



October 19, 2010

Sean Sheldrake
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900
Mailstop ECL-115
Seattle, WA 98101-3140

**Subject: Terminal 4 Removal Action – Wheeler Bay Bank Repairs
Construction Weekly Progress Report for October 11 through 15, 2010**

Dear Sean:

This weekly status report contains information related to the implementation of the Terminal 4 Removal Action – Wheeler Bay Bank Repairs as required by the Administrative Order on Consent (AOC) between the Port of Portland (Port) and the U.S. Environmental Protection Agency (USEPA) signed on October 2, 2003. The reporting period covered by this letter is October 11 to 15, 2010.

SIGNIFICANT DEVELOPMENTS

- Continued construction activities

CONSTRUCTION ACTIVITIES PERFORMED

- Imported large woody debris (LWD) to site
- Imported Class 700 riprap to site
- Imported coir fabric to site
- Imported chain to site
- Continued to remove habitat mixture to expose existing riprap before placing new riprap
- Completed a test installation of a Manta Ray anchor

PROBLEMS ENCOUNTERED AND PROPOSED SOLUTIONS

- Continued to look for suitable top soil material. Additional sources of top soil were sampled and submitted to the laboratory for chemistry analysis.

MONITORING ACTIVITIES PERFORMED

- Visual observations of erosion control measures and Wheeler Bay surface water. Erosion control structure working as designed. No turbidity evidence within Wheeler Bay.

SUMMARY OF MONITORING DATA COLLECTED AND RECEIVED

- None

SCHEDULE OF ACTIVITIES TO BE PERFORMED DURING NEXT REPORTING PERIOD

- Finishing placement of riprap and select fill
- Installation of LWD and Manta Ray anchors
- Importing of top soil

If you have any questions, please call me at (503) 415-6676.

Sincerely,



Kelly Madalinski
Environmental Project Manager
Port of Portland

Attachments:

- Attachment A: Port of Portland Daily Construction Reports
- Attachment B: NEI Daily Construction and Quality Control Reports

ATTACHMENT A
PORT OF PORTLAND DAILY CONSTRUCTION REPORTS



PROJECT	Terminal 4, Wheeler Bay Bank Repairs	CONTRACT NO.	10D015/820027
CONTRACTOR	Northwest Earthmovers	SUPERINTENDENT	Carl Johnson (NEI)
DAY OF WEEK & DATE:	Wednesday, October 13, 2010	REPORT NO.	6
WEATHER	Clear, Southeast wind 5-15 mph	TEMPERATURE	L:59 H:74 degrees F

NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:	MAJOR EQUIPMENT ON JOB (Size/capacity and hours):
Construction Activities: 1-superintendent/equipment operator 1-operator/laborer/truck driver	1-Ford Service truck (OR 512701)/10 hours 1-Hitachi 160LC Excavator (N833)/10 hours 1-Cat IT28G (N710)/10 hours 4-steel plates (8' x 16')/10 hours 1-truck/end-dump trailer (LWD transport)

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

08:00 AQ/POP(1) staff on site

08:30 NEI(1) and PMX(1) staff on site

08:30-

09:00 NEI preparing equipment and unloading log-anchor systems.

09:00-

10:45 NEI moving naturally occurring woody debris toward river between station 2+81 and 7+00 to allow access for installation of imported/anchored LWD at elevation 15 contour.
NEI receives shipment of 300'-- 3/4" chain

10:45-

11:15 NEI delivers and drops first load of LWD (4 logs)
Measured diameter at 21' above stump to confirm 12-inch diameter

11:15-

12:00 NEI moving LWD across tracks and down slope with loader
NEI transferring LWD from toe of slope and placing near anchor locations starting at station 7+00

12:00-

12:30 NEI lunch break

12:30-

13:00 NEI extending station layout to from station 2+00 to station 7+00

13:00-

13:30 NEI delivers load of LWD (6 logs)
Measured diameter at 21' above stump to confirm 12-inch diameter

13:30-

14:30 NEI moving LWD to approximately station 6+00.

14:30 NEI begins clearing habitat mixture and exposing rip rap from approximately station 2+40 to 2+81
Jeff Hargens (NEI) on site.

Tim Stone inspects delivery of 3/4" lashing chain. Specification and submittal require non-galvanized chain. Chain found to be galvanized--incorrect chain delivered to site. Notified Jeff Hargens of issue. NEI will have correct chain



delivered as soon as possible.

