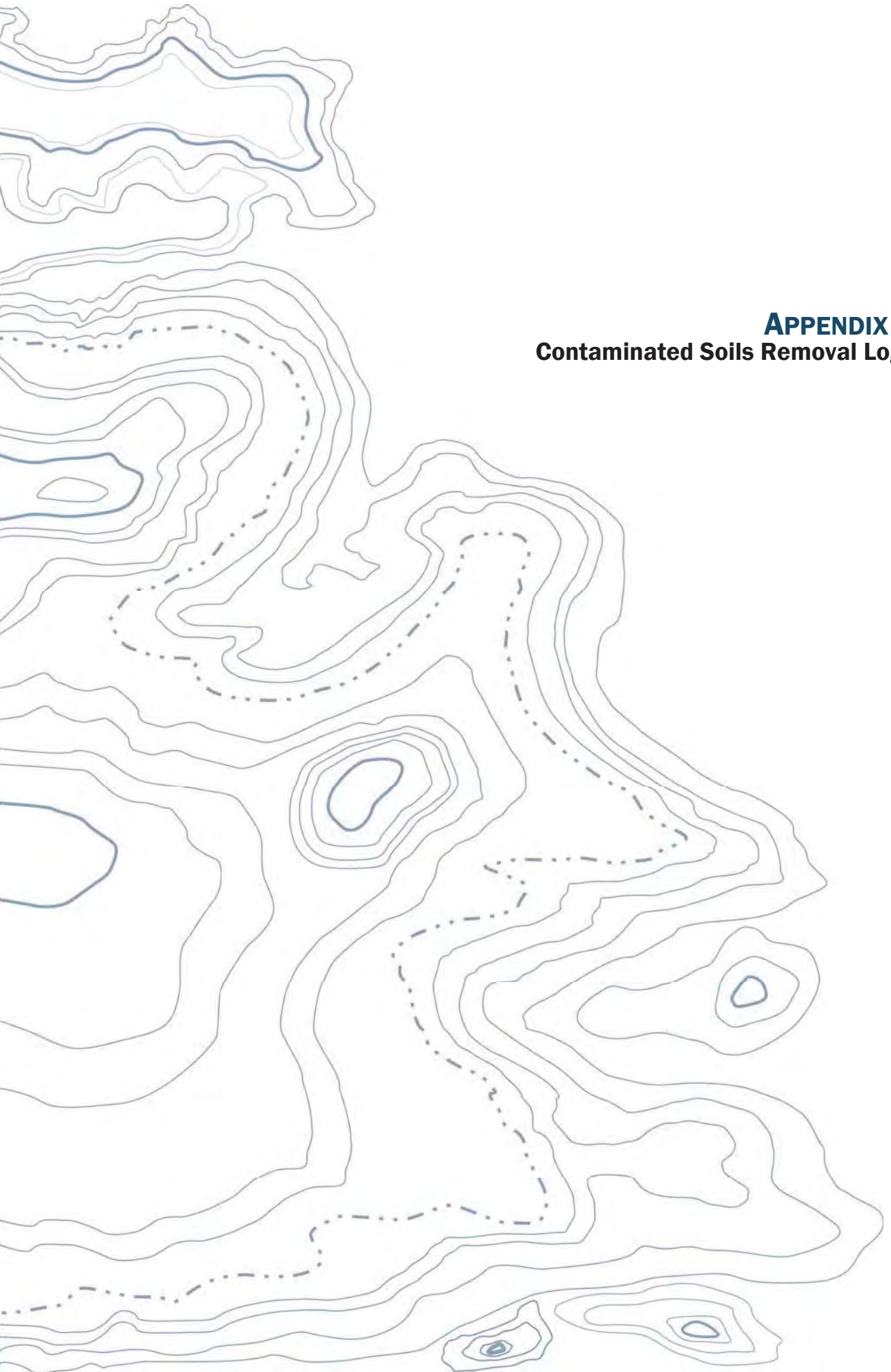


APPENDIX D
Contaminated Soils Removal Logs

Contaminated Soils Removal Log 10/16/2012

STATION	EXCAVATION TYPE	VOLUME	LOCATION SENT
30+70	Contaminated ONLY	25.74 cu yds	Rayonier stockpiles
	Overall volume	37.8 cu yds	Rayonier stockpiles
*NOTE : Area southern boundary only will be delineated with plastic liner and caution tape along wetland for reference of future cleanup requirements. *GPS location and volume data attached*			

Signatures below represent agreement of respective quantities shown above for project records.

RAYONIER

Total Quantity of Type 3 Contaminated Soils Removed : 25.74 cu yds

Rayonier Representative: _____ DATE: 10/17/12

Vanir C/M Representative: _____ DATE: 10/17/12

IMCO Contract

Total Quantity of Soil Removed Overall for contract tracking: 37.8 cu yds

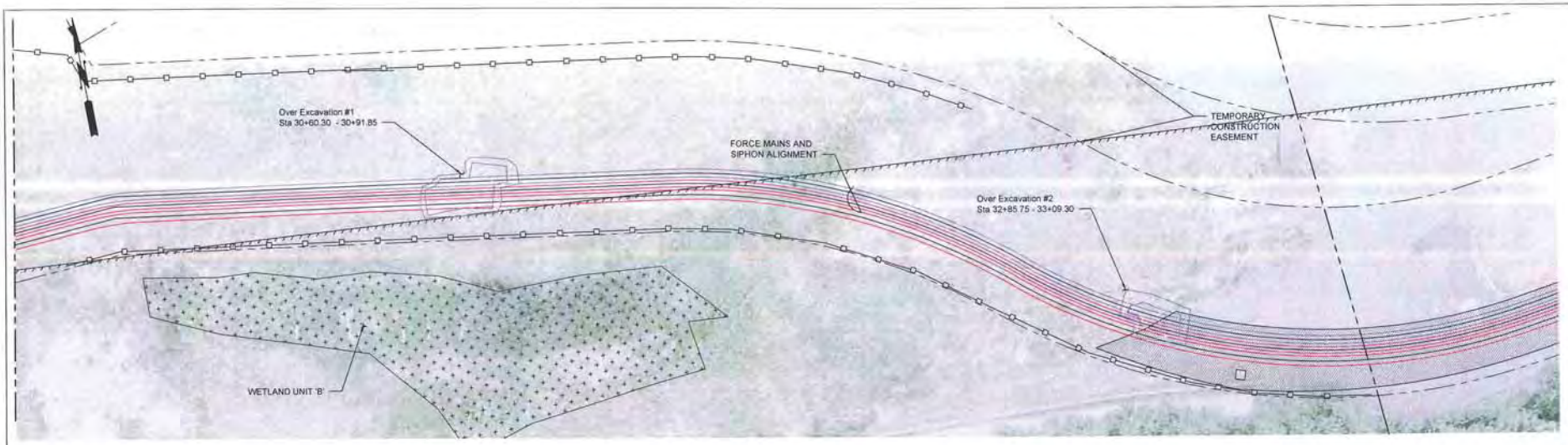
IMCO Representative: _____ DATE: 10/17/12

Vanir C/M Representative: _____ DATE: 10/17/12

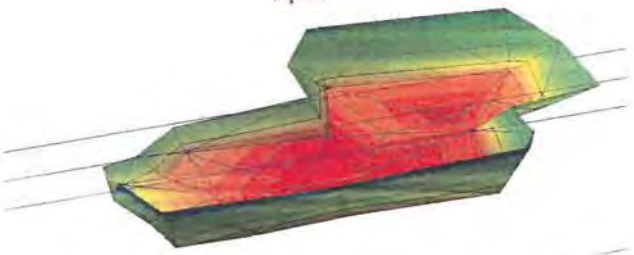

10/16/2012 13:29


10/16/2012 14:09


DEERE
10/16/2012 14:21



10/16/2012



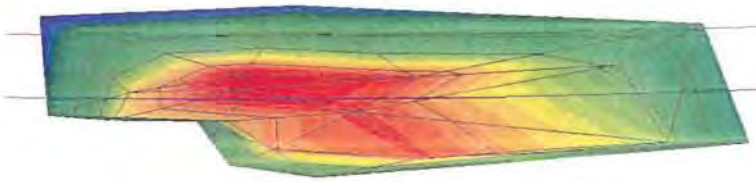
Stockpile Volume Analysis

Measured stockpile surface compared to estimated foundation surface

Surfaces	
Station 30+75 Over Ex	Classification: Unclassified

Volumes from Surface Geometry	
Approximate depression volume:	37.8 yd³

10/17/2012



Stockpile Volume Analysis

Measured stockpile surface compared to estimated foundation surface

Surfaces	
Station 33+00 Over Ex	Classification: Unclassified

Volumes from Surface Geometry	
Approximate depression volume:	4.4 yd³

No.	Date	Revision	By	Appr.

IMCO GENERAL CONSTRUCTION
2116 Buchanan Loop
Ferndale, WA 98248
360.671.3936

Drawn By: STK | Date: 10-18-12
Designed By:
Checked By:
Approved By:

SCALE
Horiz.
Vert.
Project Number

City of Port Angeles
Phase 1 CSO Project
Over Ex 1 and 2 Plan, Iso and Volume

Drawing No. 1
Sheet No. OE1 1 of Total

Contaminated Soils Removal Log 10/17/2012

STATION	EXCAVATION TYPE	VOLUME	LOCATION SENT
32+97	Contaminated Only	4.4 cu yds	Rayonier stockpile area
*NOTE: No delineation needed, all contaminated soils removed at this location.			

Signatures below represent agreement of respective quantities shown above for project records.

