Program Section Manager within seven (7) days of receipt of Ecology's project  
7 coordinator's written decision.

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

11          5.     If Defendant finds Ecology's Eastern Regional Section Manager's  
12 decision unacceptable, Defendant may then request final management review of the  
13 decision. This request shall be submitted in writing to the Toxics Cleanup Program  
14 Manager within seven (7) days of receipt of the Eastern Regional Section Manager's  
15 decision.

16          6.     Ecology's Toxics Cleanup Program Manager shall conduct a review of  
17 the dispute and shall endeavor to issue a written decision regarding the dispute within  
18 thirty (30) days of Defendant's request for review of the Eastern Regional Section  
19 Manager's decision. The Toxics Cleanup Program Manager's decision shall be  
20 Ecology's final decision on the disputed matter.

21          B.     If Ecology's final written decision is unacceptable to Defendant, Defendant has  
22 the right to submit the dispute to the Court for resolution. The Parties agree that one judge  
23 should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under  
24 this Decree. In the event Defendant presents an issue to the Court for review, the Court shall  
25 review the action or decision of Ecology on the basis of whether such action or decision was  
26 arbitrary and capricious and render a decision based on such standard of review.

1 C. The Parties agree to only utilize the dispute resolution process in good faith and  
2 agree to expedite, to the extent possible, the dispute resolution process whenever it is used.  
3 Where either party utilizes the dispute resolution process in bad faith or for purposes of delay,  
4 the other party may seek sanctions.

5 D. Implementation of these dispute resolution procedures shall not provide a basis  
6 for delay of any activities required in this Decree, including the payment of remedial costs under  
7 Section XXIV of this Decree, unless Ecology agrees in writing to a schedule extension or the  
8 Court so orders.

#### 9 **XV. AMENDMENT OF DECREE**

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

13 Substantial changes to the work to be performed shall require formal amendment of this  
14 Decree. This Decree may only be formally amended by a written stipulation among the Parties  
15 that is entered by the Court, or by order of the Court. Such amendment shall become effective  
16 upon entry by the Court. Agreement to amend the Decree shall not be unreasonably withheld by  
17 any party.

18 Defendant shall submit a written request for amendment to Ecology for approval.  
19 Ecology shall indicate its approval or disapproval in writing and in a timely manner after the  
20 written request for amendment is received. If the amendment to the Decree is a substantial  
21 change, Ecology will provide public notice and opportunity for comment. Reasons for the  
22 disapproval of a proposed amendment to the Decree shall be stated in writing. If Ecology does  
23 not agree to a proposed amendment, the disagreement may be addressed through the dispute  
24 resolution procedures described in Section XIV (Resolution of Disputes).



1 **XVI. EXTENSION OF SCHEDULE**

2 A. An extension of schedule shall be granted only when a request for an extension is  
3 submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the  
4 deadline for which the extension is requested, and good cause exists for granting the extension.

5 All extensions shall be requested in writing. The request shall specify:

- 6 1. The deadline that is sought to be extended;  
7 2. The length of the extension sought;  
8 3. The reason(s) for the extension; and  
9 4. Any related deadline or schedule that would be affected if the extension  
10 were granted.

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

- 14 1. Circumstances beyond the reasonable control and despite the due  
15 diligence of Defendant including delays caused by unrelated third parties or Ecology,  
16 such as (but not limited to) delays by Ecology in reviewing, approving, or modifying  
17 documents submitted by Defendant;  
18 2. Acts of God, including fire, flood, blizzard, extreme temperatures, storm,  
19 or other unavoidable casualty; or  
20 3. Endangerment as described in Section XVII (Endangerment).

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

24 C. Ecology shall act upon any written request for extension in a timely fashion.  
25 Ecology shall give Defendant written notification of any extensions granted pursuant to this  
26 Decree. A requested extension shall not be effective until approved by Ecology or, if required,

1 by the Court. Unless the extension is a substantial change, it shall not be necessary to amend this  
2 Decree pursuant to Section XV (Amendment of Decree) when a schedule extension is granted.

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

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

#### 10 **XVII. ENDANGERMENT**

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

15 In the event Defendant determines that any activity being performed at the Site is  
16 creating or has the potential to create a danger to human health or the environment, Defendant  
17 may cease such activities. Defendant shall notify Ecology's project coordinator as soon as  
18 possible, but no later than twenty-four (24) hours after making such determination or ceasing  
19 such activities. Upon Ecology's direction, Defendant shall provide Ecology with documentation  
20 of the basis for the determination or cessation of such activities. If Ecology disagrees with  
21 Defendant's cessation of activities, it may direct Defendant to resume such activities. If  
22 Defendant continues to believe that resumption of such activities presents a substantial  
23 endangerment to health or the environment, Defendant may use the Dispute Resolution process  
24 in Section XIV herein, except that in order to expedite review of the matter, Defendant shall have  
25 the right to begin the dispute resolution process by, within fourteen (14) days of receipt of the  
26 Ecology project coordinator's written decision, submitting the dispute directly to Ecology's

1 Eastern Regional Toxics Cleanup Program Section Manager for resolution in accordance with  
2 XIV.A.3, and need not submit the dispute to Ecology's project coordinator for resolution under  
3 XIV.A.1 and 2.

4 If Ecology concurs with or orders a work stoppage pursuant to this Section, Defendant's  
5 obligations with respect to the ceased activities shall be suspended until Ecology determines the  
6 danger is abated, and the time for performance of such activities, as well as the time for any other  
7 work dependent upon such activities, shall be extended, in accordance with Section XVI  
8 (Extension of Schedule), for such period of time as Ecology determines is reasonable under the  
9 circumstances.

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

12 **XVIII. COVENANT NOT TO SUE**

13 A. Covenant Not to Sue: In consideration of Defendant's compliance with the terms  
14 and conditions of this Decree, Ecology covenants not to institute legal or administrative actions  
15 against Defendant regarding the release or threatened release of hazardous substances covered by  
16 this Decree.

17 This Decree covers only the Site specifically identified in the Site Diagram (Exhibit A)  
18 and those hazardous substances that Ecology knows are located at the Site as of the date of entry  
19 of this Decree. This Decree does not cover any other hazardous substance or area. Ecology  
20 retains all of its authority relative to any substance or area not covered by this Decree.

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

- 22 1. Criminal liability;  
23 2. Liability for damages to natural resources; and  
24 3. Any Ecology action, including cost recovery, against PLPs not a party to  
25 this Decree.  
26

1 If factors not known at the time of entry of the settlement agreement are discovered and  
2 present a previously unknown threat to human health or the environment, the Court shall amend  
3 this Covenant Not to Sue.

4 B. Reopeners: As required by RCW 70.105D.040(4)(c), Ecology specifically  
5 reserves the right to institute legal or administrative action against Defendant to require it to  
6 perform additional remedial actions at the Site and to pursue appropriate cost recovery, pursuant  
7 to RCW 70.105D.050 under the following circumstances:

8 1. Upon Defendant's failure to meet the requirements of this Decree,  
9 including, but not limited to, failure of the remedial action to meet the cleanup standards  
10 identified in the Cleanup Action Plan (CAP) (Exhibit B);

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

14 3. Upon the availability of new information regarding factors previously  
15 unknown to Ecology, including the nature or quantity of hazardous substances at the Site,  
16 and Ecology's determination, in light of this information, that further remedial action is  
17 necessary at the Site to protect human health or the environment; or

18 4. Upon Ecology's determination that additional remedial actions are  
19 necessary to achieve cleanup standards within the reasonable restoration time frame set  
20 forth in the CAP.

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

1 **XIX. CONTRIBUTION PROTECTION**

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

5 **XX. LAND USE RESTRICTIONS**

6 Defendant shall record an Environmental Covenant (Exhibit E), to include as-built  
7 drawings as an attachment, with the office of the Spokane County Auditor within thirty (30) days  
8 of the completion of the remedial action. The Restrictive Covenant shall restrict future uses of  
9 the Site. Defendant shall provide Ecology with a copy of the recorded Environmental Covenant  
10 within thirty (30) days of the recording date.

11 **XXI. FINANCIAL ASSURANCES**

12 Pursuant to WAC 173-340-440(11), Defendant shall maintain sufficient and adequate  
13 financial assurance mechanisms to cover all costs associated with the operation and maintenance  
14 of the remedial action at the Site, including institutional controls, compliance monitoring, and  
15 corrective measures.

16 Within sixty (60) days of Ecology's approval of the Engineering and Design Report  
17 required under Section VI of this Decree, Defendant shall submit to Ecology for review and  
18 approval an estimate of the costs that it will incur in carrying out the terms of this Decree,  
19 including operation and maintenance, and compliance monitoring. Within sixty (60) days after  
20 Ecology approves the aforementioned cost estimate, Defendant shall provide proof of financial  
21 assurances sufficient to cover all such costs in a form acceptable to Ecology.

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

24 A. Inflation, annually, within thirty (30) days of the anniversary date of the entry of  
25 this Decree; or if applicable, the modified anniversary date established in accordance with this  
26

1 Section, or if applicable, ninety (90) days after the close of Defendant's fiscal year if the  
2 financial test or corporate guarantee is used; and

3 B. Changes in cost estimates, within (30) days of issuance of Ecology's approval of  
4 a modification or revision to the CAP that result in increases to the cost or expected duration of  
5 remedial actions. Any adjustments for inflation since the most recent preceding anniversary date  
6 shall be made concurrent with adjustments for changes in cost estimates. The issuance of  
7 Ecology's approval of a revised or modified CAP will revise the anniversary date established  
8 under this Section to become the date of issuance of such revised or modified CAP.

9 C. If Defendant believes that the estimated cost of work to complete activities  
10 required under this Decree has fallen below the amount covered by existing financial assurance  
11 provided under this Decree, Defendant may submit a written proposal to Ecology to reduce the  
12 amount of the financial assurance provided under this section so that the amount of the financial  
13 assurance is equal to the estimated cost of the remaining work to be performed. The written  
14 proposal shall specify, at a minimum, the cost of the remaining work to be performed and the  
15 basis upon which such cost was calculated. If Ecology accepts the proposal, Ecology shall notify  
16 Defendant of its decision in writing. After receiving Ecology's written decision, Defendant may  
17 reduce the amount of financial assurance only in accordance with and to the extent permitted by  
18 such written decision. Within thirty (30) days after receipt of Ecology's written decision,  
19 Defendant shall submit to Ecology documentation of the updated financial assurance coverage.  
20 No change to the form or terms of any financial assurance provided under this section, other than  
21 a reduction in amount, is authorized under this paragraph.

## 22 **XXII. INDEMNIFICATION**

23 Defendant agrees to indemnify and save and hold the State of Washington, its employees,  
24 and agents harmless from any and all claims or causes of action for death or injuries to persons or  
25 for loss or damage to property to the extent arising from or on account of acts or omissions of  
26 Defendant, its officers, employees, agents, or contractors in entering into and implementing this

1 Decree. However, Defendant shall not indemnify the State of Washington nor save nor hold its  
2 employees and agents harmless from any claims or causes of action to the extent arising out of  
3 the negligent acts or omissions of the State of Washington, or the employees or agents of the  
4 State, in entering into or implementing this Decree.

### 5 **XXIII. COMPLIANCE WITH APPLICABLE LAWS**

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

11 B. Pursuant to RCW 70.105D.090(1), Defendant is exempt from the procedural  
12 requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48 (as it relates to state-only permits),  
13 and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals.  
14 However, Defendant shall comply with the substantive requirements of such permits or  
15 approvals. The exempt permits or approvals and the applicable substantive requirements of those  
16 permits or approvals, as they are known at the time of entry of this Decree, have been identified  
17 in the CAP (Exhibit B).

18 Defendant has a continuing obligation to determine whether additional permits or  
19 approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial  
20 action under this Decree. In the event either Ecology or Defendant determines that additional  
21 permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the  
22 remedial action under this Decree, it shall promptly notify the other party of this determination.  
23 Ecology shall determine whether Ecology or Defendant shall be responsible to contact the  
24 appropriate state and/or local agencies. If Ecology so requires, Defendant shall promptly consult  
25 with the appropriate state and/or local agencies and provide Ecology with written documentation  
26 from those agencies of the substantive requirements those agencies believe are applicable to the

1 remedial action. Ecology shall make the final determination on the additional substantive  
2 requirements that must be met by Defendant and on how Defendant must meet those  
3 requirements. Ecology shall inform Defendant in writing of these requirements. Once  
4 established by Ecology, the additional requirements shall be enforceable requirements of this  
5 Decree. Defendant shall not begin or continue the remedial action potentially subject to the  
6 additional requirements until Ecology makes its final determination.

7 C. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the  
8 exemption from complying with the procedural requirements of the laws referenced in  
9 RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is  
10 necessary for the State to administer any federal law, the exemption shall not apply and  
11 Defendant shall comply with both the procedural and substantive requirements of the laws  
12 referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

#### 13 **XXIV. REMEDIAL ACTION COSTS**

14 Defendant shall pay to Ecology costs incurred by Ecology pursuant to this Decree and  
15 consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or  
16 its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and  
17 Decree preparation, negotiation, oversight, and administration. These costs shall include work  
18 performed both prior to and subsequent to the entry of this Decree. Ecology's costs shall include  
19 costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2).  
20 Ecology has accumulated \$24,551.94 in remedial action costs related to this facility as of  
21 December 31, 2012. Payment for this amount shall be submitted within thirty (30) days of the  
22 effective date of this Decree. For all costs incurred subsequent to December 31, 2012, Defendant  
23 shall pay the required amount within thirty (30) days of receiving from Ecology an itemized  
24 statement of costs that includes a summary of costs incurred, an identification of involved staff,  
25 and the amount of time spent by involved staff members on the project. A general statement of  
26 work performed will be provided upon request. Itemized statements shall be prepared quarterly.



1 Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of  
2 receipt of the itemized statement of costs will result in interest charges at the rate of twelve  
3 percent (12%) per annum, compounded monthly.

4 In addition to other available relief, pursuant to RCW 70.105D.055, Ecology has  
5 authority to recover unreimbursed remedial action costs by filing a lien against real property  
6 subject to the remedial actions.

#### 7 **XXV. IMPLEMENTATION OF REMEDIAL ACTION**

8 If Ecology determines that Defendant has failed without good cause to implement the  
9 remedial action, in whole or in part, Ecology may, after notice to Defendant, perform any or all  
10 portions of the remedial action that remain incomplete. If Ecology performs all or portions of the  
11 remedial action because of Defendant's failure to comply with its obligations under this Decree,  
12 Defendant shall reimburse Ecology for the costs of doing such work in accordance with Section  
13 XXIV (Remedial Action Costs), provided that Defendant is not obligated under this Section to  
14 reimburse Ecology for costs incurred for work inconsistent with or beyond the scope of this  
15 Decree.

16 Except where necessary to abate an emergency situation, Defendant shall not perform  
17 any remedial actions at the Site outside those remedial actions required by this Decree, unless  
18 Ecology concurs, in writing, with such additional remedial actions pursuant to Section XV  
19 (Amendment of Decree).

#### 20 **XXVI. PERIODIC REVIEW**

21 As remedial action, including ground water monitoring, continues at the Site, the Parties  
22 agree to review the progress of remedial action at the Site, and to review the data accumulated as  
23 a result of monitoring the Site as often as is necessary and appropriate under the circumstances.  
24 At least every five (5) years after the initiation of cleanup action at the Site the Parties shall meet  
25 to discuss the status of the Site and the need, if any, for further remedial action at the Site.  
26 At least ninety (90) days prior to each periodic review, Defendant shall, upon Ecology's request,

1 submit a report to Ecology that documents whether human health and the environment are being  
2 protected based on the factors set forth in WAC 173-340-420(4). Ecology reserves the right to  
3 require further remedial action at the Site under appropriate circumstances. This provision shall  
4 remain in effect for the duration of this Decree or for as long as institutional controls and/or  
5 financial assurance requirements remain a part of the Site remedy, whichever is longer.

## 6 **XXVII. PUBLIC PARTICIPATION**

7 A Public Participation Plan is attached as Exhibit D.

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

10 A. If agreed to by Ecology, develop appropriate mailing list, prepare drafts of public  
11 notices and fact sheets at important stages of the remedial action, such as the submission of work  
12 plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering  
13 design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and  
14 prepare and distribute public notices of Ecology's presentations and meetings.

15 B. Notify Ecology's project coordinator prior to the preparation of all press releases  
16 and fact sheets, and before major meetings with the interested public and local governments  
17 concerning the matters addressed in this Decree. Likewise, Ecology shall notify Defendant prior  
18 to the issuance of all press releases and fact sheets, and before major meetings with the interested  
19 public and local governments concerning the matters addressed in this Decree. For all press  
20 releases, fact sheets, meetings, and other outreach efforts by Defendant that do not receive prior  
21 Ecology approval, Defendant shall clearly indicate to its audience that the press release, fact  
22 sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

23 C. When requested by Ecology, participate in public presentations on the progress of  
24 the remedial action at the Site. Participation may be through attendance at public meetings to  
25 assist in answering questions, or as a presenter.

26

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

- 3 1. North Spokane Public Library  
4 Hawthorne Branch  
4 44 E. Hawthorne Rd.  
5 Spokane, WA 99218
- 6 2. Ecology's Eastern Regional Office  
6 4601 N. Monroe St.  
7 Spokane, WA 99205

8 At a minimum, copies of all public notices, fact sheets, and documents relating to public  
9 comment periods shall be promptly placed in these repositories. A copy of all documents related  
10 to this site shall be maintained in the repository at Ecology's Eastern Regional Office in  
11 Spokane, Washington.

