



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

February 23, 2001

Mr. Paul Steucke
Public Works
AFZH_DEQ (MS-17e)
Box 339500
Fort Lewis, WA 98433-5000

Dear Mr. Steucke:

Enclosed is the signed agreed order No. DE 00HWTRSR-1122 which takes effect today February 22, 2001. There were no comments on the draft order received during the public comment period from January 8, 2001 to February 9, 2001.

We are looking forward to continuing working with you and your staff and contractors in making environmental progress at Fort Lewis.

Please contact Leon Wilhelm, the site manager for this facility at (360) 407-6362 if you have any questions or concerns related to this order.

Sincerely,

K Seiler

K Seiler, Section Manager
Hazardous Waste and Toxics Reduction
Southwest Regional Office

KBS:LW:dn
Enclosure

cc: Richard Wilson, Fort Lewis
Leon Wilhelm, Ecology
Leslie Seffern, Ecology AG



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:

Fort Lewis, Washington

AGREED ORDER

No. DE 00HWTRSR-1122

TABLE OF CONTENTS

I.	JURISDICTION	2
II.	DEFINITIONS	2
III.	OBJECTIVES.....	5
IV.	FINDINGS OF FACT	5
V.	ECOLOGY DETERMINATIONS.....	6
VI.	WORK TO BE PERFORMED	7
VII.	TERMS AND CONDITIONS OF ORDER	12
VIII.	STIPULATED PENALTIES.....	19
IX.	SATISFACTION OF THIS ORDER	21
X.	ENFORCEMENT.....	21

ATTACHMENTS

- Number 1: Boundaries of Dangerous Waste Management Facility
- Number 2: SWMUs and AOCs Located Within the Dangerous Waste Management Facility
Requiring Further Corrective Action

1 I. JURISDICTION

2 This agreed order is issued under the authority of the Revised Code of Washington (RCW)
3 70.105D.050(1). Pursuant to Ecology's corrective action program which is authorized under Title 42 of
4 the United States Code, Section 6926, this Agreed Order will be part of a state approved remedial action
5 that will meet Fort Lewis's RCRA corrective action requirements.

6
7 II. DEFINITIONS

8 Unless otherwise specified, the definitions set forth in Chapter 70.105D RCW and Chapter 173-
9 340 WAC will control the meanings of the terms used in this Order.

10 Additional definitions are as follows:

11 1. Agreed Order or Order means this Order issued under WAC 173-340-530. The term
12 includes the text of this Order, all Attachments to this Order, and all Ecology-approved submittals
13 required pursuant to this Order. Order Attachments and Ecology approved or conditionally approved
14 submittals are incorporated into this Order by this reference and are enforceable parts of this Order as if
15 fully set forth herein.

16 2. Area of Concern (AOC) means any area of the facility where a release of dangerous
17 constituents (including dangerous waste and hazardous substances) has occurred, is occurring, is
18 suspected to have occurred, or threatens to occur.

19 3. Cleanup Action Plan (CAP) means the document issued by Ecology under WAC 173-
20 340-360 which selects facility specific corrective measures and specifies cleanup standards (cleanup
21 levels, points of compliance and other requirements for the corrective measures).

22 4. Cleanup Standards means the standards promulgated under RCW 70.105D.030(2)(d) and
23 include (1) hazardous substance concentrations (cleanup levels) that protect human health and the
24 environment, (2) the location at the facility where those cleanup levels must be attained (points of
25 compliance), and (3) additional regulatory requirements that apply to a cleanup because of the type of

1 action and/or the location of the facility.

2 5. Corrective Action means any activities including investigations, studies,
3 characterizations and corrective measures, including actions taken pursuant to Chapter 70.105D RCW
4 and Chapter 173-340 WAC, undertaken in whole or in part to fulfill the requirements of WAC 173-303-
5 646.

6 6. Corrective Measure means any measure or action to control, prevent, or mitigate releases
7 and/or potential releases of dangerous constituents (including dangerous waste and hazardous
8 substances) reviewed and approved by Ecology for the facility and set forth in a facility specific Cleanup
9 Action Plan (CAP) prepared in compliance with the requirements of Chapter 173-340 WAC, including
10 WAC 173-340-360. Corrective measures may include interim actions as defined by Chapter 173-340
11 WAC. Interim actions will not necessarily be set forth in a facility specific CAP.

12 7. Dangerous Constituent means any constituent identified in WAC 173-303-9905 or 40
13 CFR Part 264 Appendix IX, any constituent which caused a waste to be listed or designated as dangerous
14 under the provisions of Chapter 173-303 WAC, and any constituent defined as a hazardous substance at
15 RCW 70.105D.020(7).

16 8. Dangerous Waste means any solid waste designated in WAC 173-303-070 through 173-
17 303-100 as dangerous or extremely hazardous or mixed waste. Dangerous wastes are considered
18 hazardous substances under RCW 70.105D.020(7).

19 9. Dangerous Waste Constituent means any constituent listed in WAC 173-303-9905 and
20 any other constituent that has caused a waste to be a dangerous waste under Chapter 173-303 WAC.

21 10. Dangerous Waste Management Unit (DWMU) is a contiguous area of land on or in
22 which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing
23 dangerous waste constituents in the same area, as defined in WAC 173-303-040.

