

APPENDIX A
WATER QUALITY MONITORING
SEASON 1 MONITORING RESULTS
MEMORANDUM

MEMORANDUM

To: Matthew Longenbaugh, National Oceanic and Atmospheric Administration
Jerry Gregory, U.S. Army Corps of Engineers

From: Linda Berry-Maraist, Pope Resources, LP/OPG Properties, LLC

Cc: Clay Patmont and Heather Page, Anchor QEA, LLC;
Celina Abercrombie, Washington State Department of Ecology

Re: Port Gamble Bay Cleanup Project Water Quality Monitoring Season 1 Monitoring Results (WCR-2015-2348 and NWS-2013-1270)

SUMMARY

As required by the Port Gamble Bay Cleanup Project Biological Opinion (WCR-2015-2348), this memorandum summarizes water quality monitoring results for sediment cleanup actions in Port Gamble Bay (“Site”). Monitoring was conducted consistent with the Water Quality Monitoring Plan (WQMP) included in the Engineering Design Report – Appendix E (Construction Quality Assurance Project Plan) dated May 2015. The WQMP was prepared to support project compliance with the requirements of Washington State’s Water Quality Standards for Surface Water (Washington Administrative Code 173-201A).

Water quality monitoring occurred during in-water work between October 2, 2015, and January 11, 2016. Data were collected to confirm compliance with turbidity and pH standards. Standards for turbidity were exceeded during approximately 2 percent of the monitoring activities (i.e., at 11 stations on 7 different days); all other samples were compliant with turbidity and pH standards.

SAMPLING DETAILS

Water quality measurements were collected at a 150-foot radius from active construction operations or from the edge of the turbidity curtain, when deployed. Each monitoring event consisted of measuring turbidity and pH at one background location and three designated

locations located 3 feet below the water surface, mid-depth within the water column, and 3 feet above the bottom.

The frequency and schedule of water quality monitoring during in-water work periods occurred at three different levels, as follows:

- **Intensive:** Collection of turbidity and pH measurements occurred every 4 hours during in-water work, with at least two measurements per day, for the first 3 days.
- **Routine:** If no confirmed exceedances occurred during the Intensive monitoring period, collection of turbidity and pH measurements changed to once daily during in-water work for 3 additional days, or if turbidity plumes become visually evident within the 150-foot compliance area.
- **Limited:** If no confirmed exceedances occurred during the Routine monitoring period, collection of turbidity and pH measurements changed to once per week during in-water work.

Intensive monitoring occurred on 30 days, Routine monitoring on 15 days, and Limited monitoring on 19 days. (Multiple levels of monitoring could occur on the same day, if multiple in-water activities were taking place.) Turbidity exceeded standards at 11 monitoring locations on 7 different days (see Table 1). After a turbidity exceedance was confirmed for a specific construction activity, the contractor and the Washington State Department of Ecology were notified of the exceedance, and the contractor was instructed to modify their operations in order to meet turbidity standards. Modifications to dredging and capping operations included slowing down the production rate or repairing or modifying existing best management practices for turbidity control (silt curtains).

CONCLUSION

The WQMP was implemented as planned during Season 1. Season 2 is expected to begin in July 2016.

REFERENCES

Ecology (Washington State Department of Ecology), 2013. *Final Cleanup Action Plan*. Exhibit A to the Port Gamble Bay Consent Decree No. 13-2-02720-0.

Table 1
Water Quality Exceedances

Date	Monitoring Type	Station ^a	Station Position Relative to Work Zone	Time	Tide	Turbidity Reading (NTU) ^b			Activity
						Surface	Mid-depth	Bottom	
10/27/2015	Intensive	BG-1	>1,000 feet from work zone	1125	Flood	1.1	0.6	0.5	D/C
		CS-2	150 feet down-current	1202		2.6	2.1	10.5	
12/18/2015	Intensive	BG-1	>1,000 feet from work zone	1428	Flood	2.0	1.9	1.8	D
		CS-3	150 feet down-current	1455		11.8	7.3	7.9	
12/29/2015	Intensive/ Routine	BG-1	>1,000 feet from work zone	0902	Ebb	0.7	0.5	0.7	D/C
		CS-1	150 feet down-current	1005		0.6	3.0	16.9	C
		CS-8	150 feet down-current	1042		1.5	7.9	5.6	D
12/30/2015	Intensive	BG-1	>1,000 feet from work zone	1142	Flood	0.5	0.8	0.9	D/C
		CS-6	150 feet down-current	1252		3.0	3.9	6.9	
		BG-1	>1,000 feet from work zone	1443	Flood	0.9	1.3	1.1	D/C
		CS-4	150 feet down-current	1520		2.5	5.8	7.3	
		CS-7	150 feet down-current	1525		1.6	7.7	2.4	
1/4/2016	Intensive	BG-1	>1,000 feet from work zone	948	Ebb	1.6	1.6	1.8	D/C
		CS-5	150 feet down-current	1030		10.2	5.6	3.2	
		BG-1	>1,000 feet from work zone	1414	Ebb	1.9	2.3	2.2	D/C
		CS-4	150 feet down-current	1444		1.9	3.2	24.2	
1/7/2016	Intensive	BG-1	>1,000 feet from work zone	1313	Ebb	1.7	1.7	1.6	C
		CS-3	150 feet down-current	1344		5.7	23.0	7.7	
1/8/2016	Intensive	BG-1	>1,000 feet from work zone	0946	Flood	1.9	1.9	1.9	C
		CS-3	150 feet down-current	1007		1.2	2.6	17.0	

Notes:

a. CS stations are compliance stations 150 feet from the active work zone; BG stations are background stations. Turbidity data from CS stations were compared to BG stations; measurements greater than 5 NTU over background data exceeded the compliance criteria.

b. Red lettering indicates a confirmed exceedance (two measurements approximately 10 minutes apart).

NTU = Nephelometric Turbidity Units

APPENDIX B

WEEKLY REPORTS



PROJECT NO.: 130388-01.02

REPORT PERIOD: September 27 to October 3, 2015

REPORT NO.: 001

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, Jon Rose, PR/OPG	Subconsultant:	eTrac
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Heather Page, Jason Cornetta, Anchor QEA, LLC		AES Consultants Inc. Star Marine

1. Structure and Pile Demolition

- Area worked: Nearshore Alder Chip Pier and Log Transfer Dock.
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Untreated decking and treated beams near overhead conveyor/nearshore alder chip pier at the top of bank were removed in the in dry and overwater.
 - Decking on the near-shore section of the log transfer dock was removed in the dry and overwater for clean material conveyor installation.
 - Pile removal work was conducted in the dry
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
- Quantity: 52 creosote-treated piles and 40 non-treated were extracted. No piles were left in place. No material was shipped off-site and material weights have not been generated.
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- No bank excavation or dredging was performed.

3. Capping and EMNR Placement

- No in-water material placement was performed.

4. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Background water quality measurements were collected on 9/29/15. Water quality monitoring (Event #1) was conducted on 9/30/15 at work areas in SMA-1 and SMA-2, where intertidal demolition and pile removal work was completed during the previous night shift in the dry. No exceedances of water quality criteria were observed.
- Water quality monitoring (Event #2) was conducted on 9/31/15 at work areas in SMA-2 where intertidal demolition and pile removal work was completed during the previous night shift in the dry. No exceedances of water quality criteria were observed. A minor sheen observed during incoming tide. Orion crews added containment and absorbent boom around the area.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing (targeting deployment at the beginning of November).
- Archaeological monitoring was not performed (not currently required).

5. Other On-Site Activities



PROJECT NO.: 130388-01.02

REPORT PERIOD: September 27 to October 3, 2015

REPORT NO.: 001

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Mobilization and site preparation activities:
 - Setup of creosote processing area
 - Setup of truck wheel wash
 - Installation of site truck scales
 - Setup of maintenance facilities
 - Installation of silt fence
 - Installation of clean material conveyor
 - Setup up and lining of material barges
 - Delivery of offloading equipment by barge
- Topographic and hydrographic pre-construction surveying work was completed.

6. Health and Safety Observations

- Daily health and safety tool box talks performed.
- Site security fence and site safety and control signage installed.
- No near misses reported.

7. Anticipated Work for Next Week

- Continuation of mobilization and site preparation activities.
- Continuation of demolition and intertidal and subtidal pile pulling activities in SMA-2 and southern portion of Eastern Wharf.
- Intertidal riprap removal in SMA-2.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- In-water clean material placement activities to construct Eelgrass Mitigation Area.

8. Changes and Modifications

- None.

9. Photos

WEEKLY SUMMARY REPORT

Photographs



Description: Demolition of decking at approximately 17+00



Description: Begin foundation modification to transfer span.



Description: Wheel wash basin installed.



Description: Pile extraction attempt at night.

WEEKLY SUMMARY REPORT

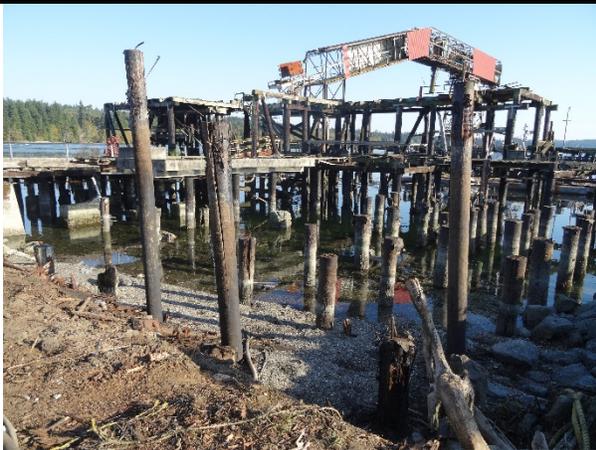
Photographs



Description: Concrete sizing and removal from intertidal areas in the dry.



Description: Silt fence installation at creosote processing area.



Description: Pile pulling in the dry in SMA-2.



Description: Treated and untreated piles removed and ready for processing.



WEEKLY SUMMARY REPORT

PROJECT NO.: 130388-01.02

REPORT PERIOD: September 27 to October 3, 2015

REPORT NO.: 001

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

Photographs



Description: Concrete and misc. debris removal from intertidal area.



Description: Area following pile removal.



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 4 to October 10, 2015

REPORT NO.: 002

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine

1. Structure and Pile Demolition

- Area worked: Nearshore Alder Chip Pier and Log Transfer Dock.
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Untreated decking and treated beams from nearshore portions of the Alder Chip Pier were removed
 - Completion of decking removal on the near-shore section of the log transfer dock to prepare for clean material conveyor equipment installation
 - Demolition of decking was conducted both in the dry and over water
 - Elevated concrete portion of nearshore Alder Chip Pier was removed
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (128 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (127 extracted this week)
 - Removal of concrete bulkhead between Sta. 17+00 to 18+00
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 235 creosote-treated piles and 20 non-treated piles were extracted. No piles were left in place.
 - 4 truckloads of creosote piles were shipped off site (82 tons)
 - 1 truckload of Mill Site wood debris was shipped off site (27 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas
- Activities
 - Riprap and concrete debris removal was conducted in the dry
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- No in-water material placement was performed.

4. Environmental Controls



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 4 to October 10, 2015

REPORT NO.: 002

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR).
 - 10/5/16: Two water quality monitoring events were conducted in SMA-2 work areas: intertidal pile removal (Day 3 of intensive; work done in the dry) and intertidal demolition work (Day 1 of intensive; work done in the dry). No exceedances of water quality criteria were observed.
 - 10/6/15: One water quality monitoring event was conducted in SMA-2 where intertidal pile removal work was underway (Day 1 of routine; work done in the dry). No exceedances of water quality criteria were observed.
 - 10/7/15: Two water quality monitoring events were conducted in SMA-2 work areas: intertidal pile removal (Day 2 of routine; work done in the dry), and intertidal demolition work (Day 2 of intensive, work done in the dry). No exceedances of water quality criteria were observed.
 - 10/8/15: Three water quality monitoring events conducted in SMA-2 work areas: subtidal pile removal (Day 1 of intensive), intertidal pile removal (Day 3 of routine; work done in the dry), and bulkhead demolition (Day 3 of intensive; work done in the dry). Sheen observed during pile removal activities but was fully contained within the containment boom. No exceedances of water quality criteria were observed.
 - 10/9/15: Two water quality monitoring events conducted in SMA-2 work areas: subtidal pile removal (Day 2 of intensive) and intertidal rip rap removal (Day 1 of intensive; work done in the dry). No exceedances of water quality criteria were observed.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing (targeting deployment at the beginning of November).
- Archaeological training was performed on 10/7/15. Archaeological monitoring was performed on 10/8/15 and 10/9/15 during removal of riprap and concrete debris from SMA-2 shoreline bank excavation areas and no issues were identified.

5. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of on-site truck scales
 - Installation of additional silt fence
 - Completed installation of clean material conveyor
 - Setup up and preparation of material barges
 - Modifications to pier and gangway access to SMA-1 floats

6. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No near misses reported.

7. Anticipated Work for Next Week

- Continuation of mobilization and site preparation activities.
- Continuation of demolition and intertidal and subtidal pile pulling activities in SMA-2 and southern portion of Eastern Wharf.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.

WEEKLY SUMMARY REPORT

8. Changes and Modifications

- None.

9. Photos

Photographs



Description: Removing section of nearshore Alder Chip Mill Pier



Description: Demolished elevated concrete portion of nearshore Alder Chip Mill Pier.



Description: Intertidal pile removal with excavator and excavator clearing and grading pile removal site.



Description: Bulkhead demolition in intertidal area near OHW.

WEEKLY SUMMARY REPORT

Photographs



Description: Demolition of concrete pads on piles in intertidal area at Station 17+00



Description: Subtidal pile removal with crane from barge at Station 18+00.



Description: Subtidal pile removal at Sta. 17+50.



