STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:

AGREED ORDER

Ellen Dryke 292 Dryke Road Sequim, WA 98382 No. DE 9510

TO: Ellen Dryke 292 Dryke Road Sequim, WA 98382

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I. INTRODUCTION

The mutual objective of the State of Washington, Department of Ecology (Ecology) and **Ellen Dryke** under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires **Ellen Dryke** to **implement the requirements of the cleanup action plan**. Ecology believes the actions required by this Order are in the public interest.

II. JURISDICTION

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

III. PARTIES BOUND

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

IV. DEFINITIONS

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

A. <u>Site</u>: The Site is referred to as **Sunnydell Dryke Shooting Range** and is generally located at **292 Dryke Road, Sequim, Washington**. The Site is defined by the extent of contamination caused by the release of hazardous substances at the Site. The Site is more particularly described as Lot 2, Parcel Number 0430178020, in the Site Diagram (Exhibit A). The Site constitutes a Facility under RCW 70.105D.020(5).

B. <u>Parties</u>: Refers to the State of Washington, Department of Ecology and Ellen Dryke.

C. <u>Potentially Liable Person (PLP)</u>: Refers to **Ellen Dryke and Rosemary Knotek**.

D. <u>Agreed Order or Order</u>: Refers to this Order and each of the exhibits to this Order. All exhibits are integral and enforceable parts of this Order. The terms "Agreed Order" or "Order" shall include all exhibits to this Order.

V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by **Ellen Dryke**:

A. The remedial investigation/feasibility study found that there has been a release of hazardous substances at this facility that presents a threat to human health and the environment, and that remedial action is thereby required.

B. The Site is defined as Lot 2 (29.86 acres) of Sunnydell Large Lot Subdivision, tax parcel number 0430178020, located near Sequim, WA where lead and cPAHs were found during the remedial investigation to exceed the MTCA cleanup levels. The Site is part of the original 38.89 acre Sunnydell Dryke Shooting Range parcel (Exhibit A) that was subsequently subdivided into Lots 1 and 2 (Exhibit B).

C. Ellen Dryke is the owner of this Site as described in Clallam County Auditor's record (Exhibit C).

VI. ECOLOGY DETERMINATIONS

A. PLP is an "owner or operator" as defined in RCW 70.105D.020(17) of a "facility" as defined in RCW 70.105D.020(5).

B. Based upon all factors known to Ecology, a "release" or "threatened release" of "hazardous substance(s)" as defined in RCW 70.105D.020(25) and RCW 70.105D.020(10), respectively, has occurred at the Site.

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C. Based upon credible evidence, Ecology issued a PLP status letter to **Rosemary Knotek** dated **October 23, 2008**, pursuant to RCW 70.105D.040, -.020(21) and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible evidence supported a finding of potential liability, Ecology issued a determination that **Rosemary Knotek** is a PLP under RCW 70.105D.040 and notified **Rosemary Knotek** of this determination by letter dated **November 24, 2008**. Based upon credible evidence, Ecology issued a PLP status letter to **Ellen Dryke** dated **July 10, 2012**, pursuant to RCW 70.105D.040, -.020(21) and WAC 173-340-500. By letter dated **July 17, 2012**, Ellen Dryke voluntarily waived its rights to notice and comment and accepted Ecology's determination that **Ellen Dryke** is a PLP under RCW 70.105D.040. On September 19, 2012 Rosemary Knotek Quit Claimed her ownership interest in this property to Ellen Dryke.

D. Pursuant to RCW 70.105D.030(1) and -.050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

VII. WORK TO BE PERFORMED

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that **Ellen Dryke** implement the Cleanup Action Plan (Exhibit E) including the following remedial actions at the Site and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein:

- A. The Site will be divided up into Management Areas to include Active Shooting Ranges, Lower Pond Areas, and Non-shooting Areas.
- B. As specified in the Cleanup Action Plan, Best Management Practices will immediately be put in place to protect human health and the environment.
- C. The selected remedy is otherwise determined to be protective of human health and the environment.

- D. Within 60 days of the effective date of this Agreed Order, Ellen Dryke will submit one draft Remedial Action Work Plan which will include Best Management Practices for this Site, sediment excavation details, a long term groundwater monitoring plan, and plans for periodic lead recycling. Ecology must approve this deliverable within 30 days, and once approved by Ecology, becomes an integral and enforceable part of this Order.
- E. Institutional controls will include an environmental covenant which will be recorded at the Clallam County Auditor's Office and implemented according to the Cleanup Action Plan, including an alert to future owners that Lot 2 of the original property was used as a commercial target range and as a result the soil and sediment may be impacted. The environmental covenant will require notification to Ecology prior to the installation of water wells for potable use and require periodic removal of lead from active shooting range areas on the property. An Environmental Covenant will be drafted by PLP for review by Ecology within 30 days following finalization of the Remedial Action Work Plan. The environmental covenant will be reviewed within 30 days of receipt by Ecology, and recorded by the PLP within 30 days of being finalized by Ecology. The status and need for continuing institutional controls will be addressed during the periodic review of the cleanup action.
- F. Sunnydell Dryke Shooting Range Site project coordinator or his designee shall provide progress reports to Ecology project coordinator beginning on an annual basis following initiation of the cleanup action, unless an alternate schedule is requested by Sunnydell Dryke Shooting Range Site and agreed to by Ecology in writing. The second progress report will be provided to Ecology four years after initiation of the cleanup action and prior to the first periodic review. Subsequent progress reports shall be submitted to Ecology every five years and prior to each periodic review. Each progress report shall identify accomplishments for the prior time frame and expected accomplishments for the upcoming time frame.

G. If, at any time after the first exchange of comments on drafts, Ecology determines that insufficient progress is being made in the preparation of any of the deliverables required by this Section, Ecology may complete and issue the final deliverable.

VIII. TERMS AND CONDITIONS OF ORDER

A. Public Notice

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that this Order is inadequate or improper in any respect.

B. Remedial Action Costs

Ellen Dryke shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Ecology has recorded costs of \$22,325.94, of which Ellen Dryke has paid \$6,126.48. As of December 31, 2012 there is a balance of \$16.199.46. Payment for this amount shall be submitted within thirty (30) days of the effective date of this Order, or per the installment payment amount in the Sunnydell Dryke Installment Note (Exhibit D). For all costs incurred subsequent to **December 31, 2012, Ellen Dryke** shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-

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

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70.105D.055, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

C. Implementation of Remedial Action

If Ecology determines that **Ellen Dryke** has failed without good cause to implement the remedial action, in whole or in part, Ecology may, after notice to **Ellen Dryke**, perform any or all portions of the remedial action that remain incomplete. If Ecology performs all or portions of the remedial action because of **Ellen Dryke's** failure to comply with its obligations under this Order, **Ellen Dryke** shall reimburse Ecology for the costs of doing such work in accordance with Section VIII. (Remedial Action Costs), provided that **Ellen Dryke** is not obligated under this Section to reimburse Ecology for costs incurred for work inconsistent with or beyond the scope of this Order.

Except where necessary to abate an emergency situation, **Ellen Dryke** shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.

D. Designated Project Coordinators

The project coordinator for Ecology is: Guy Barrett, LHG PO Box 47775 Olympia, WA 98504

The project coordinator for **Ellen Dryke** is: **Tom Kirkman** 292 Dryke Road Sequim, WA 98382

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

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

E. Performance

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

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

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

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

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

F. Access

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

G. Sampling, Data Submittal, and Availability

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

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

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

H. Public Participation

A Public Participation Plan is required for this Site. Ecology shall review any existing Public Participation Plan to determine its continued appropriateness and whether it requires amendment, or if no plan exists, Ecology shall develop a Public Participation Plan alone or in conjunction with **Ellen Dryke**.