#### 12 **XXVIII. DURATION OF DECREE**

13 The remedial program required pursuant to this Decree shall be maintained and continued  
14 until Defendant has received written notification from Ecology that the requirements of this  
15 Decree have been satisfactorily completed. This Decree shall remain in effect until dismissed by  
16 the Court. When dismissed, Section XVIII (Covenant Not to Sue), Section XIX (Contribution  
17 Protection), and, if still applicable, Section XXI (Financial Assurances) and Section XXVI  
18 (Periodic Review) shall survive.

#### 19 **XXIX. CLAIMS AGAINST THE STATE**

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

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**XXX. EFFECTIVE DATE**

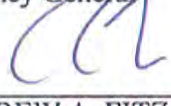
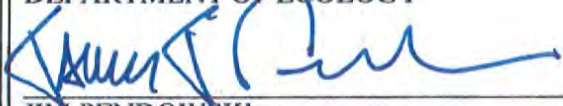
This Decree is effective upon the date it is entered by the Court.

**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 any 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.

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

BOB FERGUSON  
Attorney General



JIM PENDOWSKI  
Program Manager  
Toxics Cleanup Program  
(360) 407-7177

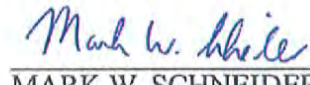
ANDREW A. FITZ, WSBA #22169  
Senior Counsel  
(360) 586-6752

Date: 5/9/13

Date: 5/21/13

DCO MANAGEMENT, LLC

PERKINS COIE LLP



JOHN M. DONNAN  
Executive Vice President  
Legal, Compliance and Human Resources  
Foothill Ranch Corporate Office  
(949) 614-1757

MARK W. SCHNEIDER  
Attorney for DCO Management, LLC  
(206) 359-8627

Date: 3/25/2013

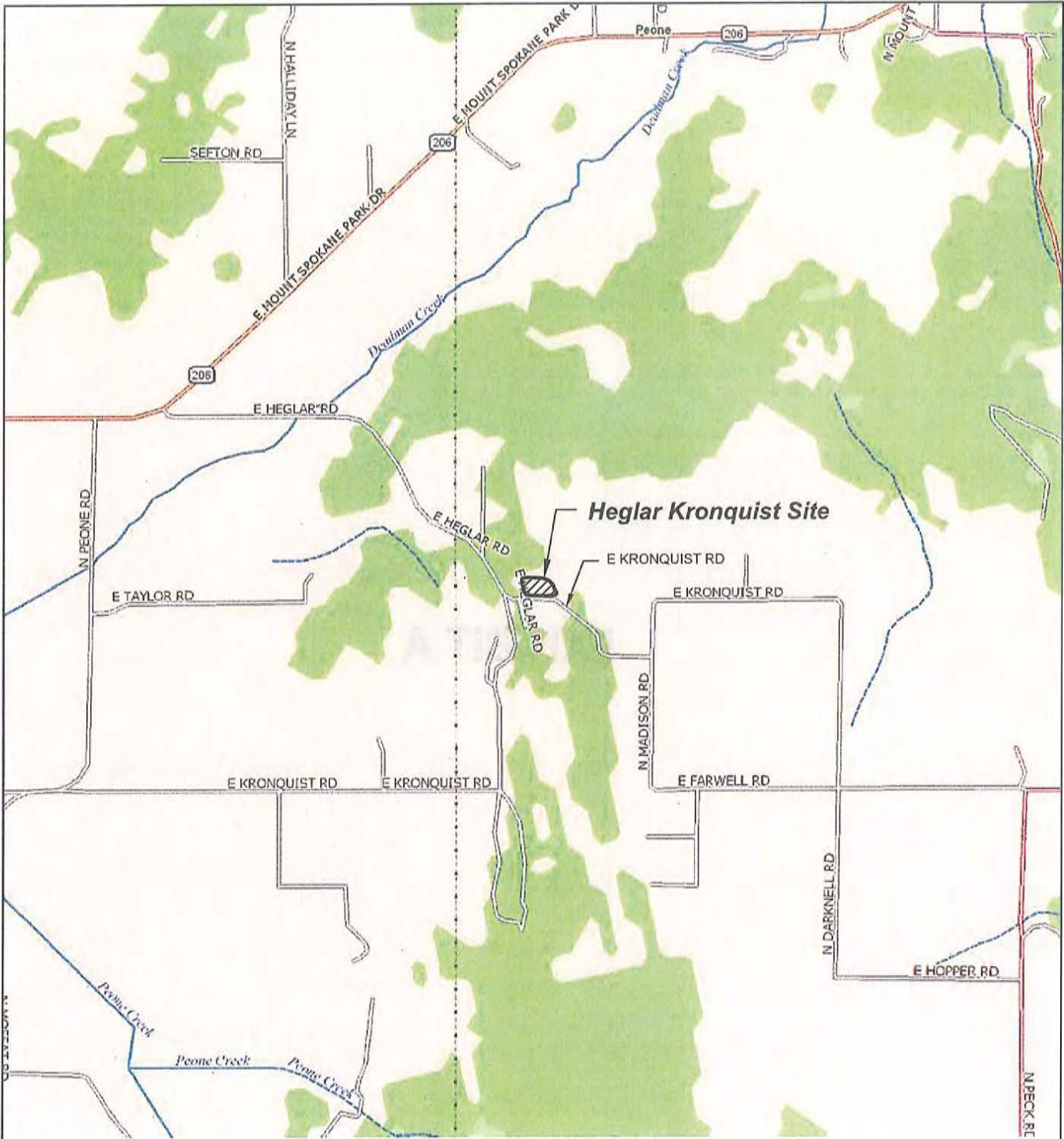
Date: 3/20/13

ENTERED this 4 day of June 2013

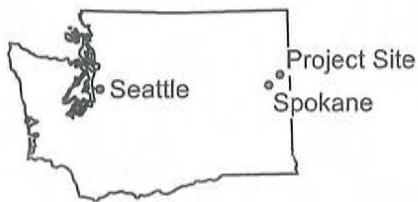
**ELLEN KALAMA CLARK**

JUDGE  
Spokane County Superior Court

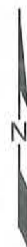
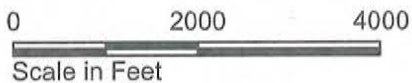
# **EXHIBIT A**



Source: Base map prepared from DeLorme Topo 7.0, 2007.



WASHINGTON



Heglar Kronquist Site Mead, Washington	
<b>Vicinity Map</b>	
12/08	
Exhibit	
<b>A</b>	

**EXHIBIT B**

**FINAL CLEANUP ACTION PLAN**



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**FINAL CLEANUP ACTION PLAN**  
**HEGLAR KRONQUIST SITE**  
**CSID 1135**  
**FSID 645**

---

Prepared by  
Washington State Department of Ecology  
Eastern Regional Office  
Toxics Cleanup Program  
Spokane, WA

October 2012





WASHINGTON  
DEPARTMENT OF ECOLOGY

FOR THE YEAR 2000

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## EXECUTIVE SUMMARY

This Final Cleanup Action Plan (FCAP), developed in accordance with the Model Toxics Control Act (MTCA), Chapter 70.105D RCW and Chapter 173-340 WAC, presents the selected remedial action for the Heglar Kronquist Site located near Mead, Washington. Approximately 55,000 cubic yards of aluminum black dross (dross) were disposed into this almost 4-acre-quarry, and unpermitted landfill, from 1969 to 1974.

This landfill was capped in 1984 to prevent the leaching of dross constituents to groundwater. This cap reduced infiltration through the dross. However, the MTCA Remedial Investigation conducted in 2011 showed that limited leaching still occurs, resulting in exceedances of state standards for chloride and nitrate concentrations in shallow groundwater and drainage ditch surface water.

The Feasibility Study conducted in 2012 evaluated two remedial alternatives that are applicable to the cleanup of the Site. Alternative 1 involves the removal of the dross and off-site disposal in a permitted landfill; Alternative 2 provides for the enhancement of the current cap, keeping the dross in place, and for critical protection requirements to ensure continued protection of human health and the environment.

Based on the evaluation of these two alternatives using MTCA criteria, Ecology selected the following cleanup actions:

- Cap enhancement as described in the final FS.
- Dispersion/dilution of contaminants in groundwater/surface water.
- Compliance Monitoring
- Institutional Controls to include an Environmental Covenant, cap maintenance requirements, and financial assurance.
- Periodic reviews.

Ecology has determined this selected remedy is protective of human health and the environment, and meets the requirement of RCW 70.105D.030 (1)(b) that says:

“ ...In conducting, providing for, or requiring remedial action, the department shall give preference to permanent solutions to the maximum extent practicable and shall provide for or require adequate monitoring to ensure the effectiveness of the remedial action.”

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FIGURE 3. CROSS SECTION C-C'

FIGURE 4. GROUNDWATER FLOW DIRECTIONS

FIGURE 5. DROSS CROSS SECTION

FIGURE 6. APPROXIMATE EXTENT OF IMPACTED GROUNDWATER

FIGURE 7. CROSS SECTION OF PROPOSED CAP

### LIST OF ACRONYMS

ARARs	Applicable, Relevant and Appropriate Requirements
CAP	Cleanup Action Plan
DCAP	Draft Cleanup Action Plan
FCAP	Final Cleanup Action Plan
CFR	Code of Federal Register
EPA	Environmental Protection Agency
FS	Feasibility Study
MCL	Maximum Contaminant Limit
sMCL	Secondary Maximum Contaminant Limit
MTCA	Model Toxics Control Act
PLPs	Potentially Liable Parties
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RI	Remedial Investigation
WAC	Washington Administrative Code

## 1.0 INTRODUCTION

### 1.1 The Cleanup Process and the Cleanup Action Plan

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

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

### 1.2 Purpose and Objectives

Ecology is issuing this FCAP after having completed the public comment period for the DCAP, and after review and consideration of the comments received. This decision document presents Ecology's selected cleanup action for the Heglar Kronquist Site (the Site). The selected cleanup action is chosen based upon information in the following documents:

- Exponent, Final Remedial Investigation Report, Heglar Kronquist Site, September 9, 2011.
- Exponent, Final Feasibility Study, Heglar Kronquist Site, May 2012.

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

### 1.3 Declaration

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



#### 1.4 Applicability

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

#### 1.5 Administrative Record

The documents used to make decisions discussed in this DCAP and FCAP are constituents of the administrative record for the Site. The entire administrative record for the Site is available for public review by appointment at Ecology's Eastern Regional Office, 4601 N. Monroe, Spokane, WA 99205-1295. Documents that were made available for public comment and review are also available at the North Spokane Public Library, Hawthorne Branch, 44 E. Hawthorne Rd., Spokane, WA 99218.

## 2.0 BACKGROUND INFORMATION

### 2.1 Site Description

The Heglar Kronquist Site is located near Mead, Washington near the intersection of E. Heglar and E. Kronquist Roads approximately 10 miles northeast of downtown Spokane, Washington.

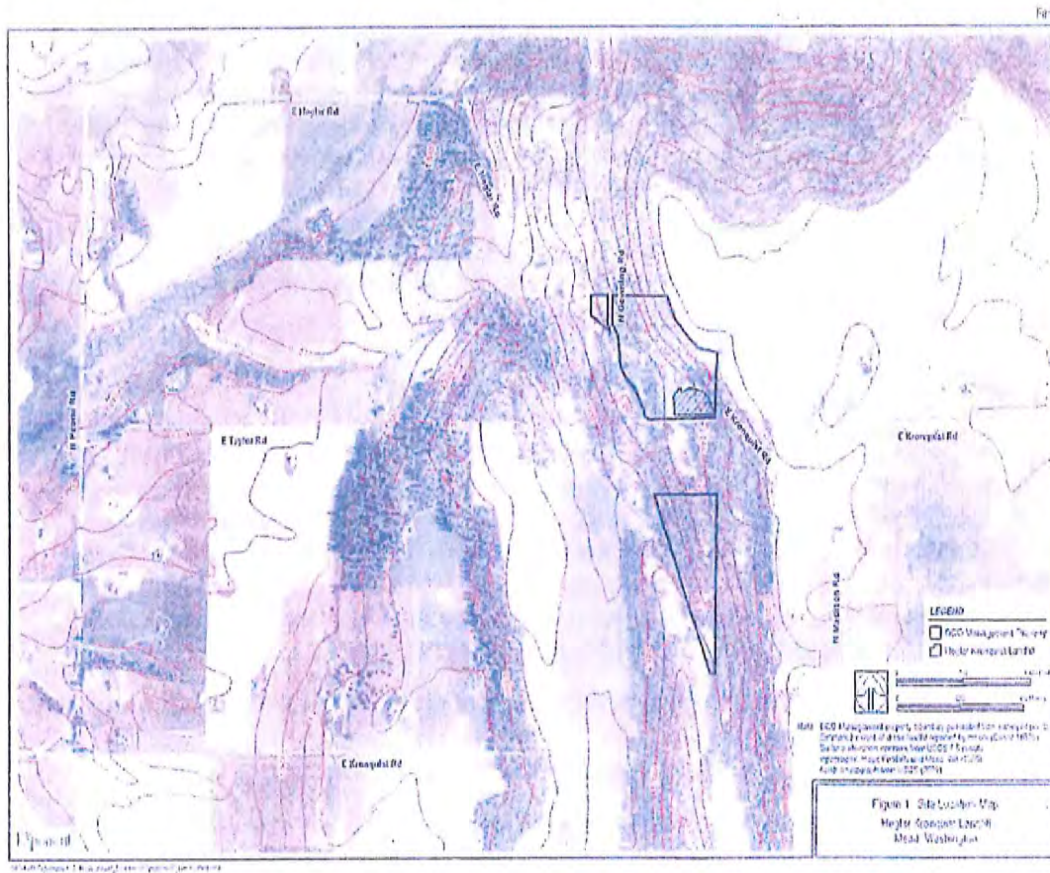


FIGURE 1. SITE LOCATION MAP

The Site is located in a rural area and is classified “Resource Lands” and zoned as “Small Tract Agricultural”. It is located in a complex hydrogeologic area, mapped as landslide material on the Washington State Geologic Map.

## 2.2 Site History

The Site was used as a gravel pit until it was closed in 1969. From 1969 until 1974, Gemini Management, Inc. transported and disposed of aluminum black dross (dross) from the Kaiser Trentwood Plant in the Spokane Valley in this abandoned pit. Approximately 55,000 cubic yards of dross were disposed of into the 4-acre-quarry. Except for one report of a neighbor dumping refuse into this pit, there is no evidence that anything other than black dross was placed in this abandoned pit.

The landfill property, shown as Parcel 1 in Appendix A and referred to as the Heglar Kronquist Site, was deeded to Kaiser Aluminum & Chemical Corporation (Kaiser), now known as DCO Management in 1984. The legal description of this landfill property is also attached in Appendix A. In 1991, the rest of the Kaiser property shown in Appendix A was deeded to Kaiser and all properties were combined into one tax parcel.

Black dross is a by-product of aluminum processing. According to Kaiser's records, the black dross in the landfill is composed of: 39% sodium chloride, 35% aluminum oxide, 19% potassium chloride, 4% free aluminum, 2% cryolite, and 1% carbides and nitrides.

Black dross disposal stopped in 1974 when elevated levels of chloride and sodium were detected in one shallow water supply well and a spring near the Site. The Environmental Protection Agency (EPA) conducted water and air sampling in 1979 and documented impacts to groundwater, surface water (springs), and air from the landfill dross. Impacts to groundwater included elevated concentrations of chloride and sodium. Elevated ammonia concentrations were measured in air; ammonia is a result of a reaction between the dross and water. Kaiser hired a consultant in 1979 to review available data and to investigate the Site in order to provide recommendations for further action. As a result the following actions were conducted by Kaiser in 1983/1984:

- Construction of a 2-ft thick clay cover with a vegetated topsoil surface to reduce infiltration
- Construction of drainage ditches
- Installation of a passive gas venting system in a new, permeable gravel layer
- Construction of a fence to restrict access
- Start of groundwater and surface water monitoring.

Based on surface water (springs) collected down gradient from the site, a 50% reduction of concentrations of chloride was observed from 1983 to 1987 after the installation of the cap. However, surface water data show concentrations of chloride still exceed the secondary maximum contaminant level (sMCL) for chloride and the primary maximum contaminant level (MCL) for nitrate. (MCL and sMCL are drinking water standards.)

In 2006, Ecology conducted a Site Hazard Assessment of the Site. The Site's hazard ranking was determined to be a 2, where 1 represents the highest risk and 5 the lowest.

In 2008, Ecology named Kaiser a Potentially Liable Party for the Site under the authority of MTCA. Kaiser signed an Agreed Order with Ecology in 2009 to complete a Remedial Investigation (RI) and Feasibility Study (FS) under WAC 173-340. The purpose of the RI is to collect data needed to adequately characterize the contamination at the site so cleanup action alternatives can be developed and evaluated in the FS. The RI was completed in 2011 and the FS was completed in 2012. The draft final RI Report and the draft final FS were all made available for public review and comment before being considered final. Ecology prepared a Responsiveness Summary in August 2011 and in April 2012, responding to comments received during the public comment period for the draft final RI Report and the draft final FS, respectively.

Before Kaiser signed the Agreed Order in 2009, Kaiser and Ecology jointly conducted a private well and spring sampling in December 2008 and January 2009 to allay concerns of residents in the vicinity of the Site regarding their drinking water. Additional sampling of three private wells was also conducted during the RI. No drinking water well was determined to be impacted with contaminants from the dross.