Description: Concrete processing area.



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 11 to October 17, 2015

REPORT NO.: 003

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine

1. Structure and Pile Demolition

- Area worked: Nearshore Alder Chip Pier, offshore SMA-2, and SMA-2 shoreline
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Demolition and pile removal at nearshore portions of the Alder Chip Pier
 - Demolition of decking was conducted over water
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (148 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (270 extracted this week)
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Demolition of upland concrete slabs at the top of bank within the SMA-2 bank excavation boundary
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 363 creosote-treated piles and 55 non-treated piles were extracted. No piles were left in place.
 - 5 truckloads of creosote piles were shipped off site (approximately 100 tons)
 - 8 truckloads of concrete were shipped off site for recycling (approximately 235 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas
- Activities
 - Riprap and concrete debris removal was conducted in the dry
 - Containment booms were maintained through multiple tide cycles following riprap removal
 - Sections of silt fence were installed at potential erosion areas where riprap had been removed along the bank in SMA-2
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- No in-water material placement was performed.



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 11 to October 17, 2015

REPORT NO.: 003

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date
Pile removal (each)	418	765
Off-site concrete recycled (tons)	235	235
Off-site disposal (tons)	100	209

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR).
 - 10/12/16: One water quality monitoring event was conducted in SMA-2 where subtidal pile removal work was underway (Day 3 of intensive). No exceedances of water quality criteria were observed.
 - 10/13/15: Three water quality monitoring events conducted in SMA-2 work areas: subtidal pile removal (Day 1 of routine), intertidal pile removal (Day 1 of limited; work done in the dry), and intertidal riprap removal (Day 1 of routine; work done in the dry). No exceedances of water quality criteria were observed.
 - 10/14/15: Two water quality monitoring events were conducted in SMA-2 work areas: intertidal riprap removal (Day 3 of intensive; work done in the dry), and subtidal pile removal (Day 2 of routine). No exceedances of water quality criteria were observed.
 - 10/15/15: Two water quality monitoring events were conducted in SMA-2 work areas: intertidal riprap removal (Day 1 of routine; work done in the dry), and subtidal pile removal (Day 3 of routine). No exceedances of water quality criteria were observed.
 - 10/16/15: One water quality monitoring event was conducted in SMA-2 where intertidal riprap removal work was underway (Day 2 of routine). No exceedances of water quality criteria were observed. 2 pilings covered in algae were observed by the water quality monitoring team to be floating outside of the work area. The pilings were associated with cleanup project activities but were removed from the water and moved to the stockpile area.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing (targeting deployment October 29th or 30th).
- No archaeological monitoring was conducted, the required intensive monitoring for bank excavation was completed last week. During pile removal work, a member of the construction oversight team was standing in the intertidal zone outside of the active work area, and saw a small item on the surface of the active beach. The archaeological monitor was not on site, and the team member collected the item and placed it in a secure location in the construction trailer. This finding was reported in an October 15th email and additional information is included in that report.

6. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of on-site truck scales
 - Setup of access platforms to cover trucks leaving the site
 - Installation of additional silt fence
 - Continued installation of clean material conveyor
 - Setup up and preparation of temporary transload facility near the Eastern Wharf

WEEKLY SUMMARY REPORT

- Delivery and stockpiling of clean sand material

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No near misses reported.

8. Anticipated Work for Next Week

- Continuation of mobilization and site preparation activities.
- Continuation of demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Continued concrete and riprap removal along SMA-2 shoreline.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Extracting an angle driven pile with vibratory hammer.</p>	<p>Description: Extracting subtidal piles at nearshore Alder Chip Pier.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Demolition of upland concrete slab within bank excavation footprint.



Description: Subtidal pile removal in SMA-2.



Description: Removing the last row of individual subtidal piles within SMA-2.



Description: Offshore subtidal pile removal area in SMA-2 cleared of visible piles.

WEEKLY SUMMARY REPORT

Photographs



Description: Demolition of upland concrete slab within bank excavation footprint.



Description: Riprap removal area near station 6+00.



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 18 to October 24, 2015

REPORT NO.: 004

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine

1. Structure and Pile Demolition

- Area worked: Offshore Alder Chip Pier, offshore SMA-2, and SMA-2 shoreline
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Demolition and pile removal at offshore portions of the Alder Chip Pier
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (169 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (118 extracted this week)
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Demolition of upland concrete slabs at the top of bank within the SMA-2 bank excavation boundary
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 287 creosote-treated piles were extracted. No piles were left in place.
 - 16 truckloads of creosote piles were shipped off site for disposal (approximately 407 tons)
 - 3 truckloads of construction debris were shipped off site for disposal (approximately 76 tons)
 - 51 truckloads of concrete were shipped off site for recycling (approximately 1,450 tons)
 - 10 truckloads of asphalt were shipped off site for recycling (approximately 270 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas
- Activities
 - Riprap and concrete debris removal was conducted in the dry
 - Containment booms were maintained through multiple tide cycles following riprap removal
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- No in-water material placement was performed.

4. Summary of Project Quantities



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 18 to October 24, 2015

REPORT NO.: 004

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Activity	Qty This Week	Total Qty To Date
Pile removal (each)	287	1052
Off-site concrete recycled (tons)	1450	1685
Off-site asphalt recycled (tons)	270	270
Off-site disposal (tons)	483	692

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR).
 - 10/19/16: No water quality monitoring conducted. All current activities require limited monitoring schedule.
 - 10/20/15: Two water quality monitoring events conducted in SMA-2 work areas: over water pier demolition (Day 3 of routine) and subtidal pile removal (Day 1 of limited). No exceedances of water quality criteria were observed.
 - 10/21/15: No water quality monitoring conducted. All current activities require limited monitoring schedule.
 - 10/22/15: Two water quality monitoring events were conducted in SMA-2 work areas: intertidal pile removal (Day 1 of limited; work done in the dry), and riprap removal (Day 1 of limited, work done in the dry). No exceedances of water quality criteria were observed.
 - 10/23/15: No water quality monitoring conducted. All current activities require limited monitoring schedule.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing (targeting deployment October 29th or 30th).
- No archaeological monitoring was conducted last week (not required). During pile removal work a small item was discovered on the surface of the active beach was found outside of the work area on 10/15/15. The archaeological monitor was not on site, and the team member collected the item and placed it in a secure location. Because the item was found outside the active work area and was an isolated find, work was not stopped. The appropriate notifications were made in accordance with the Archaeological Monitoring Plan to the Tribes, USACE, and Ecology on 10/19/15 and the item was transferred to a storage safe in PR/OPG custody.

6. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of on-site truck scales
 - Setup of access platforms to cover trucks leaving the site
 - Continued installation of clean material conveyor
 - Setup up and preparation of temporary transload facility near the Eastern Wharf
 - Delivery and stockpiling of clean sand material

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- Tragically, on 10/19/15 a member of Ramboll Environ’s three person diving team, failed to surface. The diving team called 911 at approximately 5:30 p.m. and Kitsap County Sheriff’s dept. launched a full scale search. Law enforcement boats from multiple jurisdictions, a helicopter, a ROV, multiple contractor boats and Search and Rescue Divers assisted with the search. The diver’s body was

WEEKLY SUMMARY REPORT

located around 9:30 p.m. PR/OPG and contractors are coordinating with the Kitsap County Sheriff (and L&I) to facilitate their investigation, including offsetting and/or limiting work in the accident area until their investigation work is complete.

- Near miss incident: A front loader operator struck an object with the bucket causing the operator to hit his head on the cab windshield. The operator was treated for a small laceration on the forehead.

8. Anticipated Work for Next Week

- Continuation of mobilization and site preparation activities.
- Continuation of demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Continued concrete and riprap removal along SMA-2 shoreline.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in southern end of SMA-2

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Intertidal pile removal east of Pier 5 in SMA-2.</p>	<p>Description: Demolition and pile removal at west end of offshore portion of Alder Chip Pier.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Removing pier sections in subtidal area in SMA-2.



Description: Crane mats added to Pier 4 for offloading of creosote piles.



Description: Perforating stockpile areas.



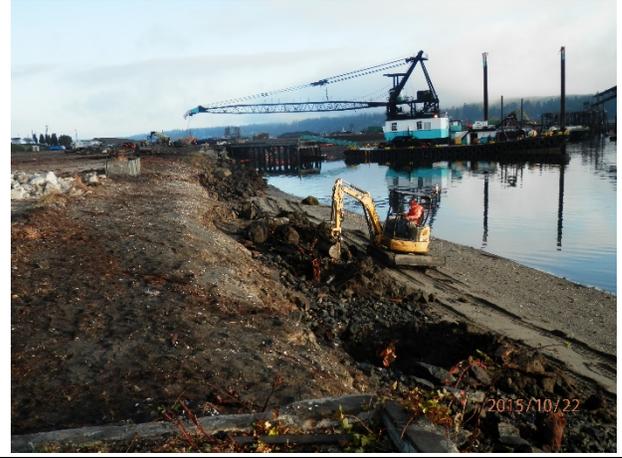
Description: Creosote processing area after KRS 181-2 and KRS 110-4 offloaded

WEEKLY SUMMARY REPORT

Photographs



Description: Intertidal pile removal in SMA-2.



Description: Riprap removal in SMA-2.



Description: Intertidal pile removal in SMA-2.



Description: Grading intertidal pile removal area in SMA-2.



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 25 to October 31, 2015

REPORT NO.: 005

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf, Offshore Alder Chip Pier, and SMA-2 shoreline
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Demolition and pile removal at offshore portions of the Alder Chip Pier and Eastern Wharf
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (12 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (210 extracted this week)
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Demolition of upland concrete bulkhead at the top of bank within the SMA-2 bank excavation boundary
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 222 creosote-treated piles were extracted. No piles were left in place.
 - 11 truckloads of creosote piles were shipped off site for disposal (approximately 290 tons)
 - 7 truckloads of construction debris were shipped off site for disposal (approximately 183 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 0+00 and 3+00.
 - Riprap and concrete debris removal was conducted in the dry
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- Area worked: Eelgrass Mitigation Area, Intertidal Capping
 - Subtidal capping was performed (approximately 7,200 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 1,418 cubic yards)



PROJECT NO.: 130388-01.02

REPORT PERIOD: October 25 to October 31, 2015

REPORT NO.: 005

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- One water quality exceedance was observed during material placement and then corrected by employing placement BMPs as described below in Environmental Controls.

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date
Pile removal (each)	222	1,274
Off-site concrete recycled (tons)	0	1,685
Off-site asphalt recycled (tons)	0	270
Off-site disposal (tons)	473	1,165
Intertidal excavation (cubic yards)	4,251	4,251

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR).
 - 10/26/16: One water quality monitoring events was conducted in SMA-2 for intertidal pile removal (Day 1 of limited) and no exceedances were observed.
 - 10/27/15: Three water quality monitoring events conducted in SMA-2 work areas: over rip rap removal (Day 1 of limited), subtidal capping (Day 1 of intensive), and intertidal excavation (Day 1 of intensive). One exceedance of water quality criteria was observed for subtidal capping and Ecology was notified. Orion modified cap placement methods including slowing the speed of material placement and increasing placement distance from mudline. No further exceedances were observed after the implementation of capping BMPs.
 - 10/28/15: Three water quality monitoring activities events were conducted in SMA-2 work areas: subtidal capping (Day 2 of intensive), intertidal excavation (Day 2 of intensive), and intertidal capping (Day 1 of intensive). No exceedances were observed.
 - 10/29/15: Three water quality monitoring events were conducted in SMA-2 work areas: subtidal capping (Day 2 of intensive), intertidal excavation (Day 2 of intensive), and intertidal capping (Day 1 of intensive). No exceedances of water quality criteria were observed.
 - 10/30/15: Three water quality monitoring activities events were conducted in SMA-2 work areas: subtidal capping (Day 1 or routine), intertidal excavation (Day 1 of routine), and intertidal capping (Day 3 of intensive). No exceedances of water quality criteria were observed.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing and deployment of mussel cages occurred on October 30th.
- Routine archaeological monitoring of intertidal excavation at SMA-2 was conducted on October 30th. No significant archaeological resources were observed. Tribal representative Laura Price from the Port Gamble S’Klallam tribe was on site for a portion of the monitoring.

6. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of truck wheel wash
 - Setup up and preparation of temporary transload facility near the Eastern Wharf
 - Delivery and stockpiling of clean sand material

WEEKLY SUMMARY REPORT

- Fabricated sediment offload spill apron

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Concrete and riprap removal along SMA-2 shoreline.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in southern end of SMA-2
- Continue installation of Temporary Transload Facility
- Start of subtidal dredging in SMA-2

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Subtidal pile removal in Eastern Wharf area.</p>	<p>Description: Subtidal pile removal in SMA-2 Alder Chip Mill area.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Removal of concrete bulkhead structure at approx.. Station 5+00.



Description: Eelgrass Mitigation Area material placement.



Description: Eastern Wharf area pier demolition and debris boom.



Description: Eastern Wharf subtidal pile removal.

WEEKLY SUMMARY REPORT

Photographs



Description: Intertidal excavation in SMA-2.



Description: Concrete breaking and processing.



Description: Intertidal excavation in SMA-2.