RAYONIER

Total Quantity of Type 3 Contaminated Soils Removed : 4.4 cu yds

Rayonier Representative: _____ DATE: 10/17/12

Vanir C/M Representative: _____ DATE: 10/17/12

IMCO Contract

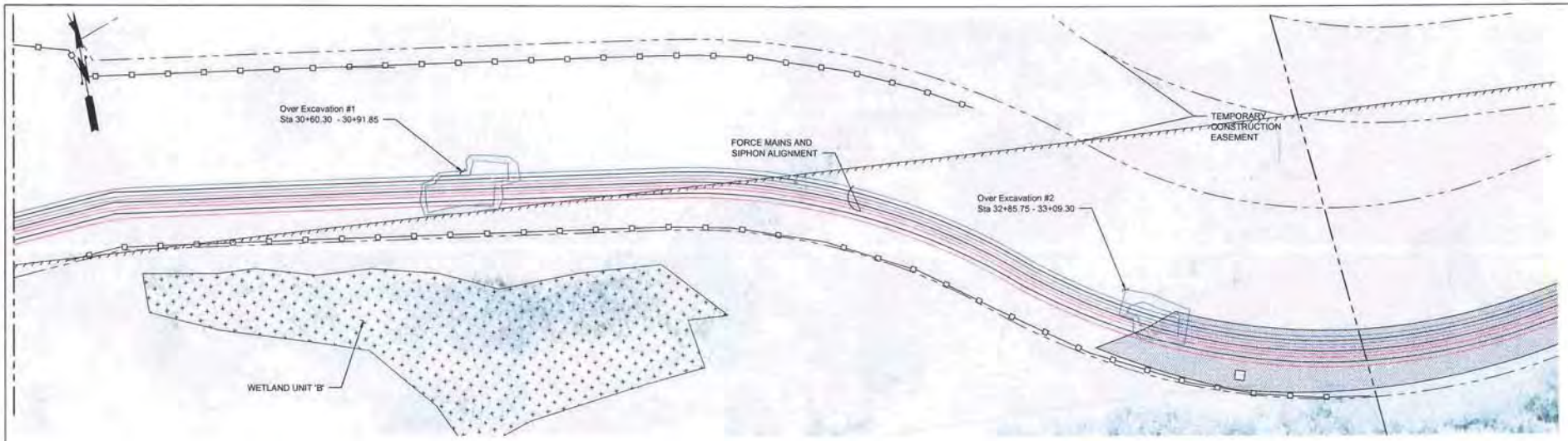
Total Quantity of Soil Removed Overall for contract tracking: 4.4 cu yds

IMCO Representative: _____ DATE: 10/17/12

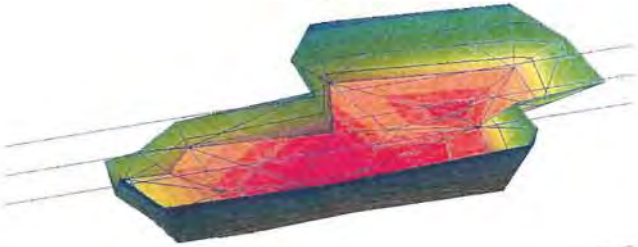
Vanir C/M Representative: _____ DATE: 10/17/12


10/17/2012 12:04


DEERE
10/17/2012 12:04



10/16/12



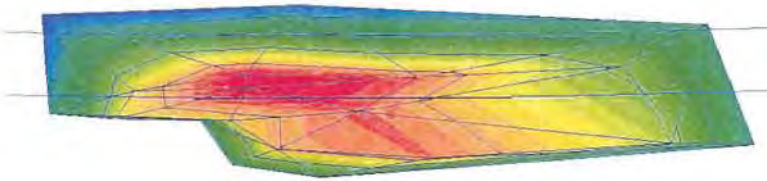
Stockpile Volume Analysis

Measured stockpile surface compared to estimated foundation surface

Surfaces	
Station 30+75 Over Ex	Classification: Unclassified

Volumes from Surface Geometry	
Approximate depression volume:	37.8 yd³

10/17/12



Stockpile Volume Analysis

Measured stockpile surface compared to estimated foundation surface

Surfaces	
Station 33+00 Over Ex	Classification: Unclassified

Volumes from Surface Geometry	
Approximate depression volume:	4.4 yd³

No.	Date	Revision	By	Appr.

IMCO GENERAL CONSTRUCTION

MCO GENERAL CONSTRUCTION
2116 Buchanan Loop
Ferndale, WA 98248
360.671.3936

Drawn By	Date
STK	10-18-12
Designed By	
Checked By	
Approved By	

SCALE
Horiz.
Vert.
Project Number

City of Port Angeles

Phase 1 CSO Project

Over Ex 1 and 2 Plan, Iso and Volume

Drawing No. 1

Sheet No. OE1 of Total 1

Contaminated Soils Removal Log 10/18/2012

STATION	EXCAVATION TYPE	VOLUME	LOCATION SENT
35+10	Contaminated	6.1 cu yds	Rayonier stockpile area
35+10	Over-ex for removal	26.3 cu yds	Rayonier stockpile area
*NOTE: No delineation needed, all contaminated soils removed at this location. Additional soil was removed to take out sulfuric type contaminants found and additional railroad debris.			

Signatures below represent agreement of respective quantities shown above for project records.

RAYONIER

Total Quantity of Type 3 Contaminated Soils Removed : 6.1 cu yds

Rayonier Representative: _____ DATE: 11/21/12

Vanir C/M Representative: _____ DATE: 10/18/12

IMCO Contract

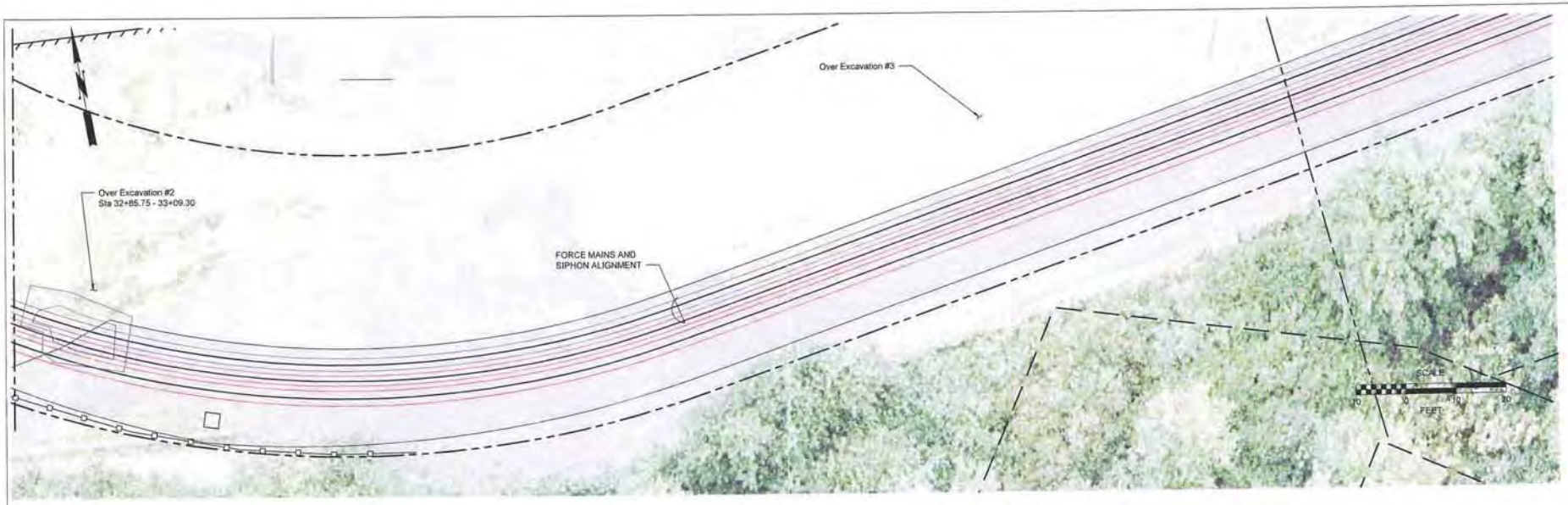
Total Quantity of Soil Removed Overall for contract tracking: 26.3 cu yds

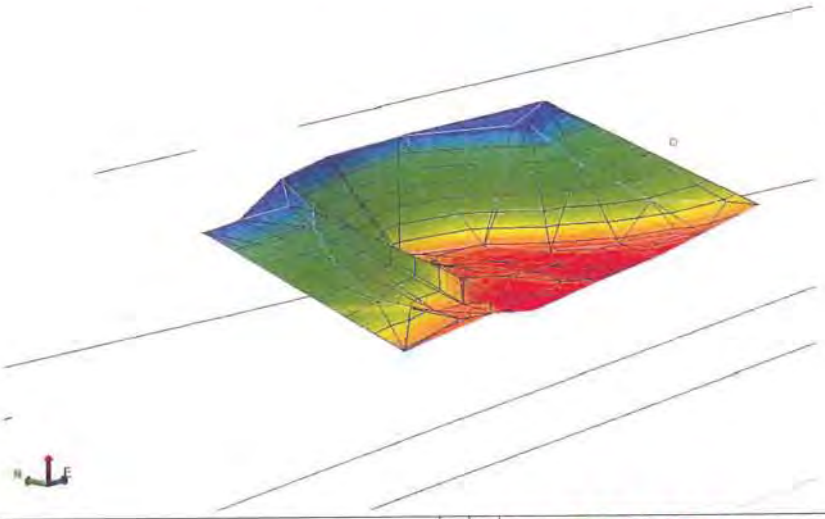
IMCO Representative: _____ DATE: 10.18.12

Vanir C/M Representative: _____ DATE: 10/18/12


10/18/2012 09:57


10/18/2012 10:41





Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Owners EG	Classification: Unclassified
contaminated soils 3	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material:	**32.4 yd³**
Fill material:	**0.0 yd³**
Excess:	**32.4 yd³**

No.	Date	Revision	By	Appr.

IMCO GENERAL CONSTRUCTION
2116 Buchanan Loop
Ferndale, WA 98248
360.671.3936

Project By: STK
Designed By:
Checked By:
Approved By:
Date: 11-12-12
SCALE
Horiz
Vert
Project Number

City of Port Angeles
Phase 1 CSO Project
Over Ex 3 Plan, Iso and Volume

Drawing No: OE3
Sheet No: 1 of Total 1

APPENDIX E
Addendum to the Final Materials Management Plan

ADDENDUM TO THE
FINAL MATERIALS MANAGEMENT PLAN

City of Port Angeles CSO Construction Project
Port Angeles Rayonier Mill Site
November 2012

This addendum provides clarification to the Final Materials Management Plan (MMP) dated July 17, 2012 based on:

- Ecology's review of public comments provided during the August 3 to September 5 public comment period.
- Subsequent communications between Rayonier and Ecology regarding the details of MMP implementation based on actual field conditions encountered.

Materials Management Plan

1. Section 1.5 Roles and Responsibilities. This section states that the City shall verify that all imported backfill material does not exceed applicable soil screening levels provided in the Public Review Draft *Interim Action Report Volume I: Upland Data Summary Report for the Study Area*.