Ecology shall maintain the responsibility for public participation at the Site. However, **Ellen Dryke** shall cooperate with Ecology, and shall:

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

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

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

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

a. Sequim Branch Library 630 N. Sequim Library Sequim, WA 98382

b. Ecology's Southwest Regional Office 300 Desmond Drive Lacey, WA 98504

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

I. Retention of Records

During the pendency of this Order, and for ten (10) years from the date of completion of work performed pursuant to this Order, **Ellen Dryke** shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, **Ellen Dryke** shall make all records available to Ecology and allow access for review within a reasonable time.

J. Resolution of Disputes

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

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

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute. If the project coordinators cannot resolve the dispute within fourteen (14) days, Ecology's project coordinator shall issue a written decision. c. **Ellen Dryke** may then request regional management review of the decision. This request shall be submitted in writing to the **Southwest** Region Toxics Cleanup Section Manager within seven (7) days of receipt of Ecology's project coordinator's written decision.

d. The Section Manager shall conduct a review of the dispute and shall endeavor to issue a written decision regarding the dispute within thirty (30) days of Ellen Dryke's request for review. The Section Manager's decision shall be Ecology's final decision on the disputed matter.

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

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

K. Extension of Schedule

1. An extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

a. The deadline that is sought to be extended;

b. The length of the extension sought;

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

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

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

a. Circumstances beyond the reasonable control and despite the due diligence of **Ellen Dryke** including delays caused by unrelated third parties or Ecology,

such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by **Ellen Dryke**;

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

c. Endangerment as described in Section VIII. (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of **Ellen Dryke**.

3. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give **Ellen Dryke** written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII. (Amendment of Order) when a schedule extension is granted.

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

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

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

c. Endangerment as described in Section VIII. (Endangerment).

L. Amendment of Order

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within seven (7) days of verbal agreement.

Except as provided in Section VIII. (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be formally amended by the written consent of both Ecology and **Ellen Dryke**. **Ellen Dryke** shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its

approval or disapproval in writing and in a timely manner after the written request for amendment is received. If the amendment to this Order represents a substantial change, Ecology will provide public notice and opportunity to comment. Reasons for the disapproval of a proposed amendment to this Order shall be stated in writing. If Ecology does not agree to a proposed amendment, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.____ (Resolution of Disputes).

M. Endangerment

In the event Ecology determines that any activity associated with cleanup activities performed at the Site is creating or has the potential to create a danger to human health or the environment on or surrounding the Site, Ecology may direct **Ellen Dryke** to cease such activities for such period of time as it deems necessary to abate the danger. **Ellen Dryke** shall immediately comply with such direction.

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

If Ecology concurs with or orders a work stoppage pursuant to Section VIII._____ (Endangerment), **Ellen Dryke's** obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII._____ (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

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

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N. Reservation of Rights

This Order is not a settlement under Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against **Ellen Dryke** to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against **Ellen Dryke** regarding remedial actions required by this Order, provided **Ellen Dryke** complies with this Order.

Ecology nevertheless reserves its rights under Chapter 70.105D RCW, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

O. Transfer of Interest in Property

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by **Ellen Dryke** without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

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

P. Compliance with Applicable Laws

1. All actions carried out by **Ellen Dryke** pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090. At this time, no federal,

state or local requirements have been identified as being applicable to the actions required by this Order.

2. Pursuant to RCW 70.105D.090(1), **Ellen Dryke** is exempt from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, **Ellen Dryke** shall comply with the substantive requirements of such permits or approvals. At this time, no state or local permits or approvals have been identified as being applicable but procedurally exempt under this Section.

Ellen Dryke has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or Ellen Dryke determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or Ellen Dryke shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, Ellen Dryke shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements. Ecology shall inform Ellen Dryke and on how Ellen Dryke must meet those requirements. Ecology shall inform Ellen Dryke in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. Ellen Dryke shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

3. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the State to administer any federal law, the exemption shall not apply and **Ellen**

Dryke shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

Q. Land Use Restrictions

Ellen Dryke shall record a Restrictive Covenant with the office of the **Clallam** County Auditor within ten (10) days of the completion of the remedial action. The Restrictive Covenant shall restrict future uses of the Site. **Ellen Dryke** shall provide Ecology with a copy of the recorded Restrictive Covenant within thirty (30) days of the recording date.

R. Periodic Review

As remedial action, including groundwater monitoring, continues at the Site, the Parties agree to review the progress of remedial action at the Site, and to review the data accumulated as a result of monitoring the Site as often as is necessary and appropriate under the circumstances. At least every five (5) years after the initiation of cleanup action at the Site the Parties shall meet to discuss the status of the Site and the need, if any, for further remedial action at the Site. Ecology reserves the right to require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Order.

S. Indemnification

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

IX. SATISFACTION OF ORDER

The provisions of this Order shall be deemed satisfied upon **Ellen Dryke**'s receipt of written notification from Ecology that **Ellen Dryke** has completed the remedial activity required

by this Order, as amended by any modifications, and that **Ellen Dryke** has complied with all other provisions of this Agreed Order.

X. ENFORCEMENT

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.

C. In the event Ellen Dryke refuses, without sufficient cause, to comply with any term of this Order, Ellen Dryke will be liable for:

a. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply; and

b. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.

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

Effective date of this Order: ______27,2013_____

Ellen Dryke

Ellen Dryke Owner 292 Dryke Road Sequim, WA 98382 Telephone: 360-683-5631

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY

ausen

Rebecca S. Lawson, P.E., L.H.G. Section Manager Southwest Regional Office Toxics Cleanup Program Telephone: 360-407-6241

EXHIBIT A: Site Diagram

EXHIBIT A

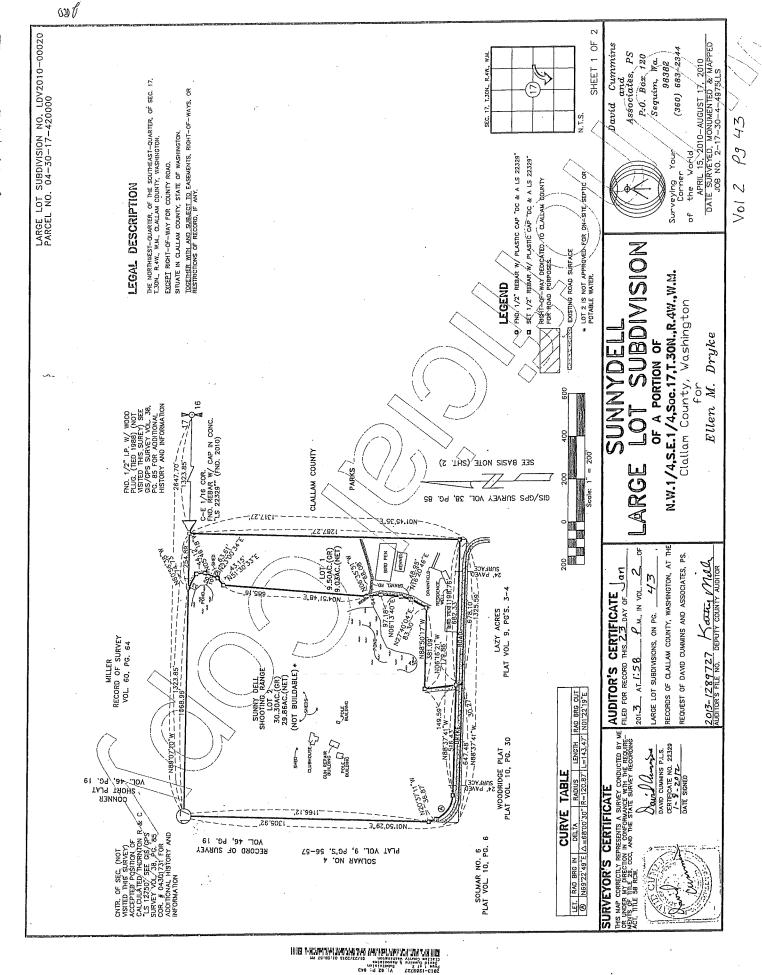
LaManna Geosciences Inc.