## **2.3 Site Physical Characteristics**

### **2.3.1 Site Geology**

The landfill is situated on the eastern end of the landslide block with the slide plane immediately to the east of the landfill. The original pit into which the dross was placed was created by mining this broken basalt in the landslide block. The mesa east of the slide plane and the Site is capped with up to 70 ft of loess of the Palouse Formation described as mostly clay. The Palouse overlies the Columbia River basalt which is underlain by the Latah Formation.

The landslide block west of the slide plane consists of varying sizes of basalt boulders and blocks, along with silty sandy basalt gravels. West and north of the landslide block are thinly covered granites (west) and exposed granites. Farther to the west, along the major drainages, the granites are covered by glacial deposits and in some places younger alluvium.

The following figures are two selected cross sections from the Final RI Report showing the geology of the area. The Final RI presents more cross sections and detailed discussions.

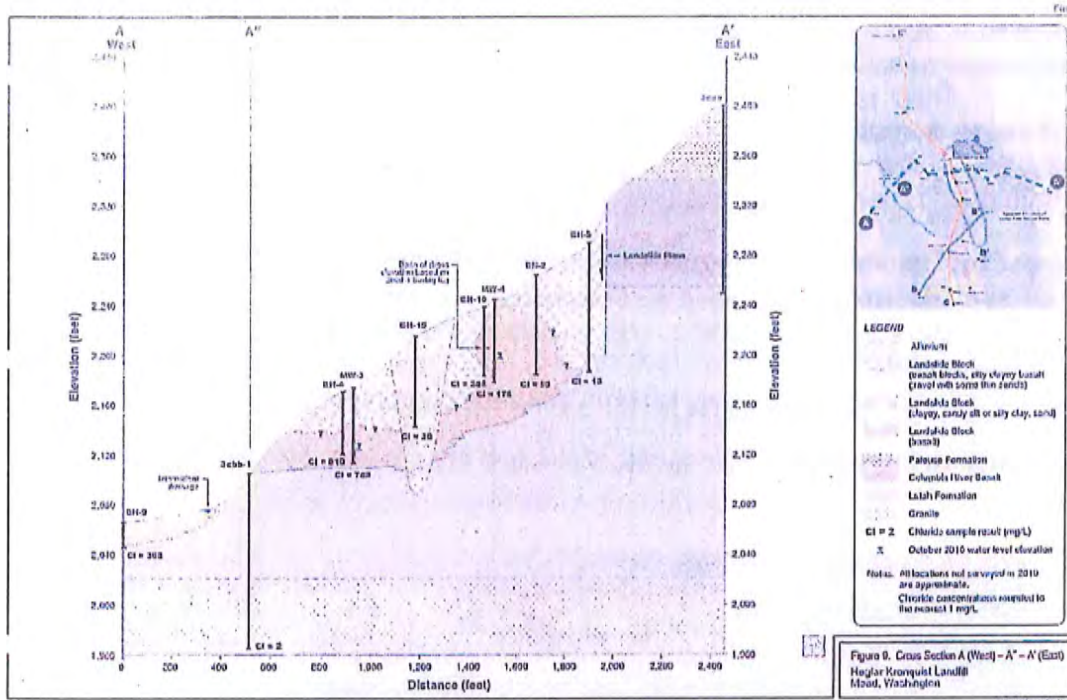


FIGURE 2. CROSS SECTION A-A'

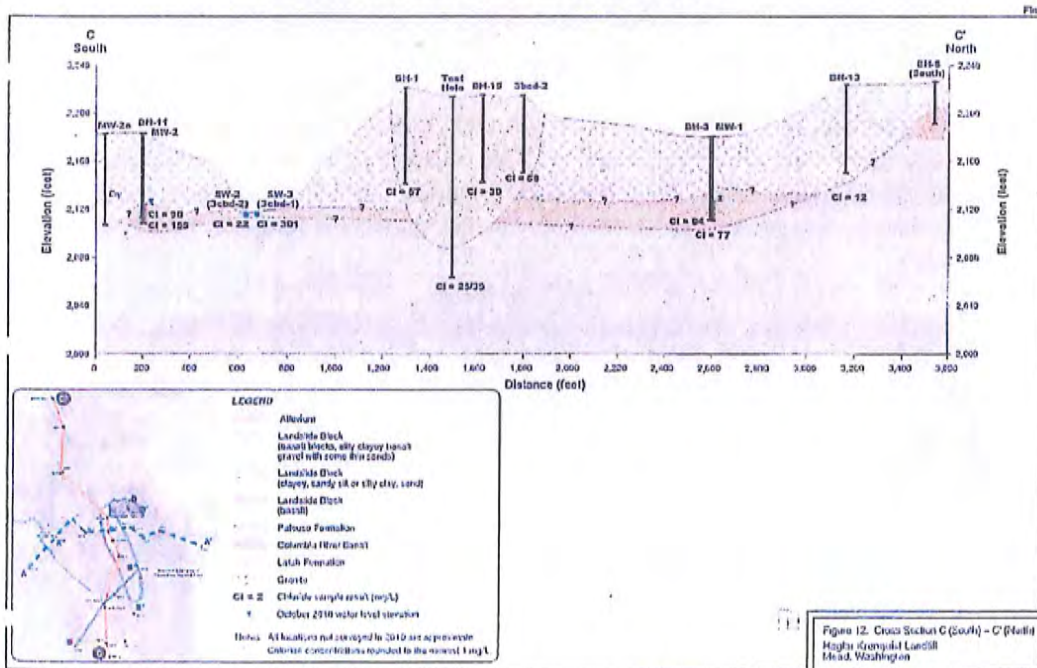


FIGURE 3. CROSS SECTION C-C'

As seen from these cross sections in Figures 2 and 3, and in also Figure 4, there is a narrow, linear fine-grained sediment zone in the landslide block which trends northwesterly as outlined.

### 2.3.2 Site Hydrogeology

The groundwater flow at the Site is complex. Groundwater flow at the Site is shown in the accompanying Figure 4 and is described as follows:

- Flow from the landfill area northwestward toward MW-1.
- Flow around the north end of the fine-grained zone and then southwest through the MW-3 area toward MW-2. With ultimate discharge through Springs SW-2 and/or SW-3.
- A flow segment between the landfill and the BH-10 and MW-4 area.

The groundwater discharging from spring 3cbd-1 goes to a drainage ditch as surface water.

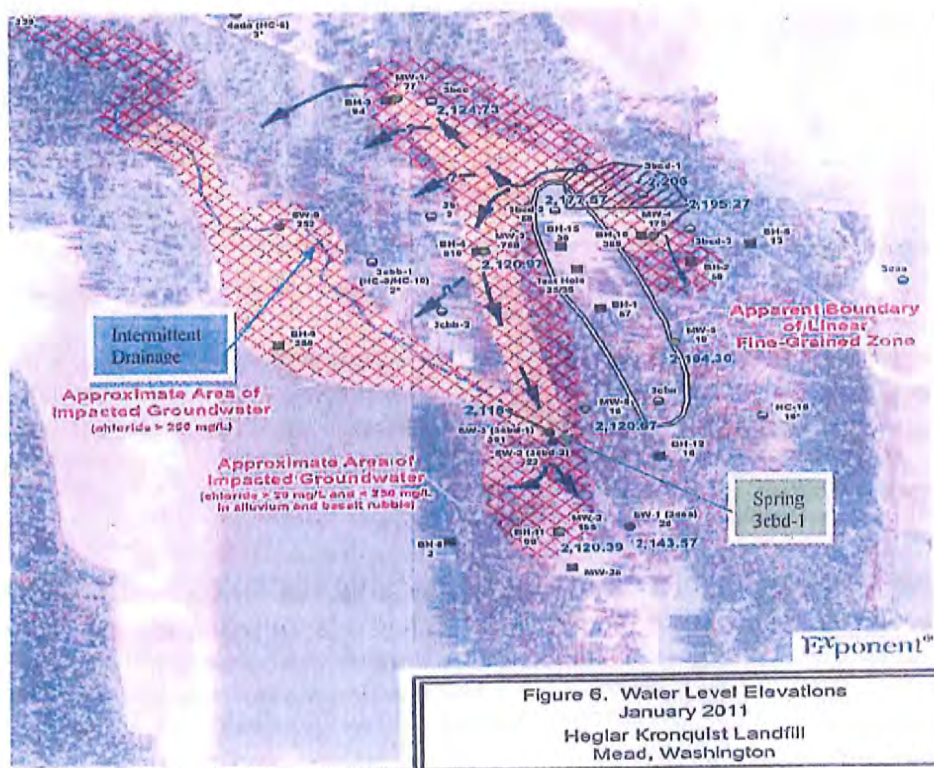


FIGURE 4. GROUNDWATER FLOW DIRECTIONS

### 3.0 NATURE OF CONTAMINATION

#### 3.1 Dross

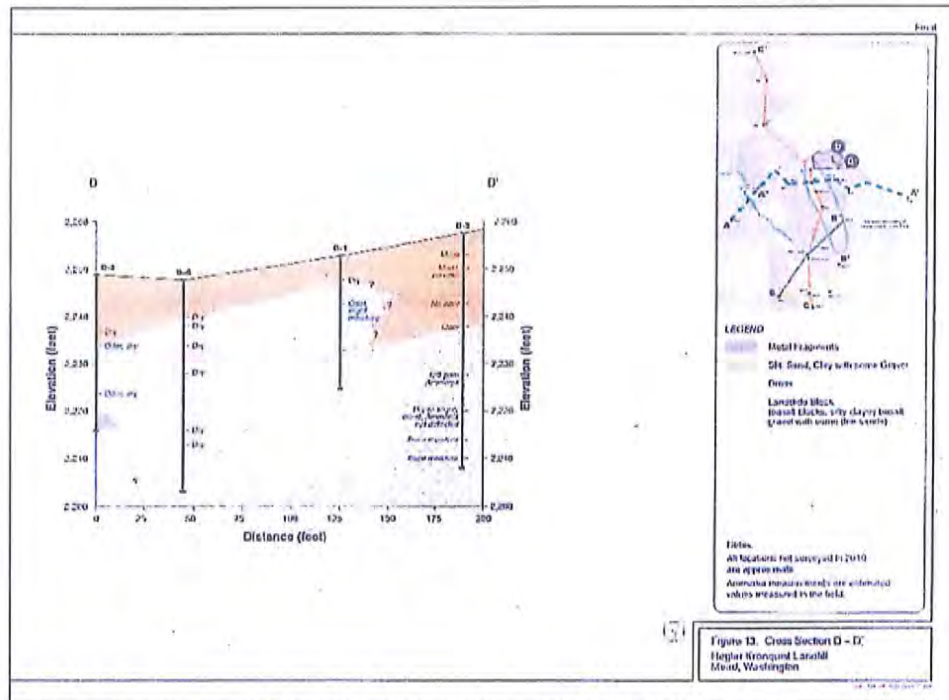


FIGURE 5. DROSS CROSS SECTION

During the RI, dross was encountered below the cap material to depths ranging from 5 to 43 feet at three locations. Dross encountered in these borings was dry with the exception of dross at location Boring D-1, where some moisture was encountered at levels below saturation. Groundwater was not encountered in any dross borehole. RI data indicate water is contacting black dross via surface infiltration into and gravity flow out of the landfill under less than saturated moisture conditions.

The following indicator substances were detected in the dross during the RI: chloride, potassium, sodium, magnesium, calcium, and nitrate. Also detected were: ammonia as nitrogen, fluoride, nitrite, total nitrogen, orthophosphate, sulfate, aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, silver, thallium, vanadium, and zinc. Very low concentrations of cyanide and PCBs were detected in one boring.

RI investigations show there are impacts resulting from dross in the landfill. These impacts are a result of leaching caused by the infiltration of precipitation through the dross thus impacting shallow groundwater and the springs in the area.

### 3.2 Groundwater and Surface Water

Chloride, nitrate, and total dissolved solids (TDS) are the gross constituents that exceed standards in groundwater. Sodium exceeds the 2,400 mg/L daily dietary goal for sodium. Elevated TDS in the groundwater and surface water is a result of the high chloride concentrations. An ecological survey and data screening on chloride and nitrate concentrations in groundwater and in surface water indicate that they do not pose an unacceptable risk to livestock, aquatic species, or crop species.

The Site indicators which will be used for defining site cleanup requirements in groundwater are those that exceed the standards. Based on the above discussions, these site indicators are **chloride** and **nitrate**. TDS is directly related to chloride.

Chloride is the gross constituent that would best describe landfill impacts to groundwater and surface water. It is a good tracer because it does not readily adsorb in a groundwater system. RI data show all other constituents of gross correlate well with the chloride in groundwater, except for nitrate which is also being contributed by other sources in the area including cattle and fertilizers.

The approximate extent of groundwater exceeding state standards is the area where groundwater exceeds the 250 mg/L chloride concentration (see Figure 6). Groundwater adjoining the upper reaches of the drainage ditch is impacted by the discharge from spring 3cbd-1.



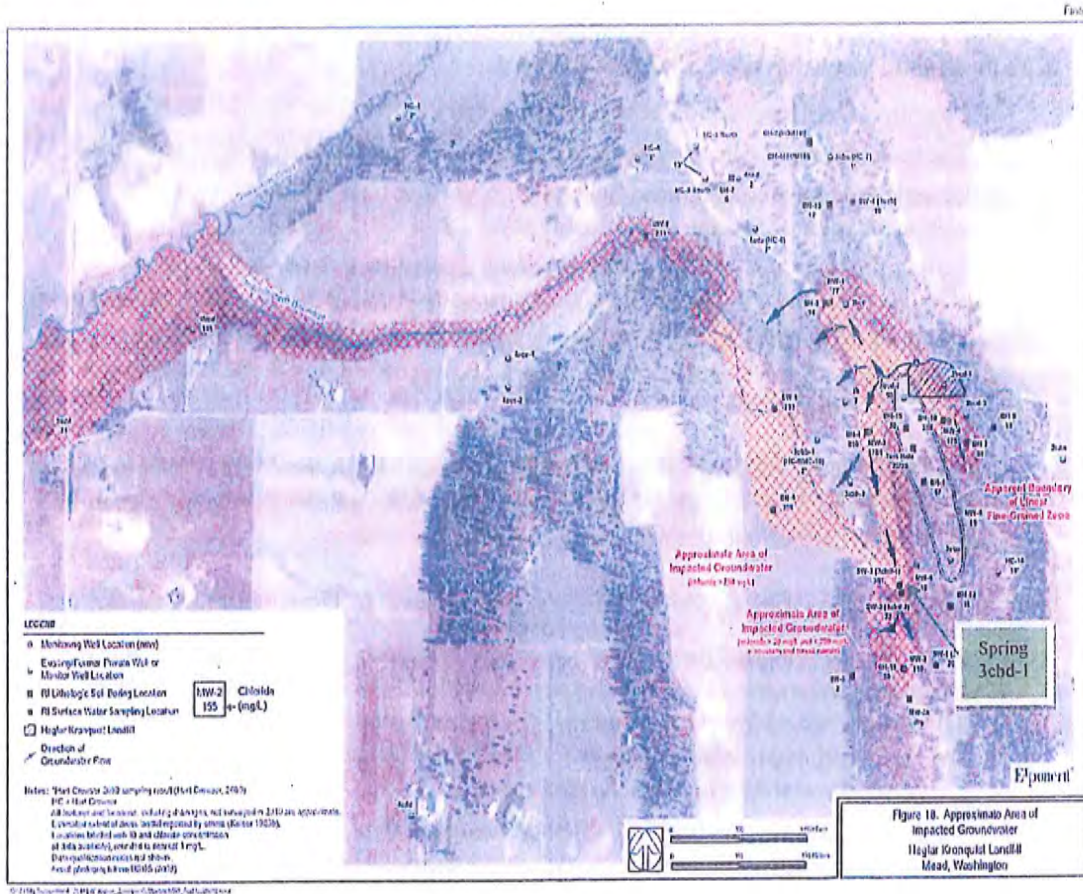


FIGURE 6. APROXIMATE EXTENT OF IMPACTED GROUNDWATER (the yellow area is where the chloride concentrations exceed the cleanup level of 250 mg/L)

**3.3 Air**

Air concentrations of contaminants measured during the RI were below cleanup levels.

**3.4 Current and Potential Pathways of Exposure**

Under current conditions of the capped landfill, the potential exposure pathways for dross-related contaminants are: human exposure related to the ingestion of contaminated shallow groundwater; and, human incidental ingestion of the contaminated spring water.

#### 4.0 CLEANUP STANDARDS

MTCA cleanup standards consist of the following:

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

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

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

MTCA provides three options for establishing cleanup levels. These options include:

- Method A is designed for simple cleanups at smaller sites involving only a few hazardous substances. Method A provides tables of cleanup levels for selected substances. The Method A cleanup level for a substance must be at least as stringent as the concentration in the Method A table and the concentrations established under applicable state or federal laws.
- Method B cleanup levels are established using applicable state and federal laws and the risk assessment equations, and other requirements specified for each medium. Method B may be used at any site and is the most common method for setting cleanup levels when sites are contaminated with substances not listed under Method A.
- Method C is similar to Method B. Method C cleanup levels are based on less stringent exposure assumptions and ten times higher individual and total cancer risks for the substances on a site.

Under MTCA, in cases where cleanup levels are below the natural background or below levels that can be reliably measured, the cleanup levels shall be established at a concentration equal to the natural background or the practical quantitation limit.

Based on discussions presented in Section 3, cleanup standards are developed for nitrate and chloride in groundwater and surface water.