   To clarify…
   On October 29, 2012, Rayonier, on behalf of the City, requested Ecology's approval to allow the City's contractor to use imported fill from the Holcomb Pit/Black Diamond Quarry, approximately 3.5 miles southwest of Port Angeles. The City provided Rayonier with sampling results for the fill material and Rayonier evaluated the results relative to Ecology's natural background soil metals study and site groundwater. The sampling results indicated that the fill material contains copper at concentrations greater than the applicable screening level (50 parts per million), but within the range of naturally-occurring background concentrations in Western Washington. Ecology agreed that the fill material does not exceed the applicable soil screening levels, except for copper. Ecology further agreed that the copper is within the range of natural background concentrations and is not likely to leach to site groundwater at concentrations of concern in the trench location. Based on their review, Ecology agreed that the Holcomb Pit/Black Diamond Quarry source for imported fill is acceptable for this construction project.

2. Section 4.2.1 Vertical and Lateral Limits of Overexcavation. This section notes that measures must be taken to reduce the potential for recontamination of clean backfill material in the areas of overexcavation for visibly contaminated soil. This may include the use of an impermeable barrier such as a polymer geomembrane or a bentonite mat placed at the overexcavation limits between clean backfill and the soil left in place.

   The City's specifications state "In areas where contaminated soil is to remain following contaminated soil over excavation install woven filter fabric to separate clean backfill from contaminated soils. Install woven filter fabric so as to extend a minimum of 5-feet beyond the limits of contaminated soil to remain."

   To clarify…
   In general, a woven filter fabric will not be acceptable as it is anticipated that the most likely visibly contaminated soil will be petroleum contaminated soil and a woven filter fabric will not be sufficient

to reduce recontamination of clean backfill material. Scrim-reinforced visqueen/plastic sheeting is an acceptable barrier.

3. Section 5.0 Materials Management Requirements. Section 5 did not provide specific handling requirements for other materials that might be generated during stockpile staging area preparation.

   To clarify…
   Rayonier will manage the following materials using the methods described below while completing construction of the CSO soil staging areas. These materials refer to preexisting materials encountered below or in the vicinity of the soil staging areas:
   - Concrete rubble/soil – may be moved around within staging areas.
   - Asphalt debris - avoid excavating if possible. If removed, place in debris stockpile area #3, cover, and take off-site for proper disposal/recycling along with other asphalt removed from the CSO pipe trench.
   - Rebar/metal debris - temporarily stage to the side of the stockpile areas, remove for disposal/recycling depending on quantities/quality.
   - Visibly contaminated soil – avoid if possible. If limited quantities/extent and must be removed, excavate and place in roll-off bin for proper off-site disposal/recycling.
   - Creosoted pilings - avoid if possible. If removed, place in debris stockpile area #3, cover, and take off-site for proper disposal/recycling along with other creosoted pilings removed as part of the CSO project.

4. Section 5.2.3 Material Handling/Stockpile Management Procedures and Section 5.3 – Post Construction Stockpile Management/Maintenance. These sections provide only limited information on the inspection and maintenance of the stockpiles during and post construction.

   To clarify…
   During CSO construction – stockpiles will be inspected daily while trenching and placement of excavated soils in the staging areas is occurring. Otherwise, inspections will be conducted at a minimum weekly, and following significant storm events. The purpose of the inspections is to ensure BMPs (plastic liners/covers, silt fencing, etc.) are in proper working order. The stockpiles will be visually inspected to make sure the plastic covers and silt fences are in place, and that no signs of erosion by or ponding of water are present. A summary of the inspection and corrective actions taken with photo log of the stockpiles will be maintained by Rayonier and provided to Ecology monthly.

   Post construction – because stockpiles may be in place for a period of years, a semi-permanent cover will be used. For example, the stockpiles may be covered with up to 1 foot of clean soil and sod. Rayonier will submit a design proposal for Ecology review and approval 60 calendar days after Rayonier places all soils in the stockpile area. The design proposal will include inspection frequency and criteria, and maintenance requirements.

5. Section 5.2.3 Material Handling/Stockpile Management Procedures and Section 5.2.3.1 Type 1 and Type 2 Soil. These sections describe how Type 1 and Type 2 soils will be managed in the stockpile areas. In particular, the text states that in unpaved portions of the stockpile areas, a compacted fill pad consisting of clean soil will be constructed (either known Type 1 soil or imported clean fill). The text also states that Type 1 and Type 2 soil will be placed on a plastic liner, and that individual soil stockpiles will contain no more than approximately 2,000 cubic yards of excavated soil and will be roughly 8 feet or less in height.

To clarify…
A compacted fill pad of clean soil will not be used. Instead, concrete rubble (where present) will be graded and compacted. Imported fill will be used as necessary to fill significant void spaces in the concrete rubble. The purpose of the bottom plastic liner is to provide a visual/physical barrier in unpaved portions of the stockpile areas. A geotextile fabric meets this purpose and will be used instead. Some soil stockpiles may need to be larger than specified in the MMP to accommodate excavated soil volumes.

6. Section 5.2.3.2 Type 3 Soil. This section notes that if Type 3 soil is encountered, the City will segregate and place Type 3 soil in roll-off containers provided by Rayonier.

   To clarify…
   In the event there is more Type 3 soil than capacity in the roll-off bins, Rayonier will designate Stockpile Bin #1-1 (see attached figure) as a "Temporary Type 3 Soil Emergency Overflow Staging Area." This area will only be used in the unlikely event that a significant amount of Type 3 soil is encountered during excavation of the CSO pipeline trenches that cannot be managed using the two roll-off containers on-site. If Bin #1-1 is needed for this purpose, it will be lined with plastic sheeting on top of the geotextile fabric and any Type 3 soil staged there will be subsequently transferred by Rayonier to roll-off containers, or direct-loaded into trucks for off-site disposal, depending on quantities.

7. Section 5.2.3.3 Concrete, Wood, and Other Debris. This section describes how construction debris removed from the CSO excavations will be segregated and managed in the stockpile areas.

   To clarify…
   Any significant quantities of concrete, wood, and other debris encountered during CSO excavation activities by the City will be segregated by the City and stockpiled by the City in Area 3. The debris will be placed on a geotextile fabric provided by Rayonier and covered with plastic sheeting by Rayonier, if needed based on observed staining or product on the debris. In the meantime, Rayonier agreed to allow the City to use Stockpile Area 3 for temporary staging of surface debris until/unless such time as Stockpile Area 3 is needed to accept concrete, wood, and other construction debris removed from the CSO excavations. Disposal of these materials is the City's responsibility.

8. Section 5.2.4 Handling of Sediment Removed from Deepwater Outfall Diffuser. This section notes that dewatered sediment will be placed in a stockpile with other Type 1 soil.

   To clarify…
   The dewatered sediment will be stockpiled separately from Type 1 soil, but in the area designated for Type 1 soil.

9. Section 5.5 Groundwater and Stormwater Management and Disposal. This section describes the management of stormwater in the stockpile staging areas.

   To clarify…
   Rayonier is responsible for the management of stormwater runoff from the soil stockpile areas. Stormwater is managed by using Best Management Practices (BMPs). The BMPs for stockpile construction and maintenance are designed to prevent soil erosion and contact of

rainwater/stormwater with the stockpiles. Rayonier does not expect there to be any runoff from the covered stockpiles beyond the limits of the stockpile areas.

10. Section 10.0 Submittal Schedule. This section identifies documents Rayonier is to submit for Ecology review and/or approval.

    To clarify…
    Two new submittals are required.

    - Stockpile inspection summaries and photo logs are to be submitted monthly for Ecology review.
    - Post Construction Stockpile Cover Design is to be submitted to Ecology for review and approval 60 calendar days after completion of the construction of the stockpiles.

11. Appendix C, Figure 3 Proposed Product Staging/Storage Area. Figure 3 in Appendix C of the MMP shows the original-planned layout of the stockpile areas; the figure attached to this addendum shows the as-built layout. As shown on the as-built, Stockpile Area 1 was constructed with two infiltration areas: one north of the access road and one to the south.

    To clarify…
    Throughout the CSO construction project to date, the stormwater conveyance/infiltration capacities of the drainage channels and the northern infiltration area in Stockpile Area 1 have proven to be more than adequate to accommodate runoff from the covered soil stockpiles. Even during heavy rainfall events, most of the runoff from the covered stockpiles infiltrates the drainage channels. No runoff has been observed flowing into the southern infiltration area. Consequently, if additional storage capacity is needed for soil excavated during the CSO project, the southern infiltration area of Stockpile Area 1 will be converted to a stockpile storage bin (Bin #1-9), and the drainage channels will be modified as necessary to direct runoff to the northern infiltration area.

12. With Ecology's concurrence, Rayonier emptied 34 drums containing soil cuttings (investigation-derived waste) from Rayonier's 2010-2011 supplemental upland investigation and the City's 2011 Phase II environmental site assessment of the City Purchase Area in Stockpile Bin #2-2. The soil was stockpiled with Type 2A soil.