Sunnydell Dryke Shooting Range 292 Dryke Road Sequim, WA 98382



Figure 16. Map showing locations of proposed Active Shooting Range Management Areas (4 black polygons); shooting locations (1, 2, 3A, 3B, 4, 5A, 5B); shooting directions (orange arrows); Lower Pond Management Area (green polygon), and Lots 1 and 2 (red polygons). There are berms located at the south and southeast sides of Management Area 5. These berms prevent stray shot and bullets. The area outside of the black and green polygons in Lot 2 comprise the Non-Shooting Management Areas. The text describes BMPs and an institutional control for these management areas. Lot 1 will be managed separately and is excluded from these BMPs and institutional control.

EXHIBIT B: Sunnydell Large Lot Subdivision



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EXHIBIT C: Clallam County Assessor's Office Record of Ownership

Clallam County Assessor & Treasurer - Property Details - 38951 ELLEN DRYKE for Ye... Page 1 of 1

EXHIBIT C

Clallam County Assessor & Treasurer

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EXHIBIT

INSTALLMENT NOTE

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<u>\$10,761.22</u>

Olympia, Washington June 28, 2011

DEPT. OF EDULUE FISCAL & BUDGE

FOR VALUE RECEIVED, SUNNYDELL DRYKE SHOOTING RANGE SITE, (Payor), promises to pay to State of Washington, Department of Ecology, (Payee), the sum of Ten Thousand Seven Hundred Sixty One and 22/100 Dollars (\$10, 761.22), with no interest, and payable as follows:

First installment of two hundred dollars (\$200) by August 31, 2011; and

Monthly installment payments of two hundred dollars (\$200) by last day of each month until note is paid in full. This amount is for Costs incurred up to 12/31/2010.

If any installment payment of principal is not paid within ten (10) days of its due date (the "Grace Period"), then interest shall accrue at the rate of one percent (1%) per month, or fraction thereof, of the installment payment, and shall be added to the next installment payment, if any. The interest shall be compounded if future installment payments are not paid within ten (10) days of the due date.

If any payment of principal is not paid within the Grace Period, or in the event of any default in the performance of any of the terms of this Note, the Payee can take action to collect the balance of the principal through court action or any other method necessary to institute collection.

In addition to the terms of this Installment Note, remedial action costs incurred by Ecology after 12/31/2010 shall be billed and due per Section VII B. Remedial Action Costs per Agreed Order No. DE 6551 between Ecology and Chuck Dryke & Rosemary Knotek.

Sunnydell Dryke Shooting Range

<u>7-/3-(</u>) Date By: Tom Kirkman

By: Ton Its: Mar

Manager

APPROVED & AGREED: STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

By: Rebecca Lawson, P.E., LHG SWRO Section Manager Its: Toxics Cleanup Program ′ Date

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EXHIBIT E: Cleanup Action Plan

CLEANUP ACTION PLAN

SUNNYDELL DRYKE SHOOTING RANGE

CLALLAM COUNTY, WASHINGTON

Issued By

Washington State Department of Ecology

June 2013

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List of Acronyms

bgs	below ground surface
BMPs	Best Management Practices
CCHHS	Clallam County Health and Human Services
CFR	Code of Federal Regulations
CLARC	Cleanup Levels and Risk Calculation
cm/sec	centimeters per second
COC	contaminant of concern
CUL	cleanup level
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
mg/kg	milligrams per kilogram
MSDS	material safety data sheet
MSL	mean sea level
MTCA	Model Toxics Control Act
MW	monitoring well
O&M	operation and maintenance
PAH	poly aromatic hydrocarbons
PCHB	Pollution Control Hearings Board
ppm	parts per million
QA	quality assurance
QC	quality control
RCW	Revised Code of Washington
RI/FS	remedial investigation / feasibility study
RPD	relative percent difference
SB	soil boring
TOC	total organic carbon
μg/L	micrograms per liter
WAC	Washington Administrative Code

1. INTRODUCTION

This Cleanup Action Plan (CAP) has been prepared by the Washington State Department of Ecology (Ecology) to specify cleanup standards and identify the cleanup action to be implemented at the Sunnydell Dryke Shooting Range Site (also referred to as the "Site"). As required by the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, this CAP describes the alternatives chosen for remediation of the Site and is written according to the requirements set forth in WAC 173-340-380. The proposed cleanup action addresses both the existing and proposed future land use of this Site as a shooting range.

The purpose of the CAP is to:

- Describe the Site, including a summary of its history and extent of contamination;
- Identify site-specific cleanup levels and points of compliance for each contaminant of concern (COC) and applicable exposure medium;
- Identify applicable state and federal laws for the proposed cleanup action;
- Summarize the cleanup action alternatives evaluated in the Feasibility Study (FS);
- Identify and describe the selected cleanup action alternative for the Site;
- Outline elements of the selected cleanup action for the different media that result in protection of human health and the environment.

Previously, a remedial investigation/feasibility study (RI/FS) was conducted to investigate soil, sediment, surface water and groundwater conditions affected by past activities at the Site, located approximately five miles west of Sequim, Washington. The Site is located in the NW1/4, SE1/4, Section 17, Township 30 North, Range 4 West, Willamette Meridian. The RI/FS Report was prepared by LaManna Geosciences, Inc. (LGI) and was submitted to Ecology under the requirements of Agreed Order No. DE 6551 and pursuant to the MTCA, RCW 70.105D.050(1). Agreed Order No. DE 6551 is between Ecology, Chuck Dryke (now deceased) and Rosemary Knotek. Mr. Dryke's and Ms. Knotek's ownership shares have since passed to Ellen Dryke, making her sole owner.

2. EXECUTIVE SUMMARY

A summary of the remedial investigation at this Site is as follows:

- Lead from shot and cPAH's from clay targets made from pitch, are present in soil and sediment at concentrations that exceed cleanup levels at locations on the Site.
- Nearly all of the elevated lead concentrations are present in the upper one foot of soil at the Site. There is no evidence of lead leaching from surface soils to deeper underlying soil or groundwater.

- Two quarters of groundwater monitoring were performed (November 2010 and June 2011) to simulate high and low water tables. A drinking water sample was also obtained by Ecology from a down gradient residence in July 2010. The groundwater monitoring results and drinking water sample results were below the MTCA cleanup levels for lead and PAHs. Additional groundwater monitoring is required as part of this CAP starting four years from the beginning of the remedial action and subsequently every five years thereafter as specified in the Remedial Action Work Plan.
- Metallic lead and PAHs were not found in surface water at levels of concern. Although one surface water sample of dissolved lead exceeded the site-specific lead cleanup level of 2.3 ug/L in the Upper Pond during the remedial investigation, it was believed to have been caused by turbidity from lead reclamation activities. A subsequent surface water sample was collected and analyzed for dissolved lead in November 2012 and the results were below the site specific cleanup level.
- Lead reclamation is currently being done independently, resulting in partial cleanup of soil and sediment at the Site as well as reducing the spread and buildup of lead shot and clay targets. Periodic lead reclamation will continue at this Site.
- Lead and PAH contaminated soil will be removed from the Lower Pond as detailed in the Remedial Action Work Plan.
- Institutional controls will be used to contain lead and cPAHs on the property. Best Management Practices will maintain proper management controls and periodic lead recycling will mitigate build up of lead.
- Periodic reviews by Ecology, as required by WAC 173-340-420, will ensure that the remedy remains protective of human health and the environment.

3. SITE DESCRIPTION

The Sunnydell Dryke Shooting Range Site is an active shooting range facility, located at 292 Dryke Road near Sequim, Washington in the NW1/4, SE1/4, Section 17, Township 30 North, Range 4 West (Willamette Meridian). The original facility property was a total of 38.89 acres (Figure 1) but was subdivided in 2013 into Lot 1 (9.03 acres) and Lot 2 (29.86 acres). The Site is described by Clallam County as Lot 2, tax parcel number 0430178020, by the Clallam County Assessor's Office (Exhibit 1). The Site is comprised of several improved areas for shooting practice and a club house, the upper, middle and lower ponds, as well as unimproved wooded areas. Lot 1 contains the main residence and dog kennel; other areas are wooded and unimproved. Lot 1 was never used for shooting and is not considered part of the Site.