#### 4.1 Groundwater Cleanup Levels

The Method A tables do not provide cleanup levels for chloride and nitrate. Therefore Method B is the most appropriate based on a drinking water beneficial use. Method B cleanup levels shall be at least as stringent as all of the following:

- Applicable state and federal laws (Federal maximum contaminant levels (MCLs), Maximum contaminant level goals (MCLG) for noncarcinogens, State maximum contaminant goals.)
- Protection of surface water beneficial uses unless it can be demonstrated the hazardous substances are not likely to reach surface water.
- Method B equations for hazardous substances for which sufficiently protective health-based criteria or standards have not been established under applicable state and federal laws.

If the most stringent level is below the background concentration, the cleanup level will be set at the background. The table below presents the applicable groundwater criteria and the final groundwater Method B cleanup level for chloride and nitrate.

Groundwater Cleanup Level Criteria/Method B Cleanup Levels

Substance	ARARs		Protection of drainage surface water <sup>a</sup>	Method B Equation		Background	Groundwater Method B Cleanup Level
	MCL	SMCL		Carcinogen	Non-carcinogen		
chloride	NA	250	250	NA	NA	20	250
nitrate	10	NA	10	NA	NA	14.4	14.4

NA – Not available  
<sup>a</sup> This seasonal intermittent drainage ditch does not support aquatic life. Surface water standards are set on protection of groundwater.

#### 4.2 Surface Water Cleanup Levels

Surface water impacted by dross substances (nitrate and chloride) is in a drainage ditch where groundwater coming out as springs discharges. This drainage ditch does not support aquatic life. The ecological assessment conducted in the RI showed chloride concentrations do not result in unacceptable exposure to ecological receptors at and in the vicinity of the Site. Therefore surface water cleanup levels are being set on the protection of groundwater surrounding the drainage.

Method B cleanup levels are also appropriate for surface water. Since surface water cleanup levels are based on the protection of groundwater, the cleanup levels for surface water will be same as those for groundwater. These levels are indicated in the table below.

Surface Water Method B Cleanup Levels

Substance	Method B Cleanup Level, mg/L
chloride	250
nitrate	14.4

#### 4.3 Points of Compliance

For groundwater, the standard point of compliance is throughout the Site. For surface water, the point of compliance is the point or points at which hazardous substances are released to surface water of the state. For this Site, the spring discharging to the drainage ditch is the point of compliance for surface water.

## 5.0 PROPOSED CLEANUP ALTERNATIVES

### 5.1 Cleanup Action Objectives

The primary objective is to eliminate the leaching of dross constituents to groundwater that result in concentrations of nitrate and chloride exceeding state standards in shallow groundwater.

The other cleanup action objective for the Heglar Kronquist Site is to prevent the dermal contact and ingestion of shallow groundwater and surface/drainage water with nitrate and chloride concentrations exceeding the state standards.

### 5.2 Summary of FS Cleanup Alternatives

The FS evaluated remedial technologies applicable to the Site. Based on criteria identified under MTCA, an initial screening was conducted in the FS Report that eliminated technologies not applicable to the Site. Two remedial alternatives were determined as applicable to the Site.

- Alternative 1 – Waste Removal, Off-site Disposal, Dispersion/Dilution, and Compliance Monitoring
- Alternative 2 – Cap Enhancement, Institutional Controls, Dispersion/Dilution, and Compliance Monitoring

#### 5.2.1 Alternative 1

This alternative includes the following:

- Removal, by excavation, of the existing cap and approximately 55,000 cubic yards of black dross. The excavation would last for one to two years depending on the weather conditions.
- Disposal of the excavated dross at an offsite, permitted landfill. Approximately 1,860 dump truck loads of dross and 448 dump trucks loads of over-excavated soils would be transported for one to two years during removal actions. Acceptance of black dross in a permitted landfill is not guaranteed since the black dross becomes reactive when exposed to water. Most of the black dross from this location is dry and therefore unreacted. A permitted hazardous waste landfill would most likely require pre-treatment or pre-processing of the dross prior to landfilling.
- Dispersion/dilution of chloride and nitrate in shallow groundwater.

- Compliance Monitoring – This would consist of protection, performance, and confirmational monitoring as required under WAC 173-340-410. Protection monitoring would confirm human health and the environment are adequately protected during the excavation and trucking of dross and other excavation materials off-site. Performance monitoring would be conducted to confirm groundwater has attained cleanup standards. Confirmational monitoring of groundwater would confirm the long-term effectiveness of the cleanup action once cleanup standards have been attained.

#### 5.2.2 Alternative 2

This Alternative includes the following:

- Cap Enhancement – In 1984, this landfill was capped with a passive gas venting system buried in 1 ft of gravel, and covered with 2 ft of compacted clay and 2 ft of top soil vegetated with native grasses. In July 1994, test pits were excavated to evaluate this cap and 1.7 ft clay and an average of 1.5 ft of top soil were encountered. Test pits excavated during the RI did not show this description of the cap. In May 2011, rodent burrow holes were discovered across the landfill, primarily in the eastern area. In addition, one RI dross boring was moist and ammonia was detected in the gas vents. Thus, moisture is still being infiltrated through the cap over a limited area. In order to eliminate infiltration of surface water due to precipitation through the dross, the existing cap would be enhanced and the vent system would be repaired, as necessary.

Cap enhancement would include the placement of a less permeable layer, referred to as high-density polyethylene (or HDPE) that is not prone to damage by weather, and placement of a drainage layer that will act as a biological barrier and promote runoff. These added layers are expected to reduce infiltration through the cap by approximately 90 – 99 percent. The cross-section of the proposed enhanced cap design is shown in Figure 7 below. This cap design is in substantive compliance with the overall purpose of WAC 173-304 (Minimum functional standards for solid waste handling).

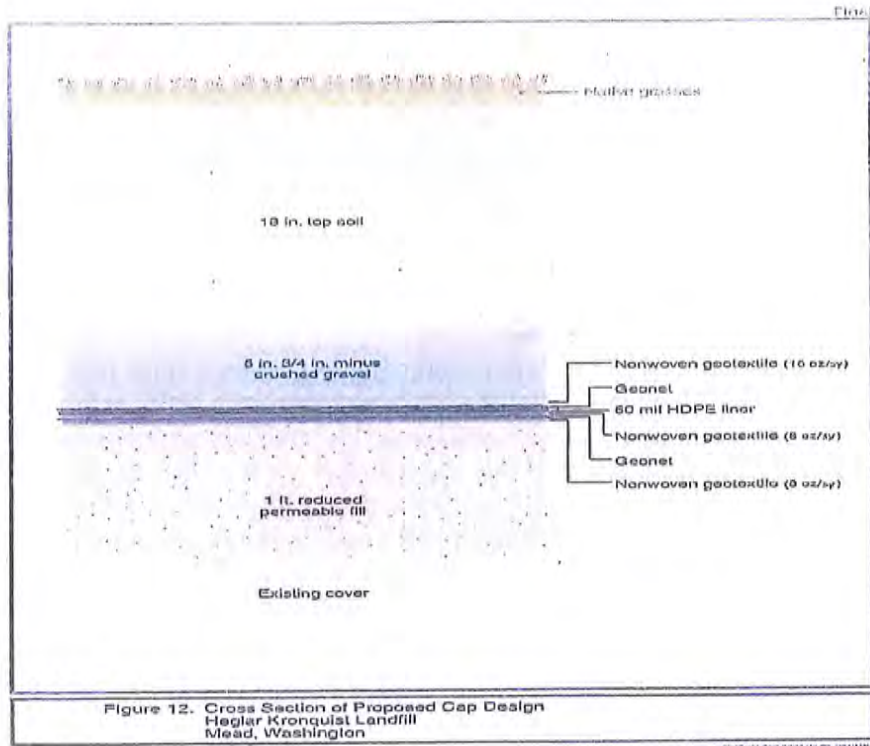


FIGURE 7. CROSS SECTION OF PROPOSED CAP

The existing landfill surface would be graded to a minimum 4 percent grade on the surface from the eastern area of the landfill. After grading, a multi-layer geosynthetic liner system would be placed over the prepared surface followed by a drainage layer. The drainage layer, which would also retard rodent burrowing activity, would consist of a geocomposite layer placed on top of the HDPE, and a 6-in layer of crushed gravel. This geocomposite layer would also protect the HDPE against damage from the crushed gravel.

The geosynthetic layer will extend 5 to 10 feet beyond the identified cross boundary and will be terminated in an anchor trench. The final FS Report presents conceptual designs of the anchor trenches to be used. The existing ditches and swales would be moved away from the landfill on the east and north sides to allow placement of the liner anchor on the landfill side of the ditches and swales. The details of this cap will be presented in an Engineering Design and Construction Plans and Specifications report, prior to construction. The gas vent system will also be repaired, as necessary.

- Dispersion/dilution of chloride and nitrate in shallow groundwater.
- Institutional Controls - These controls would include the inspection and maintenance of the cap system, signage, fencing, and use restrictions for the property. A prohibition on groundwater use will not be needed because this prohibition is published in WAC 173-160-171 with a minimum setback distance for installing new water wells, other than for public water supply, of 1000 ft from the landfill boundary. An environmental covenant would be recorded as part of the landfill property deed to warn future property owners of the condition and to restrict activities or use of the property that could result in compromising the enhanced cap. Cap maintenance and monitoring requirements, including inspections would be documented in a plan.
- Compliance Monitoring - This will consist of protection monitoring, performance monitoring, and confirmational monitoring as required under WAC 173-340-410. Protection monitoring will confirm that human health and the environment are adequately protected during installation of the enhanced cap. Performance monitoring would be conducted to confirm that groundwater has attained cleanup standards; limited air sampling for ammonia would be conducted to see if the cap is preventing the production of ammonia by reducing the infiltration of moisture through the dross. Confirmational monitoring of groundwater would confirm the long-term effectiveness of the cleanup action once cleanup standards have been attained.



## 6.0 MTCA'S SELECTION OF CLEANUP ACTIONS PROCESS

### 6.1 Minimum Requirements for Cleanup

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

- (a) Threshold requirements. The cleanup action shall:
  - (i) Protect human health and the environment;
  - (ii) Comply with cleanup standards;
  - (iii) Comply with applicable state and federal laws;
  - (iv) Provide for compliance monitoring;
- (b) Other requirements. When selecting a cleanup action alternative that fulfills the threshold requirements, the selected action shall:
  - (i) Use permanent solutions to the maximum extent practicable;
  - (ii) Provide for reasonable restoration time frame; and,
  - (iii) Consider public comments.

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

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

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

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

- (ii) **Permanence.** This is the degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated.
- (iii) **Cost.** This is the cost to implement the alternative, including the cost of construction, the net present value of any long-term costs, and agency oversight costs that are cost recoverable.
- (iv) **Effectiveness over the long term.** This includes the degree of certainty the alternative will be successful, the reliability of the alternative during the period of time hazardous substances are expected to remain on site at concentrations that exceed cleanup levels, the magnitude of residual risk with the alternative in place, and the effectiveness of controls required to manage treatment residues or remaining wastes. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: reuse or recycling; destruction or detoxification; immobilization or solidification; on-site or off-site disposal in an engineered, lined and monitored facility; on-site isolation or containment with attendant engineering controls; and institutional controls and monitoring.
- (v) **Management of short-term risks.** This includes the risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures to be taken to manage such risks.
- (vi) **Technical and administrative implementability.** This is the ability to implement the alternative including whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with existing facility operations and other current or potential remedial actions.
- (vii) **Consideration of public concerns.** This is to address the concerns of the community regarding the alternative.

### **6.3 Reasonable Restoration Time Frame**

The time required to restore the site (to achieve cleanup and other performance standards) must be considered. The regulation specifies factors that must be considered when determining whether the restoration time frame is reasonable.

#### **6.4 Expectations for Cleanup Action Alternatives [WAC 173-340-370]**

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

- (1) The department expects treatment technologies will be emphasized at sites containing liquid wastes, areas contaminated with high concentrations of hazardous substances, highly mobile materials, and/or discrete areas of hazardous substances that lend themselves to treatment.
- (2) To minimize the need for long-term management of contaminated materials, the department expects all hazardous substances will be destroyed, detoxified, and/or removed to concentrations below cleanup levels throughout sites containing small volumes of hazardous substances.
- (3) The department recognizes the need to use engineering controls, such as containment, for sites or portions of sites that contain large volumes of materials with relatively low levels of hazardous substances.
- (4) To minimize the potential for migration of hazardous substances, the department expects active measures will be taken to prevent precipitation and subsequent runoff from coming into contact with contaminated soils and waste materials.
- (5) When hazardous substances remain on-site at concentrations which exceed cleanup levels, those hazardous substances will be consolidated to the maximum extent practicable where needed to minimize the potential for direct contact and migration of hazardous substances.
- (6) For facilities adjacent to a surface water body, active measures will be taken to prevent/minimize releases to surface water via surface runoff and ground water discharges in excess of cleanup levels.
- (7) Natural attenuation may be appropriate if: source control has been conducted; leaving contaminants on-site during the restoration time frame does not pose a threat to human health and the environment; there is evidence natural biodegradation or chemical degradation is occurring and will continue to occur at a reasonable rate; and, appropriate monitoring requirements are conducted to ensure natural attenuation is occurring.
- (8) Cleanup actions will not result in a significantly greater overall threat to human health and the environment.

#### **6.5 Protection After Cleanup**

MTCA also provides the following protection after cleanup when hazardous materials remain on Site:

- **Institutional Controls.** Institutional controls are measures undertaken to limit or prohibit activities that interfere with the integrity of a cleanup action or that may result in exposure to hazardous substances at a site. Institutional controls would also include an environmental covenant to be recorded as part of the property deed to warn future owners of the condition and to restrict activities or use of the property that could result in exposure to the contamination.

- **Financial Assurance.** Sites using engineered containment systems may be required to post a bond or other financial instrument to guarantee the containment system is maintained as long as the contamination is present at the Site.
- **Confirmational Monitoring.** Monitoring must be conducted at each site to confirm the long-term effectiveness of the cleanup action once cleanup standards and other performance standards have been attained.
- **Periodic Review.** Where institutional controls or financial assurances are required, Ecology will conduct a review of the site every five years to ensure the continued protection of human health and the environment. Ecology will also publish a notice of any periodic review in the Site Register and provide an opportunity for public review and comment.

## **7.0 EVALUATION AND COMPARISON OF ALTERNATIVES**

This section provides Ecology's evaluation and comparison of alternatives used to select the cleanup action for the Site that will meet the intent of MTCA.

### **7.1 Threshold Requirements**

#### **Protect human health and the environment**

Both Alternative 1 and Alternative 2 are effective in protecting human health and the environment. In both Alternatives, the leaching of the dross constituents in the landfill would be reduced to protect the groundwater and eventually, surface water. Alternative 1 would remove the dross that is the source of the constituents leaching to groundwater while Alternative 2 would use a cap to prevent infiltration of precipitation through the dross that causes the leaching to groundwater.

#### **Comply with cleanup standards**

Both alternatives would result in groundwater meeting cleanup standards. Alternative 1 would result in groundwater and surface water meeting cleanup standards and is expected to recover within 2-5 years after the dross is removed. However, the recovery time under Alternative 1 is contingent on how much increased additional leaching of dross constituents occurs during the excavation activities. If the cap under Alternative 2 is proven effective, the quality of groundwater and surface water are expected to be reduced to below the cleanup levels at the points of compliance within 2 – 5 years following cap enhancement.

#### **Comply with Applicable State and Federal Laws**

Both alternatives would comply with the applicable and federal laws that are listed in Table 2 of the Final FS. This Table 2 is included as Exhibit B of this document.

#### **Provide for Compliance Monitoring**

Both alternatives would provide for compliance monitoring as described under WAC 173-340-410.

### **7.2 Other Requirements**

#### **Use permanent solutions to the maximum extent practicable**

A disproportionate cost analysis is required in order to select the most practicable permanent solution is protective of human health and the environment using the following criteria:

- Protectiveness

Both Alternatives provide adequate protection of human health and the environment. Alternative 1 would remove the dross which is the source of leaching to groundwater. Alternative 2 would prevent leaching of contaminants to groundwater through capping. In both alternatives groundwater cleanup levels would be attained through dispersion/dilution once the leaching is addressed. Alternative 1 would involve the disposal of the dross in another landfill where it may cause further problems if not controlled; because of this, the protectiveness of Alternative 2 is slightly higher than Alternative 1. However, institutional controls and other protection requirements would be critical to Alternative 2 to assure the continued integrity of the cap and the remedy.

The overall protectiveness of Alternative 1 is also slightly less than that of Alternative 2 because of the short-term exposure to gases and other short term issues like disturbances to local roadways, noise, dust, increased leaching to groundwater during removal and handling, and the potential for worsened long-term exposure at a new landfill location if the waste is not completely neutralized.

- Permanence

Alternative 1 is a permanent remedy. It reduces the mobility, and volume of the dross at the Site through removal; however, this involves the disposal of the dross to an approved landfill where the materials would have to be managed properly.

In Alternative 2, all of the dross, controlled by a cap would remain. It is not a permanent remedy. Institutional controls and other protection requirements would be required to insure the continued protection of human health and the environment of this remedy.

- Cost

The table below shows the estimated costs for both Alternatives as presented in the Final FS Report.