24 11. Dangerous Waste Management Facility (DWMF) means the Building 9673 Dangerous
25 Waste Management Unit (DWMU) controlled by Fort Lewis and located south of Tacoma Washington,

1 and property contiguous to the DWMU also controlled by Fort Lewis. Dangerous Waste Management
2 Facility does not include those areas that have been addressed or are being addressed under the Federal
3 Facilities Agreement. The boundaries of the Dangerous Waste Management Facility are delineated in
4 Attachment 1.

5 12. Facility means the DWMF and all property, regardless of ownership, affected by releases
6 or threatened releases of hazardous substances, including dangerous wastes and dangerous constituents,
7 at and from the DWMF.

8 13. Feasibility Study (FS) means the investigation and evaluation of potential corrective
9 measures performed in accordance with the Feasibility Study (FS) requirements of WAC 173-340-350
10 which includes the substantive requirements for a RCRA Corrective Measures Study, and undertaken in
11 whole or in part to fulfill the corrective action requirements of WAC 173-303-646.

12 14. Permit or Permitting Requirement, unless otherwise specified, means the requirements of
13 Chapter 173-303 WAC for applying for, obtaining, maintaining, modifying, and terminating Dangerous
14 Waste Management Facility permits.

15 15. RCRA Facility Assessment (RFA) means the Environmental Protection Agency (EPA)
16 conducted investigation of releases and potential release at the Dangerous Waste Management Facility
17 and the information contained in the report entitled "RCRA Facility Assessment Report, Fort Lewis, Fort
18 Lewis, Washington" dated June 1997 ("RFA Report"). The RFA Report is incorporated into this Order
19 by this reference as if fully set forth herein.

20 16. Release means any intentional or unintentional spilling, leaking, pouring, emitting,
21 emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous waste
22 or dangerous constituents into the environment. It also includes the abandonment or discarding of
23 barrels, containers, and other receptacles containing dangerous waste or dangerous constituents and
24 includes the definition of release in RCW 70.105D.020(20).

25 17. Remedial Investigation (RI) means an investigation and characterization performed

1 throughout the Dangerous Waste Management Facility in accordance with the requirements of Chapter
2 173-340 WAC, which includes the substantive requirements for a RCRA facility investigation,
3 undertaken in whole or in part to fulfill the corrective action requirements of WAC 173-303-646.

4 18. Solid Waste Management Unit (SWMU) means any discernible location at the
5 Dangerous Waste Management Facility where solid wastes have been placed at any time, irrespective of
6 whether the location was intended for the management of solid or dangerous waste. Such locations
7 include any area at the Dangerous Waste Management Facility at which solid wastes, including spills,
8 have been routinely and systematically released and include regulated units as defined by Chapter 173-
9 303 WAC.

10 III. OBJECTIVES

11 The remedial action objectives for this facility are:

12 1. Fort Lewis will conduct a remedial investigation and feasibility study to be approved by
13 Ecology and in accordance with the requirements of Chapter 173-340 WAC. The purpose of the RI/FS
14 will, in part, be to concurrently satisfy the corrective action requirements, [a RCRA facility investigation
15 and RCRA corrective measures study], of WAC 173-303-646.

16 2. After completion and approval of the remedial investigation and feasibility study, Fort
17 Lewis will be required to develop a draft Cleanup Action Plan (CAP) to satisfy the requirements of WAC
18 173-340-400 and to concurrently satisfy the corrective action requirements of WAC 173-303-646.

19 3. After public review and comment, the Cleanup Action Plan will be finalized and Fort
20 Lewis and Ecology will negotiate and attempt to enter into an amendment to this order, a new order or a
21 consent decree to design, construct, operate, and monitor the selected cleanup or corrective.

22 IV. FINDINGS OF FACT

23 Ecology makes the following Findings of Fact. Fort Lewis neither admits nor denies these

1 Findings of Fact.

2 1. The United States is the owner and Fort Lewis has been the operator of the Dangerous
3 Waste Management Facility since about 1917.
4

5 2. The United States owned and Fort Lewis operated the Dangerous Waste Management
6 Facility on or after November 19, 1980, the date which subjects facilities to RCRA permitting
7 requirements, including interim status requirements pursuant to Section 3005 of RCRA and
8 implementing regulations thereunder, and including authorized state regulations promulgated in Chapter
9 173-303 WAC.

10 3. On August 16, 1980, Fort Lewis submitted a Notification of Hazardous Waste Activity.
11 In the notification, Fort Lewis identified itself as managing the following dangerous wastes at the
12 DWMF: F001, F017, F018, F003, U220, U064, D001, D003, and D013.

13 4. Pursuant to the 1980 notification, Fort Lewis was issued identification number WA9
14 21405 3465 by EPA.

15 5. On June 1997 EPA performed a RCRA Facility Assessment (RFA) at the Dangerous
16 Waste Management Facility. The purpose of an RFA is to identify those areas at the Dangerous Waste
17 Management Facility where releases of hazardous substances, as defined in RCW 70.105D.020(7), may
18 have occurred or may be occurring.

19 6. Pursuant to the RFA Report and other information, Ecology has identified the Solid
20 Waste Management Units (SWMUs) and Areas of Concern (AOCs) at the Dangerous Waste
21 Management Facility that are listed in Attachment 2 as requiring further corrective action.

22 7. Releases and/or potential releases of hazardous substances, including but not limited to
23 total petroleum hydrocarbons, volatile organic compounds, and lead, from SWMUs and AOCs at the
24 Dangerous Waste Management Facility are documented in the RFA Report.