The property generally slopes gently northward and is bordered to the north, east and west by residential properties, and to the south by Dryke Road. Land features include an Upper Pond, Middle Pond, Lower Pond, West Creek, wooded and open areas.

4. PROJECT HISTORY

The Sunnydell Dryke Shooting Range opened in 1967 and has been used as an active shooting range and dog training facility to the present day (Figure 2). The original property occupies approximately 39 acres of wooded and open areas and contains three ponds, a creek, a main residence, a second residence, and some small structures (i.e., Club House, kennels, gun repair shop) associated with the shooting range. The Site is surrounded by single family dwellings with variable lot sizes, including a trailer park that lies on the other side of Dryke Road to the south and upgradient from the Site.

Environmental samples collected by Clallam County Health and Human Services in 2004 indicated the presence of lead in sediment and surface water at the Site. The owners of this Site signed an agreed order with Ecology in August 2009 requiring them to conduct a Remedial Investigation/Feasibility Study (RI/FS).

5. PHYSICAL SITE CHARACTERISTICS

Surface and near-surface soil, freshwater sediment, surface water and groundwater are the primary medias of concern for Site cleanup and are described below:

5.1 Subsurface/Near-Surface Soil Conditions

The Site is located approximately five miles west of Sequim in Clallam County. The Strait of Juan de Fuca lies approximately 0.5 miles to the north. The Site soils are comprised of three soil units, including Cassolary fine sandy loam, Clallam gravelly sandy loam, and Hoypus gravelly sandy loam. These soil types typically form on hillslopes in glacial drift and glaciomarine deposits, or on outwash terraces in glacial outwash. According to Schasse and Wegmann (2000) this Site is situated on Pleistocene deposits of undifferentiated drift related to the Frasier glaciations, and the various deposits vary from 50 to 150 feet thick.

5.2 Groundwater Conditions

Shallow groundwater, surface water, and wet soils suggest a continuous and steep groundwater table under the surface of the Site (LGI, 2012). Groundwater flows north and appears to be in hydraulic contact with the Upper Pond, Lower Pond, Middle Pond and West Creek. Drinking water wells in the vicinity draw water from a much deeper regional aquifer that does not appear to be hydraulically connected with the water table aquifer of the Site. (Figure 3)

5.3 Freshwater Sediments

Freshwater sediments have been impacted by lead and cPAHs in the Upper Pond, and to a much lesser extent in the Lower Pond. The sediments in the Upper Pond, as well as some affected soil, are currently being dredged as part of an independent lead recycling effort.

5.4 Surface Water

Surface water exists at the Upper Pond, Middle Pond, Lower Pond, and West Creek at this Site. The water level in the Upper Pond is periodically augmented by pumping water from the Lower Pond.

6. NATURE AND EXTENT OF CONTAMINATION

A remedial investigation was completed by LGI in June of 2012 to identify the source(s) of the contamination and complete the assessment of the vertical and horizontal extent of the contamination, and identify alternative remedial strategies. It was found after this investigation approximately nine acres of this parcel were not part of the Active Shooting Range.

Lead from shot and cPAHs in clay targets made from pitch exist in the soil and sediment at concentrations that exceed site-specific cleanup levels at the Active Shooting Areas of the Site. The extent of soil contamination is limited to areas downrange of shooting stations and varies depending on lead reclamation activities and the amount of lead shot in each area over time. Based on ballistic properties of the largest size of lead shot used at this Site, it is possible that lead shot may be present up to 700 feet downrange of all shooting areas, but most shot is found within 200 yards or so of each shooting station. The tree canopy may also stop some lead shot from traveling very far.

Most of the elevated lead concentrations are present in the upper one foot or so of soil at the Site. Lead was found to exceed site-specific cleanup levels in the Rabbit Run Area (180,000 mg/Kg) and Weeping Willow Area (73,000 mg/Kg), both of which are currently, and will continue to be, Active Shooting Range Areas.

Sediment sampling was performed by LGI during the remedial investigation in the Upper Pond, Lower Pond, Middle Pond, and West Creek in 2012. Many sediment samples in the Upper Pond contained concentrations of lead, BTEQ, and total PAHs that exceed the site-specific cleanup levels. The vertical distribution of lead in the Upper Pond was not determined as samples did not extend below six inches deep and lead recycling efforts began. The Upper Pond was created by digging out a peat bog five feet thick until hardpan was reached in the 1950's. The gun club opened in 1967 so it is anticipated that lead shot and clay targets were present throughout the entire thickness of sediment that has accumulated in the Upper Pond until recent recycling efforts.

In the Lower Pond, from a total of 28 sediment samples, only three samples exceeded the 220 mg/Kg lead cleanup level and only two exceeded the 0.1 mg/Kg BTEQ cleanup

level. Only one sample exceeded the 17 mg/Kg total PAH cleanup level. Sampling efforts did not extend beyond six inches below the surface so the vertical extent of contamination is not known but is believed to be very limited due to very limited historical usage.

6.1 Contaminants of Concern

The contaminants of concern (COCs) for the Sunnydell Dryke Shooting Range Site were defined as those hazardous substances identified as exceeding MTCA Method A cleanup levels (CULs), at least one time in the Remedial Investigation (RI). The use of the Site has resulted in an accumulation of lead shot and PAHs in certain areas due to target practice. This target practice deposited lead shot, lead bullets, and fragments from "clay targets" on the ground surface and in the ponds. Three surrogates were evaluated to determine PAH toxicity. Benzo-a-pyrene was chosen because it is the cPAH with the highest toxicity, is frequently detected at the Site, and has specific cleanup criteria. The second surrogate is benzo-a-pyrene Toxicity Equivalence (bTEQ). The third surrogate used to evaluate PAH toxicity is total PAHs.

A summary of applicable environmental criteria for chemicals of concern is attached as Exhibit 2 (Table 5-1).

The following table lists the Site Specific Cleanup Levels for COCs in soil (MTCA Method A), freshwater sediment (Sediment Quality Standard/Screening Level 1), and for groundwater (MTCA Method A Standards).

Parameter	Medium	CUL Concentration	Comments
Lead	Soil	220 mg/Kg	Most restrictive of the soil and sediment criteria listed in Table 5-1(Exhibit 2). Soil and sediment may be hard to distinguish in the shoreline area of the ponds.
Lead	Groundwater	15 μg/L	Most restrictive of the groundwater and drinking water criteria listed in Table 5-1(Exhibit 2).
Lead	Fresh Surface Water	2.3 μg/L	Assumes a hardness of 100 mg/L CaCO ₃ ., which is higher than the harnesses measured at the Site.
Total PAHs	Fresh water sediment	17 mg/Kg	This proposed sediment quality standard may not apply to the Upper Pond because it is an active shooting range whose habitat quality is significantly limited.
bTEQ	Soil	0.1 mg/Kg	MTCA Method A for unrestricted land use (WAC173-340-900, Table 740-1).
bTEQ	Groundwater	0.1 µg/L	MTCA Method A for Ground Water (WAC173- 340-900, Table 720-1). This CUL is based on the laboratory instrument reporting limits.

 Table 5-2. Summary of Site-specific CULs

6.2 Soil

Clallam County Health and Human Services (CCHHS) collected one soil sample in the area referred to as "Rabbit Run" and it contained 618 mg/Kg lead and 9.66 mg/Kg bTEQ (Figure 2). Environmental Services Associates, Inc. (ESA) then collected ten samples from five locations at Rabbit Run, resulting in a lead concentration of 180,000 mg/Kg and bTEQ of 255.72 mg/Kg (Exhibit 3).

CCHHS collected two soil samples in the "Weeping Willow" area and they contained 71.3 mg/Kg lead and 261.5 mg/Kg bTEQ. ESA collected ten samples from five locations resulting in a lead concentration of 73,000 mg/Kg lead and 81.76 mg/Kg bTEQ.