Description: Intertidal capping in SMA-2.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 1 to November 7, 2015

REPORT NO.: 006

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf, Pier 5
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Demolition and pile removal at Eastern Wharf and Pier 5
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (42 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (315 extracted this week)
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 357 creosote-treated piles were extracted. No piles were left in place.
 - 20 truckloads of creosote piles were shipped off site for disposal (approximately 560 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 3+00 and 4+00 (approximately 395 cubic yards)
 - Began dredging in southernmost dredge area
 - Riprap and concrete debris removal was conducted in the dry
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- Area worked: Eelgrass Mitigation Area, Intertidal Capping
 - Subtidal capping was performed
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 176 cubic yards)
- No problems encountered or corrective actions.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 1 to November 7, 2015

REPORT NO.: 006

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date
Pile removal (each)	357	1,631
Off-site concrete recycled (tons)	0	1,685
Off-site asphalt recycled (tons)	0	270
Off-site disposal (tons)	560	1,725
Intertidal excavation (cubic yards)	395	4,646

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed every day between 11/2/15 and 11/6/15 for the following activities: intertidal pile removal, subtidal pile removal, pier demolition, subtidal capping, intertidal excavation, intertidal capping, transload facility material placement, and subtidal dredging. No exceedances of water quality criteria were observed.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing.
- Routine archaeological monitoring of intertidal excavation at SMA-2 was conducted on October 30th. No significant archaeological resources were observed.

6. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of truck wheel wash
 - Setup up and preparation of temporary transload facility near the Eastern Wharf
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of clean berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Concrete and riprap removal along SMA-2 shoreline.
- Offloading and off-site hauling of demolition and recycling materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2
- Continue installation of Temporary Transload Facility
- Continue subtidal dredging in SMA-2
- Continue subtidal capping in SMA-2

9. Changes and Modifications

- None.

10. Photos

WEEKLY SUMMARY REPORT

Photographs



Description: Subtidal pile removal in Eastern Wharf area.



Description: SMA-2 Eelgrass Mitigation Area material placement.



Description: Eastern Wharf decking removal.



Description: Concrete processing and breaking.

WEEKLY SUMMARY REPORT

Photographs



Description: Intertidal excavation in SMA-2.



Description: Intertidal capping in SMA-2



Description: Pier 5 demolition.



Description: Set up of Temporary Transload Facility.

WEEKLY SUMMARY REPORT

Photographs



Description: Subtidal dredging in SMA-2 with fully enclosed Young bucket and silt curtain.



Description: Subtidal dredging in SMA-2 with fully enclosed Young bucket.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 8 to November 14, 2015

REPORT NO.: 007

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf, offshore SMA-2
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Demolition and pile removal at Eastern Wharf and offshore diver-assisted pile removal
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (11 extracted this week)
 - Subtidal pile removal was conducted within containment and sorbent booms (184 extracted this week)
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area
 - Concrete breaking and processing occurred within the Concrete Processing Area
- Quantity: 195 creosote-treated piles were extracted. No piles were left in place.
 - 7 truckloads of creosote piles were shipped off site for disposal (approximately 195 tons)
- No problems encountered or corrective actions.

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 1+50 and 6+00 (approximately 2,126 cubic yards)
 - Completed initial dredge pass in southernmost dredging areas between Stations 3+00 and 4+25 (elevation -18 ft. and -20 ft. benches)
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping
 - Offloading dredged sediment at the temporary transload facility and moved to sediment stockpiles.
- No problems encountered or corrective actions.

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping and EMNR Areas, SMA-2 Intertidal Capping
 - Subtidal capping was performed (3,120 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 1,505 cubic yards)
- No problems encountered or corrective actions.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 8 to November 14, 2015

REPORT NO.: 007

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	195	1,826	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	195	1,920	-
Intertidal excavation (cubic yards)	395	6,772	18,600
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	3,120	12,307	73,000
Dredging (cy)	311	311	34,400

Note 1: Specific quantity break down has not been estimated for SMA-2.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed every day between 11/9/15 and 11/13/15 for the following activities: intertidal excavation, intertidal capping, subtidal dredging, and subtidal capping. No exceedances of water quality criteria were observed.
- PGST is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing.
- Routine archaeological monitoring of intertidal excavation at SMA-2 was conducted on November 10th. No significant archaeological resources were observed.

6. Other On-Site Activities

- Mobilization and site preparation activities:
 - Setup and modification of truck wheel wash
 - Completed setup of temporary transload facility near the Eastern Wharf
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of clean berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2
- Continue subtidal dredging in SMA-2
- Continue subtidal capping in SMA-2

WEEKLY SUMMARY REPORT

9. Changes and Modifications

- None.

10. Photos

Photographs	
 <p style="text-align: right; color: orange;">2015/11/09</p>	 <p style="text-align: right; color: orange;">2015/11/09</p>
<p>Description: Dredging, diver assisted pile removal, and EMNR material placement</p>	<p>Description: Dredging in SMA-2</p>
	
<p>Description: EMNR placement and diver assisted pile removal in south end of SMA-2</p>	<p>Description: Installed intertidal cap armor and portion of habitat substrate.</p>

WEEKLY SUMMARY REPORT

Photographs



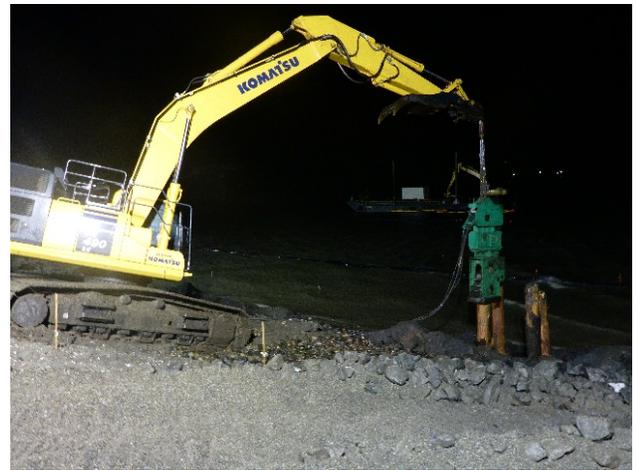
Description: Dredging and subtidal capping operations in SMA-2.



Description: Placement of habitat substrate material over Type 3 cap armor.



Description: Unloading and spreading Type 2 cap armor.



Description: Intertidal pile removal.

WEEKLY SUMMARY REPORT

Photographs



Description: SMA-2 intertidal excavation of 3H:1V slope on shoreline bank.



Description: Placement and spreading of intertidal cap filter material.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 15 to November 21, 2015

REPORT NO.: 008

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf, SMA-2 offshore breakwater
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Demolition and pile removal at Eastern Wharf and breakwater
 - Intertidal pile removal and post-pile removal grading was conducted in the dry (6 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (184 extracted this week).
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 190 creosote-treated piles were extracted. No piles were left in place.
 - 4 truckloads of creosote piles were shipped off site for disposal (approximately 110 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 5+00 and 7+00 (approximately 3,614 cubic yards)
 - Continued dredging between Stations 6+50 and 7+00 around elevation -20 ft. bench within eelgrass harvest area. Dredging was conducted within silt curtain containment.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
 - Performed progress surveys
- No problems encountered or corrective actions

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping and EMNR Areas, SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 6,864 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 1,188 cubic yards).
 - Performed progress surveys



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 15 to November 21, 2015

REPORT NO.: 008

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	190	2,016	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	110	2,030	-
Intertidal excavation (cubic yards)	3,614	10,386	18,600
Intertidal capping (cubic yards)	1,188	4,287	13,500
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	6,864	20,420	73,000
Dredging (cy)	1,965	2,276	34,400

Note 1: Specific quantity break down has not been estimated for SMA-2.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 11/16/15 for the following activities: intertidal excavation, intertidal capping, subtidal pile removal, subtidal dredging, and subtidal capping. No exceedances of water quality criteria were observed.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing.
- Routine archaeological monitoring of intertidal excavation and dredging in SMA-2 was conducted on November 19th. No significant archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of clean berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal dredging in SMA-2.