15:30 Jeff Hargens, Tim Stone, and Carl Johnson discuss installation specifications and methodologies relating to anchoring of LWD. Does cable need to terminate below ground? Tim will contact Peter Hummel regarding the intent of the design.

16:00 NEI and PMX staff off site.

16:15 Tim Stone contacts Peter Hummel (AQ) regarding LWD-anchor installation design. Peter indicates that cable does not need to terminate below ground for this application. Chain will be cinched tight around log and secured with shackle. Cable will be run through the shackle, pulled tight and terminated as shown in drawings.

16:30 Phone call from Tim Stone to Jeff Hargens. Clarify the LWD anchor system design as discussed with Peter Hummel.

Tim Stone off site.

Summary of contractor progress:

Rip rap base layer completed from approximately station 0-30 to 2+00

Select fill base layer completed from approximately station 0-30 to 2+00

Rip rap slope and 2-foot bench at elevation 16.5 completed from approximately station 0-30 to 2+00

Select fill layer upgradient of 2-foot rip rap bench completed from approximately station 0-30 to 2+00

Pre-existing woody debris cleared from work area from 0-30 to 7+00

Persons on site 10/13/10:

Tim Stone(AQ/POP), Carl Johnson (NEI), Jeff Hargens (NEI), Operator/laborer/truck driver (NEI), Ingmar Saul (PMX)

Material delivery summary as of 10/13/10 (end-of-day):

	Units	Delivered 10/7 (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Select Fill	tons	64.02	Scale ticket	98.86	162.88
Class 700 RR	tons	177.98	Scale ticket	249.50	427.48
Manta Ray anchors	pieces	68	Visual inspection	0	68
Chain-3/4" galvanized	feet	300	Visual inspection— OUT OF SPEC	0	300
Large woody debris	pieces	10	Visual inspection and measurement	0	10

NA

HRS:

NA

TESTS PERFORMED: None

PHONE LOG:

16:15 Tim Stone to Peter Hummel (AQ). Confirm design intent for LWD anchoring system.

16:30 Tim Stone to Jeff Hargens (NEI). Relay information regarding LWD anchoring system design.

SITE PHOTOS/VIDEOS TAKEN:

(attached below)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:



<p>1- naturally occurring LWD cleared from approximately 2+81 to 7+00</p> <p>2- delivery of LWD (4 pieces)</p> <p>3- delivery of LWD (6 pieces)</p> <p>*other photos of construction activities available but not attached to this document. Photos will be transmitted to Mary Green and she will make them available on the Port system.</p>	None
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INSPECTOR	Timothy J. Stone	HRS	8.0	DATE	10/13/10

(signature on hardcopy)

PHOTO 1



PHOTO 2



PHOTO 3





PROJECT	Terminal 4, Wheeler Bay Bank Repairs	CONTRACT NO.	10D015/820027
CONTRACTOR	Northwest Earthmovers	SUPERINTENDENT	Carl Johnson (NEI)
DAY OF WEEK & DATE:	Thursday October 14, 2010	REPORT NO.	7
WEATHER	Clear, Southeast wind 0-5 mph	TEMPERATURE	L:50 H:64 degrees F

NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:	MAJOR EQUIPMENT ON JOB (Size/capacity and hours):
Construction Activities: 1-superintendent/equipment operator 1-operator/laborer/truck driver	1-Ford Service truck (OR 512701)/6 hours 1-Hitachi 160LC Excavator (N833)/taken off site 1-Hitachi 160LC Excavator (N849) delivered with hoe compactor unit/6 hours 1-Cat IT28G (N710)/6 hours 4-steel plates (8' x 16')/6 hours 1-truck/end-dump trailer (LWD transport)

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

07:00 NEI(2), PMX(1), and AQ/POP(1) staff on site

07:15-

08:00 NEI receiving coir fabric (3 rolls x 1079 sq.ft. = 3237 sq.ft.), 10"x10"x1" fabric staples (1000 pcs.)
 NEI removes excavator N833 from site
 NEI delivers replacement 160LC equipped with hoe compactor for driving anchors
 NEI delivers LWD (4 pcs.)—confirmed compliance with spec by measurement (Photo 1)

08:00-

09:00 NEI assembling tooling and configuring 160LC excavator and hoe compactor for driving anchor systems (Photo 2)

09:00-

10:00 NEI preparing to test-drive manta ray anchors
 NEI delivers LWD (4 pcs.)—confirmed compliance with spec by measurement

10:30-

11:00 NEI attempts to drive anchor at approximately station 6+80 by pushing on threaded anchor rod and vibrating with hoe compactor
 Threaded anchor rod is too flexible for driving anchor, and anchor could not be driven beyond 3 ft below ground surface.
 Anchors will need to be driven by independent heavy rod (approximately 1-3/8" diameter) inserted into drive hole provided in anchor foot.