6.3 Ground Water

One groundwater sample was collected from the water-supply well at the adjacent and down-gradient Miller property in July 2010. Groundwater samples were also collected from monitoring wells on the Sunnydell property in November 2010 and June 2011. The monitoring well data and drinking water sample results were all below MTCA CULs for lead and PAHs (Figure 3).

6.4 Surface Water

Surface water samples were collected by CCHHS, ESA, and LGI in the Upper Pond, Lower Pond, West Creek, and wet soils on the Miller property. All filtered samples were below cleanup levels except one filtered sample from the Upper Pond which contained 11.2 ug/L lead, exceeding the 2.3 ug/L cleanup level. High turbidity at the time of sampling due to ongoing lead reclamation was believed to have resulted in this lead exceedance. A subsequent dissolved lead surface water sample from the Upper Pond following lead reclamation was below the cleanup level.

Filtered samples from the Lower Pond were below the lead CUL and did not contain detectable PAHs. Filtered samples from the West Creek were below the lead CUL and were not analyzed for PAHs since clay targets have not been used nearby.

6.5 Sediment

Many sediment samples collected from the Upper Pond contained concentrations of lead, bTEQ, and total PAHs above site-specific cleanup levels. As previously mentioned, it is believed that lead was present in the Upper Pond sediment throughout the entire thickness from the surface of the sediment to the underlying hard pan at approximately five feet BGS until recent lead recycling.

Prior to sampling the Lower Pond, lead and PAH sediment contamination was believed to be limited since the Lower Pond was mostly used for dog training. Out of 28 sediment samples collected by ESA in the Lower Pond, three exceeded the lead cleanup level, one exceeded the bTEQ cleanup level, and one exceeded the total PAH criterion.

CLEANUP STANDARDS

The Sunnydell Dryke Shooting Range Site is zoned Rural Neighborhood Conservation (NC) and is surrounded by residential properties. MTCA Method A cleanup levels for unrestricted use were used to evaluate soil and groundwater cleanup levels and freshwater sediment was screened against proposed values in Ecology Publication No. 11-09-054 titled "Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho", November 2011.

The point of compliance for soil is throughout the Site for protection of groundwater and from the ground surface to a depth of 15 feet for soil for the protection of human health based on direct contact exposure. Protection of indoor air is not a pathway of concern at this Site since the COCs are not volatile.

The point of compliance for groundwater is throughout the Site from the upper most level of the saturated zone extending vertically to the lowest depth which could potentially be affected by the site.

The media specific cleanup levels and points of compliance constitute the cleanup standards for this Site.

8.0 SUMMARY OF REMEDIAL ACTION ALTERNATIVES

In the Feasibility Study (FS), alternatives were identified and screened for their applicability in addressing Site contamination and achieving remedial objectives (meeting cleanup standards). The various alternatives were screened to narrow the list of technologies. Other measures were considered for more detailed evaluation in the FS.

The remedial action alternatives developed and evaluated for the Sunnydell Dryke Site were:

<u>Alternative 1</u> – No Action. This alternative is listed as a baseline for comparison only. It is not judged acceptable because it does not address potential exposures to humans and wildlife; does not reduce the potential for Site operations to spread COCs; and this alternative does not include institutional controls to ensure protection of human health and the environment.

<u>Alternative 2 –</u> Develop and implement BMPs, specific remedial actions, and institutional controls. BMP's and specific remedial actions will be used at the Site to ensure that spent lead shot and targets are managed in a manner to avoid threats to human health and the environment while the range remains active.

<u>Alternative 3 –</u> Excavate shallow soil, recover lead shot, consolidate contaminated soil on-site, and cap with clean soil. The alternative was not chosen since removal of contaminated soil would not be appropriate for this Site, with its active shooting ranges, because more lead shot will immediately re-accumulate.

<u>Alternative 4 –</u> Excavate shallow soil (and sediment), recover lead shot, and dispose of off-site. The alternative was not chosen since removal of contaminated soil would not be appropriate for this Site, with its active shooting ranges, because more lead shot will immediately re-accumulate.

9.0 SELECTED REMEDIAL ACTION ALTERNATIVE

In this cleanup action plan, Alternative 2 has been identified as the preferred remedial alternative for the Sunnydell Dryke Shooting Range Site. This alternative involves dividing the Site into Management Areas based on historical site use. Those areas include Active Shooting Ranges, Lower Pond Areas, and Non-shooting Areas (Figure 4). The current owners do not plan on expanding or creating new active shooting ranges. This alternative will provide a high level of protection to human health and the environment by implementing BMPs, institutional controls, and removing selected soils. The selected alternative will not allow COCs to migrate out of Active Shooting Range areas.

Active Shooting Range Management Areas

The four Active Shooting Range Management Areas will be operated in accordance with the following BMPs:

- Lead reclamation will be conducted in a manner that does not spread COCs (shot, target fragments, post-reclamation soil, muddy water, etc.) beyond the area that is undergoing reclamation. Boundary limits will be established for lead reclamation operations to prevent releases onto Non-Shooting Areas.
- Recovered lead shot destined for recycling will be temporarily stored on-site in sealed containers that are not subject to rainfall infiltration and rodent damage.
- Movement of soil within Active Shooting Areas will be minimized to limit potential environmental impacts.
- Records should be kept of lead shot reclamation and the tonnage of reclaimed lead received by recyclers or reused for on-site reloading. These records will demonstrate that recycling has been taking place.
- Soil from Active Shooting Ranges (including waste soil from lead recovery operations) will not be deposited in Non-Shooting Areas.
- Biodegradable targets are preferred over targets made with pitch and will be used if economically and practically feasible.
- Target fragments and debris recovered during reclamation will be sent off-site as solid waste.
- Shooting platforms and target launchers will be positioned to keep shot falling within the already established boundaries of the Active Shooting Ranges.

- Shot size will be restricted to #8 or smaller to limit the shot fall areas. Signs will be placed in all shooting ranges to notify shooters of this restriction in shot size.
- Post-reclamation areas of bare soil will be planted with vegetation, mulched, or covered to prevent erosion and direct contact with potentially contaminated soil. Vegetation should be properly chosen because excessive vegetation may hinder reclamation efforts and vegetation typically must be removed prior to reclamation. Children will not be allowed to play with or sit on the ground (i.e., the soil), sediment, or water in Active Shooting Ranges.
- Livestock will not be allowed to graze on plants growing in Active Shooting Ranges.
- Hunting will not be allowed. This restriction will prevent the spread of shot or bullets beyond the boundaries of the Active Shooting Ranges. Killing of nuisance animals will be allowed if done lawfully.
- Compliance monitoring will consist of record keeping. Records will be kept of soil excavations, soil fills, lead reclamation, and target composition.

Lower Pond Management Area

The Lower Pond Area is shown on Figure 5. The following specific mitigation and BMPs will be implemented.

- Soil from two locations at the Lower Pond contains lead and PAHs that exceed CULs. The soil at the Lower Pond will be remediated by excavating the upper 1-foot and relocating this soil to the soil berm at the Rabbit Run and/or one of the other Active Shooting Ranges. It is estimated that 20 cubic yards of soil will be removed from the lower pond (Figure 5).
- Confirmation soil sampling will ensure that lead and PAH cleanup levels have been met in the Lower Pond excavation areas. The soil remaining after the excavation is complete, where located above the water level, will be allowed to vegetate to prevent erosion.
- Target practice and hunting will not be allowed. These restrictions will prevent further addition of shot or bullets onto shallow soil surfaces. Killing of nuisance animals will be allowed if done lawfully and in active shooting range management areas.
- Adults and children will not be allowed to play or sit on the ground (soil), sediment, or water in the Lower Pond Area until after the hot spots are remediated.
- Surface water runoff to adjoining properties will be controlled by maintaining the soil berm along the northern property line.
- Records will be kept of soil excavations, soil fills, and lead reclamation.