WEEKLY SUMMARY REPORT

- Continue subtidal capping in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: SMA-2 dredging at approx. Station 7+00.</p>	<p>Description: Barge offloading at temporary transload facility.</p>
	
<p>Description: Stockpiling dredge material offloaded from temporary transload facility.</p>	<p>Description: Separation of large wood debris in sediment stockpile area.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Loading clean material barge with sand.



Description: Dredging and capping activities in SMA-2.



Description: Demolition of breakwater structure in SMA-2.



Description: Excavators clearing and grading excavation work area.

WEEKLY SUMMARY REPORT

Photographs



Description: Placement and grading of pea gravel filter material.



Description: Edge of intertidal cap placement area showing completed armor thickness and grade stake.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 22 to November 28, 2015

REPORT NO.: 009

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: SMA-2 offshore breakwater
- Activities
 - Containment and sorbent booms were deployed during pile removal operations.
 - Pile removal at SMA-2 breakwater
 - Intertidal pile removal was conducted in the dry (5 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (91 extracted this week).
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 96 creosote-treated piles were extracted. No piles were left in place.
 - 4 truckloads of creosote piles were shipped off site for disposal (approximately 110 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 7+00 and 9+50 (approximately 2,020 cubic yards)
 - Completed initial dredge pass between Stations 4+00 and 7+00 around elevation -18 and -20 ft. benches within eelgrass harvest area (approximately 1,600 cubic yards). Dredging was conducted within silt curtain containment.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- No problems encountered or corrective actions

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping and EMNR Areas, SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 3,600 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 1,500 cubic yards).
 - Performed progress surveys
- No problems encountered or corrective actions



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 22 to November 28, 2015

REPORT NO.: 009

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	96	2,112	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	110	2,140	-
Intertidal excavation (cubic yards)	2,020	12,406	18,600
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	3,600	25,000	73,000
Dredging (cy)	1,600	3,875	35,000

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 11/24/15 for the following activities: intertidal excavation, intertidal capping, subtidal pile removal, subtidal dredging, and subtidal capping. No exceedances of water quality criteria were observed.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing.
- No archaeological monitoring was conducted for this work period.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continued sediment stockpile rinsing
 - Placement of clean berm material for stockpile perimeter
 - Placement of stockpile haul road material

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal dredging in SMA-2.
- Continue subtidal capping and EMNR material placement in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- None.

WEEKLY SUMMARY REPORT

PROJECT NO.: 130388-01.02

REPORT PERIOD: November 22 to November 28, 2015

REPORT NO.: 009

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

10. Photos

Photographs	
	
Description: Demolition of breakwater structure in SMA-2.	Description: Barge offloading at temporary transload facility.
	
Description: Dredging and capping activities in SMA-2 and completed intertidal habitat substrate layer.	Description: Building haul road with 3" minus

WEEKLY SUMMARY REPORT

Photographs



Description: Dredging in SMA-2.



Description: Intertidal excavation in SMA-2.



Description: Intertidal capping with pea gravel filter material.



Description: Intertidal capping with Type 2 armor capping material.



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 29 to December 5, 2015

REPORT NO.: 010

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: Offshore Alderchip pier and overhead conveyor, sensitive habitat area
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Demolition and pile removal at Alderchip pier overhead conveyor and sensitive habitat area.
 - Intertidal pile removal was conducted in the dry (31 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (145 extracted this week). Divers were used to assist in removal of piles located in sensitive habitat area.
 - Orion removed fallen debris as work progressed. Divers were used to locate in-water pieces of overhead conveyor debris for removal.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 176 creosote-treated piles were extracted. No piles were left in place.
 - 4 truckloads of creosote piles were shipped off site for disposal (approximately 110 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in southernmost SMA-2 between Stations 9+50 and 11+50 (approximately 1,650 cubic yards)
 - Continued dredging between Stations 4+00 and 8+00 within elevation -17 ft. bench area and 2-ft cut area within eelgrass harvest area. Dredging was conducted within silt curtain containment.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- Corrective action on 12/4/15: Following the SPCC plan, Orion deployed spill containment around dredge barge to contain and immediately cleanup a small hydraulic fluid leak from dredge excavator hydraulic line. Contractor’s assessment is that the debris is causing additional stress on the hydraulic system as the bucket tries to close, which ultimately caused the leak after repeated stresses. Contractor continues to inspect all hydraulics daily. Hydraulic fluid is vegetable-based product.

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping and EMNR Areas, SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 2,670 tons)



PROJECT NO.: 130388-01.02

REPORT PERIOD: November 29 to December 5, 2015

REPORT NO.: 010

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Intertidal capping was performed in the dry following intertidal excavation (approximately 660 cubic yards).
- Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	176	2,288	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	110	2,250	-
Intertidal excavation (cubic yards)	1,650	14,056	18,600
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	2,670	28,665	73,000
Dredging (cy)	3,200	7,600	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 11/30/15 and 12/2/15 for the following activities: Pier demolition, intertidal excavation, intertidal capping, subtidal pile removal, subtidal dredging, and subtidal capping. No exceedances of water quality criteria were observed.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin monitoring and preparations for the CoC shellfish monitoring are ongoing.
- Routine archaeological monitoring of intertidal excavation and subtidal dredging at SMA-2 was conducted on December 3rd. No significant archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of clean berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition, intertidal and subtidal pile pulling activities in SMA-2, and pile processing.
- Offloading and off-site hauling of demolition materials.

WEEKLY SUMMARY REPORT

- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal dredging in SMA-2.
- Continue subtidal capping in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Intertidal excavation, removing material adjacent to previously capped area.</p>	<p>Description: Placement of Type 3 capping material at 10+00.</p>
	
<p>Description: Completed intertidal cap from previous night shift work.</p>	<p>Description: Dredging and capping activities in SMA-2.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Installation of demolition rigging on overhead conveyor.



Description: Offloading dredge sediment barge at temporary offload facility and installation of rigging for conveyor structure demolition.



Description: Placement of Type 2 armor and filter capping material at 10+00.



Description: Alderchip pier overhead conveyor prior to demolition.

WEEKLY SUMMARY REPORT

Photographs



Description: Overhead conveyor immediately following demolition by rigging and pulling structure down.



Description: Metal from conveyor retrieved from water and staged in processing area.



Description: Pile removal in sensitive habitat area.