11:15 NEI delivers additional 6 rolls coir fabric: BioD-Mat, Rolanka International, Inc., 29 oz./sq.yd. (6 rolls x 1070 sq.ft.= 6474 sq.ft.)
 NEI delivers 100 2"x2"x2' df stakes for anchoring coir fabric
 NEI delivers partially assembled stainless anchor cables

11:15-

12:30 NEI moving LWD across tracks and stockpiling at top and base of slope.

13:00 NEI, PMX and AQ/POP staff off site

13:00-

19:00 NEI travels to LWD borrow site and recovering remaining LWD required for project.



Summary of contractor progress (reflects revised stationing layout by contractor):

- Rip rap base layer completed from approximately station 0-20 to 2+50
- Select fill base layer completed from approximately station 0-20 to 2+50
- Rip rap slope and 2-foot bench at elevation 16.5 completed from approximately station 0-20 to 2+50
- Select fill layer upgradient of 2-foot rip rap bench completed from approximately station 0-20 to 2+50
- Pre-existing woody debris cleared from work area from 0-20 to 7+00

Persons on site 10/14/10:

Tim Stone(AQ/POP), Carl Johnson (NEI), Operator/laborer/truck driver (NEI), Delivery person (NEI), Ingmar Saul (PMX)

Material delivery summary as of 10/14/10 (end-of-day):

	Units	Delivered 10/14 (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Select Fill	tons	0	Scale ticket	162.88	162.88
Class 700 RR	tons	0	Scale ticket	427.48	427.48
Manta Ray anchors	pieces	0	Visual inspection—confirm Manta Ray MR2 model (consistent with sub. 2.0)	68	68
Chain-3/4" galvanized	feet	300	Visual inspection— OUT OF SPEC	0	300
Coir fabric	Square feet	9711	Visual inspection—manufacturer tag (consistent with Sub. 6.0)	0	9711
Fabric staples	pieces	1000	10"x10"x1"	0	1000
Wood stakes	pieces	100	2"x2"x2' df	0	100
Large woody debris	pieces	8	Visual inspection and measurement	10	18

NA

HRS:

NA

TESTS PERFORMED: None

PHONE LOG:

None.

SITE PHOTOS/VIDEOS TAKEN:

(attached below)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

- 1- LWD delivery #1 (4 pieces)
 - 2- fabricated anchor-driver assembly
 - 3- delivery of LWD (4 pieces)
 - 4- attempt to drive anchor with threaded anchor rod
- *other photos of construction activities available but not attached to this document. Photos will be

None



transmitted to Mary Green and she will make them available on the Port system.					
INSPECTOR	Timothy J. Stone	HRS	6.0	DATE	10/14/10

(signature on hardcopy)

PHOTO 1





PHOTO 2



PHOTO 3



PHOTO 4





PROJECT	Terminal 4, Wheeler Bay Bank Repairs	CONTRACT NO.	10D015/820027
CONTRACTOR	Northwest Earthmovers	SUPERINTENDENT	Carl Johnson (NEI)
DAY OF WEEK & DATE:	Friday October 15, 2010	REPORT NO.	8
WEATHER	Morning Fog; PM Clearing, NW wind 0-5 mph	TEMPERATURE	L:50 H:60 degrees F

NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:	MAJOR EQUIPMENT ON JOB (Size/capacity and hours):
Construction Activities: 1-superintendent/equipment operator 1-operator/laborer/truck driver	1-Ford Service truck (OR 512701)/7 hours 1-Hitachi 160LC Excavator (N849)/7 hours 1-Cat IT28G (N710)/7 hours 4-steel plates (8' x 16')/7 hours 1-truck/end-dump trailer (LWD transport)