Effective date of this Addendum: 3 December 2012

Rayonier Properties LLC

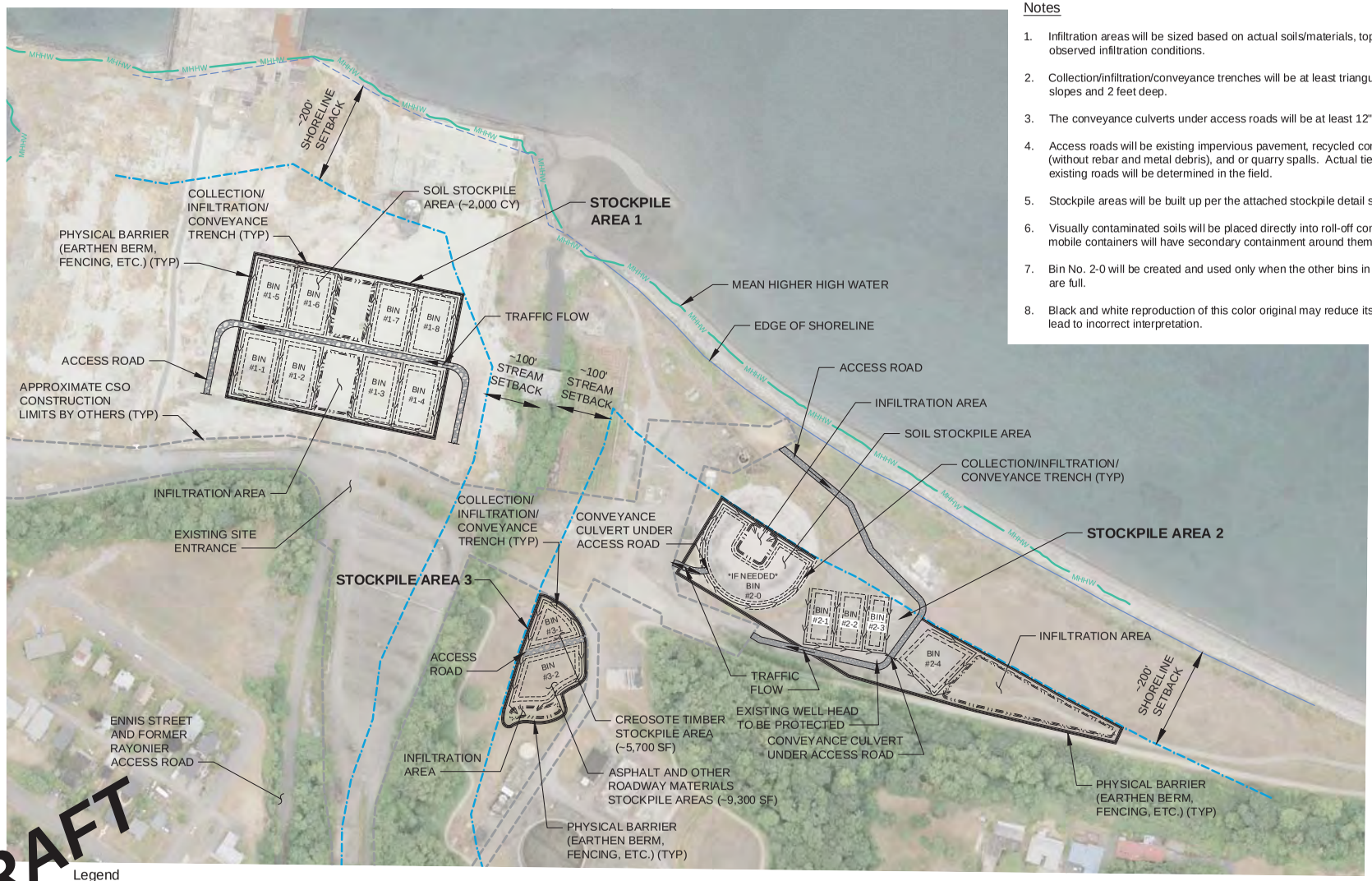
Warren Snyder

Warren Snyder, PE
Senior Manager
Environmental Engineering

State of Washington Department of Ecology

Marian L. Abbett

Marian L. Abbett, PE
Project Manager
Toxics Cleanup Program, SW Regional Office



Notes

1. Infiltration areas will be sized based on actual soils/materials, topography, and observed infiltration conditions.
2. Collection/infiltration/conveyance trenches will be at least triangular with 2:1 side slopes and 2 feet deep.
3. The conveyance culverts under access roads will be at least 12" diameter culverts.
4. Access roads will be existing impervious pavement, recycled concrete rubble (without rebar and metal debris), and or quarry spalls. Actual tie-in locations to existing roads will be determined in the field.
5. Stockpile areas will be built up per the attached stockpile detail sketch.
6. Visually contaminated soils will be placed directly into roll-off containers. These mobile containers will have secondary containment around them during filling.
7. Bin No. 2-0 will be created and used only when the other bins in Stockpile Area 2 are full.
8. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

DRAFT

Legend

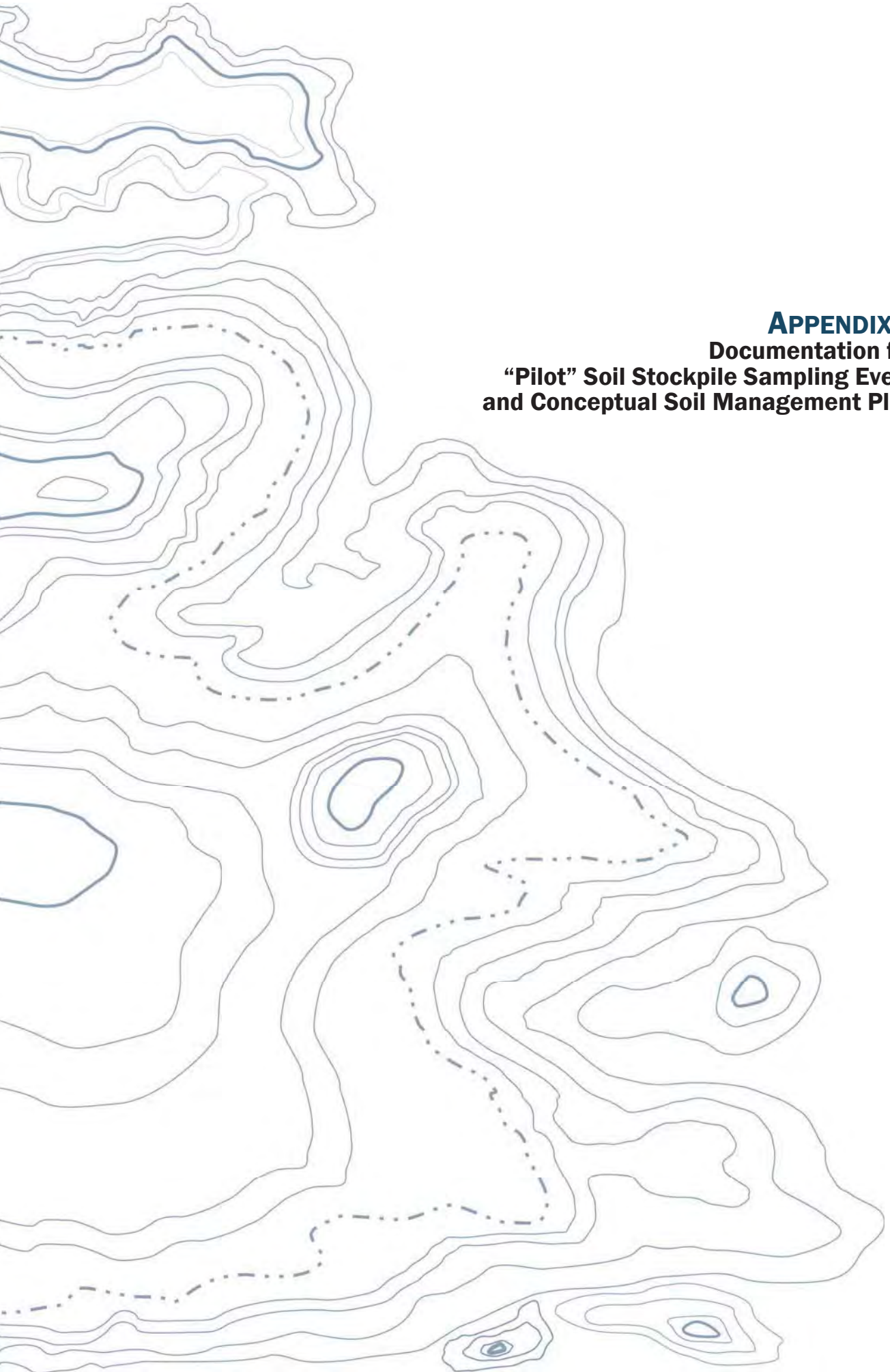
- CSO Construction Limits
- Stream and Shoreline Setback
- MHHW Mean Higher High Water (Rayonier, 2012)
- Drainage Channel and Flow Direction
- Proposed Access Road

0 200 400
Scale in Feet

Base map source: Google Earth

LANDAU ASSOCIATES

Rayonier Properties Inc. Former Mill Site Port Angeles, Washington	**Non-Surveyed As-Built Conditions Product Staging / Storage Areas**	Figure 3



APPENDIX F
Documentation for "Pilot" Soil Stockpile Sampling Event and Conceptual Soil Management Plan

PROPOSED APPROACH FOR "PILOT" SOIL STOCKPILE SAMPLING EVENT AND CONCEPTUAL SOIL MANAGEMENT PLAN

Port Angeles Rayonier Mill Site

March 2013

Outlined below is a proposed approach for a "pilot" soil stockpile sampling event to assess concentrations of contaminants of potential concern (COPCs) in excavated soil that was stockpiled on the former Rayonier Mill property during the City of Port Angeles' Combined Sewer Overflow (CSO) Phase 1 Upgrade Project. A decision protocol for evaluating the results also is included along with a conceptual soil management plan for review and feedback by the Washington Department of Ecology (Ecology). Additional soil characterization samples will be collected and analyzed prior to implementation of the final soil management plan.

A total of approximately 26,435 cubic yards of soil from the Rayonier property was excavated and stockpiled as part of the CSO project. In accordance with the Materials Management Plan (MMP) for the project, the stockpiled soils have been tentatively classified as follows:

- Type 1 – soil not exceeding screening levels for COPCs.
- Type 2A – soil with COPC concentrations that exceed screening levels by a factor of less than ten.
- Type 2B soil – soil with COPC concentrations that exceed screening levels by a factor of ten or greater.

These soils currently are stockpiled in 13 bins in two main areas (Area 1 and Area 2) as shown in Figure 1 (attached). Except for Bin 1-9, each soil bin holds approximately 2,000 to 3,000 cubic yards of soil. The presumed soil type in each bin, and the total number of bins and estimated volume by soil type, are summarized in the two tables below. The small volume of Type 1 soil currently in Bin 1-9 will be consolidated with Bin 1-1 prior to sampling, resulting in 12 stockpiles. As a result, Bin 1-9 is not listed in the table below.