Summary of Costs for Alternatives 1 and 2

Alternative 1	Cost	Alternative 2	Cost
Cover Removal, Waste Excavation, and Backfilling	\$1,769,398.00	Cap Enhancement	\$824,089.00
Offsite disposal (including pre-treatment)	\$13,895,461.00		
Engineering and Documentation	\$220,000.00	Engineering and documentation (including closure report)	\$299,500.00
Well Decommissioning	\$28,970.00	Well Decommissioning	\$28,970.00
		20-year Maintenance (including 5-year reviews) [20 years is based on the post-closure time frame under WAC 173-304. However, inspections and maintenance will continue after this time frame as long as the dross remains in the landfill.]	\$130,000.00
		Restrictive Covenant	\$10,000.00
Compliance Monitoring – Groundwater and Surface Water (5 years)	\$147,598	Compliance Monitoring – Groundwater and Surface Water (5 years)	\$167,175.00
TOTAL COST	\$16,071,427.00 (\$20,089,284 with 25% contingency)		\$1,509,734.00 (\$1,887,167 with 25% contingency) [Based on 20 years of maintenance and 5 years of monitoring. Maintenance will continue after the 20 years and additional limited compliance monitoring may continue after the 5 years]

Alternative 2 includes maintenance costs while Alternative 1 does not. These cost details are found in the Final FS Report.

- Effectiveness over the long term

Alternative 1 provides the highest degree of long-term effectiveness and permanence. However, this alternative would also employ a waste landfill to manage the dross excavated from this Site. Alternative 2 would rely on a cap to control infiltration.

Landfill capping has been proven to be a reliable technology if it is properly maintained. This alternative would rely on institutional controls and other requirements that are critical to ensure the continued effectiveness of this alternative since all of the waste remains under the cap. This would include long-term groundwater monitoring and cap maintenance requirements (mowing, revegetation, and cap repair).

- Management of short-term risks

This is a measure of the risk to human health and the environment during construction and implementation, and the effectiveness of measures would be undertaken to manage such risks

Alternative 2 would rank the highest in terms of short-term effectiveness. This alternative presents the least amount of risk to workers, the community, and the environment. Some particulate emissions from cap installation are anticipated during implementation; however, the dross would not be disturbed so no dross particulates would be released. Dust control methods should easily reduce this risk. Alternative 1 would release ammonia and dross dust particles during excavation activities and during trucking of the dross to an off-site landfill; these emissions may be more difficult to control. In addition, if the landfill would require pre-processing of the dross before it will be accepted, additional ammonia and dross dusts would be emitted. The excavation of the dross would involve the potential of additional leaching of dross materials to groundwater as a result of infiltration of surface water through the dross during removal activities. Other short-term risks that would be associated with Alternative 1 include truck traffic through the narrow roads to transport the dross off-site. There will be limited truck traffic for Alternative 2 but only for a much shorter time in order to haul the capping materials to the Site. Both alternatives will involve some noise. Controls for short-term risks under Alternative 1 would be more difficult to carry out than those under Alternative 2.

The time required to achieve short-term protection would be faster for Alternative 2. It is anticipated that only about 6 months would be required to install a new cap. Alternative 1 would require, depending on the weather, up to two years, before all dross materials will be removed and transported off-Site.

- Technical and administrative implementability

Alternative 2 would be easier and the simplest to implement than Alternative 1 as engineering services and cap materials are readily available. Alternative 1 would be more difficult to implement because of the short-term risks associated with the excavation and off-site trucking and disposal of the dross materials. In addition, there is the uncertainty of whether the materials would be accepted by a permitted landfill. Landfill acceptance and pre-treatment requirements would be determined upon initial testing of the excavated dross. Cost estimates that included pre-treatment were based on the assumption that the dross would be accepted.



• Consideration of public concerns

This DCAP will be made available for public comment.  
 A summary of the above disproportionate cost analysis is summarized in the table below:

Summary of Disproportionate Cost Analysis  
 Ranking: 1 (Low) – 5 (High)

Criteria	Alternative 1	Alternative 2
Protectiveness	Leaching of dross constituents to groundwater would be eliminated. Dross materials would be sent to a landfill where it may cause further problems if not controlled. Cleanup levels are expected to be met in 2 to 5 years; however, additional leaching that may occur during the excavation may increase the length of time to attain cleanup levels. <b>Ranking: 4</b>	Enhanced cap would prevent leaching of contaminants to groundwater; dross materials will remain in place. Cleanup levels are expected to be met in 2 to 5 years but may be faster than Alternative 1 since there will be no additional leaching expected to occur. Institutional controls would be required for continued protectiveness. <b>Ranking: 5</b>
Permanence	Permanent solution since the dross would be removed. <b>Ranking: 5</b>	Not a permanent action. The dross would be left in place; institutional controls and other protection requirements would be required. <b>Ranking: 1</b>
Cost	The cost for Alternative 1 would be \$20,089,284. <b>Ranking: 1</b>	The cost for Alternative 2 would be \$1,887,167. <b>Ranking: 5</b>
Effectiveness over the long term (Degree of certainty that the alternative will be successful)	Provides the greatest certainty as the dross would be removed from the Site. <b>Ranking: 5</b>	Certainty of reliability would be dependent on the long-term maintenance to maintain the integrity of the cap. <b>Ranking: 4</b>
Management of short-term risks	Short-term risks include: truck traffic as large quantities of dross materials are hauled off-site and potential increases in vehicular accidents; noise; ammonia vapor and dust emissions during excavation and possibly during transport; and, increased leaching of dross constituents to groundwater once the current cap is removed in preparation for excavation. <b>Ranking: 1</b>	Short-term risks include: truck traffic to haul capping materials to the Site, dust emission during grading, and noise. <b>Ranking: 5</b>
Technical and Administrative Implementability	Removal project may take one to two years depending on weather conditions. Not very implementable; landfills may not readily accept dross materials and landfills may require the pre-treatment or pre-handling of dross materials before being accepted. There is no available space at the Site for pre-treatment or pre-processing of dross prior to being transported off-site and additional short term risks like dusts, noise, and ammonia vapor emissions are likely to be emitted during pre-treatment or pre-processing. Controls for the short-term risks would be difficult to carry out. <b>Ranking: 3</b>	Capping of landfill has been proven to be a reliable technology if properly designed and maintained. Project can be completed in less than a year (i.e., during spring and summer months) Very implementable. Controls for short-term risks easier to implement. <b>Ranking: 5</b>
Consideration of Public Concerns	This would not address the desire of some members of the community to have the materials removed. <b>Ranking: 3</b>	This would address the concerns that some residents close to the Site have on the short-term risks that will result if Alternative 1 is implemented. <b>Ranking: 3</b>
Average Ranking	3.1	4.0

The disproportionate cost analysis shows that the alternative that is permanent to the maximum extent practicable is Alternative 2.

**Provide for reasonable restoration time frame**

Both alternatives provide for a reasonable restoration time frame. Groundwater cleanup levels are expected to be attained in 2 to 5 years after implementation of the cleanup actions.

**Consider public comments**

The draft FS Report was made available for public review and comment. This DCAP will be made available for public review and comment prior to finalization.

**7.3 Threshold Requirements/Other Criteria Evaluation Summary**

	Alternative 1 Waste Removal, Offsite Disposal, Groundwater Dispersion/Dilution, and Compliance Monitoring	Alternative 2 Cap, Enhancement, Institutional Controls, Groundwater Dispersion/Dilution, and Compliance Monitoring
<b>Threshold Criteria</b> <ul style="list-style-type: none"> <li>• Protect Human Health and the Environment</li> <li>• Comply with Cleanup Standards</li> <li>• Comply with Applicable State and Federal Laws</li> <li>• Provide for Compliance Monitoring</li> </ul>	<p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p>	<p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p>
<b>Other Requirements</b> <ul style="list-style-type: none"> <li>• Permanent to the Maximum Extent Practicable</li> <li>• Reasonable Restoration Time Frame</li> <li>• Consider Public Concerns</li> </ul>	<p style="text-align: center;">Permanent</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p>	<p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p>

## 8.0 SITE CLEANUP ACTION

### 8.1 Selected Cleanup Action

Both Alternative 1 and Alternative 2 meet all the MTCA threshold criteria. Both alternatives would provide for a reasonable restoration time frame and would also consider public concerns.

The disproportionate cost analysis in Section 7 showed that Alternative 2 is "permanent to the maximum extent practicable". The analysis showed that:

- Controls of short-term risks resulting from the implementation of Alternative 1, which may take up to two years to implement, would be difficult to carry out. Short-term risks associated with Alternative 2 would be much more easily managed and would occur over a shorter period of time.
- The implementation of Alternative 1 would be very heavily dependent on whether a landfill will accept the dross and what pre-treatment or pre-processing would be required. Pre-treatment of the dross would require an area at or near the Site where additional dust and vapor from the dross being processed would also be emitted. Alternative 2 is easier to implement; landfill caps have been shown to be a proven to be a reliable technology if properly designed and maintained.
- The cost of Alternative 1 is very high compared to that of Alternative 2.
- Alternative 1 is a permanent solution but the dross would have to be managed at a permitted landfill. The dross will remain on Site under Alternative 2; however, available controls can be implemented or instituted to ensure the continued protection of the remedy.

In addition, the discussions in the previous section show the two alternatives provide almost the same environmental protection and benefits since both alternatives would reduce the leaching of dross contaminants to groundwater. However, WAC 173-340-360(3)(e)(ii) (c) provides that where two or more alternatives are equal in benefits, the department shall select the less costly alternative provided that all minimum requirements for cleanup actions are met.

**Therefore, Ecology's selected action for the Heglar Kronquist Site is Alternative 2, as proposed in the Final FS Report, plus all the protection requirements under MTCA to ensure that this remedy would remain protective.**

This selected action will include the following elements:

- Cap enhancement – The enhanced cap is described in the final FS Report and Section 5.2.2 of this Cleanup Action Plan. This multi-layered cap would include a less permeable layer (high-density polyethylene or HDPE), a drainage layer will act as a biological barrier and promote runoff, and 18 inches top soil that would be vegetated with natural grasses at the surface. This would also include modifications to the existing drainage ditches and swales. An **Engineering Design Report**, and a **Construction Plans and Specifications Report** would describe the cap enhancement work in detail.
- Dispersion/Dilution in Groundwater – Following construction of the enhanced cap that would prevent infiltration of surface water and subsequent leaching of dross contaminants to groundwater, the groundwater contaminants – chloride and nitrate – are expected to attenuate via dilution and dispersion to levels below the cleanup criteria.
- Compliance Monitoring –
  - Protection Monitoring – Monitoring during installation would be conducted to confirm human health and the environment are adequately protected during the cap enhancement and would be described in a **Health and Safety Plan**.
  - Performance Monitoring – Monitoring of groundwater would be performed on identified compliance monitoring wells to confirm the cleanup action is performing as expected and groundwater cleanup levels will or have been attained. After the installation of the enhanced cap, limited air sampling for ammonia will be conducted to confirm ammonia production in the dross has declined due to the reduction or absence of moisture under the cap. This monitoring would be described in a **Compliance Monitoring Plan**.
  - Confirmational monitoring – This is to confirm the long-term effectiveness of the cleanup action, once cleanup levels are attained. This continued monitoring would be determined during periodic reviews or as conditions dictate at the Site.
- Institutional Controls - These are critical measures that would be undertaken to limit or prohibit activities in order to assure the continued effectiveness of the cleanup action. These will include:
  - (a) Fencing around the landfill property.

(b) Restrictions to limit use of the property. This would be in the form of an Environmental Covenant that must be recorded as part of the property deed to warn future owners of the condition of the Site and to restrict activities that will result in compromising the integrity of the cap. Restriction on the use of groundwater near the vicinity of the Site is not necessary because WAC 173-160-171 prohibits installation of new water wells, other than for public water supply, within 1,000 ft from the landfill property. This 1,000-ft setback area from the landfill property is shown in Exhibit C. The landfill property is determined to be Parcel 1 as described in Appendix A.

(c) Maintenance requirements for the cap including inspections and maintenance of the cap, and maintenance of compliance monitoring wells.

(d) Signage.

(e) Financial assurance. A bond, financial test, or other financial instrument to guarantee the cap is maintained as long as the dross remains on site will be required.

All these controls will be described in an **Institutional Controls Plan**.

- **Periodic Review**

Ecology will conduct a review of the Site every five years to ensure the continued protection of human health and the environment. If the cap system is not proven to be effective during a review, other remedial options including the dross removal and off-site disposal will be revisited.

## **8.2 Evaluation of the Cleanup Action with Respect to MTCA Criteria**

### **8.2.1 Threshold Requirements**

#### Protect human health and the environment

The selected cleanup action is protective of human health and the environment. The institutional controls, along with the periodic review, would ensure continued effectiveness of the cleanup action.

#### Comply with cleanup standards

Groundwater cleanup levels are expected to attain cleanup levels within 2 to 5 years.

#### Comply with applicable state and federal law

The selected cleanup action would comply with the ARARs identified under Alternative 2 in Appendix B.

#### Provide for compliance monitoring

The selected cleanup action would provide for compliance monitoring.

### 8.2.2 Other Requirements

#### Use permanent solutions to the maximum extent practicable

The selected cleanup action is permanent to the maximum extent practicable.

#### Provide for reasonable restoration time frame

The selected cleanup action provides for a restoration time frame. Groundwater cleanup levels are expected to be attained within 2 to 5 years.

#### Consider public concerns

Public concerns on the selected remedy will be addressed during the public review and comment period for the DCAP.

### 8.2.3 Expectations for Cleanup Action Alternatives

The selected cleanup action involves containment in the form of the landfill cap.

## 8.3 Implementation Schedule

The implementation schedule for the cleanup actions has not been determined at this time. This DCAP will be made available for public review and comment. Ecology will then issue a FCAP after public comments are addressed. The next step would be Kaiser and Ecology starting negotiations leading to a legal document (Consent Decree or Agreed Order) that will require implementation of the cleanup actions.

Submittal of the following documents for Ecology's review and approval will be required in accordance with the negotiated schedule in the Consent Decree or Agreed Order:

**Engineering Design Report**

**Compliance Monitoring Plan**

**Institutional Control Plan**

**Health and Safety Plan**

The **Construction Plans and Specifications, and the Operation and Maintenance Plan** will be submitted according to a schedule approved in the final Engineering Design Report. Implementation of this cleanup action is expected in 2013. A cleanup action report will be submitted no later than 3 months after completion of the cleanup action.

### 10.0 REFERENCES

Exponent, September 9, 2011, Final Remedial Investigation Report, Heglar Kronquist Landfill, Mead, Washington.

Exponent, May 2012, Final Feasibility Study Report, Heglar Kronquist Site, Mead, Washington.

## **APPENDIX A**

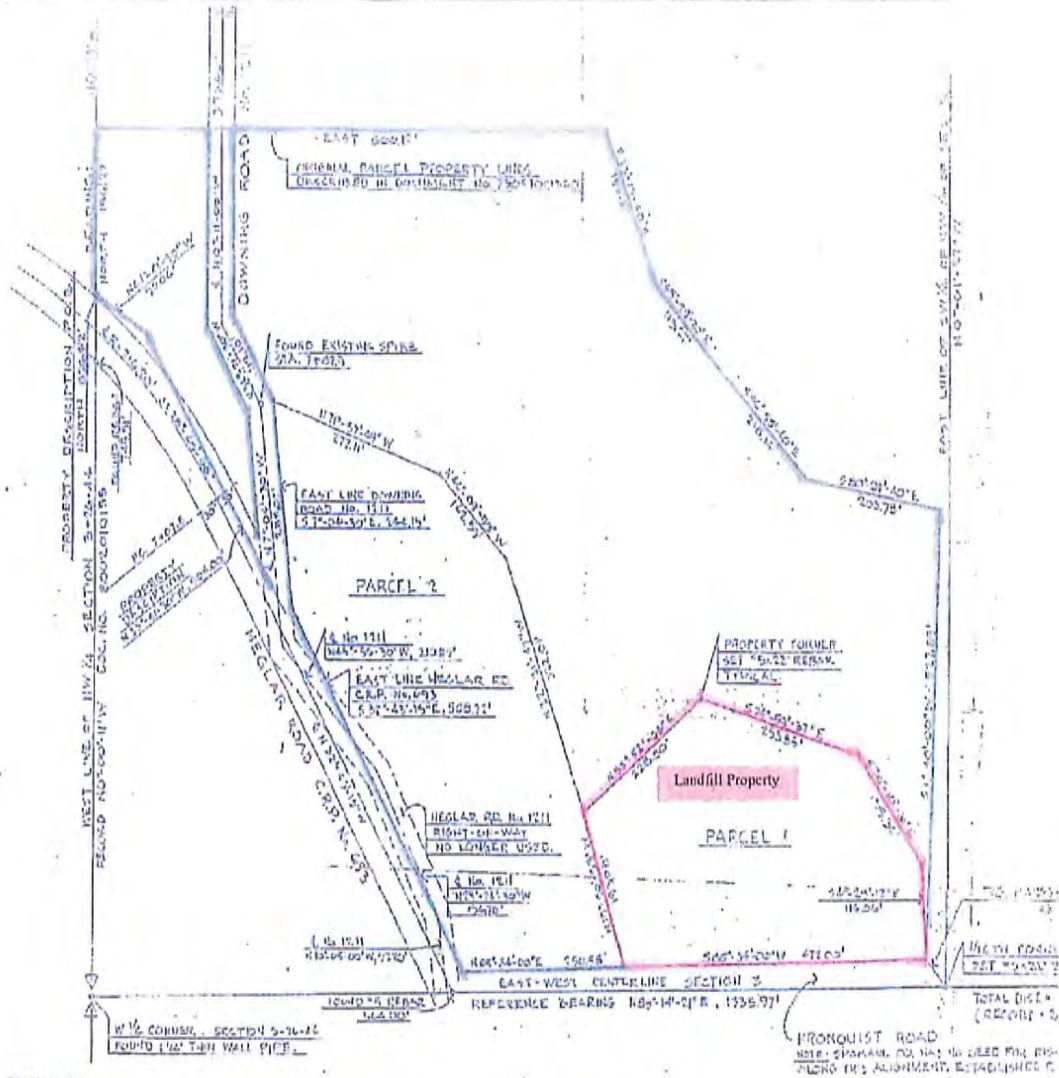
### **STATUTORY WARRANTY DEEDS (LANDFILL PROPERTY AND ADJACENT PROPERTIES)**



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**DESCRIPTIONS:**

THE POINTS OF THE CORNER OF THE NORTHWEST QUARTER OF SECTION 3, TOWNSHIP 26 NORTH, RANGE 45 EAST OF THE ATLANTIC MERIDIAN IN SPokane COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

**PARCEL 1:** Commencing at the Southeast Corner of the SW 1/4 of the NW 1/4 of Section 3, T 26 N, R 45 E, S 1/4; thence S 42°-31'-25" E, 43.65 ft to the True Point of Beginning; thence S 89°-34'-26" W, 193.00 ft; thence S 09°-24'-26" W, 193.00 ft; thence S 89°-34'-26" W, 193.00 ft; thence S 42°-31'-25" E, 43.65 ft to the True Point of Beginning.