Non-Shooting Management Areas

The Non-Shooting Areas will be operated with the following BMPs:

- Soil from the Active Shooting Ranges and the Lower Pond Area will not be brought onto Non-Shooting Areas.
- Lead reclamation activity (i.e., processing contaminated soil or sediment) will not take place on Non-Shooting Areas. Potentially contaminated soil or sediment will not be transported across the Non-Shooting Areas unless the soil, and any entrained water, is contained.
- Target practice and hunting will not take place on Non-Shooting Areas. This will prevent the deposition of lead shot and target fragments in an area not suspected of shooting operations.

9.1 Institutional Controls

The current owner of the original 38.89 acre property subdivided it into two properties in 2013, Lot 1 (9.03 Acres) and Lot 2 (29.86 Acres). Lot 1 will be excluded from the BMPs and the Institutional Controls because it was never part of the shooting range, and contains the main residence and the dog kennel.

An environmental covenant will be recorded and attached to the deed for the parcel identified as Lot 2. The covenant will alert future owners that this part (Lot 2) of the original 38.89 acre property was used as a commercial target range and potential contamination from lead shot and target fragments may be present in soil or sediment. The environmental covenant will 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 Lot 2 as long as the use of the property remains as a shooting range. If the use of Lot 2 changes, additional investigation and/or cleanup will be necessary.

10.0 CRITERIA FOR SELECTION OF CLEANUP ACTION

MTCA specifies the criteria for selecting an appropriate cleanup action (WAC 173-340-360). Presented below are the requirements for selecting a cleanup action along with determinations of how the selected cleanup action meets each requirement.

10.1 Protection of Human Health and the Environment: The selected alternative, along with periodic lead reclamation, will protect human health and the environment. The remedy will mitigate risk by removing contaminated soil from two hotspot locations at the Lower Pond, and moving the soil to an Active Shooting Range Area where exposure is less likely. Concentrations of lead will be reduced following lead reclamation, estimated to remove 50 tons in 2013. These activities, BMPs and institutional controls will protect human health and the environment.

10.2 Compliance with Cleanup Standards: MTCA cleanup standards have been achieved when cleanup levels are met at the point of compliance. Groundwater is currently in compliance with MTCA based on groundwater monitoring results. Surface water, soil and sediment will also be in compliance with cleanup standards throughout the Site following implementation of the selected remedy, except in active shooting areas where BMP's and institutional controls will protect human health and the environment.

<u>10.3 Compliance with ARARs</u>: In addition to establishing minimum requirements for cleanup standards, applicable state and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. This alternative is compliant with state and federal laws. The remedial cleanup action at the Sunnydell Dryke Site fulfills the requirements of a routine cleanup action under MTCA. MTCA Method A is appropriate as the primary method to establish cleanup levels for the Sunnydell Dryke Site because there are few hazardous substances, the Site will be undergoing a routine cleanup action, and numerical cleanup standards are available or can be calculated for the indicator hazardous substances in the media being remediated. MTCA Method A CULs were used for hazardous substances in soil and ground water, and the Sediment Quality Standard/Screening Level 1 was used for freshwater sediment.

<u>**10.4 Compliance Monitoring**</u>: Under MTCA, compliance monitoring is required for all cleanup actions (WAC 173-340-410). Compliance monitoring will consist of periodic groundwater monitoring and specific details will be included in the Remedial Action Work Plan to be submitted to the department for review and approval. Detailed recording keeping of ongoing activities will include but be not limited to:

- Periodic lead reclamation activities.
- Any soil disturbance or movement in Active Shooting Range Areas.
- Monitoring of the Lower Pond to prevent migration to adjoining properties.

<u>**10.5 Long-Term Effectiveness</u></u>: It is anticipated that CULs will not be attained in active shooting areas one year after implementation of the remedy since lead shot will continue to accumulate, but the remedy will continue to be effective long term due to BMPs and periodic lead reclamation.</u>**

<u>10.6 Short-Term Effectiveness</u>: Removal of soil from two hotpots at the Lower Pond will provide short-term effectiveness. The direct contact/ingestion by humans pathway will also be mitigated by removal of lead from contaminated soil through lead reclamation. Monitoring will ensure that surface water is not migrating off-Site. BMPs will ensure effectiveness.

<u>10.7 Permanent Reduction in the Toxicity, Mobility, and Volume of</u> <u>Hazardous Substances</u>: Lead reclamation in soil will occur periodically to reduce the volume and potential mobility at the Site. The volume of contaminated soil will be reduced significantly as a result. Two hot spot areas at the Lower Pond will be excavated and moved to another Active Shooting Area at the Site. **<u>10.8 Ability to be Implemented</u>**: Soil removal, lead reclamation and BMPS are readily implementable at this Site.

<u>10.9 Addresses Community Concerns</u>: Community acceptance will be evaluated based on the comments received during the public comment period. Public comments will be considered during preparation of the final CAP.

11.0 APPLICABLE, RELEVANT, AND APPROPRIATE REQUIREMENTS

WAC 173-340-700(4)(a) states, "In addition to establishing minimum requirements for cleanup levels, applicable state and federal laws may also impose certain technical and procedural requirements for performing cleanup actions." Applicable, relevant, and appropriate requirements (ARARs) for this Site include:

- Chapter 49.17 RCW, Washington Industrial Safety and Health Act (WISHA).
- Chapter 173-201A WAC Water Quality Standards for Surface in Washington State
- Chapter 173-200 WAC Water Quality Standards for Drinking Water in Washington State
- Federal Maximum Contaminant Level (MCL).

Remedial actions performed under a consent decree, enforcement order, or agreed order, and Ecology when it conducts a remedial action, are exempt from the procedural requirements of certain laws. Sites that are cleaned up under an order or decree may be exempt from obtaining a permit under certain other laws but they must meet the substantive requirements of these other laws. This list does not preclude identification of other state or federal ARAR's that may be identified prior to implementation of the selected remedy.

12.0 SCHEDULE

A Remedial Action Work Plan will be provided for Ecology review 60 days following the effective date of the agreed order. The Remedial Action Work Plan at a minimum should include the following components:

• BMP's (following EPA guidelines),

- Sediment excavation details,
- Long term groundwater monitoring plan, and
- Plans for periodic lead recycling.

Ecology will have 30 days to review the draft work plan and provide comments. PLP will have 30 days to finalize the work plan.

An environmental covenant will be drafted by PLP for review by Ecology within 30 days following finalization of the work plan. Ecology will have 30 days to review environmental covenant. The environmental covenant will be recorded at Clallam County and a copy provided to Ecology.

Cleanup activities for the Site soil will commence 30 days after the Remedial Action Work Plan is finalized. A Remedial Action Report will be provided to Ecology 30 days following receipt of laboratory data from the soil excavation and will include activities performed as described in the Remedial Action Work Plan.

13.0 REFERENCES

- Environmental Protection Agency (EPA). 2005. Best Management Practices for Lead at Outdoor Shooting Ranges. EPA-902-B-01-001. June.
- . 2003. TRW Recommendations for Performing Human Health Risk Analysis on Small Arms Shooting Ranges. U.S. EPA Office of Solid Waste and Emergency Response #9285.7-37. March: http://www.epa.gov/superfund/lead/products/firing.pdf
- Environmental Services Associates, Inc. (ESA). 2010a. Scoping Phase Report, Sunnydell Dryke Shooting Range, 292 Dryke Road, Sequim, WA 98382. Prepared for Chuck Dryke and Rosemary Knotek. July 5.
- _____. 2010b. Site Characterization, Sunnydell Dryke Shooting Range, 292 Dryke Road, Sequim, WA 98382. Prepared for Chuck Dryke and Rosemary Knotek. August 18.
- LaManna Geosciences Inc. (LGI). 2010. Sampling and Analysis Plan, June 2011 Groundwater and Soil Investigation, Sunnydell Dryke Shooting Range, Sequim, Clallam County Washington. Prepared for Sunnydell Dryke Shooting Range. November 12.
- 2011a. Sampling and Analysis Plan, November 2011 Groundwater Investigation, Sunnydell Dryke Shooting Range, Sequim, Clallam County Washington. Prepared for Sunnydell Dryke Shooting Range. June 5.
- _____. 2011b. Site Characterization Report, Sunnydell Shooting Range, 292 Dryke Road, Sequim, Washington, 98382. Prepared for Sunnydell Shooting Range. October 1.