<p><u>CHRONOLOGICAL ACCOUNT OF DAY'S WORK:</u></p> <p>07:00 PMX(1), and AQ/POP(1) staff on site NEI delivers LWD (5 pieces)—visually observed and measured for specification compliance (PHOTO 1)</p> <p>08:00 Carl Johnson (NEI) on site NEI begins fabricating reconfigured anchor-driving rod</p> <p>09:15 NEI assembling tooling and configuring 160LC excavator and hoe compactor for driving anchor systems and mobilizing down slope to approximately station 6+80</p> <p>09:15-10:00 NEI preparing to test-drive manta ray anchor at 6+80 Anchor driven to approximately 6.5 feet bgs at which point driving rod bent and was retracted from ground (PHOTO 2) NEI attempts to recover anchor from ground by pulling with excavator; however anchor sets at approx. 5.5 feet bgs and could not be removed—spec requires driving 7-10 feet bgs (PHOTO 3)</p> <p>10:15 NEI delivers LWD (6 pieces)—NEI will import additional logs if needed AQ/POP visually observes and measures LWD for specification compliance</p> <p>10:30 NEI obtaining materials to reconfigure anchor-driving system NEI moving LWD from drop area to stockpile across tracks to project stockpile area outside of fence</p> <p>11:30 NEI begins fabrication of pilot push rod constructed of 3.5-inch O.D. SCH80 steel pipe</p> <p>12:15 NEI moves to approximately 6+65 to attempt driving pilot hole with new assembly Pilot hole driving was successful to depth, but weld broke away at hoe compactor attachment point</p> <p>12:30 NEI receives 300' x 3/4" long-link lash chain—non-galvanized</p> <p>12:40 NEI lunch break</p> <p>13:10 NEI demobilizes and prepares for end of day</p> <p>14:00 NEI traveling to shop to complete fabrication of driving rod and pilot driver assembly NEI, PMX, and AQ/POP off site</p> <p><u>Summary of contractor progress (reflects revised stationing layout by contractor):</u> Rip rap base layer completed from approximately station 0-20 to 2+50</p>



Select fill base layer completed from approximately station 0-20 to 2+50
 Rip rap slope and 2-foot bench at elevation 16.5 completed from approximately station 0-20 to 2+50
 Select fill layer upgradient of 2-foot rip rap bench completed from approximately station 0-20 to 2+50
 Pre-existing woody debris cleared from work area from 0-20 to 7+00

Persons on site 10/15/10:

Tim Stone(AQ/POP), Carl Johnson (NEI), Operator/laborer/truck driver (NEI), Ingmar Saul (PMX), freight delivery person

Material delivery summary as of 10/15/10 (end-of-day):

	Units	Delivered 10/15 (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Select Fill	tons	0	Scale ticket	162.88	162.88
Class 700 RR	tons	0	Scale ticket	427.48	427.48
Manta Ray anchors	pieces	0	Visual inspection—confirm Manta Ray MR2 model (consistent with Sub. 2.0)	68	68
Chain-3/4" Non-galvanized	feet	300	Visual inspection—consistent with spec	0	300
Chain-3/4" galvanized	feet	0	Visual inspection— OUT OF SPEC	300	300
Coir fabric	Square feet	0	Visual inspection—manufacturer tag (consistent with Sub. 6.0)	0	9711
Fabric staples	pieces	0	10"x10"x1"	0	1000
Wood stakes	pieces	0	2"x2"x2' df	0	100
Large woody debris	pieces	11	Visual inspection and measurement	18	29

NA

HRS:

NA

TESTS PERFORMED: None

PHONE LOG:

None.

SITE PHOTOS/VIDEOS TAKEN:

(attached below)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

- 1- LWD delivery #1 (5 pieces)
- 2- attempt to drive anchor at 6+80 with 1-1/2" drive rod
- 3- anchor set at 5.5 feet bgs
- 4- attempt to drive pilot hole with 3-inch SCH80 pipe assembly

None

*other photos of construction activities available but not attached to this document. Photos will be transmitted to Mary Green and she will make them available on the Port system.



INSPECTOR	Timothy J. Stone	HRS	7.0	DATE	10/15/10
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(signature on hardcopy)

PHOTO 1



PHOTO 2



PHOTO 3





PHOTO 4



ATTACHMENT B
NEI DAILY CONSTRUCTION AND QUALITY CONTROL REPORTS

Daily Construction & Quality Control

Job Name: T4 Wheeler Bay Bank Repair

Contract #87460

NEI Job # 1019

Date: 10/15/10

Weather: Foggy Am, Sunny PM

1 Inspection of Erosion Control: (state condition & describe any maintenance steps taken)

Silt Fence: Good Shape

Construction Entrance: Not needed

Other: None

2 Inspection of Site: (state condition & describe any maintenance steps taken)

Sick or Injured Endangered Species: None

Harbor Water Observation: Normal ✓

3 Equipment Inspection:

Machine	Visible Leaks?	Repairs?	Comments
N710 CAT It28	None	None	running no probs! ✓
N849 Hit. 160	None	None	" " ✓
N130 End dump	None	None	" " ✓