**PARCEL 2:** Commencing at the Southeast Corner of the SW 1/4 of the NW 1/4 of Section 3, T 26 N, R 45 E, S 1/4; thence S 42°-31'-25" E, 43.65 ft to the Southeast Property Corner of the Parcel described in Spokane County Auditor's Document No. 192810103; thence S 09°-24'-26" W, 193.00 ft; thence S 89°-34'-26" W, 193.00 ft; thence S 42°-31'-25" E, 43.65 ft to the True Point of Beginning.

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3	193.00
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96	43.65
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99	193.00
100	43.65

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**PIONEER NATIONAL TITLE INSURANCE**  
AT THE COMPANY'S REQUEST  
 Filed for Record at Request of

TO ROBERT A. DUNN  
WINSTON & CASHATT  
SeaFirst Fin. Ctr.  
Spokane, WA 99201

P  
Do  
C-198843

**PIONEER NATIONAL TITLE INSURANCE**  
THIS SPACE RESERVED FOR RECORD'S USE

D  
 Pioneer Title Company  
of Washington

AUG 2 2 45 PM '84

W. LAM L. ODENSE  
 AUDITOR  
 SPOKANE COUNTY, WASH.

\$7.00

VOL. 1211 AGE 1800

Form L88

### Statutory Warranty Deed

THE GRANTORS ROBERT G. LAMON and GLORYA LAMON, husband and wife,

for and in consideration of Good and valuable consideration

in hand paid, conveys and warrants to KAISER ALUMINUM & CHEMICAL CORPORATION

the following described real estate, situated in the County of Spokane, State of Washington:

That portion of the southeast quarter of the southwest quarter of Section 3, Township 26 North, Range 44 East of the Willamette Meridian in Spokane County, Washington, described as commencing at Southeast Corner of the SE 1/4 of the SW 1/4 of the NW 1/4 of Section 3, Township 26 North, Range 44 East of the Willamette Meridian; thence North 42°33'25" West, 43.68 feet to the TRUE POINT OF BEGINNING and the Southeasterly Property Corner of the Parcel described in Spokane County Auditor's Document No. 7305100360; thence South 88°34'00" West, along the South line of the Parcel described in said document, 472.00 feet; thence North 19°50'53" West, 193.08 feet; thence North 53°52'03" East, 228.80 feet; thence South 74°59'37" East, 283.85 feet; thence South 38°10'31" East, 159.36 feet; thence South 4°29'12" East, 114.06 feet to the True Point of Beginning. Contains: 2.89 Acres More or Less.

SUBJECT TO: 1) Terms and Conditions of Agreement dated November 1983, executed between grantors and grantees and others; 2) Exception set forth in Pioneer National Title Insurance Company's Preliminary Commitment for Title Insurance No. C-145410.

9100011507  
 House Tax Paid on  
 Sale Ass. Pd. 4/98  
 O.E. "MSP" CHAMBERG  
 Spokane County Trust  
 By [Signature] 8/2/91

Dated this 15<sup>th</sup> day of March, 1984.

[Signature] (exec)  
 ROBERT G. LAMON  
[Signature] (exec)  
 GLORYA LAMON

STATE OF WASHINGTON, }  
 County of Spokane }

On this day personal appeared before me ROBERT G. LAMON and GLORYA LAMON, husband and wife, to me known to be the persons described in and who executed the within and foregoing instrument, and acknowledged that they executed the same as their free and voluntary act and deed, for the uses and purposes therein expressed.

GIVEN under my hand and seal this 15<sup>th</sup> day of March, 1984.

[Signature]  
 Notary Public in and for the State of Washington,  
 City of Spokane.



116152.1A 12  
 9108020291  
 THIS SPACE PROVIDED FOR RECORDER'S USE  
 Planned Title Company  
 205 2 45 PM '91  
 1219  
 113  
 198843

Filed for Record at Request of  
 When Recorded Return to:  
 NAME: J. J. WILLIAMS, JR.  
 WILSON & CASWELL  
 ADDRESS: 19th Floor - Seattle Building  
 CITY STATE ZIP: Spokane, WA 99201

Planned Title Company  
 205 2 45 PM '91  
 1219  
 113

STATUTORY WARRANTY DEED (DI 1211 PAGE 1807)  
 THE GRANTORS ROBERT G. LAMON and GLORIA LAMON, husband and wife,  
 for and in consideration of Ten Dollars and no/100 (\$10.00) and other valuable consideration  
 in hand paid, convey and warrants to RAISER ALUMINUM AND CHEMICAL CORPORATION, a Delaware  
 corporation,  
 the following described real estate, situated in the County of Spokane, State of Washington:  
 See Attached Exhibit "A" which being attached hereto becomes a part hereof.  
 SUBJECT TO: Easements, covenants and restrictions of record as shown on attached Exhibit "B", which being attached hereto, becomes a part hereof.

9100011475  
 Excise Tax Paid on  
 Sale Amt. Pd. 355.34  
 D.E. "SKIP" CHILBERG  
 Spokane County Treas.  
 By [Signature] 8/30/91

Planned Title Company  
 of Wash. Inc.  
 1:30 PM 8/27 PM '91  
 WAHUE  
 SPOKANE COUNTY, WASH.  
 9100011395  
 Excise Tax Paid on  
 Sale Amt. Pd. 200.74  
 D.E. "SKIP" CHILBERG  
 Spokane County Treas.  
 By [Signature] 8/30/91

Dated July 18 91  
 ROBERT G. LAMON  
 GLORIA LAMON

By \_\_\_\_\_  
 By \_\_\_\_\_

STATE OF WASHINGTON }  
 COUNTY OF SPOKANE }

STATE OF WASHINGTON }  
 COUNTY OF \_\_\_\_\_ }

On this day personally appeared before me  
 Robert G. Lamon and Gloria Lamon,  
 Husband and wife  
 to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that  
 they  
 signed the same as their  
 free and voluntary act and deed, for the uses and purposes therein  
 mentioned.

On this day of \_\_\_\_\_ 19\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared \_\_\_\_\_  
 and \_\_\_\_\_  
 to me known to be the \_\_\_\_\_  
 and \_\_\_\_\_  
 Secretary, respectively of \_\_\_\_\_  
 the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned and on oath stated that \_\_\_\_\_  
 authorized to execute the said instrument and that the seal affixed is the corporate seal of said corporation.

Given under my hand and official seal this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_.  
 [Notary Seal]  
 Notary Public in and for the State of Washington

Witness my hand and official seal hereunto affixed this day and year first above written  
 Notary Public in and for the State of Washington residing at \_\_\_\_\_



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EXHIBIT "A"

That portion of the Southwest quarter of the Northwest quarter of Section 3, Township 26 North, Range 44 East, W.M., in Spokane County, Washington, which is bounded by a line described as follows:

Beginning at the Southwest corner of said Southwest quarter of the Northwest quarter of said Section 3; thence North along the West boundary of said Southwest quarter of the Northwest quarter, 826.62 feet to the true point of beginning; thence North, 196.37 feet; thence East, 300.12 feet; thence South  $23^{\circ}15'40''$  East, 198.81 feet; thence South  $45^{\circ}29'20''$  East, 111.27 feet; thence South  $46^{\circ}55'40''$  East, 218.14 feet; thence South  $80^{\circ}24'40''$  East, 205.73 feet; thence South  $1^{\circ}40'00''$  West, 327.39 feet; thence South  $58^{\circ}34'00''$  East, 725.55 feet; thence North  $33^{\circ}11'30''$  West, 304.00 feet; thence North  $61^{\circ}41'30''$  West, 90.06 feet to the true point of beginning,

EXCEPT that portion conveyed to Spokane County for Downing Road and other roads.

AND EXCEPT that portion deeded to Spokane County by Treasurer's Deed recorded under Auditor's File No. 8810200232.

AND EXCEPT:

That portion of the southeast quarter of the southwest quarter of Section 3, Township 26 North, Range 44 East of the Willamette Meridian in Spokane County, Washington, described as commencing at Southeast Corner of the SE  $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 3, Township 26 North, Range 44 East of the Willamette Meridian; thence North  $42^{\circ}33'25''$  West, 43.68 feet to the TRUE POINT OF BEGINNING and the Southeasterly Property Corner of the Parcel described in Spokane County Auditor's Document No. 7305100260; thence South  $88^{\circ}14'00''$  West, along the South line of the Parcel described in said Document, 472.00 feet; thence North  $19^{\circ}50'53''$  West, 193.06 feet; thence North  $53^{\circ}52'03''$  East, 228.80 feet; thence South  $74^{\circ}59'17''$  East, 253.85 feet; thence South  $38^{\circ}10'11''$  East, 159.36 feet; thence South  $4^{\circ}29'12''$  East, 114.06 feet to the True Point of Beginning.

Exhibit "B"

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1. A perpetual easement for one or more electric power transmission lines granted to the United States of America, together with the right to clear said land and to keep same clear of brush, timber, structures, and fire hazards.  
Width : 100 feet. The boundaries of said strip of land lie 50 feet distant from, on each side of, and parallel with the survey line for the Green Bluff Tap to the Bell-Trentwood Nos. 1 and 2 transmission lines, as now located and staked  
Recorded : June 18, 1964  
Auditor's No. : 26649C  
Affects : Said premises and other property

\*Copy of easement furnished upon request.

2. An easement affecting the portion of said premises and for the purposes stated herein, and incidental purposes.  
For : The right to place, construct, operate and maintain, underground communication lines, with appurtenances attached, upon, across, over and/or under that portion of Heglar Road proposed for vacation under the Spokane County Road Engineers File 1211, lying within the Southwest quarter of the Northwest quarter of Section 3. Said telephone plant is to be kept as and where the same is now located on said land now constituting part of said road. Right of full and free ingress to and egress from said property.  
In Favor of : Pacific Northwest Bell Telephone Company, a Washington corporation  
Dated : March 5, 1976  
Recorded : April 30, 1976  
Auditor's No. : 7604300017

4. Property Damage Release and Servitude  
Recorded : February 2, 1990  
Auditor's No. : 9002020131

Robert G. Lamon and Glorya Lamon, husband and wife, FULLY AND FOREVER RELEASE, ACQUIT AND DISCHARGE Kaiser Aluminum and Chemical Corporation, and KACC's subsidiaries and affiliates, from all claims or remedies on account of property damage, if any, to First Parties' property, which may presently exist or which hereafter may directly or indirectly arise or directly or indirectly accrue on account of the past, present or future continuing existence of pollutants (including all chemical constituents of dross waste material located on the property). This Agreement constitutes a permanent servitude which is and shall continue to be appurtenant to and incident to the land described.

**APPENDIX B**  
**TABLE OF ARARS**



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Table 2. Summary of ARARS—Heglar Kronquist Landfill, Mead, Washington

ARARS	Alternative 1 – Waste Removal, Offsite Disposal, Deposition, Dilution, and Compliance Monitoring	Alternative 2 – Cap Enhancement, Infill, Control, Dispersal, Dilution, and Compliance Monitoring	Comments
<b>Local Laws</b>			
SCC Title 3, Section 3.10.020 Grading	X	X	Grading activities must comply with this ordinance.
SCC Title 6, Chapter 6.12 Noise Disturbances	Possible	Possible	Work activities must comply with this ordinance. May be needed, depending on work activities, work area and distance to residential properties.
SCC Title 8 Health and Sanitation	X	Not applicable	Waste disposal must comply with this ordinance.
SCC Title 9, Chapter 9.40 Encroachments and Work Within Public Right-of-Way	Possible	Possible	May be needed, depending on location of the work area.
SCC Title 4B Motor Vehicles	X	X	Use of motor vehicles, such as size, weight, and load, must comply with this ordinance.
<b>State Laws</b>			
WAC 173-340 MTCA – Cleanup Regulation	X	X	The remedial action will be conducted under MTCA. Therefore, all remedial alternatives must comply with MTCA.
WAC 173-162 Regulation and Licensing of Well Contractors and Operators	X	X	As part of Alternatives 1 and 2, two monitor wells on the landfill will be decommissioned in accordance with WAC 173-162. If the monitor well network is decommissioned in the future, this decommissioning must also be in compliance with WAC 173-162.
WAC 173-303 Dangerous Waste Regulations	Not applicable	Not applicable	Black dross is not a dangerous waste, therefore, this ARAR is not applicable.
WAC 173-304 Minimum Functional Standards for Solid Waste Handling	Not applicable	Not applicable	The landfill was operated and closed prior to 1985, when the standards in WAC 173-304 were promulgated. Therefore, compliance with WAC 173-304 is not required. Rather, this work would be designed and completed in substantive compliance with the overall purpose of WAC 173-304 "to protect public health, to prevent land, air and water pollution, and conserve the state's natural, economic, and energy resources."
WAC 173-350 Solid Waste Handling Standards	X	Not applicable	As noted above, substantive compliance with the overall purpose of WAC 173-350 is not applicable, however, the standards in WAC 173-350 that were promulgated after the landfill was opened and closed are not applicable. Solid waste handling standards apply to disposal of dross for Alternative 1.

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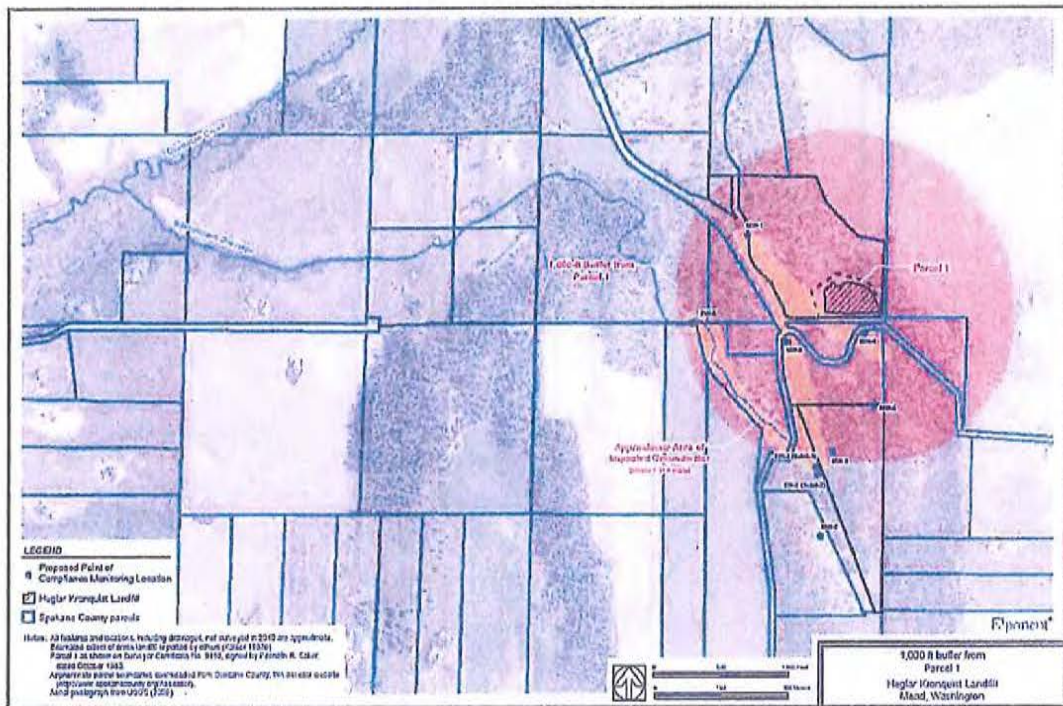
Table 2. Summary of ARARs—Heglar Kronquist Landfill, Mead, Washington

ARARs	Alternative 1 – Waste Removal, Offsite Disposal, Dispersion/ Dilution, and Compliance Monitoring	Alternative 2 – Cap Enhancement, Institutional Controls, Dispersion/ Dilution, and Compliance Monitoring	Comments
State Laws (cont.)			
WAC 197-11, WAC 173-802 State Environmental Policy Act (SEPA)	X	X	A SEPA review is required for all proposals with probable significant adverse impacts on the quality of the environment. Ecology will conduct a SEPA review during the RI/FS process.
WAC 173-201A Water Quality Standards for Surface Waters	X	X	MTCA requires that cleanup actions comply with applicable standards.
Federal Laws			
40 CFR 141 National Primary Drinking Water Regulations	X	X	MTCA requires that cleanup actions comply with applicable standards.
40 CFR 260-268 Resource Conservation and Recovery Act	Not applicable	Not applicable	Black dross is not a hazardous waste, therefore, this ARAR is not applicable.
33 USC 1251 et. Seq. Federal Water Pollution Control Act (aka Clean Water Act)	X	X	MTCA requires that cleanup actions comply with applicable standards.
40 CFR 131 National Toxics Rule	X	X	MTCA requires that cleanup actions comply with applicable standards.