25 8. Hazardous substances have been and may continue to be released from the Dangerous
26 Waste Management Facility into the environment including soils, groundwater, air; human work areas;
27 and floral and faunal habitats.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

V. ECOLOGY DETERMINATIONS

1. Fort Lewis is a person within the meaning of RCW 70.105D.020(14).

2. The United States is the owner and Fort Lewis is the operator of a Dangerous Waste Management Facility that has operated, is operating, or should have been operating under interim status subject to Section 3005(e) of RCRA and regulations promulgated thereunder, including authorized state regulations in Chapter 173-303 WAC.

3. Certain waste and constituents found at the facility are dangerous wastes and/or dangerous constituents as defined by Chapter 173-303 WAC, and Section II of this Order.

4. These dangerous wastes and dangerous constituents are considered hazardous substances within the meaning of RCW 70.105D.020(7).

5. Based on the Findings of Fact and the administrative record, Ecology has determined that releases and potential releases of hazardous substances at and/or from the Dangerous Waste Management Facility present a threat to human health and the environment.

6. By letter dated March 1, 1999 Ecology notified Fort Lewis of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity for comment.

7. Pursuant to RCW 70.105D.030(l) and RCW 70.105D.050, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

8. The actions, including investigations, required by this Order are in the public interest.

21
22
23
24

VI. WORK TO BE PERFORMED

Based on the foregoing Facts and Determinations, it is hereby ordered that Fort Lewis take the following remedial actions and that these actions be conducted in accordance with Chapter 173-340 WAC and applicable provisions of Chapter 173-303 WAC, unless otherwise specifically provided for herein.

1 1. Fort Lewis will conduct a remedial investigation and feasibility study (RI/FS) in
2 accordance with the requirements of WAC 173-340-350 to be approved by Ecology. The RI/FS will
3 address soil and groundwater contamination which may have come from releases of dangerous waste and
4 dangerous constituents from all identified sources which lie within the designated boundary of the
5 DWMF, including the SWMUs and AOCs listed in Attachment 2. The purpose of the RI/FS will be to
6 concurrently satisfy the portion of the RCRA corrective action requirements that requires preparation of a
7 RCRA Facility Investigation (RFI) and a Corrective Measures Study (CMS).

8 2. Within forty five (45) calendar days from the effective date of this Order, Fort Lewis will
9 submit to Ecology for review and approval a draft work plan for conducting the remedial investigation.
10 The RI work plan will take into account and incorporate, where applicable, the results of previous
11 environmental investigations and voluntary cleanups conducted by Fort Lewis and will address the items
12 listed below:

13 a) Activities to characterize the hydrologic and hydraulic properties of the
14 unsaturated and saturated zones underlying the DWMF including the identification and determination of
15 the horizontal and vertical extent of the aquifer(s) underlying the DWMF. This characterization will
16 include an assessment of the seasonal variation of the water level and flow direction of the groundwater
17 underlying the SWMUs and AOCs being addressed in the remedial investigation.

18 b) Activities to investigate and determine the nature and extent of all known
19 releases to soil and groundwater from sources within the DWMF. This will include investigation of on-
20 site and any identified off-site migration and potential migration routes and exposure pathways of
21 dangerous wastes and/or dangerous constituents including any dense nonaqueous phase liquids and/or
22 light nonaqueous phase liquids.

23 c) Soil sampling locations will be identified for all SWMUs and AOCs where
24 further investigation is required and assigned a unique identifying number. Sample depth(s), sampling
25 frequency, and analytical parameters will be specified for each soil sample location.

1 d) Groundwater sampling locations will be identified for all SWMUs and AOCs
2 where there is a potential for known releases to soils to migrate to groundwater. This will include
3 locations and screened intervals of any previously constructed groundwater monitoring wells that will be
4 utilized and locations of new groundwater monitoring wells to be installed. The location and screen
5 intervals will be specified for all proposed new monitoring wells.

6 e) All existing and proposed monitoring wells to be used in the remedial
7 investigation will be assigned a unique identifying number. The RI work plan will specify the
8 monitoring frequency and analytical parameters for each existing and proposed monitoring well .

9 3. A draft Sampling and Analysis Plan will be provided as an appendix to the draft RI work
10 plan and will be considered as a part of the RI work plan. The method detection limit, estimated
11 quantitation limit, sample container, sample preservation method, and maximum holding time will be
12 specified for both soil and groundwater analyses. The laboratory performing the analyses will be
13 identified. Quality assurance/quality control procedures will be specified according to Ecology's
14 publication "Guidelines and Specifications for Preparing Quality Assurance Project Plans," Publication
15 No. 91-16.

16 4. Within ninety (90) calendar days of the effective date of this Order, Fort Lewis will
17 prepare a site-specific Health and Safety Plan. The Health and Safety Plan will be retained on site during
18 all field activities conducted under this order and made available to Ecology upon request.

19 5. Fort Lewis will revise the draft remedial investigation work plan as necessary to
20 incorporate all Ecology comments. A revised draft of the RI work plan will be submitted to Ecology
21 within forty-five (45) calendar days of receiving Ecology's written comments on the initial draft of the RI
22 work plan.

23 6. Fort Lewis will commence the remedial investigation within ninety (90) calendar days of
24 receiving Ecology's written approval or conditional approval of the RI Work Plan. Fort Lewis will
25 conduct the remedial investigation according to the approved RI work plan including any conditions that

1 Ecology may attach to Ecology's letter of approval. Within ninety (90) days of completion of the
2 remedial investigation Fort Lewis will submit a draft RI report to Ecology as specified in the approved or
3 conditionally approved RI work plan.