4 Hazard Conditions: None

- Airborne Dust / Contaminants
- Spilled Material
- Disturbance of Demarcation Layer
- Equipment Lock out / Tag out

5 Communications w/ Visitors, Inspectors, or Subs:

Tim and Ingmar were on site as long as we were, we all talked about anchor installer, we all think we have a good idea so we left project to Fab. new anchor driving devices

LABOR			EQUIPMENT		
Description	Activity	Hrs	Description	Activity	Hrs
Mike Madison	help Fab. pilot probe	2	N130 End dump	delivering trees	6 1/2
" "			N710 CAT It28	pack trees	1
Carl Johnson	Fab. pilot probe	2	N849 Hit. 160	try to drive anchor	2

Daily Construction & Quality Control

Job Name: T4 Wheeler Bay Bank Repair

Contract #87460

NEI Job # 1019

Date: 10/14/10

Weather: Foggy Am, Sunny PM

1 Inspection of Erosion Control: (state condition & describe any maintenance steps taken)

Silt Fence: Good shape ✓

Construction Entrance: Not needed

Other: None

2 Inspection of Site: (state condition & describe any maintenance steps taken)

Sick or Injured Endangered Species: None

Harbor Water Observation: Normal

3 Equipment Inspection:

Machine	Visible Leaks?	Repairs?	Comments
NB49 Hit. 160	None	None	Normal
N130 End dump	None	None	Normal
N710 CAT T+2B	None	None	Normal

4 Hazard Conditions: None

- Airborne Dust/Contaminants
- Spilled Material
- Disturbance of Demarcation Layer
- Equipment Lock out / Tag out

5 Communications w/ Visitors, Inspectors, or Subs:

Tim & Ingmar were on site as long as we were, we talked about driving in anchors with hoe disc on the excavator and how to make it work.

LABOR			EQUIPMENT		
Description	Activity	Hrs	Description	Activity	Hrs
Mike Madison			N130 End dump	delivering trees	8
" "			N710 CAT T+2B	packing trees	1
			NB49 Hit. 160	" "	1
Carl Johnson	weld anchor driver		N710 CAT T+2B	pick anchor pieces	2
" "	on Hoe disc	1 1/2	NB49 Hit. 160	test driving anchor	1

Daily Construction & Quality Control

Job Name: T4 Wheeler Bay Bank Repair

Contract #87460

NEI Job # 1019

Date: 10/13/10

Weather: Sunny

1 Inspection of Erosion Control: (state condition & describe any maintenance steps taken)

Silt Fence: Good shape ✓

Construction Entrance: Not needed

Other: None

2 Inspection of Site: (state condition & describe any maintenance steps taken)

Sick or Injured Endangered Species: None

Harbor Water Observation: Normal

3 Equipment Inspection:

Machine	Visible Leaks?	Repairs?	Comments
<u>2003 Hit. 160</u>	<u>None</u>	<u>None</u>	<u>running normal</u>
<u>N130 END Dump</u>	<u>None</u>	<u>None</u>	<u>running normal</u>
<u>N710 CAT J+2B</u>	<u>None</u>	<u>None</u>	<u>running normal</u>

4 Hazard Conditions: None

- Airborne Dust / Contaminants
- Spilled Material
- Disturbance of Demarcation Layer
- Equipment Lock out / Tag out

5 Communications w/ Visitors, Inspectors, or Subs:

Tim & Ingmar were on site all day, we talked about tree placement & anchoring trees
Tim noticed to wrong 3/4" chain was delivered it is Galv. not plain
Jeff H. & Philip H. are working on it
CHAIN TO BE REPLACED WITH PLAIN STEEL

LABOR			EQUIPMENT		
Description	Activity	Hrs	Description	Activity	Hrs
<u>Mike Madison</u>			<u>N130 END Dump</u>	<u>delivering trees</u>	<u>9</u>
<u>Carl Johnson</u>	<u>setting stakes E/W 15</u>	<u>3</u>	<u>N933 Hit. 160</u>	<u>moving & setting trees</u>	<u>4</u>
<u>n</u>	<u>ii</u>		<u>N710 CAT J+2B</u>	<u>packing trees</u>	<u>1</u>