Soil Type	No. of Bins	Cubic Yards (est.)
1	3	9,315
2A	7	12,127
2B	2	4,993
Total	12	26,435

Bin #	Soil Type
1-1	1
1-2	2B
1-3	2B
1-4	2A
1-5	2A
1-6	1

1-7	2A
1-8	1
2-1	2A
2-2	2A
2-3	2A
2-4	2A

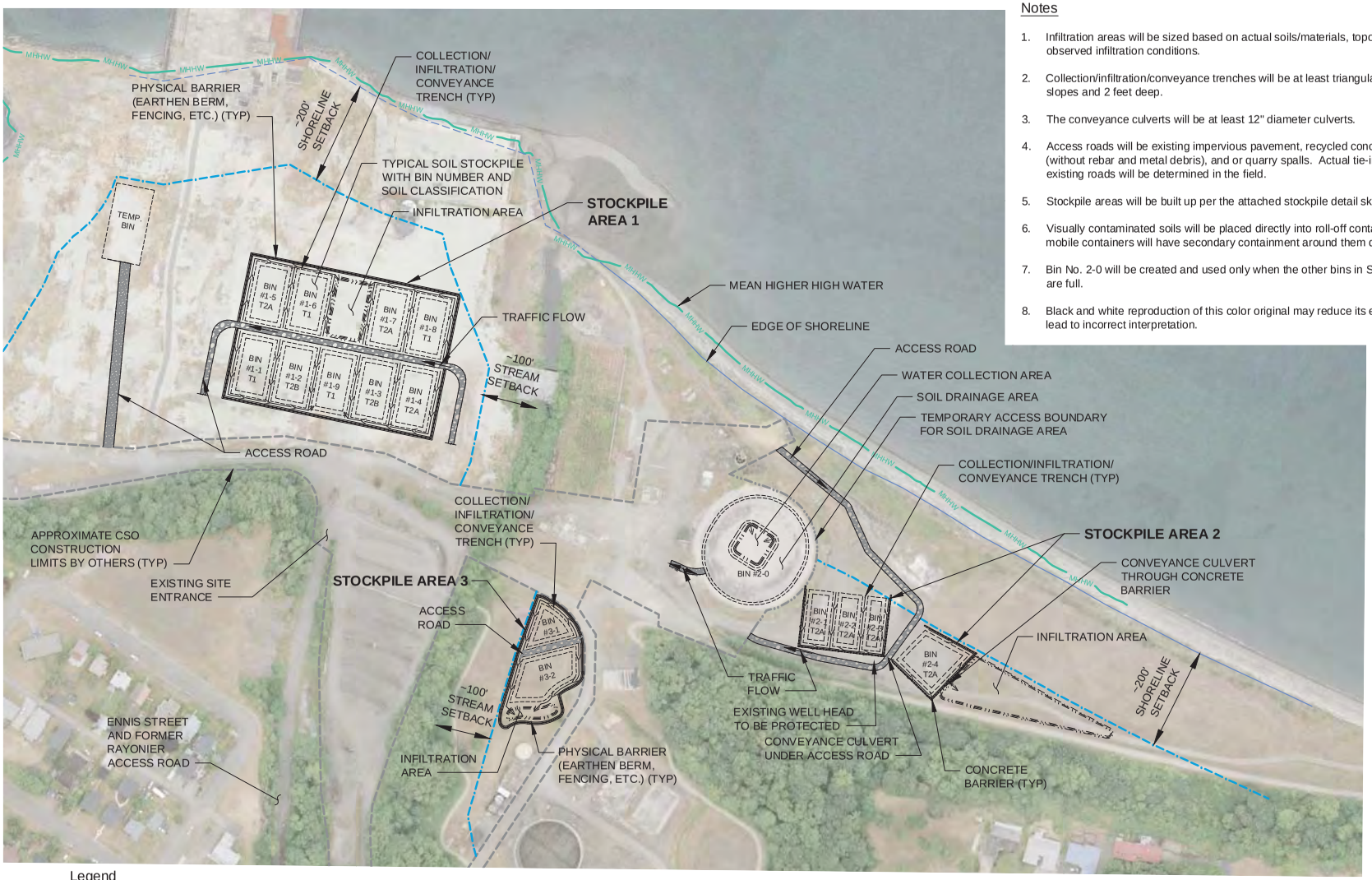
Soil sampling and analysis for the pilot sampling event will be performed as follows:

- One five-point composite soil sample will be analyzed from each of the twelve soil stockpiles. The analytical laboratory will perform the sample compositing using five discrete subsamples collected in the field.
- The five discrete subsamples for each composite soil sample will be collected at approximately equidistant locations around the perimeter of each stockpile. The subsamples will be obtained from the sides of the stockpiles at an elevation of approximately 3 to 6 feet above the adjacent ground surface/stockpile pad.
- Clean hand tools (e.g., spade, stainless steel spoon, and/or trowel) will be used to dig a small hole approximately 1 foot deep in the side of the stockpile at each discrete sampling location. A small quantity of soil will be obtained from the bottom of the hole for field screening (sheen test), and additional soil for laboratory analysis will be placed in clean glass jars supplied by the laboratory. The jars will be labeled, stored on ice, and delivered to the laboratory under chain of custody. The laboratory will combine approximately equal quantities of soil from the discrete subsamples to form each five-point composite sample.
- All twelve (12) soil samples will be analyzed for semivolatile organic compounds, diesel- and heavy oil-range total petroleum hydrocarbons, polychlorinated biphenyls, and metals (antimony, arsenic, barium, cadmium, total chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc).
- Eight (8) soil samples will be analyzed for dioxins/furans as follows:
    - All three of the Type 1 soil samples.
    - Both of the Type 2B soil samples.
    - Three of the Type 2A soil samples.

The results will be compared to the lowest of the Volume I screening levels for the human health and terrestrial ecological pathways (the primary pathways of concern for the stockpiles) to determine whether the soil may meet the criteria for Type 1, Type 2A, or Type 2B. Based on the CSO alignment soil evaluation contained in Appendix A of the MMP, metals are the most likely COPCs to exceed human health and terrestrial ecological screening levels. If a given soil sample meets Type 2A or 2B criteria (i.e., exceeds screening levels), no further sampling of the associated stockpile will be performed and the stockpile will be designated as Type 2A or 2B, as appropriate based on the results. If a sample meets Type 1 criteria (i.e., no screening level exceedances), the scope of additional sampling to characterize the associated stockpile will be determined in discussion with Ecology.

Conceptual Soil Management Plan

Figure 2 (attached) is a conceptual long-term soil management plan for review and feedback by Ecology. In general, the plan specifies that confirmed Type 2A or 2B soils will be graded within existing soil bin footprints to remove the gap between piles, sloped to promote drainage and hydroseeded. Long-term care and maintenance will consist of quarterly inspections for areas of significant erosion and cover integrity, mowing to prevent tree growth and maintenance of drainage areas for runoff containment.



Notes

1. Infiltration areas will be sized based on actual soils/materials, topography, and observed infiltration conditions.
2. Collection/infiltration/conveyance trenches will be at least triangular with 2:1 side slopes and 2 feet deep.
3. The conveyance culverts will be at least 12" diameter culverts.
4. Access roads will be existing impervious pavement, recycled concrete rubble (without rebar and metal debris), and or quarry spalls. Actual tie-in locations to existing roads will be determined in the field.
5. Stockpile areas will be built up per the attached stockpile detail sketch.
6. Visually contaminated soils will be placed directly into roll-off containers. These mobile containers will have secondary containment around them during filling.
7. Bin No. 2-0 will be created and used only when the other bins in Stockpile Area 2 are full.
8. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

- CSO Construction Limits
- Stream and Shoreline Setback
- MHHW — Mean Higher High Water (Rayonier, 2012)
- Edge of Shoreline
- Drainage Channel and Flow Direction
- Proposed Access Road
- Temp. Access Boundary

0 200 400
Scale in Feet

Base map source: Google Earth

REVISIONS:

DATE	02-04-2013	03-08-2013					
BY	RCL	RCL					

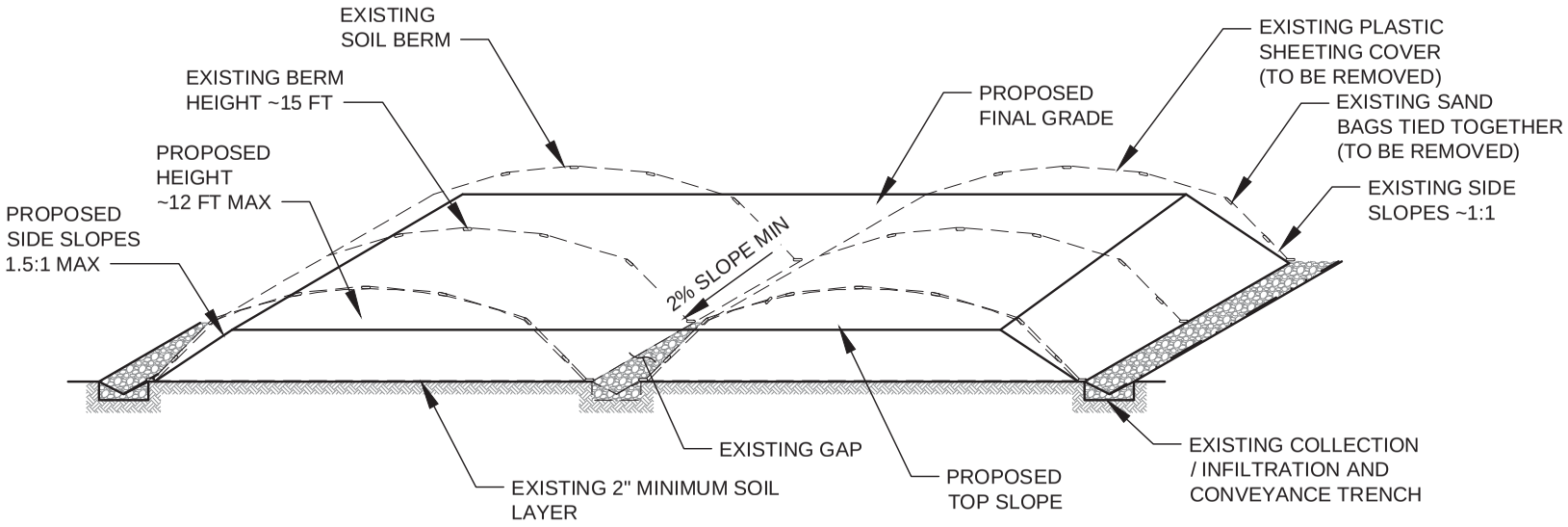
Rayonier Properties Inc.
Former Mill Site
Port Angeles, Washington

Product Staging / Storage Areas
Site Plan As-Built

Figure 1

LANDAU ASSOCIATES

LANDAU ASSOCIATES, INC. | V:\016\042\010.013\Figure 3 MHHW AsBuilt.dwg (A) "Figure 3" 2/4/2013



PERSPECTIVE PLAN VIEW - TYPICAL TYPE 2 SOIL STOCKPILE

NOT TO SCALE

CONSTRUCTION NOTES:

1. REMOVE SANDBAGS AND PLASTIC SHEETING.
2. GRADE EXISTING SOIL STOCKPILES WITHIN EXISTING SOIL BIN FOOTPRINT TO REMOVE GAP BETWEEN PILES. SLOPE 2% FOR DRAINAGE ACROSS THE TOP.
3. HYDROSEED COVER. TWO TIMES APPLICATION WITH LOW GROWTH COVER.
4. USE FIRE HYDRANT AND TEMPORARY SPRINKLERS FOR WATERING TO ESTABLISH VEGETATION GROWTH.
5. IF CHEMICAL CONCENTRATIONS FROM STOCKPILE SAMPLING RESULTS IN A STOCKPILE BEING CHARACTERIZED AS TYPE 2B SOIL, THEN THE STOCKPILE SURFACE WILL BE COVERED BY STRAW MATTING TO PREVENT SOIL LOSS VIA WINDBLOWN EROSION OR STOMWATER RUNOFF DURING THE HYDROSEEDING GRASS GROWTH PERIOD.