Note: ARAR - applicable or relevant and appropriate requirement  
 CFR - Code of Federal Regulations  
 MTCA - Model Toxics Control Act  
 SEPA - State Environmental Policy Act  
 SCC - Spokane County Code  
 WAC - Washington Administrative Code

### APPENDIX C

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# EXHIBIT C

## SCOPE OF WORK AND SCHEDULE FOR CLEANUP ACTION HEGLAR KRONQUIST SITE

This Scope of Work is to be used by DCO Management, LLC and its consultants to develop plans and reports for the Heglar Kronquist Site. DCO Management, LLC shall furnish all personnel, materials, and services necessary for, or incidental to, preparing plans and reports, and the implementation of the Cleanup Action. Submittals of deliverables shall be prepared in accordance with WAC 173-340-840, General Submittal Requirements.

### **Task I. Engineering Design Report**

Contents of the Engineering Design Report shall be as specified in WAC 173-340-400 (4)(a). This report shall include sufficient information for the development and review of construction plans and specifications. It shall document engineering concepts and design criteria used for the design of the cleanup action.

Deliverables: Engineering Design Report – Draft  
Engineering Design Report – Final

### **Task II. Other Work Plans**

#### 1. Compliance Monitoring Plan

This plan shall describe the monitoring to be performed during construction, and during operations and maintenance to meet the requirements of WAC 173-340-410. A Sampling and Analysis Plan/Quality Assurance Procedures Plan meeting the requirements of WAC 173-340-820 shall be included.

This shall also contain data analysis and evaluation procedures (including statistical methods) that will be used to demonstrate and confirm compliance, and justification for these procedures [WAC 173-340-410(3)(b)].

#### 2. Institutional Controls Plan

This plan shall describe the measures to be undertaken to limit or prohibit activities that may interfere with the integrity of the cleanup action as required under WAC 173-340-440 and as described under Section 8.0 of the Final CAP. These will include:

- (a) Fencing around the landfill property
- (b) Restrictions to the use of the property in the form of an Environmental Covenant
- (c) Maintenance of the landfill cap and compliance monitoring wells
- (d) Signage
- (e) Financial assurances,

The Site's Environmental Covenant shall be recorded as provided for in Section XX of the Consent Decree.

Financial Assurance shall be provided per Section XXI of the Consent Decree.

### 3. Health and Safety Plan

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

Deliverables: Compliance Monitoring Plan – Draft  
 Institutional Controls Plan – Draft  
 Health and Safety Plan

Compliance Monitoring Plan – Final  
 Institutional Controls Plan – Final

## **Task III. Financial Assurance Mechanism**

### **1. Financial Assurance Cost Estimate**

Under Section XXI of the Consent Decree, a cost estimate for carrying out the terms of this decree, including operation and maintenance, and compliance monitoring shall be submitted within 60 days of Ecology's approval of the Engineering Design Report, for Ecology's review and approval.

Deliverable: Financial Assurance Cost Estimate - Draft  
 Financial Assurance Cost Estimate – Final

### **2. Financial Assurance Documentation**

Within 60 days after the Financial Assurance Cost Estimate is final (approved by Ecology), DCO Management LLC shall provide proof of financial assurance in a form acceptable to Ecology.

Deliverable: Financial Assurance Coverage

**Task IV. Construction Plans and Specifications**

This shall be prepared in conformance with currently accepted engineering practices and techniques and shall include the requirements under WAC 173-340-400(4)(b).

Deliverables: Construction Plans and Specifications – Draft  
Construction Plans and Specifications – Final

**Task V. Operations and Maintenance Plan**

This presents the technical guidance and regulatory requirements to assure effective operations under WAC 173-340-400(4)(c)(xii). This primarily shall describe procedures for inspections and maintenance of the landfill cap.

Deliverables: Operations and Maintenance Plan – Draft  
Operation and Maintenance Plan – Final

**Task VI. Implementation of the Cleanup Action**

Construction shall be conducted in accordance with the plans and specifications prepared under this Scope of Work.

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

Progress reports shall be submitted as provided under Section XI (Progress Reports).

Deliverables: Progress Reports

**Task VII. Cleanup Action Report**

At the completion of construction, A Cleanup Action Report is required. Construction documentation shall be in accordance with WAC 173-340-400(6)(b). The engineer responsible for the supervision of the construction shall prepare:

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

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

**Task VIII. Compliance Monitoring**

Compliance monitoring shall be conducted as specified in the Compliance Monitoring Plan.

Deliverables: Compliance Monitoring Reports

**Task IX. Environmental Covenant Documentation**

Under Section XX of the Consent Decree, an Environmental Covenant (Exhibit E) shall be recorded 30 days after completion of the Remedial Action. A copy of the recorded Environmental Covenant shall be provided to Ecology within 30 days of the recording date.

Deliverable: Recorded Environmental Covenant



## SCHEDULE OF DELIVERABLES

Effective Date of Consent Decree	Start
<b><u>Task I/Task II</u></b>	
Engineering Design Report – Draft Compliance Monitoring Plan - Draft Institutional Controls Plan – Draft Health and Safety Plan	60 days from <b>start</b>
Engineering Design Report – Final Compliance Monitoring Plan – Final Institutional Controls Plan – Final	60 days following receipt of Ecology’s comments
<b>Task III</b>	
Financial Assurance Cost Estimate – Draft	60 days after approval of Final Engineering Design Report or as provided for in Consent Decree Section XXI
Financial Assurance Cost Estimate – Final	60 days following receipt of Ecology’s comments
Financial Assurance Documentation	60 days after approval of Final Assurance Cost Estimate
<b><u>Task IV/Task V</u></b>	
Construction Plans and Specifications – Draft Operation and Maintenance Plan – Draft	In accordance with approved schedule in the Final Engineering Design Report
Construction Plans and Specifications – Final Operation and Maintenance Plan - Final	60 days following receipt of Ecology’s comments
<b><u>Task VI – Implementation of Cleanup Action</u></b>	
Progress reports	15 <sup>th</sup> of month following end of applicable period as provided in Consent Decree Section XI

**Task VII**

Cleanup Action Report – Draft

60 days after completion of construction

Cleanup Action Report – Final

60 days following receipt of Ecology's comments

**Task VIII**

Compliance Monitoring Reports

In accordance with the approved schedule in the Final Compliance Monitoring Plan

**Task IX**

Recorded Environmental Covenant

30 days following completion of remedial actions (copy to be submitted to Ecology within 30 days of recording), or as otherwise provided in Consent Decree Section XX

# **EXHIBIT D**

## **HEGLAR KRONQUIST SITE**

### **Amended Public Participation Plan for the Consent Decree**

Prepared by:  
Washington State Department of Ecology  
November 2012

Para asistencia en Español Richelle Perez 360/407-6971  
Если вам нужна помощь на русском, звоните Larissa Braaten 509/710-7552

## **Getting Involved in the Cleanup at the Heglar Kronquist Site**

The Washington State Department of Ecology (Ecology) encourages the public to learn about and get involved in decision-making opportunities at the Heglar Kronquist site. Several opportunities have been available during specific stages of the investigation and cleanup of contamination at the site. The site is located 10 miles northeast of downtown Spokane in a rural area near the intersection of Heglar and Kronquist Roads in Mead, Spokane County, Washington (See Appendix A – Site Map Figure 1).

The Public Participation Plan (Plan) provides an overview of the Plan and the Model Toxics Control Act (MTCA), which guides the formal cleanup process at sites in Washington State. This document also outlines:

- The purpose of the Plan.
- When public notices will occur.
- The amount of time the public has to comment.
- Where the potentially affected area is located.
- Ways the public may get involved in providing feedback.
- The site background, a community profile, and community concerns.

### **Purpose of the Plan**

The Public Participation Plan has three main purposes:

- To promote public understanding of Ecology's responsibilities, planning, and cleanup activities at the site.
- To serve as a way of gathering information from the public. This information has and will continue to assist Ecology and the potentially liable persons (PLPs) in conducting the investigation and plan for cleanup in a manner that is protective of human health and the environment.
- To inform the community living near the site, as well as the general public, about cleanup activities and how to contribute to the decision-making process.

### **Overview of the Public Participation Plan and Model Toxics Control Act (MTCA)**

The Plan is required under authority of the Model Toxics Control Act. MTCA is a "citizen-mandated" law that became effective in 1989 to provide guidelines for the cleanup of contaminated sites in Washington State. This law sets standards to make sure the cleanup of sites is protective of human health and the environment. A glossary of MTCA terms is included as Appendix C of this Plan.

Ecology's Toxics Cleanup Program investigates reports of contamination that may threaten human health and the environment. If contaminants are confirmed during an investigation, the site is generally ranked and placed on a Hazardous Sites List (HSL).

The Heglar Kronquist site ranked a two on the Hazardous Sites List. A rank of one represents the highest level of concern and five the lowest. Current and former owners or operators, as well as

any other PLPs of a site, may be held responsible for cleanup of contamination based on MTCA. The PLP identified by Ecology for this site is Kaiser Aluminum & Chemical Corporation, LLC (Kaiser). Kaiser had a name change and is now known as DCO Management (DCO). However, because the Agreed Order is under the name Kaiser, this document will use that name to identify the company.

Public participation is an important part of cleanup under the MTCA process. The participation needs are assessed at each site according to the level of public interest and degree of risk posed by contaminants. Individuals who live near the site, community groups, businesses, government, other organizations and interested parties are provided an opportunity to become involved in commenting on the cleanup process.

The Plan includes requirements for public notice such as:

- Identifying reports about the site.
- The repositories where reports may be read.
- Providing public comment periods.
- Holding public meetings or hearings.

Other forms of participation may be interviews, citizen advisory groups, questionnaires, or workshops.

### **Public Participation Grants and Technical Assistance**

Additionally, citizen groups living near contaminated sites may apply for public participation grants (during open application periods). These grants help citizens receive technical assistance in understanding the cleanup process and create additional public participation avenues.

**NOTE:** Ecology currently does not have a citizen technical advisor for providing technical assistance to citizens on issues related to the investigation and cleanup of the site.

### **Amendments**

The Plan was developed by Ecology and complies with the Model Toxics Control Act regulations (Chapter 173-340-600 WAC). The Plan is being amended as part of the Consent Decree for cleanup at the site. The public will have an opportunity to comment on the Amended Plan, and Ecology will make changes to the Plan if appropriate. Ecology will determine final approval of the Plan as well as any additional amendments.

### **Review of Documents and Project Contacts**

Documents relating to the cleanup may be reviewed at the repositories listed on page 7 of this Plan. If individuals are interested in knowing more about the site or have comments regarding the Plan, please contact one of the individuals listed below.

**WA Department of Ecology Contacts:**

Ms. Teresita Bala, Site Manager  
WA State Department of Ecology  
Toxics Cleanup Program  
4601 N. Monroe  
Spokane, WA 99205  
509/329-3543 e-mail [tbal461@ecy.wa.gov](mailto:tbal461@ecy.wa.gov)

Ms. Carol Bergin, Public Involvement  
WA State Department of Ecology  
Toxics Cleanup Program  
4601 N. Monroe  
Spokane, WA 99205  
509/329-3546 e-mail [cabe461@ecy.wa.gov](mailto:cabe461@ecy.wa.gov)

Ms. Kari Johnson, Public Disclosure  
WA State Department of Ecology  
4601 N. Monroe  
Spokane, WA 99205  
509/329-3415 e-mail [kajo461@ecy.wa.gov](mailto:kajo461@ecy.wa.gov)

**Para asistencia Español**  
Rochelle Perez  
WA State Department of Ecology  
Toxics Cleanup Program  
300 Desmond Drive  
Lacey, WA 98504-7600  
360/407-6971

**Если вам нужна помощь на русском,  
звоните Larissa Braaten 509/710-7552**

**Kaiser Aluminum & Chemical  
Corporation, LLC (now DCO Management):**  
J. W. (Bill) Vinzant  
9141 Interline Ave., Suite 1A  
Baton Rouge, LA 70809  
225/231-5116

## Site Background

### Site Overview

The Washington State Department of Ecology (Ecology) entered into an Agreed Order with Kaiser Aluminum & Chemical Corporation, LLC, (Kaiser) to conduct a Remedial Investigation and Feasibility Study (RI/FS) at the site. The Agreed Order was implemented under the name Kaiser. Since that time, the company changed its name from Kaiser to DCO Management (DCO). For purposes of this document the original name Kaiser will be used.

The site is located 10 miles northeast of downtown Spokane, south of Day Mt. Spokane Road. It is found in a rural wooded area near the intersection of Heglar and Kronquist Roads in Mead, Spokane County, Washington (See Appendix A – Site Map Figure 1).

The Agreed Order between Kaiser and Ecology for this site follows some previous independent investigations and cleanup work conducted by Kaiser and began the formal process under MTCA. The Agreed Order is a legal document issued by Ecology. It formalized the agreement between Ecology and Kaiser to assess the contamination and the need for additional cleanup actions at the site.

The purpose of the Remedial Investigation was to gather more information to determine the nature and extent of site-related contamination in soil and groundwater. The Feasibility Study evaluated cleanup options.

The nearly four-acre site was used as a gravel pit until it was closed in 1969. The site was subsequently operated by Gemini Management, Inc. as a disposal site. Kaiser used the site during these operations from 1969 until 1974 for disposal of aluminum black dross from its Trentwood plant in the Spokane Valley. Black dross is a by-product from processing aluminum materials. According to Kaiser's data, the black dross was composed of 39% sodium chloride, 19% potassium chloride, 35% aluminum oxide, 4% free aluminum, 2% cryolite, and 1% carbides and nitrides. Nearly 55,000 cubic yards of black dross was disposed of at the site.

The dross disposal was stopped in 1974 because high levels of chloride were found in shallow water supply wells and springs down gradient of the site. Air sampling conducted downwind of the site in 1979 showed elevated levels of several organic compounds. Ammonia also was detected at levels higher than accepted by state laws.

Kaiser took several steps to address the contamination in 1984 including the installation of a cover designed to protect the dross pile, and eventually purchased the property. Monitoring that occurred from the early 1980s through 2004 indicated decreasing but still elevated chloride and nitrate in the springs downgradient from the site.

Ecology conducted an assessment of the property in 2006 and ranked the site a two on the Hazardous Sites List. The Hazardous Sites List is a record of contaminated sites throughout the state that are ranked on a scale of one to five. One represents the greatest potential threat to human health and the environment; five represents the least potential threat.

### **Initial Well Testing Began**

On December 10 and 11, 2008, Ecology and Kaiser sampled 16 residential wells near the Heglar Kronquist site. Residents asked to have their wells tested because of concerns about how the site may have impacted their wells. Kaiser was already in the process of completing a legal agreement called an Agreed Order with Ecology to begin studies at the site to determine the nature and extent of contamination. Kaiser agreed to sample wells before their legal agreement with Ecology was final because of the community concerns. After the Agreed Order was finalized, Kaiser began additional studies and identified potential cleanup options for the site. (Chemicals related to agricultural and individual property practices were not part of the domestic well testing.)

### **Testing Results Shared with Residents and Public**

An independent lab in Kelso, WA processed the water samples. Residents whose wells were tested received a copy of the results. Results were also shared with other residents and the general public. Tests results showed no impacts of site-related contaminants in the wells tested.

## **How Does the Site Impact My Property?**

At the beginning stage of cleanup, Ecology did not have a complete understanding of potential impacts to local properties. The Remedial Investigation and Feasibility Study provided answers to this question. The Remedial Investigation gathered scientific data about the nature and extent of contamination at the site and surrounding areas.

In 1984 a protective cover called a cap was put over the landfill to prevent dross constituents from leaching into groundwater. Results of the Remedial Investigation showed some leaching is still taking place. The investigation also showed chloride and nitrate concentrations in shallow groundwater and the drainage ditch surface water did not meet state standards.

The residents asked several questions about how the site has or may impact their real estate values, sales disclosure issues, tax assessments, and other property questions. Ecology recognizes the residents' frustrations that Ecology cannot address these issues. Ecology's authority is specific to regulations under the Model Toxics Control Act (MTCA). These types of questions should be directed to experts in those fields.

## **Contaminants of Concern**

Past site data shows chemicals of concern related to the aluminum dross include:

- Sodium.
- Potassium.
- Aluminum.
- Chloride.
- Fluoride.
- Ammonia.
- Nitrates.
- Nitrites.

The Remedial Investigation provided additional information to identify the extent and concentration of contaminants at the site.

The known contaminants of concern are chloride and nitrate in shallow groundwater and the drainage ditch surface water. Although some residents on the Peone Prairie were concerned about arsenic, there was no scientific evidence from the Remedial Investigation that indicated arsenic was coming from the site.

## **Cleanup Action Plan**

Ecology wrote a Draft Cleanup Action Plan (DCAP) based on information obtained from the Remedial Investigation and Feasibility Study reports completed by Kaiser's consultant in 2012. The DCAP went through a 30-day public comment period and a public meeting was held to explain the document and Ecology's proposed cleanup alternative.



Ecology evaluated each cleanup alternative outlined in the Feasibility Study and selected the best cleanup plan for the site. This selection is based on criteria outlined in the state regulations known as the Model Toxics Control Act (MTCA) and on other applicable regulations and laws.

A State Environmental Policy Act Checklist (SEPA) was also completed for the proposed DCAP. The SEPA Checklist considers potential environmental impacts prior to beginning the cleanup. The Determination of Non-Significance indicates the proposed actions will not have a probable significant adverse impact on the environment.