4 7. Fort Lewis will revise the draft remedial investigation report as necessary to incorporate
5 all Ecology comments. A revised draft of the RI report will be submitted to Ecology within forty-five
6 (45) calendar days of receiving Ecology's comments on the initial draft of the RI report.

7 8. Within ninety (90) calendar days of receiving Ecology's written approval or conditional
8 approval of the remedial investigation report, Fort Lewis will submit to Ecology for review and approval
9 a draft work plan for conducting the feasibility study. The feasibility study work plan will address the
10 following items:

11 a) The FS work plan will propose for Ecology's approval cleanup levels and
12 cleanup objectives in accordance with requirements in Chapter 173-340 WAC.

13 b) The FS work plan will include a preliminary screening of remedial technologies
14 and alternatives that will achieve the proposed cleanup levels and objectives for each SWMU and AOC
15 where the results of the remedial investigation show that cleanup objectives and cleanup levels have not
16 been achieved. The most promising technologies and alternatives will be considered alone or in
17 combination to form final alternatives to be carried forward for further evaluation in the feasibility study.
18 A minimum of three remedial alternatives will be proposed for further evaluation for each SWMU and
19 AOC.

20 c) The Feasibility Study Work Plan will propose criteria to evaluate the alternatives
21 based on the requirements specified in WAC 173-340-360.

22 9. Fort Lewis will revise the draft feasibility study work plan as necessary to incorporate all
23 Ecology comments. A revised draft of the FS work plan will be submitted to Ecology within forty-five
24 (45) calendar days of receiving Ecology's written comments on the initial draft of the FS work plan.

25 10. Fort Lewis will commence the feasibility study within ninety (90) calendar days of

1 Ecology's written approval or conditional approval of the feasibility study work plan. Fort Lewis will
2 conduct the feasibility study according to the approved FS work plan including any conditions, not
3 subject of an ongoing dispute, that Ecology may attach to Ecology's letter of approval. Upon completion
4 of the feasibility study, Fort Lewis will submit a draft FS report to Ecology as specified in the approved
5 or conditionally approved FS work plan.

6 11. Fort Lewis will revise the draft feasibility study report as necessary to incorporate all
7 Ecology comments. A revised draft of the feasibility study report will be submitted to Ecology within
8 forty-five (45) calendar days of receiving Ecology's written comments on the initial draft of the
9 feasibility study report.

10 12. Within ninety (90) days of receipt of Ecology's written approval or conditional approval
11 of the feasibility study report, Fort Lewis will submit a proposed draft Cleanup Action Plan (CAP) to
12 implement the alternatives recommended in the approved Feasibility Study report. The proposed CAP
13 will comply with WAC 173-340-360 (10). Ecology will modify the proposed CAP if necessary to satisfy
14 the requirements of WAC 173-340-360 and WAC 173-340-400 and to concurrently satisfy the corrective
15 action requirements of WAC 173-303-646.

16 13. Concurrently with development of the draft CAP, Fort Lewis will prepare a SEPA
17 checklist and submit this document to Ecology. Ecology will assume State Environmental Policy Act
18 (SEPA) lead agency status for the SEPA review of the draft CAP and make a SEPA threshold
19 determination.

20 14. Following Ecology approval of the draft CAP and concurrence with the associated SEPA
21 documents, Ecology will submit the RI/FS, draft CAP, and associated SEPA documents for public review
22 and comment.

23 15. Following the thirty (30) day public comment period and Ecology's written approval,
24 Fort Lewis will modify the draft CAP if necessary according to any conditions specified in Ecology's
25 approval letter. Fort Lewis and Ecology will then negotiate and enter into an amendment to this order, a

1 new order or a consent decree to design, construct, operate, and monitor the selected cleanup or
2 corrective actions.

3 16. All environmental monitoring and operating data developed during the pendency of this
4 Order, will be submitted to Ecology in hard copy and electronic format as set forth in the approved or
5 conditionally approved RI work plan.

6 17. Fort Lewis will notify Ecology's project manager in writing of any newly-identified
7 SWMU(s), newly-discovered releases from known SWMU(s), and newly-discovered areas of concern
8 within the DWMF no later than thirty (30) days after discovery, and will investigate and report on these
9 areas as directed by Ecology's project manager. If required, the investigation (assessment) and reporting
10 will be done in accordance with the approved or conditionally approved work plan for the remedial
11 investigation.

12 18. Should activities conducted under this order, including the discovery of newly identified
13 releases, identify the need for an interim action, Fort Lewis will implement the interim action in
14 accordance with WAC 173-340-430 and as directed by Ecology.

15 VII. TERMS AND CONDITIONS OF ORDER

16 1. Public Notices:

17 WAC 173-340-600(10)(c) requires a thirty (30) day public comment period before this Agreed
18 Order on a state RI/FS becomes effective. Ecology will be responsible for providing such public notice
19 and reserves the right to modify or withdraw any provisions of this Order should public comment
20 disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any
21 respect.

22 2. Remedial and Investigative Costs: Fort Lewis agrees to pay costs incurred by Ecology
23 pursuant to this Order. These costs will include work performed by Ecology or Ecology's contractors for
24 investigations, remedial actions, and Order preparation, negotiations, oversight and administration.