- National Shooting Sports Foundation. (undated). Environmental Aspects of Construction and Management of Outdoor Shooting Ranges. Facility Development Series Number 2.
- Schasse, H.W. and K.W. Wegmann. 2000. Geologic Map of the Carlsborg 7.5-minute Quadrangle, Clallam County, Washington. Washington Division of Geology and Earth Resources Open File Report 2000-7.
- Washington State Department of Ecology (Ecology). 2011. Development of Benthic SQVs for Freshwater Sediments in Washington, Oregon, and Idaho. Publication No. 11-09-054. November.
- LaManna Geosciences Inc., Sunnydell Dryke Shooting Range, Remedial Investigation and Feasibility Study Report, June 22, 2012

FIGURES

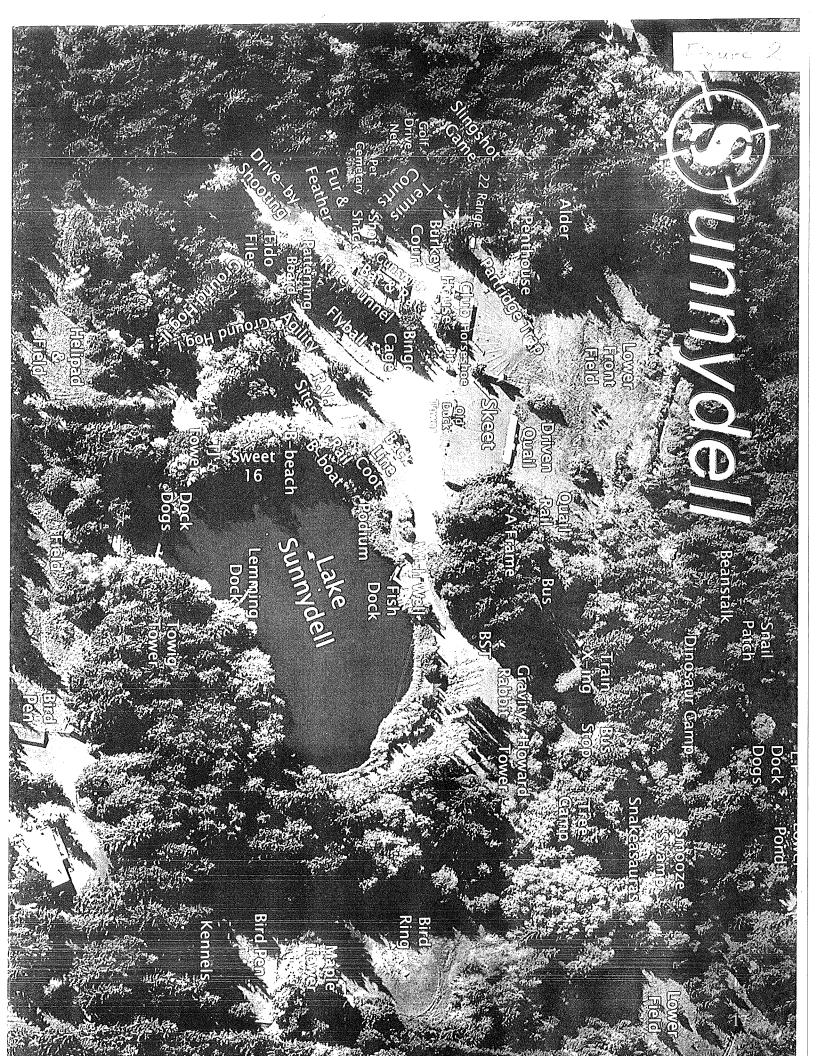
FIGURE 1

LaManna Geosciences Inc.

Sunnydell Dryke Shooting Range 292 Dryke Road Sequim, WA 98382



Figure 16. Map showing locations of proposed Active Shooting Range Management Areas (4 black polygons); shooting locations (1, 2, 3A, 3B, 4, 5A, 5B); shooting directions (orange arrows); Lower Pond Management Area (green polygon), and Lots 1 and 2 (red polygons). There are berms located at the south and southeast sides of Management Area 5. These berms prevent stray shot and bullets. The area outside of the black and green polygons in Lot 2 comprise the Non-Shooting Management Areas. The text describes BMPs and an institutional control for these management areas. Lot 1 will be managed separately and is excluded from these BMPs and institutional control.



Sunnydell Dryke Shooting Range 292 Dryke Road Sequim, WA 98382

Figure 3

LaManna Geosciences Inc.

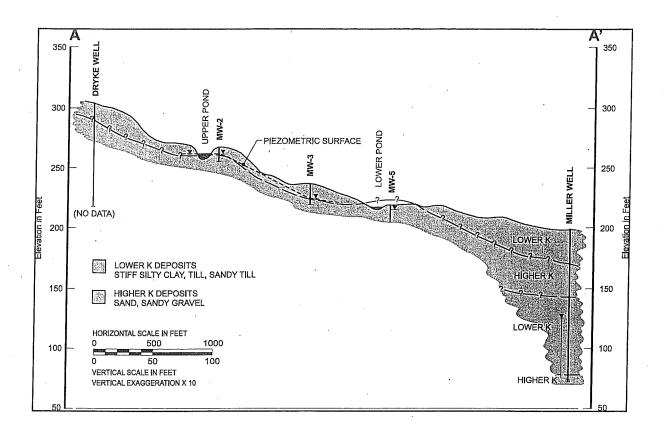


Figure 5b. Hydrogeologic cross section A-A'. This representation assumes a continuous water table exists beneath the Site that is in hydraulic contact with the surface water bodies. The strata appear to dip gently to the north, which is to the right. Boring logs for the monitoring wells and the Miller well are located in Appendix A of LGI (2011b).

Figure 4

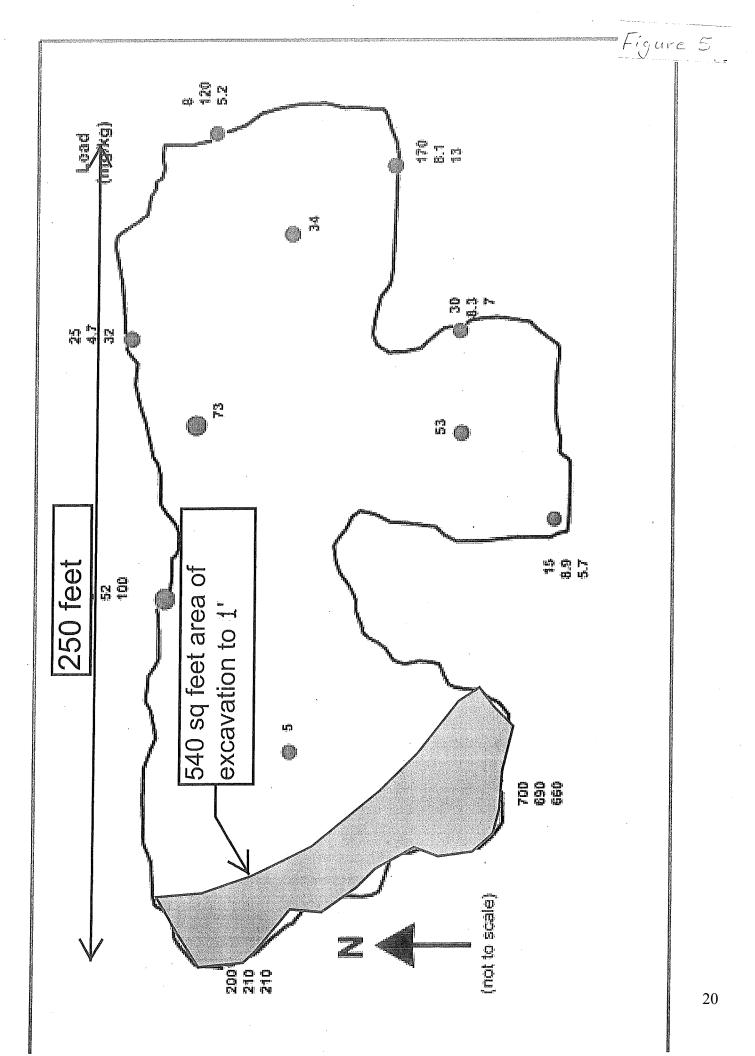
Sunnydell Dryke Shooting Range 292 Dryke Road Sequim, WA 98382

LaManna Geosciences Inc.