Ecology selected cleanup Alternative 2 for cleanup at the site. This alternative consists of:

- Enhancing the existing cap.
- Implementing institutional controls.
- Dispersion/dilution.
- Compliance monitoring.

The existing landfill cover, called a cap, and the drainages would be improved and additional layers would be added to the cap.

The vent system would be repaired if it could be accomplished without damage to the existing cap. Ten pine trees would be removed along the southern boundary of the landfill to prevent future root system damage to the landfill. This alternative would cost approximately \$1,887,167.00 which includes a 25 percent contingency for unanticipated issues.

The cap would be filled with soil from the soil pile on the eastern end of the landfill, clean fill from offsite, and regraded. Surface water would be rerouted by regrading and relocating the ditches and swales at the site.

A geosynthetic liner would be placed over the graded area and then a drainage layer would be placed on top of the liner. The multi-layer liner would be covered with 18 inches of top soil and natural grasses planted on top. These added layers are expected to reduce infiltration through the cap by approximately 90-99 percent.

The geosynthetic liner would extend 5-10 feet beyond the current dross fill boundary on the north, east and south edges of the landfill. On the west edge the liner and drain system would extend 50-75 feet beyond the dross fill boundary.

Institutional controls would be placed on the property to protect the improvements. These controls include fencing, signage, restrictions on how the land may be used, maintenance and monitoring. A restrictive covenant would be placed on the property describing the land use restrictions. Surface and groundwater monitoring would be conducted until water quality standards are met.

Ecology determined both Alternatives 1, which was removal of the dross from the site, and 2 would protect humans and the environment. However, state regulations (MTCA) provide that if two or more alternatives are equal in benefits, the department shall select the less costly alternative provided that all minimum requirements for cleanup actions are met.

Ecology selected Alternative 2. This includes additional protection after the cleanup through use of periodic reviews to evaluate the success of the remedies. It also includes financial assurance from Kaiser to address potential cleanup improvements if necessary. This alternative meets all of the required criteria and is the most cost effective. Details of the evaluation of Alternatives 1 and 2 are found in the DCAP document.

The DCAP is now considered final. Kaiser will implement the work after a Consent Decree is prepared and goes through a 30-day comment period.

### **Consent Decree**

The Consent Decree is a legal document that formalizes the cleanup agreement between Ecology and Kaiser. The decree implements the cleanup action for the site; however, it does not relieve Kaiser of its ongoing responsibility to provide for operation and maintenance of the landfill cover and for periodic reviews. After the public comment period the Consent Decree becomes final and is entered into Superior Court. The decree ensures cleanup will proceed in accordance with all applicable laws and regulations.

## **COMMUNITY BACKGROUND**

### **Community Profile**

The rural community near the site is comprised mainly of residential homes on large parcels in a wooded setting. The site is near Mt. Spokane State Park, and there is an abundance of wildlife in the region.

The nearby plains and rolling hills are made up of expansive parcels which include some family agricultural uses. Some parcels are being split and developed into new housing in the vicinity and throughout the Peone Prairie area. Residents are primarily Caucasian and fall into the middle and upper financial brackets.

## Community Concerns

Community interviews were conducted with residents who live near the site. Additionally, several public meetings were held at various stages of the cleanup. Citizens submitted comments to Ecology and had discussions in person and on the phone about the site. Some of the primary concerns are listed below:

- Some residents are concerned that their current health issues may be a result of exposure to site-related contamination. They are concerned about their children, themselves, pets, and farm animals. They question potential long-term exposure risks.
- There was concern about wells on individual properties and the potential impact of the site on the general watershed in the area. Sampling test results show no impacts to the drinking water wells and the general watershed area. These results were all provided to all owners of the domestic wells tested.
- Questions about property values and how the site may impact future sales or taxes were raised frequently.
- The majority of residents interviewed in the early stages of cleanup said they would like to see the site cleaned up as quickly as possible and in a way that provides the greatest protection to children, adults, and animals.
- Residents continue to want to be informed throughout the remaining cleanup process.
- Residents are frustrated with how long the cleanup process takes. They wanted it accelerated. In an effort to address this concern, Kaiser agreed to conduct initial sampling of wells before the Agreed Order with Ecology was signed. The cleanup work has moved from negotiations for the Agreed Order in September 2008 to Consent Decree in December 2012, a little over 4 years. Sites generally take 7 or more years to go from the Agreed Order to Consent Decree, depending upon the complexity of the site.

Ecology focused on addressing site-related concerns through the activities listed in the Public Participation Activities and Timeline section below.

## Public Participation Activities and Timeline

The following is a list of some of the public participation efforts that occurred and will occur until the cleanup actions are completed:

- ❖ A **mailing list** has been developed for individuals who live near the site. The potentially affected vicinity covers any adjacent properties and homes and businesses within close proximity to the site, and areas to be investigated. These persons, along with the PLPs, receive copies of all fact sheets developed regarding the cleanup process via first class mail. Additionally, individuals, organizations, local, state, and federal governments, and any other interested parties are added to the mailing list as requested. Other interested persons may request to be on the mailing list at any time by contacting Carol Bergin at the Department of Ecology (see page 3 for details).

- ❖ **Public Repositories** are locations where documents may be reviewed. Due to reduced hours at many libraries throughout the county, three repositories were originally established. The number of repositories was reduced to two because no one was using the Hillyard Branch. The following locations will contain copies of any documents that go through the public review process related to this site:

**WA Department of Ecology**  
4601 N. Monroe  
Spokane, WA 99205-1295  
Contact: Ms. Kari Johnson  
Public Disclosure Coordinator  
509-329-3415

**North Spokane Library**  
Hawthorne Branch  
44 E. Hawthorne Rd.  
Spokane WA 99218  
893-8350

Ecology's Web Site at <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1135>

- ❖ **Opportunity to Comment**

- During each stage of cleanup, **fact sheets** were created by Ecology, then distributed to individuals on the mailing list. These fact sheets explain the stage of cleanup, the site background, what happens next in the cleanup process and ask for comments from the public. The last anticipated fact sheet will be to invite the public to review and comment on the Consent Decree.
- A **30-day comment period** allows interested parties time to comment on the process. The fact sheet contains contact information about where to submit comments and where and when public meetings or hearings will be held if requested.
- The information from these fact sheets is also published in a statewide **Site Register** which is sent to those who request to be on that mailing list. Persons interested in receiving the Site Register should contact Seth Preston of Ecology at 360-407-6848 or e-mail [seth.preston@ecy.wa.gov](mailto:seth.preston@ecy.wa.gov).
- Ecology maintains a **Public Involvement Calendar** which lists agency-wide public meetings, public comment periods, hearings, open houses, and workshops. You may access this calendar by going to Ecology's homepage at [www.ecy.wa.gov](http://www.ecy.wa.gov) and clicking on Public Involvement Calendar in the navigation bar at the top of the page.

- ❖ **Display ads or legal notices** are published in the Spokesman Review, ethnic newspapers when available, and on Ecology's Public Involvement Calendar to inform the general public. These notices are published at the beginning of the 30-day comment period for the public notices. They are also used to announce public meetings, workshops, or public hearings.

- ❖ **Public meetings, workshops, open houses, and public hearings** are held based on the level of community interest. If ten or more persons request a public meeting or hearing based on the subject of the public notice, Ecology will hold a meeting or hearing and gather comments. These meetings, workshops, or hearings will be held at a location that meets ADA standards and is close to the site. They may be held away from the site if it is necessary to accommodate large numbers of interested persons. These events are announced using the same methods as display ads or legal notices.
- ❖ Flyers may also be made available in various locations throughout the community (e.g., postings at local businesses, schools, libraries, etc.) to announce public comment periods, meetings, workshops, etc.

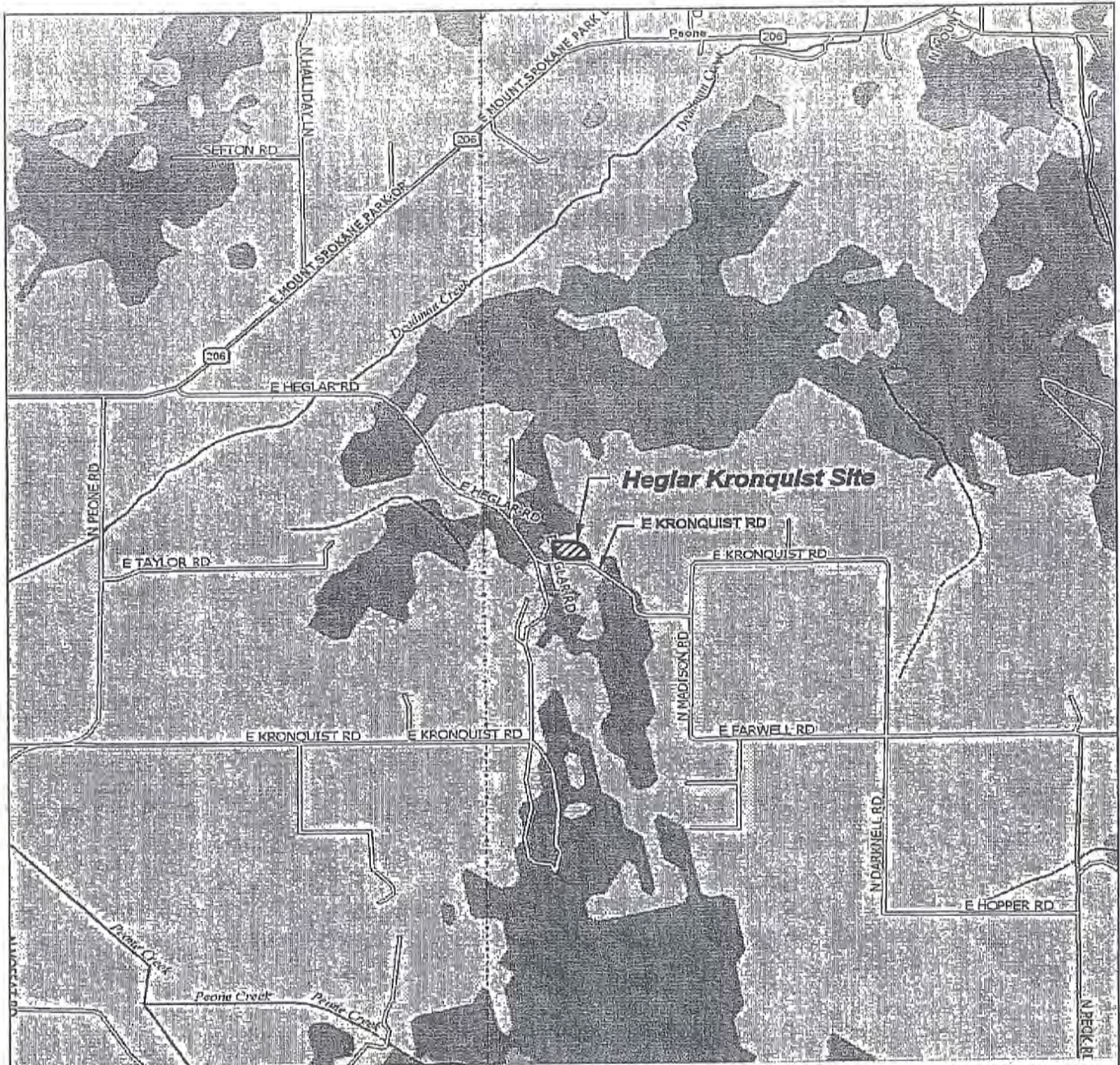
### **Answering Questions from the Public**

If you have questions about fact sheets, documents available for public comment, meetings and hearings or about the general cleanup process, you are encouraged to contact one of the individuals listed on page 4.

**Public Notice and Comment Periods Timeline**

DATE	ACTION TAKEN
September 22, 2008	Negotiations began between Ecology and Kaiser for an Agreed Order to conduct a Remedial Investigation and Feasibility Study.
October 22, 2008	Ecology met with local residents who were concerned about potential contamination to their properties.
October 2008	Ecology sent out an invitation to participate in a community interview. Residents living within a one-half mile radius of the site were invited to have their wells tested.
October 2008	Ecology began conducting interviews with local residents.
December 10 and 11, 2008	Ecology and Kaiser conducted preliminary testing for residents who requested their wells be sampled. These residents live within a one-half mile radius of the site.
January 2009	Fact Sheet and Agreed Order for Remedial Investigation and Feasibility Study available for Public Comment
February 2009	Public Meeting to discuss the Agreed Order
April 2010	Fact Sheet Update about additional sampling planned in May 2010
June 13 through July 13, 2011	Fact Sheet and 30-day comment period for the Remedial Investigation Report
July 28, 2011	Public Meeting and presentation on the Remedial Investigation Report
January 18 through March 19, 2012	Fact Sheet and 30-day public comment period for Feasibility Study Report
April 2012	Responsiveness Summary for Feasibility Study
September 18 through October 18, 2012	Fact Sheet and 30-day public comment period for the Draft Cleanup Action Plan
September 26, 2012	Public Meeting to explain the Draft Cleanup Action Plan
October 2012	Responsiveness Summary for Draft Cleanup Action Plan
To be announced	Fact Sheet and 30-day public comment period for the Consent Decree

# APPENDIX A SITE MAP - FIGURE 1



Source: Base map prepared from DeLorme Topo 7.0, 2007.



WASHINGTON

0 2000 4000

Scale in Feet



Heglar Kronquist Site Mead, Washington	
Vicinity Map	
12/08	
Exhibit	
<b>A</b>	

**APPENDIX B**

**CURRENT MAILING LIST**  
**(available upon request)**

**HEGLAR KRONQUIST SITE**



## APPENDIX C GLOSSARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Site:** See Facility.

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

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

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

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

**TCP:** Toxics Cleanup Program at Ecology

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

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

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

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

**EXHIBIT E**  
**ENVIRONMENTAL COVENANT**

1994

ENVIRONMENTAL COVENANT



After Recording Return to:

Department of Ecology  
4601 N. Monroe St.  
Spokane, WA 99205

### **Environmental Covenant**

**Grantor:** DCO Management, LLC

**Grantee:** State of Washington, Department of Ecology

**Legal:** The south 500 ft of the Southeast Quarter (SE1/4) of the Southwest Quarter (SW ¼) of the Northwest Quarter (NW1/4) of Section 3, Township 26 North, Range 44, E.W.M. Full description provided as Exhibit A.

**Tax Parcel Nos.:** A portion of Parcel No. 46032.9022

Grantor, DCO Management, LLC, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant ( hereafter "Covenant" ) made this day of \_\_\_\_\_, 201\_\_ in favor of the State of Washington Department of Ecology (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, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by DCO Management, LLC., its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "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:

Final Cleanup Action Plan, October 2012 (also included as Exhibit C of the Consent Decree)

Final Cleanup Action Report, (to be submitted after the completion of construction).

These documents are on file at Ecology's Eastern Regional Office.

This Covenant is required because the Remedial Action resulted in the containment of aluminum black dross; leaching of dross constituents causes residual concentrations of nitrate and chloride to exceed the Model Toxics Control Act Method B cleanup levels for groundwater established under WAC 173-340-720.

The undersigned, DCO Management, LLC., is the fee owner of real property (hereafter "Property") in the County of Spokane, State of Washington, that is subject to this Covenant. The Property is legally described in Attachment A of this Covenant and made a part hereof by reference.

DCO Management, LLC. 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 or interest in the Property (hereafter "Owner").

Section 1. Any activity on the Property that damages or disturbs the integrity of the landfill cap, or otherwise results in the release or exposure to the environment of the black dross that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas 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, operation and maintenance of the cap or any component of the containment system, or monitoring and continued protection of human health and the environment is prohibited without written approval from Ecology.

Section 3. Pursuant to the Cleanup Action Plan, the owner must maintain the cap described in the Cleanup Action Plan and the Cleanup Action Report.

Section 4. No groundwater may be taken for any use from the Property, unless the ground water is part of monitoring activities established under a plan approved by Ecology.

Section 5. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in 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 6. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

Section 7. 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 inconsistent use only after public notice and comment.

Section 8. 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, 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 9. 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.

DCO MANAGEMENT, LLC

\_\_\_\_\_  
[Name of Signatory]

[Title]

Dated: \_\_\_\_\_

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

\_\_\_\_\_  
[Name of Person Acknowledging Receipt]

[Title]

Dated: \_\_\_\_\_

[INDIVIDUAL ACKNOWLEDGMENT]

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, I certify that \_\_\_\_\_ personally appeared before me, and acknowledged that he/she is the individual described herein and who executed the within and foregoing instrument and signed the same at his/her free and voluntary act and deed for the uses and purposes therein mentioned.

\_\_\_\_\_  
Notary Public in and for the State of  
Washington, residing at \_\_\_\_\_  
My appointment expires \_\_\_\_\_

[CORPORATE ACKNOWLEDGMENT]

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, I certify that \_\_\_\_\_ personally appeared before me, acknowledged that he/she is the \_\_\_\_\_ 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/she was authorized to execute said instrument for said corporation.

\_\_\_\_\_  
Notary Public in and for the State of  
Washington, residing at \_\_\_\_\_  
My appointment  
expires \_\_\_\_\_

[REPRESENTATIVE ACKNOWLEDGEMENT]

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, I certify that \_\_\_\_\_ personally appeared before me, acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute this instrument, and acknowledged it as the

\_\_\_\_\_ [type of authority] of \_\_\_\_\_ [name of party being represented] to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.

\_\_\_\_\_  
Notary Public in and for the State of  
Washington, residing at \_\_\_\_\_.  
My appointment expires \_\_\_\_\_.

Exhibit A  
Legal Description

1. [Illegible text]