1 Ecology costs will include costs of direct activities and support costs of direct activities as defined in
2 WAC 173-340-550(2). Fort Lewis agrees to pay the required amount within ninety (90) days of receiving
3 from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification
4 of involved staff, and the amount of time spent by involved staff members on the project. A general
5 description of work performed will be provided upon request. Itemized statements will be prepared
6 quarterly. Pursuant to WAC 173-340-550(4), a minimum of one percent interest will accrue on any
7 remedial action costs incurred under this Agreed Order and not paid within 90 days of the billing date.
8 Fort Lewis reserves its right to argue that, as a federal facility, it is not liable for any accrued interest
9 charges should Ecology demand payment. Fort Lewis contends that any requirement for payment of
10 funds, including penalties, arising under this Order, will be subject to the availability of appropriated
11 funds. Fort Lewis further contends that no provision herein will be interpreted to require obligation or
12 payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341. Ecology disagrees that lack
13 of appropriation or funding is a valid defense to Fort Lewis' failure to comply with the terms of this
14 Order. However, Ecology and Fort Lewis agree that it is premature at this time to raise and adjudicate
15 the existence of such a defense. If appropriated funds are not available to fulfill Fort Lewis' obligations
16 under this Order, the parties will attempt to agree upon appropriate adjustments to the work that requires
17 the payment or obligation of such funds. If no agreement can be reached, and Ecology subsequently
18 brings an action to enforce any provision of this Order, the validity of Fort Lewis' defense will be
19 litigated in that action.

20 3. Designated Project Coordinators: The project manager for Ecology is:

21 Name: Leon J. Wilhelm, P.E.
22 Address: Department of Ecology
23 Southwest Regional Office
24 P.O. Box 47775
25 Olympia, Washington 98504-7775
26
27 Telephone: (360) 407-6362
28 FAX: (360) 407-6305

1 E-mail: leow461@ecy.wa.gov

2 The project manager for Fort Lewis is:

3 Name: Paul Steucke

4
5 Address: Public Works
6 AFZH- PWE (MS-17)
7 Box 339500
8 Fort Lewis, WA 98433-9500

9 Telephone: (253) 966-1760

10 FAX: (253) 964-2488

11 E-mail: steuckep@lewis.army.mil

12 The project manager(s) will be responsible for overseeing the implementation of this Order. To
13 the maximum extent possible, communications between Ecology and Fort Lewis, and all documents,
14 including reports, approvals, and other correspondence concerning the activities performed pursuant to
15 the terms and conditions of this Order, will be directed through the project manager(s). Should Ecology
16 or Fort Lewis change project manager(s), written notification will be provided to Ecology or Fort Lewis
17 at least ten (10) calendar days prior to the change if possible.

18 4. Performance: All work performed by Fort Lewis pursuant to this Order will be under the
19 direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert,
20 with appropriate training, experience and expertise in hazardous waste facility investigation and cleanup.
21 Fort Lewis will notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any
22 contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their
23 involvement at the facility. Fort Lewis will provide a copy of this Order to all agents, contractors and
24 subcontractors retained to perform work required by this Order and will ensure that all work undertaken
25 be in compliance with this Order.

26 Except where necessary to abate an emergency situation, Fort Lewis will not perform any
27 remedial actions at the DWMF other than those required by this Order unless Ecology concurs, in

1 writing, with such additional remedial actions.

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

4 Fort Lewis will provide seven (7) days notice to Ecology's project manager prior to conducting
5 work activities that Ecology identifies on-site.

6 5. Access: Ecology or any Ecology authorized representative will have the authority to
7 enter and freely move about the DWMF at all reasonable times for the purposes of, among other things,
8 inspecting records, operation logs, and contracts related to the work being performed pursuant to this
9 Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting
10 samples as Ecology or the project manager may deem necessary; using a camera, sound recording, or
11 other documentary type equipment to record work done pursuant to this Order; and verifying the data
12 submitted to Ecology by Fort Lewis. By signing this Agreed Order, Fort Lewis agrees that this Order
13 constitutes reasonable notice of access, and agrees to allow access to the DWMF at all reasonable times
14 for purposes of overseeing work performed under this Order. Ecology will allow split or replicate
15 samples to be taken by Fort Lewis during an inspection unless doing so interferes with Ecology's
16 sampling. Fort Lewis will allow split or replicate samples to be taken by Ecology and will provide seven
17 (7) days notice before any sampling activity.

18 6. Public Participation: Ecology will prepare a public participation plan including a public
19 notice and a fact sheet and will have the responsibility for public participation. Fort Lewis will assist in
20 coordinating and implementing public participation in cooperation with Ecology. This will include
21 providing Ecology a sufficient number of copies of all environmental documents referenced in this Order
22 as needed to facilitate the public comment periods described in this Order.

23 7. Retention of Records: Fort Lewis will preserve in a readily retrievable fashion, during
24 the pendency of this Order and for ten (10) years from the date of issuance by Ecology of written
25 notification that all requirements of this Order have been satisfactorily completed, reports, documents,

1 and underlying data in its possession relevant to this Order. Should any portion of the work performed
2 hereunder be undertaken through contractors or agents of Fort Lewis, then Fort Lewis agrees to include
3 in its contract with such contractors or agents a record retention requirement meeting the terms of this
4 paragraph.

5 8. Dispute Resolution: In the event a dispute arises as to an approval, disapproval, proposed
6 modification or other decision or action by Ecology's project manager, the parties will utilize the dispute
7 resolution procedure set forth below.