LONG-TERM CARE AND MAINTENANCE:

1. PERFORM QUARTERLY INSPECTIONS FOR AREAS OF SIGNIFICANT EROSION AND GRASS COVER INTEGRITY. MAINTAIN AS NEEDED.
2. MOW AS NEEDED TO PREVENT TREE GROWTH.
3. MAINTAIN DRAINAGE AREAS FOR RUNOFF CONTAINMENT.

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Rayonier Properties Inc.
Former Mill Site
Port Angeles, Washington

Soil Management Plan

Figure
2

AMENDMENT 1 TO:
PROPOSED APPROACH FOR "PILOT" SOIL STOCKPILE SAMPLING EVENT AND CONCEPTUAL SOIL MANAGEMENT PLAN, PORT ANGELES RAYONIER MILL SITE, MARCH 2013

Amendment Date: August 9, 2013

Rayonier completed the "pilot" soil stockpile sampling event described in the original document (dated March 2013) in April 2013. The results were provided to the Washington Department of Ecology (Ecology) in June 2013. Rayonier and Ecology discussed the conceptual soil management plan on July 25, 2013 and reached agreement on a plan for protecting the stockpiles for long-term storage. The updated soil management plan is presented below.

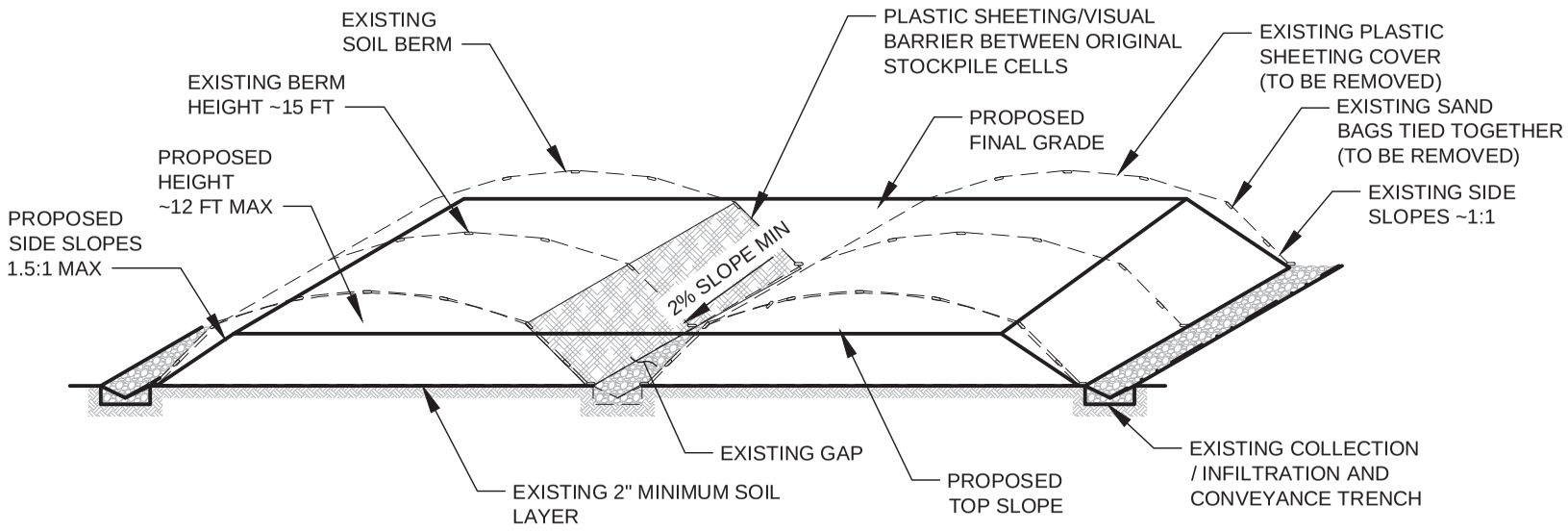
Updated Conceptual Soil Management Plan

Figure 2 (attached) presents the conceptual long-term soil management plan. In general, the plan specifies that adjacent soil stockpiles will be combined and graded within existing soil bin footprints to remove the gap between piles, sloped to promote drainage, and hydroseeded with grass. Specifically, the following stockpiles will be combined and graded (Figure 3):

- The two westernmost stockpiles in the northern half of Stockpile Area 1 (Bins #1-5 and #1-6).
- The two easternmost stockpiles in the northern half of Stockpile Area 1 (Bins #1-7 and #1-8).
- The five stockpiles in the southern half of Stockpile Area 1 (Bins #1-1, #1-2, #1-3, #1-4, and #1-9).
- The four stockpiles in Stockpiles Area 2 (Bins #2-1, #2-2, #2-3, and #2-4). The soil in Bin #2-4 will be added to the east and south sides of the other piles.

During grading to remove the gap between adjacent stockpiles, a continuous layer of plastic sheeting will be installed as a visual marker/physical separation barrier between the soils in adjacent stockpiles. The plastic marker layer will facilitate future identification and separation/segregation of soils as necessary. The upper edge of the plastic sheeting used to form the marker layer will be staked on the surface of the stockpile (using surveyor stakes or similar) to identify the location and alignment of the sheeting immediately below the stockpile surface. In addition, location coordinates for the stakes and plastic sheeting will be measured and recorded using a Global Positioning System (GPS) unit.

During the initial period of grass growth (approximately 1 to 2 months estimated), the stockpiles will be inspected at least weekly to ensure grass is becoming uniformly established across the stockpile surfaces. Maintenance seeding will be performed as needed during this period to fill in any areas of sparse grass growth if it appears the area could be susceptible to erosion. After grass has established, the inspection frequency will be reduced to monthly through the winter (until mid-March). Beginning in April 2014, long-term monitoring and maintenance of the stockpiles will consist of quarterly inspections for areas of significant erosion and cover integrity, mowing to prevent tree growth, maintenance seeding as needed, and maintenance of drainage areas for runoff containment. Additional stockpile sampling will be conducted in the future as needed to evaluate appropriate options for final disposition of the soils.



PERSPECTIVE PLAN VIEW - TYPICAL TYPE 2 SOIL STOCKPILE

NOT TO SCALE

CONSTRUCTION NOTES:

1. REMOVE SANDBAGS AND PLASTIC SHEETING.
2. PLASTIC SHEETING WILL BE PLACED ON THE EXISTING SLOPE OF ONE STOCKPILE CELL BETWEEN EACH TWO ADJACENT CELLS THAT WILL BE GRADED TOGETHER. THE PLASTIC SHEETING WILL PROVIDE A VISUAL BARRIER BETWEEN THE SOIL COMPRISING THE ORIGINAL STOCKPILE CELLS. THE TOP OF THE PLASTIC SHEETING WILL BE STAKED AND RECORDED WITH GPS COORDINATES.
3. GRADE EXISTING SOIL STOCKPILES WITHIN EXISTING SOIL BIN FOOTPRINT TO REMOVE GAP BETWEEN PILES. SLOPE 2% FOR DRAINAGE ACROSS THE TOP.
4. HYDROSEED COVER. TWO TIMES APPLICATION WITH LOW GROWTH COVER.
5. USE FIRE HYDRANT AND TEMPORARY SPRINKLERS FOR WATERING TO ESTABLISH VEGETATION GROWTH, AS NEEDED.
6. THE STOCKPILE SURFACE WILL BE COVERED, AS NEEDED, BY STRAW MATTING TO PREVENT SOIL LOSS VIA WINDBLOWN EROSION OR STORMWATER RUNOFF DURING THE HYDROSEEDING GRASS GROWTH PERIOD.

LONG-TERM CARE AND MAINTENANCE:

1. PERFORM QUARTERLY INSPECTIONS FOR AREAS OF SIGNIFICANT EROSION AND GRASS COVER INTEGRITY. MAINTAIN AS NEEDED.
2. MOW AS NEEDED TO PREVENT TREE GROWTH.
3. MAINTAIN DRAINAGE AREAS FOR RUNOFF CONTAINMENT.