Description: Processing concrete from Alder chip pier demolition.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 6 to December 12, 2015

REPORT NO.: 011

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: Offshore Alderchip pier and breakwater
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Demolition and pile removal at offshore Alderchip pier and breakwater.
 - Intertidal pile removal was conducted in the dry (33 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (123 extracted this week). Divers were used to assist in removal of piles located near breakwater (50 extracted this week)
 - Orion removed fallen debris as work progressed.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 206 creosote-treated piles were extracted. No piles were left in place.
 - 3 truckloads of creosote piles were shipped off site for disposal (89 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in SMA-2 between Stations 11+00 and 14+00 (approximately 1,410 cubic yards)
 - Continued dredging between Stations 5+00 and 9+00 within elevation -15 ft. bench area (Certification Unit #6) -18 ft. bench area (Certification Unit #5) and 2-ft cut area within eelgrass harvest area. Dredging was conducted with a barge-mounted excavator and environmental clamshell within silt curtain containment.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- No problems encountered or corrective actions

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping and EMNR Areas, SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 3,620 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 316 cubic yards).
 - DB Rainer clamshell was removed from the project on December 1, 2015.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 6 to December 12, 2015

REPORT NO.: 011

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	206	2,494	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	89	2,339	-
Intertidal excavation (cubic yards)	1,410	15,465	18,600
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	3,620	32,285	73,000
Dredging (cy)	2,375	9,975 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 12/9/15 for the following activities: Pier demolition, subtidal pile removal, intertidal pile removal, subtidal dredging, and subtidal capping. No exceedances of water quality criteria were observed.
- Stormwater discharge was sampled at two locations on 12/7 and 12/8 and turbidity readings exceeded construction stormwater permit levels. Additional BMPs were added to provide additional filtration prior to stormwater entering the catch basins. The outfall adjacent to the Eastern Wharf was plugged and capped and no further discharge from this location was observed.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin and CoC shellfish monitoring.
- Routine archaeological monitoring of intertidal excavation and subtidal dredging at SMA-2 was conducted on December 10th. No archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

WEEKLY SUMMARY REPORT

8. Anticipated Work for Next Week

- Demolition including intertidal and subtidal pile pulling and pile processing activities in SMA-2.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal dredging in SMA-2.
- Continue subtidal capping in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Pile removal and bank excavation in SMA-2.</p>	<p>Description: Removing section offshore portion of Alderchip Pier.</p>
	
<p>Description: SMA-2 dredging and capping operations.</p>	<p>Description: Pile extraction at offshore portion of Alderchip Pier.</p>

WEEKLY SUMMARY REPORT

Photographs



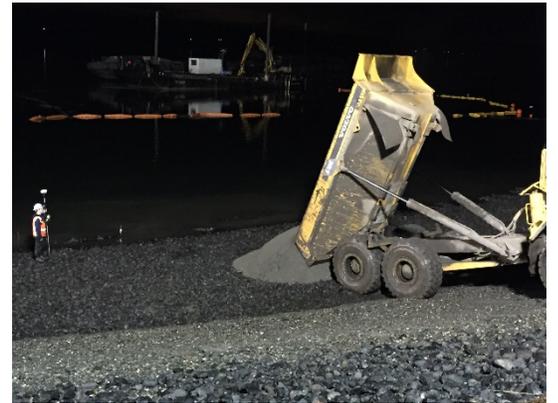
Description: Excavation of bank slope east of Pier 4.



Description: Installation of boom around demolition work area.



Description: Intertidal excavation and surveying.



Description: Initial placement of habitat substrate material.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 13 to December 19, 2015

REPORT NO.: 012

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: North SMA-2 intertidal area and subtidal dredge areas
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Pile removal within intertidal and subtidal areas to remove piles encountered during intertidal excavation and dredging
 - Intertidal pile removal was conducted in the dry (185 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (20 extracted this week). Divers were used to assist in removal of piles located near the former Offshore Alderchip Pier (34 extracted this week)
 - Orion removed fallen debris as work progressed.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 225 creosote-treated piles and 14 non-treated piles were extracted. No piles were left in place.
 - 5 truckloads of creosote piles were shipped off site for disposal (131 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in SMA-2 between Stations 13+00 and 16+00 (approximately 1,026 cubic yards)
 - Continued subtidal dredging with environmental clamshell between Stations 5+00 and 13+00 within the -18 ft. bench on northeast corner of SMA-2 south dredge area (Certification Unit #8), 3:1 slopes within SMA-2 north dredge area, -25 ft. bench within north dredge area (CU #10) and 2-ft cut area within eelgrass harvest area. Began dredging with Manitowoc 3900 crane and clamshell bucket within -20 ft. bench on northeast corner of SMA-2 south dredge area (CU #9). Dredging was conducted within silt curtain containment.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- Orion encountered significant wood debris remaining at the final required dredge grade on the 3:1 slope at approximately 12+50. A test pit was performed in one location to determine the thickness of wood waste below the required dredge grade. Orion will continue to track areas where wood waste remains at the final required dredge grade.



WEEKLY SUMMARY REPORT

- Post-dredge confirmation sampling occurred within completed dredged areas to determine areas for missed inventory re-dredging.
- One water quality exceedance was observed during dredging with the crane and clamshell bucket. Dredging operations were stopped and it was determined by Orion that damage to the silt curtain led to the exceedance as described below in Environmental Controls.

3. Capping and EMNR Placement

- Area worked: SMA-2 Subtidal Capping, SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 4,210 tons)
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 1,120 cubic yards).
 - Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	239	2,733	-
Off-site concrete recycled (tons)	0	1,685	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	131	2,470	-
Intertidal excavation (cubic yards)	1,025	16,490	18,600
Subtidal capping/EMNR/Eelgrass Mitigation (tons)	4,210	36,495	73,000
Dredging (cy)	3,950	13,925 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 12/14/15 for the following activities: subtidal pile removal, intertidal pile removal, subtidal dredging, and subtidal capping and no exceedances of water quality criteria were observed. Water quality monitoring was also performed on and 12/18/15 for subtidal dredging with the open clamshell and an exceedance of water quality criteria was confirmed. The exceedance appeared to be caused by a gap in the silt curtain around the dredge operation. Orion determined this gap in the curtain was caused by snagging it with the clamshell bucket and worked on repairing the silt curtain. Intensive monitoring of this activity will continue on Monday 12/21 in accordance with the Water Quality Monitoring Plan.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin and CoC shellfish monitoring.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 13 to December 19, 2015

REPORT NO.: 012

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Routine archaeological monitoring of intertidal excavation and subtidal dredging at SMA-2 was conducted on December 17th. No archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Placement of berm material for stockpile perimeter
 - All on-site monitoring wells were decommissioned except the following monitoring wells requiring additional sampling: MW-8, MW-15, and MW-16; and 3 monitoring wells that could not be located using GPS and metal detector: MW-12, MW-11, and MW-4.