8 (a) Upon receipt of the Ecology project manager's decision, Fort Lewis has fourteen (14)
9 days within which to notify Ecology's project manager of its objection to the decision.

10 (b) The parties' project managers will then confer in an effort to resolve the dispute. If the
11 project managers cannot resolve the dispute within fourteen (14) days of Ecology's receipt of the written
12 objection, Ecology's project manager will issue a written decision.

13 (c) Fort Lewis may then request Ecology management review of the decision. This request
14 will be submitted in writing to the Hazardous Waste and Toxics Reduction Program Manager within
15 seven (7) days of receipt of Ecology's project manager's decision.

16 (d) Ecology's Hazardous Waste and Toxics Reduction Program Manager will conduct a
17 review of the dispute and will issue a written decision regarding the dispute within thirty (30) days of
18 Fort Lewis' request for review. The Program Manager's decision will be Ecology's final decision on the
19 disputed matter.

20 Fort Lewis is not relieved of any requirement of this Order not affected by the dispute during the
21 pendency of the dispute and remains responsible for timely compliance with the terms of the Order
22 unless otherwise provided by Ecology in writing. The time periods for completing actions which could
23 be affected by the outcome of the dispute will be tolled during the pendency of the dispute unless
24 Ecology determines that the tolling of a time period is not appropriate.

25 9. Reservation of Rights/No Settlement: This Agreed Order is not a settlement under

1 Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or
2 a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against Fort
3 Lewis to recover remedial action costs paid to and received by Ecology under this Agreed Order. In
4 addition, Ecology will not take additional enforcement actions against Fort Lewis to require those
5 remedial actions required by this Agreed Order, provided Fort Lewis complies with this Agreed Order.

6 Ecology reserves the right, however, to require additional remedial actions at the facility should
7 it deem such actions necessary.

8 Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources
9 resulting from releases or threatened releases of hazardous substances from Fort Lewis.

10 In the event Ecology determines that conditions at the facility are creating or have the potential to
11 create a threat to the health or welfare of the people on the facility or in the surrounding area or to the
12 environment, Ecology may order Fort Lewis to stop further implementation of this Order for such period
13 of time as needed to abate the threat.

14 10. Transference of Property: Prior to any voluntary conveyance or relinquishment of title,
15 easement, leasehold, or other interest in any portion of the DWMF, Fort Lewis will provide for continued
16 implementation of all requirements of this Order and implementation of any remedial actions found to be
17 necessary as a result of this Order.

18 Prior to transfer of any legal or equitable interest the United States may have in the facility or
19 any portions thereof, the United States will serve a copy of this Order upon any prospective purchaser,
20 lessee, transferee, assignee, or other successor in such interest. At least ninety (90) days prior to
21 finalization of any transfer, the United States will notify Ecology of the contemplated transfer.

22 11. Compliance with Other Applicable Laws:

23 A. All actions carried out by Fort Lewis pursuant to this Order will be done in accordance
24 with all applicable federal, state, and local requirements, including requirements to obtain necessary
25 permits, except as provided in paragraph B of this section.

1 B. Pursuant to RCW 70.105D.090(1), the substantive requirements of chapters 70.94 (Clean
2 Air), 70.95 (Solid Waste), 70.105 (Hazardous Waste), 75.20 (Construction in State Waters), 90.48
3 (Water Pollution Control), and 90.58 (Shoreline Management Act) of the RCW are incorporated by
4 reference.

5 Fort Lewis has a continuing obligation to determine whether additional permits or approvals
6 addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order.
7 In the event Fort Lewis determines that additional permits or approvals addressed in RCW
8 70.105D.090(1) would otherwise be required for the remedial action under this Order, it will promptly
9 notify Ecology of this determination. Fort Lewis will be responsible to contact the appropriate state
10 and/or local agencies. If Ecology so requires, Fort Lewis will promptly consult with the appropriate state
11 and/or local agencies and provide Ecology with written documentation from those agencies of the
12 substantive requirements those agencies believe are applicable to the remedial action. Ecology will make
13 the final determination on the additional substantive requirements that must be met by Fort Lewis and on
14 how Fort Lewis must meet those requirements. Ecology will inform Fort Lewis in writing of these
15 requirements. Once established by Ecology, the additional requirements will be enforceable requirements
16 of this Order. Fort Lewis will not begin or continue the remedial action on the DWMF potentially subject
17 to the additional requirements until Ecology makes its final determination.

18 Ecology will ensure that notice and opportunity for comment is provided to the public and
19 appropriate agencies prior to establishing the substantive requirements under this section.

20 C. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption
21 from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would
22 result in the loss of approval from a federal agency which is necessary for the State to administer any
23 federal law, the exemption will not apply and Fort Lewis will comply with both the procedural and
24 substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to
25 obtain permits.

1 D. Some requirements herein are based on the applicable requirements of Chapter 70.105
2 RCW and Chapter 173-303 WAC.

3 12. Extension of Schedule: An extension of schedule will be granted when a request for an
4 extension is submitted in a timely fashion, at least 14 days prior to expiration of the deadline for which
5 the extension is requested, unless otherwise approved by Ecology, and good cause exists for granting the
6 extension. All extensions will be requested in writing. Notwithstanding the 14 day requirement for
7 requesting extensions, Ecology will consider all requests for extension where good cause exists for the
8 delay in submission. The request will specify the reason(s) the extension is needed.