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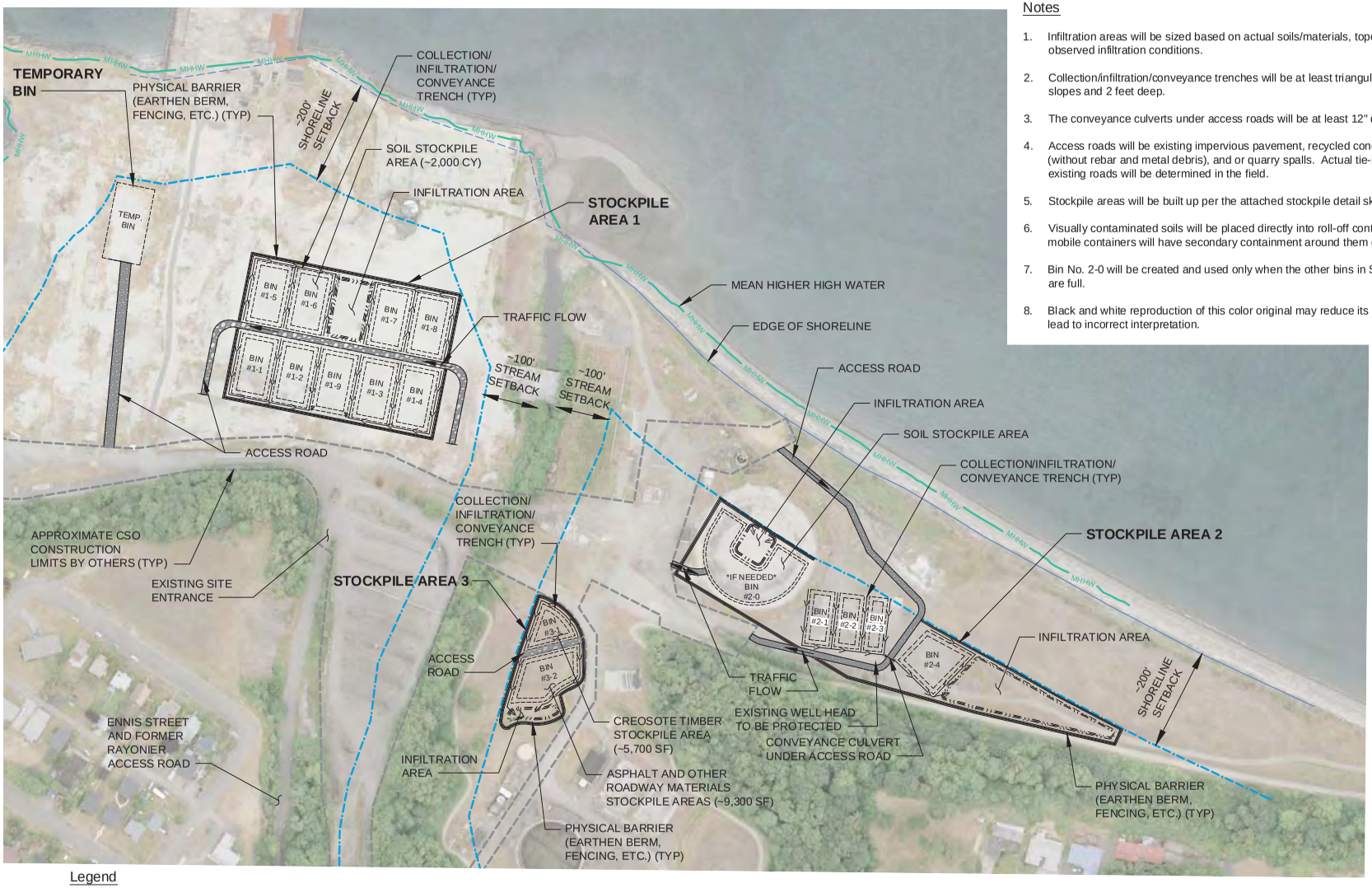
Rayonier Properties Inc. Former Mill Site Port Angeles, Washington	**Soil Management Plan**	Figure 2



N

Notes

1. Infiltration areas will be sized based on actual soils/materials, topography, and observed infiltration conditions.
2. Collection/infiltration/conveyance trenches will be at least triangular with 2:1 side slopes and 2 feet deep.
3. The conveyance culverts under access roads will be at least 12" diameter culverts.
4. Access roads will be existing impervious pavement, recycled concrete rubble (without rebar and metal debris), and or quarry spalls. Actual tie-in locations to existing roads will be determined in the field.
5. Stockpile areas will be built up per the attached stockpile detail sketch.
6. Visually contaminated soils will be placed directly into roll-off containers. These mobile containers will have secondary containment around them during filling.
7. Bin No. 2-0 will be created and used only when the other bins in Stockpile Area 2 are full.
8. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Legend

- CSO Construction Limits
- Stream and Shoreline Setback
- MHHW Mean Higher High Water (Rayonier, 2012)
- Edge of Shoreline
- Drainage Channel and Flow Direction
- Proposed Access Road

0 200 400
Scale in Feet

Base map source: Google Earth

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Rayonier Properties Inc. Former Mill Site Port Angeles, Washington	**Non-Surveyed As-Built Conditions Product Staging / Storage Areas**	Figure 3

Table 1

CSO Soil Stockpile Sampling Results - April 2013 Pilot Sampling Event

Port Angeles Rayonier Mill Study Area
Port Angeles, Washington

Analyte	Volume I Unrestricted Soil Screening Level (a)	Stockpile ID:	Bin #1-1	Bin #1-2	Bin #1-3	Bin #1-4	Bin #1-5	Bin #1-6	Bin #1-7	Bin #1-8	Bin #2-1	Bin #2-2	Bin #2-3	Bin #2-4
		Sample ID:	SP1-1-(1-5)	SP1-2-(1-5)	SP1-3-(1-5)	SP1-4-(1-5)	SP1-5-(1-5)	SP1-6-(1-5)	SP1-7-(1-5)	SP1-8-(1-5)	SP2-1-(1-5)	SP2-2-(1-5)	SP2-3-(1-5)	SP2-4-(1-5)
		Date:	4/17/2013	4/17/2013	4/17-18/2013	4/18/2013	4/17/2013	4/17/2013	4/18/2013	4/18/2013	4/18/2013	4/18/2013	4/18/2013	4/18/2013
TPH (mg/kg)														
Diesel-Range Petroleum Hydrocarbons	200		**18**	**64**	**34**	**11**	**63**	**16**	**21**	**28**	**21**	**22**	**24**	**33**
Heavy Oil-Range Petroleum Hydrocarbons	200		**75**	**300**	**100**	**33**	**190**	**68**	**96**	**95**	**110**	**86**	**96**	**140**
Metals (mg/kg)														
Antimony	5		**0.010 J**	**0.0138 J**	**0.020 J**	**0.0181 J**	**0.0389 J**	**0.010 J**	**0.0089 J**	0.1 U	**0.0177 J**	**0.0189 J**	**0.025 J**	**0.010 J**
Arsenic	20		10 U	**2.01 J**	**5.5 J**	10 U	**8.8 J**	**3.0 J**	**1.5 J**	**2.5 J**	**6.7 J**	**2.5 J**	**4.5 J**	**2.1 J**
Barium	102		**67.4**	**65.4**	**97.7**	**52.9**	**73.4**	**90.2**	**53.4**	**98.2**	**88.3**	**85.9**	**100**	**79.4**
Cadmium	4		**0.9**	**0.7**	**0.9**	**0.7**	**1.3**	**0.8**	**0.8**	**0.9**	**1.0**	**1.0**	**0.9**	**1.0**
Chromium (Total)	48		**51**	**27.8**	**46**	**36**	**38**	**45**	**32**	**51**	**45**	**48**	**45**	**45**
Cobalt	20		**16.8**	**9.3**	**18.1**	**12.3**	**12.5**	**15.4**	**11.8**	**18.8**	**15.4**	**14.5**	**15.3**	**15.5**
Copper	50		**51.4**	**39.0**	**76.5**	**40.2**	**72.0**	**34.3**	**44.7**	**34.8**	**52.0**	**64.2**	**64.0**	**61.0**
Lead	50		**4.80 J**	**53**	**50**	**12**	**48**	**8**	**19**	**3.02 J**	**27**	**43**	**48**	**28**
Manganese	1,200		**469**	**534**	**794**	**441**	**708**	**431**	**467**	**593**	**762**	**592**	**597**	**524**
Mercury	0.1		**0.05**	**0.15**	**0.17**	**0.05**	**0.13**	**0.05**	**0.06**	**0.05**	**0.11**	**0.09**	**0.12**	**0.08**
Nickel	48		**46**	**46.8**	**57**	**61**	**57**	**41**	**39**	**46**	**46**	**47**	**50**	**53**
Selenium	0.3		**0.152 J**	**0.078 J**	**0.213 J**	**0.068 J**	**0.095 J**	**0.135 J**	**0.044 J**	**0.179 J**	**0.124 J**	**0.170 J**	**0.172 J**	**0.078 J**
Silver	2		0.7 U	0.3 U	0.7 U	0.7 U	0.7 U	0.8 U	0.7 U	0.8 U	0.7 U	0.7 U	0.7 U	0.7 U
Thallium	1		**0.049 J**	**0.0368 J**	**0.056 J**	**0.0316 J**	**0.0476 J**	**0.045 J**	**0.0400 J**	**0.051 J**	**0.0444 J**	**0.0425 J**	**0.046 J**	**0.044 J**
Zinc	86		**65**	**74.7**	**98**	**62**	**95**	**69**	**59**	**67**	**103**	**93**	**96**	**79**
SVOCs (mg/kg) (b)														
1-Methylnaphthalene	35		0.019 U	0.019 U	0.019 U	0.019 U	**0.021**	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	**0.022**	0.020 U
2-Methylnaphthalene	320		0.019 U	**0.025**	**0.030**	0.019 U	**0.037**	0.019 U	0.018 U	0.019 U	**0.020**	**0.024**	**0.035**	0.020 U
Acenaphthene	20		0.019 U	0.019 U	0.019 U	0.019 U	**0.027**	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	**0.041**	0.020 U
Acenaphthylene	NE		0.019 U	0.019 U	0.019 U	0.019 U	**0.026**	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	0.020 U	0.020 U
Anthracene	24,000		0.019 U	0.019 U	**0.020**	0.019 U	**0.11**	0.019 U	0.018 U	0.019 U	**0.021**	0.019 U	**0.034**	0.020 U
Benzo (g,h,i) perylene	NE		0.019 U	**0.077**	**0.034**	0.019 U	**0.22**	0.019 U	**0.030**	0.019 U	**0.041**	**0.046**	**0.055**	**0.053**
bis (2-ethylhexyl) Phthalate	71		0.023 U	**0.026 B**	**0.027 B**	0.024 U	**0.033 B**	**0.025 B**	0.023 U	0.024 U	0.023 U	0.024 U	0.024 U	**0.052 B**
Carbazole	50		0.019 U	0.019 U	0.019 U	0.019 U	**0.040**	0.019 U	0.018 U	0.019 U	**0.020**	0.019 U	**0.029**	0.020 U
Dibenzofuran	160		0.019 U	0.019 U	**0.040**	0.019 U	**0.041**	0.019 U	0.018 U	0.019 U	**0.023**	**0.020**	**0.056**	0.020 U
Diethylphthalate	100		0.046 U	0.047 U	0.047 U	0.048 U	0.050 U	**0.055 B**	0.046 U	0.048 U	0.046 U	0.048 U	0.049 U	0.049 U
Dimethylphthalate	200		0.019 U	0.019 U	0.019 U	**0.020**	0.020 U	0.019 U	0.018 U	0.019 U	**0.056**	0.019 U	0.020 U	0.020 U
Fluoranthene	3,200		**0.028**	**0.077**	**0.20**	**0.035**	**0.41**	**0.024**	**0.13**	0.019 U	**0.13**	**0.14**	**0.25**	**0.16**
Fluorene	30		0.019 U	0.019 U	**0.020**	0.019 U	**0.042**	0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	**0.042**	0.020 U
Naphthalene	1,600		**0.022**	**0.038**	**0.15**	0.019 U	**0.068**	**0.020**	**0.028**	0.019 U	**0.031**	**0.058**	**0.14**	**0.043**
Phenanthrene	NE		**0.032**	**0.092**	**0.23**	**0.032**	**0.35**	**0.028**	**0.057**	0.019 U	**0.10**	**0.13**	**0.29**	**0.12**
Pyrene	2,400		**0.027**	**0.091**	**0.18**	**0.031**	**0.45**	**0.026**	**0.12**	0.019 U	**0.11**	**0.14**	**0.24**	**0.15**
Total cPAHs TEC	0.14		0.014 U	**0.060**	**0.047**	0.014 U	**0.51**	0.014 U	**0.037**	0.014 U	**0.068**	**0.071**	**0.082**	**0.078**
Dioxins/Furans (mg/kg)														
Total Dioxins/Furans TEC	5.2E-06		**5.05E-06**	**4.84E-05**	**2.24E-05**	NA	**1.04E-04**	**4.26E-06**	NA	**5.90E-06**	**1.55E-05**	NA	NA	**1.51E-05**
PCBs (mg/kg)														
Total PCBs (sum of Aroclors)	0.5		0.032 U	**0.044**	**0.12**	0.033 U	**0.30**	0.033 U	0.032 U	0.033 U	0.032 U	**0.054**	**0.19**	**0.088**