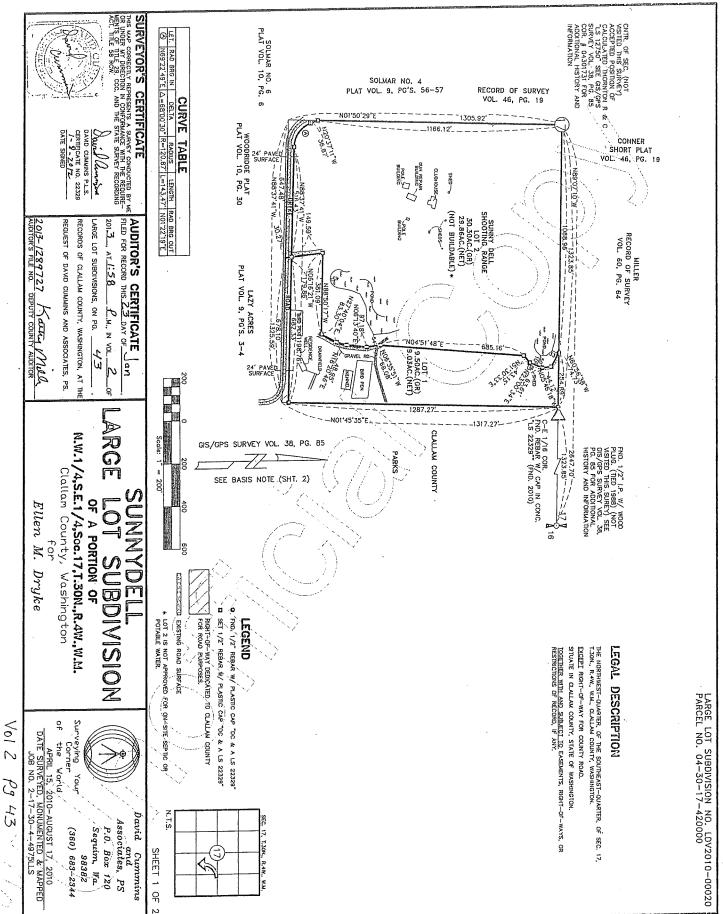
Figure 16. Map showing locations of proposed Active Shooting Range Management Areas (4 black polygons); shooting locations (1, 2, 3A, 3B, 4, 5A, 5B); shooting directions (orange arrows); Lower Pond Management Area (green polygon), and Lots 1 and 2 (red polygons). There are berms located at the south and southeast sides of Management Area 5. These berms prevent stray shot and bullets. The area outside of the black and green polygons in Lot 2 comprise the Non-Shooting Management Areas. The text describes BMPs and an institutional control for these management areas. Lot 1 will be managed separately and is excluded from these BMPs and institutional control.

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EXHIBITS

2013-1260727 V: 82 P: 043 Port of Constant & Barriston Calling Constant & Barriston Calling Constant Radiogucon 01/23/2013 DI 59.57 Pr Elilling Constant Radiogucon 01/23/2013 DI 59.57 Pr Elilling Constant Radiogucon 01/23/2013 DI 59.57 Pr Elilling Constant Radiogucon 01/23/2013 DI 59.57 Pr



ARD

EXHIBIT

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Parameter Medium		Concentration	Comments		
Lead	Freshwater Sediment	360 mg/Kg (proposed)	Sediment Quality Standard/Screening Level 1 (Table ES-1; Ecology, 2011).		
Lead	Soil	250 mg/Kg	Model Toxics Control Act (MTCA) Method A for unrestricted land use (WAC173-340-900, Table 740-1).		
Lead	Soil	220 mg/Kg	MTCA Priority Contaminants of Ecological Concern for Sites that Qualify for the Simplified Terrestrial Ecological Evaluation Procedure (WAC173-340-900, Table 749-2 for unrestricted land use).		
Lead	Soil	220 mg/Kg	MTCA Priority Contaminants of Ecological Concern for Sites that Qualify for the Simplified Terrestrial Ecological Evaluation Procedure (WAC173-340-900, Table 749-2 for unrestricted land use).		
Lead	Groundwater	15 μg/L	MTCA Method A (WAC173-340-900, Table 720-1).		
Lead ¹	Drinking Water	50 μg/L	WAC 173-200-040, Table 1.		
Lead	Fresh Surface Water	2.3 µg/L	Assumes a hardness of 100 mg/L CaCO ₃ (WAC 173-201A).		
Benzo-a- pyrene	Soil	.30 mg/Kg	MTCA Priority Contaminants of Ecological Concern for Sites that Qualify for the Simplified Terrestrial Ecological Evaluation Procedure (WAC173-340-900, Table 749-2 for unrestricted land use).		
Benzo-a- pyrene	Soil	0.1 mg/Kg	MTCA Method A for unrestricted land use (WAC173- 340-900, Table 740-1).		
cPAH TEQ	Soil	0.1 mg/Kg	MTCA Method A for unrestricted land use (WAC173- 340-900, Table 740-1).		
Total PAHs	Freshwater Sediment	17 mg/Kg	Proposed Sediment Quality Standard/Screening Level 1 (Table ES-1; Ecology, 2011). This criterion may not be applicable to the Upper Pond because it is an active shooting range.		
Benzo-a- pyrene	Groundwater	0.1 µg/L	MTCA Method A Cleanup Levels for Groundwater (WAC 173-340-900, Table 720-1).		
cPAH TEQ	Groundwater	0.1 µg/L	MTCA Method A Cleanup Levels for Groundwater (WAC 173-340-900, Table 720-1).		
Benzo-a- pyrene	Drinking Water	0.008 µg/L	WAC 173-200-040, Table 1. Note: 0.008 µ/L criterion is below the laboratory reporting limit. In this situation it is customary to substitute the reporting limit. For water samples collected June 2011 and analyzed by Fremont Analytical, the reporting limit was 0.1 µ/L for individual PAHs including benzo-a-pyrene.		

Table 5-1. Summary of Applicable Environmental Criteria for COCs at the Site

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Date (sampler)	Sample ID	Lead (mg/Kg)	TEQ (mg/Kg)	Comments
7/29/2005 (CCHHS)	Dryke1RR	618	9.66	GPS position available. Probably surface grab.
7/15/2010 (ESA)	RR-1-1	66,000	105.68	1-in deep. Position uncertain.
7/15/2010 (ESA)	RR-1-2	3,100	44.88	6-in deep. Position uncertain.
7/15/2010 (ESA)	RR-2-1	180,000	255.72	1-in deep. Position uncertain.
7/15/2010 (ESA)	RR-2-2	290	21.80	12-in deep. Position uncertain.
7/15/2010 (ESA)	RR-3-1	100,000	85.78	1-in deep. Position uncertain.
7/15/2010 (ESA)	RR-3-2	38	1.09	12-in deep. Position uncertain.
7/15/2010 (ESA)	RR-4-1	52,000	101.98	1-in deep. Position uncertain.
7/15/2010 (ESA)	RR-4-2	180	2.71	12-in deep. Position uncertain.
7/15/2010 (ESA)	RR-5-1	63,000	140.31	1-in deep. Position uncertain.
7/15/2010 (ESA)	RR-5-2	82	6.61	12-in deep. Position uncertain.
7/15/2010 (ESA)	RR-5-2 Dup	76	(not tested)	Duplicate of RR-5-2.

Table 5-5. Selected Test Results for Samples Collected in the Rabbit Run Area

Note:

Bold = Exceedance