9 An extension will be granted only for such period of time as Ecology determines is reasonable
10 under the circumstances. A requested extension will not be effective until approved by Ecology.
11 Ecology will act upon any written request for extension in a timely fashion. It will not be necessary to
12 formally amend this Order when a schedule extension is granted.

13 The burden will be on Fort Lewis to demonstrate to the satisfaction of Ecology that the request
14 for such extension has been submitted in a timely fashion and that good cause exists for granting the
15 extension. Good cause includes, but is not limited to, the following.

16 (A) Circumstances beyond the reasonable control and despite the due diligence of Fort Lewis
17 including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by
18 Ecology in reviewing, approving, or modifying documents submitted by Fort Lewis; or

19 (B) Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other
20 unavoidable casualty.

21
22 **VIII. STIPULATED PENALTIES**

23 1. For each day Fort Lewis fails to comply with any time schedules contained within
24 Section VI of this Agreed Order, or any other time schedules approved or modified in writing by

1 Ecology, Fort Lewis stipulates and agrees that Ecology may, at its discretion, assess a stipulated penalty.
2 The stipulated penalties to be assessed are no more than \$1,000 for the first working day and no more
3 than \$2,000 for each additional working day of noncompliance. Should a stipulated penalty be assessed
4 under this Part, the penalty will accrue from the date on which the work was to have been performed, or
5 the submittal was to have been made, and will cease to accrue on the date when Fort Lewis performs the
6 required work or delivers the required submittal to Ecology pursuant to this agreed order. If imposed,
7 Ecology will provide written notice of the amount of stipulated penalties. All stipulated penalties will be
8 payable within thirty (30) days of authorization by law, pursuant to Public Law 106-79, Section 8149 so
9 long as the Public Law or subsequent enactments of that law are in effect, or, in the absence of a
10 congressional authorization requirement, receipt of the written notice, to the Department of Ecology,
11 Cashiering Section, PO Box 5128, Lacey, WA 98503-0210. Stipulated penalties may not be appealed to
12 the Pollution Control Hearings Board. Any disputes arising over Ecology's issuance of a stipulated
13 penalty will be addressed only under Section VII.8. of this Agreed Order.

14 2. Fort Lewis will not be liable for payment under this Section if it has submitted to
15 Ecology a timely request for an extension of schedules established in Section VI of this Agreed Order,
16 and if Ecology has not denied the request.

17 3. The stipulated penalties provisions of this Agreed Order do not preclude Ecology from
18 pursuing any other remedies or sanctions that may be available to Ecology based on Fort Lewis' failure
19 to comply with provisions of applicable law, except that issuance of stipulated penalties pursuant to this
20 section will preclude Ecology from issuing civil penalties under Chapter 70.105 RCW, or from
21 requesting a court to impose civil penalties under Chapter 70.105D RCW, based upon the same facts
22 underlying issuance of the stipulated penalty.

23 4. Stipulated penalties paid under these provisions will not be deemed damages or any form
24 of payment for any harm caused as a result of Fort Lewis's failure to comply with a time schedule
25 established in or pursuant to this Agreed Order.

1 IX. SATISFACTION OF THIS ORDER

2 The provisions of this Order will be deemed satisfied upon Fort Lewis' receipt of written
3 notification from Ecology that it has completed the corrective actions required by this Order, as amended
4 by any modifications, and that all other provisions of this Agreed Order have been complied with.

5 X. ENFORCEMENT

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

7 A. The Attorney General may bring an action to enforce the implementation of this Order in
8 a state or federal court.

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

11 C. In the event Fort Lewis refuses, without sufficient cause, to comply with any term of this
12 Order, Fort Lewis will be liable for:

13 (1) up to three times the amount of any costs incurred by the state of Washington as a result
14 of its refusal to comply; and

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

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

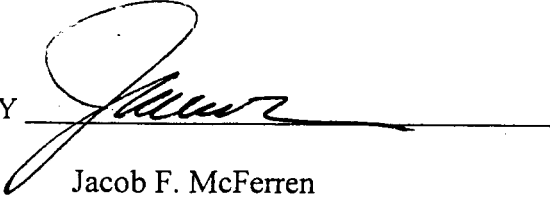
18 2. Nothing in this Agreed Order will be interpreted as consent by Fort Lewis to exclusive
19 jurisdiction of any enforcement action in the Judicial District of Pierce County, or any other particular
20 court of the State of Washington; nor will any provision of this agreed order constitute a waiver by Fort
21 Lewis of its right to remove any civil action to federal court.

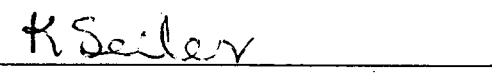
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Effective date of this Order February 23, 2001 :