Notes:

(a) The Volume I unrestricted soil screening levels are taken from the Public Review Draft Interim Action Report Volume I (April 2012). Listed values are based on lowest of soil concentrations protective of human health direct-contact (MTCA Method B standard formula value) and MTCA default concentrations protective of terrestrial plants, soil biota, and wildlife (MTCA Table 749-3 values), adjusted for background and practical quantification limits.

(b) Only results for SVOCs that had one or more positive detections are shown; the target analyte list included 66 individual SVOC constituents.

For analytes with no established MTCA Method B values in the CLARC database, MTCA Method A cleanup levels for unrestricted land use were used if available.

J = The listed value is an estimated concentration below the laboratory's established reporting limit.

U = The target analyte was not detected at the reported concentration.

B = The target analyte was detected in an associated method blank at a concentration greater than one-half the laboratory's reporting limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

mg/kg = Milligrams per kilogram

PAHs = Polycyclic aromatic hydrocarbons

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

PCBs = Polychlorinated biphenyls

SVOCs = Semivolatile organic compounds

TEC = Toxic equivalent concentration

TPH = Total petroleum hydrocarbons

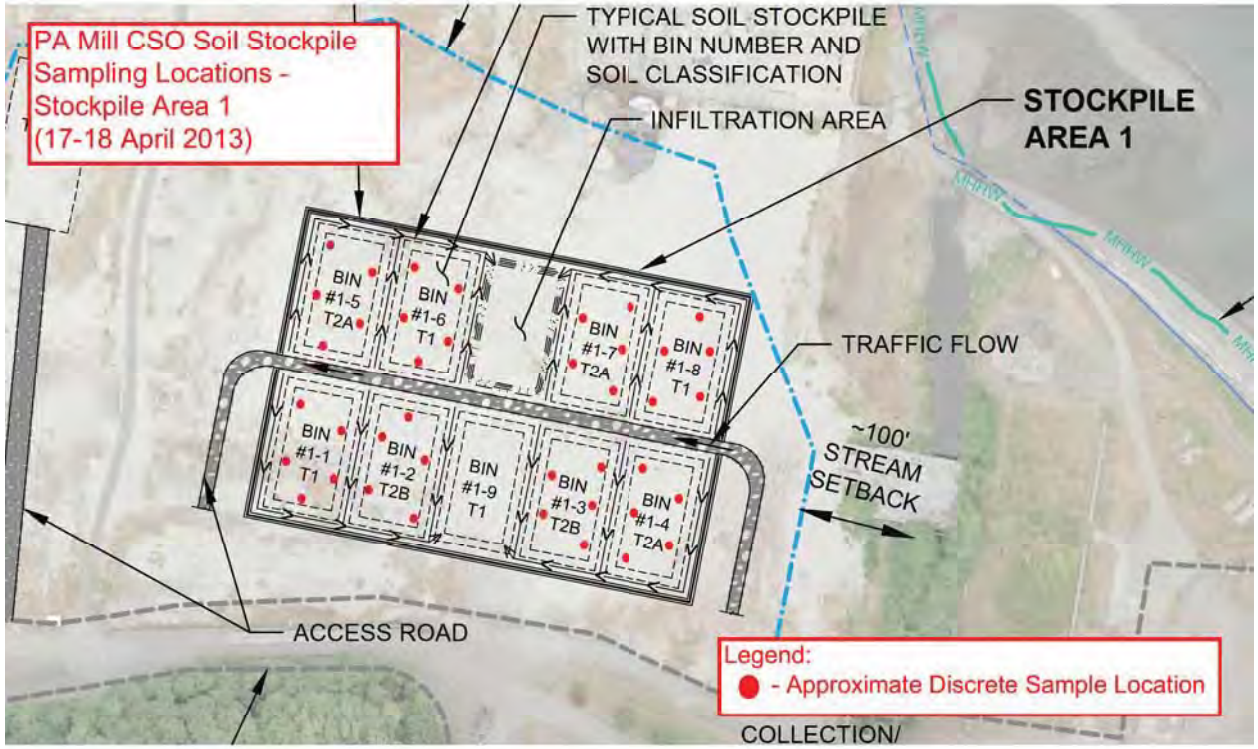
NA = Not analyzed

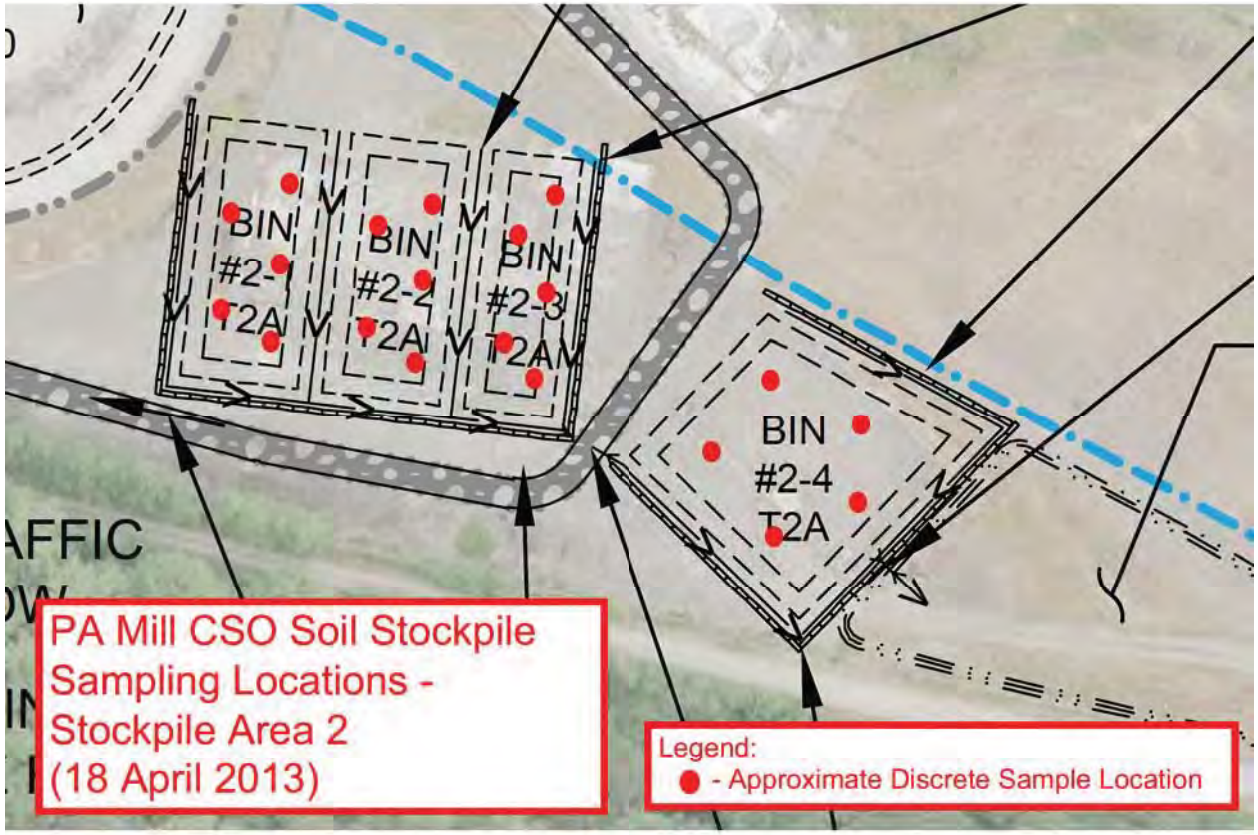
NE = No numerical criteria established for human health direct-contact in CLARC database or for terrestrial ecological receptors in MTCA Table 749-3.

Positive detections are shown in **bold** typeface.

Yellow highlighting indicates value exceeds Volume I unrestricted soil screening level.

Red typeface indicates value exceeds Volume I unrestricted soil screening level by a factor of ten or more.


PA Mill CSO Soil Stockpile Sampling Locations - Stockpile Area 1 (17-18 April 2013)
TYPICAL SOIL STOCKPILE WITH BIN NUMBER AND SOIL CLASSIFICATION
INFILTRATION AREA
STOCKPILE AREA 1
TRAFFIC FLOW
~100' STREAM SETBACK
ACCESS ROAD
BIN #1-5 T2A
BIN #1-6 T1
BIN #1-7 T2A
BIN #1-8 T1
BIN #1-1 T1
BIN #1-2 T2B
BIN #1-9 T1
BIN #1-3 T2B
BIN #1-4 T2A
Legend:
- Approximate Discrete Sample Location
COLLECTION/


BIN
#2-1
T2A
BIN
#2-2
T2A
BIN
#2-3
T2A
BIN
#2-4
T2A
PA Mill CSO Soil Stockpile
Sampling Locations -
Stockpile Area 2
(18 April 2013)
Legend:
- Approximate Discrete Sample Location

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