Fort Lewis

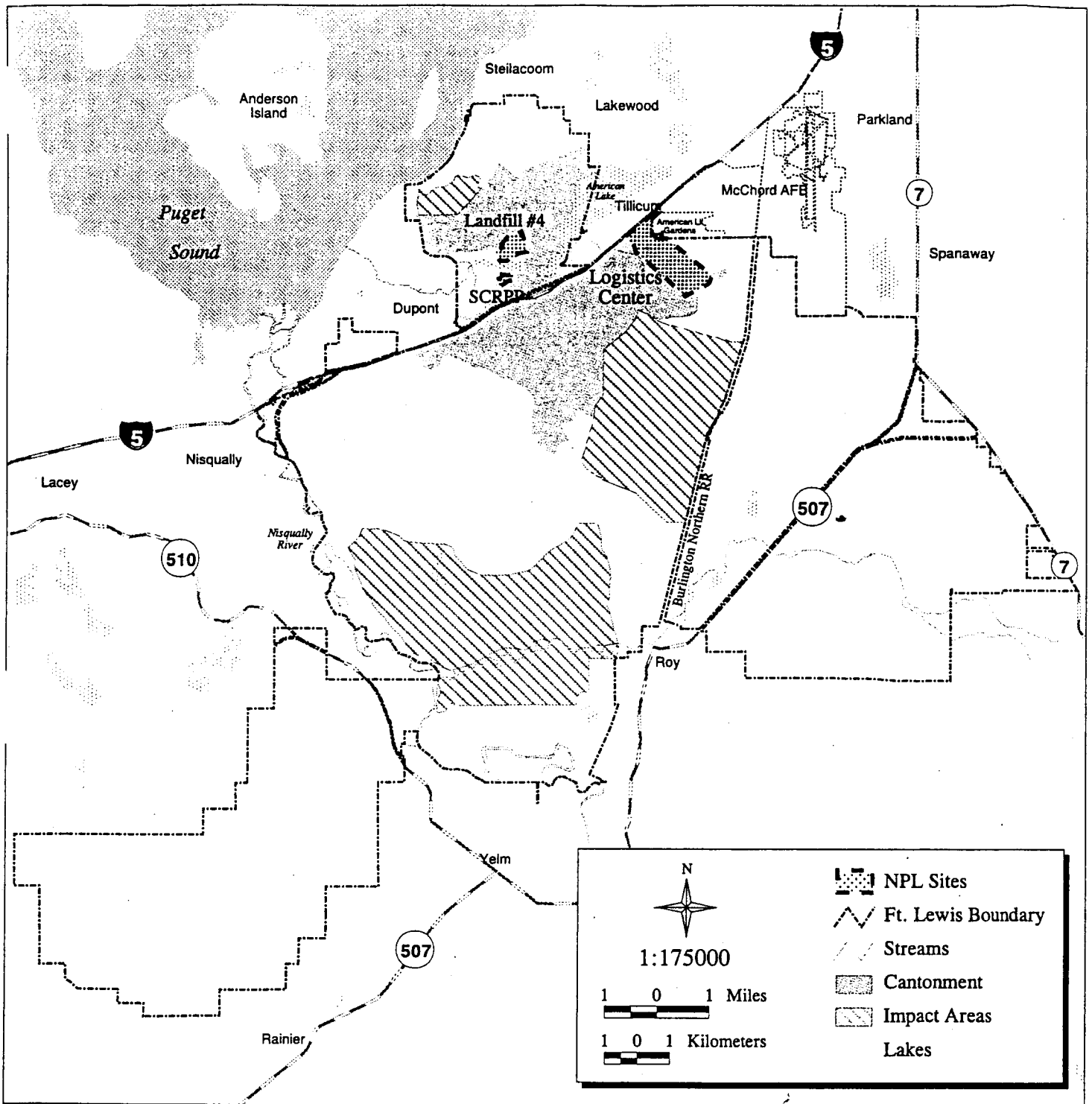
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

BY 

BY 

Jacob F. McFerren
Colonel, U.S. Army
Garrison Commander
Fort Lewis, Washington

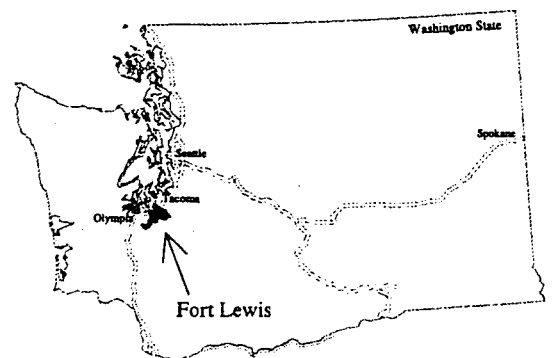
K Seiler, Supervisor
Hazardous Waste and
Toxics Reduction Section
Southwest Regional Office



Produced by the PW-GIS, Fort Lewis, Washington; th-npl.apr ; June 2000

ATTACHMENT NUMBER 1

Boundaries of Dangerous Waste Management Facility



Attachment Number 2

SWMUs and AOCs Located Within the Dangerous Waste Management Facility Requiring Further Corrective Action

SWMU/AOC NUMBER	DESCRIPTION
SWMU 8	Former Waste Accumulation Areas
SWMU 10	Residue Yard and Popping Kettle Pit
SWMU 17	Former Battery Acid Disposal Area
SWMU 23	Former Incinerators
SWMU 24	Medical Waste Incinerator
SWMU 40	Landfill No. 9
SWMU 45	Former Waste Oil Pond
SWMU 49	Portable Waste Oil Aboveground Storage Tanks
SWMU 50	Waste Oil Storage Tank
SWMU 51	Former Waste Oil Underground Storage Tanks
SWMU 52	Vehicle Washracks
AOC 4	Former Ranges
AOC 5	Former Ammunition Storage Points
AOC 7	Fog Oil Drum Storage Area
AOC 8	Heating Oil Tanks
AOC 9	Underground Fuel Storage Tanks
AOC 10	Gray Army Air Fuel Fueling Points
AOC 11	Motor Pool Accumulation Spill
AOC 13	Transformer Storage Areas
AOC 15	Former Practice Fire Fighting Area