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition including intertidal pile pulling and pile processing activities in SMA-2.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal dredging in SMA-2.
- Continue subtidal capping in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- Anchor QEA issued a request for an in-water work window extension from January 14, 2016 to January 19, 2016 (requesting a response by 12/23/15) to U.S. Army Corps of Engineers.
- Anchor QEA issued request to Ecology for an extension of the Port Gamble Bay remedial action schedule on 12/18/15. The completion date for SMA-2 was discussed and is scheduled to be completed in Season 2.

10. Photos

WEEKLY SUMMARY REPORT

Photographs



2015/12/14

Description: Subtidal dredging in SMA-2.



2015/12/15

Description: Subtidal capping in SMA-2.

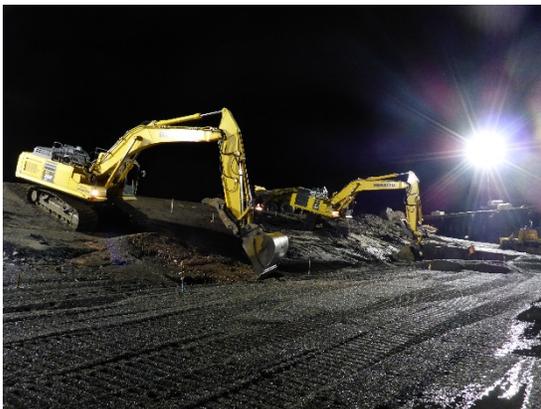


2015/12/15

Description: Demolition and pile removal complete, transitioning 3900 crane for dredging with clamshell.



Description: Capping in SMA-2 and collecting confirmatory post-dredge sediment cores.



Description: Bank and intertidal excavation.



Description: Intertidal capping with Type 3 armor.



WEEKLY SUMMARY REPORT

PROJECT NO.: 130388-01.02

REPORT PERIOD: December 13 to December 19, 2015

REPORT NO.: 012

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

Photographs



Description: Intertidal capping with Type 2 armor.



Description: Intertidal pile removal in SMA-2.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 20 to December 26, 2015

REPORT NO.: 013

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: North SMA-2 intertidal area and subtidal dredge areas
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Pile removal within intertidal and subtidal areas to remove piles encountered during intertidal excavation and dredging
 - Intertidal pile removal was conducted in the dry (82 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (74 extracted this week).
 - Orion removed fallen debris as work progressed.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 137 creosote-treated piles and 19 non-treated piles were extracted. No piles were left in place.
 - 5 truckloads of creosote piles were shipped off site for disposal (131 tons)
 - 15 loads of concrete were shipped off site for recycling (459 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Intertidal excavation in SMA-2 between Stations 15+00 and 16+50 (approximately 1,655 cubic yards)
 - Continued subtidal dredging between Stations 5+00 and 13+00 within the -25 ft. bench within north dredge area (CU #10). Completed dredging -20 ft. bench on northeast corner of SMA-2 south dredge area (CU #9). Began dredging within the -21.5 bench in the SMA-2 south dredge area (CU #6). Dredging was conducted with both barge-mounted excavator and environmental clamshell and Manitowoc 3900 crane and clamshell within silt curtain containment.
 - Began directed re-dredging for missed inventory based on confirmatory samples within the southern SMA-2 dredge area and 2-ft cut area between the north and south SMA-2 dredge areas.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- Orion continued to track areas where wood waste remains at the final required dredge grade.



WEEKLY SUMMARY REPORT

- Post-dredge confirmation sampling occurred within completed dredged areas to determine areas for missed inventory re-dredging.

3. Capping and Residual Management Cover (RMC) Placement

- Area worked: SMA-2 Subtidal Capping, SMA-2 RMC placement, and SMA-2 Intertidal Capping
 - Subtidal capping was performed (approximately 1,855 tons)
 - Subtidal RMC placement was performed (approximately 745 tons) including interim RMC placement over the southern portion of the north SMA-2 dredge area
 - Intertidal capping was performed in the dry following intertidal excavation (approximately 329 cubic yards).
 - Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	156	2,889	-
Off-site concrete recycled (tons)	459	2,144	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	0	2,470	-
Intertidal excavation (cubic yards)	1,655	18,145	18,600
Subtidal capping/RMC/EMNR/Eelgrass Mitigation (tons)	2,600	39,095	73,000
Dredging (cy)	3,590	17,515 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 12/21/15 and 12/22/15 for the following activities: intertidal excavation, intertidal capping, subtidal pile removal, subtidal dredging, subtidal dredging with crane and clamshell, and subtidal capping and no exceedances of water quality criteria were observed.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin monitoring and CoC shellfish monitoring.
- No archaeological monitoring was conducted.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing

WEEKLY SUMMARY REPORT

- Placement of berm material for stockpile perimeter

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Demolition including intertidal pile pulling and pile processing activities in SMA-2.
- Offloading and off-site hauling of demolition materials.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Intertidal excavation and capping in SMA-2.
- Continue subtidal residual management cover (RMC) placement in SMA-2.
- Continue subtidal capping in SMA-2.
- Stockpile management and stockpile berm perimeter construction.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Dredging with two pieces of equipment and placement of subtidal cap material.</p>	<p>Description: Wood debris preventing the environmental Young's bucket from fully closing.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Pile extraction attempt with clamshell digging bucket from dredge area near former Pier 5 location.



Description: Placement of interim sand cover in south portion of SMA-2 northern dredge prism.



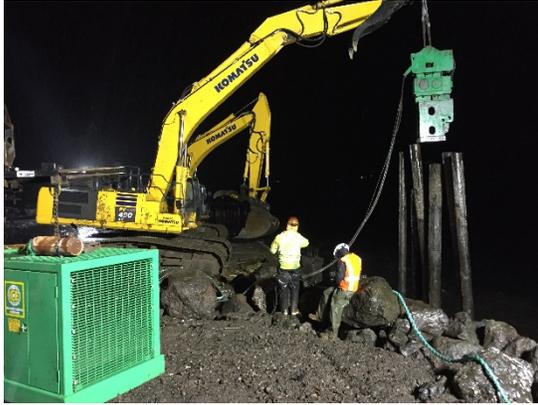
Description: Excavating and grading intertidal bank to 3:1 slope.



Description: Placement of Type 2 armor material on 3:1 slope.

WEEKLY SUMMARY REPORT

Photographs



Description: Intertidal pile extraction with vibratory hammer.



Description: Hauling away debris associated with intertidal pile removal activities.



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 27, 2015 to January 2, 2016

REPORT NO.: 014

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf, North SMA-2 intertidal area, and subtidal dredge areas
- Activities
 - Containment and sorbent booms were deployed during demolition and pile removal operations.
 - Demolition and pile removal at the Eastern Wharf.
 - Pile removal within intertidal and subtidal areas to remove piles encountered during excavation and dredging
 - Intertidal pile removal was conducted in the dry (72 extracted this week).
 - Subtidal pile removal was conducted within containment and sorbent booms (53 extracted this week).
 - Orion removed fallen debris as work progressed.
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 120 creosote-treated piles and 5 non-treated piles were extracted. No piles were left in place.
 - 4 truckloads of creosote piles were shipped off site for disposal (116 tons)
 - 15 loads of concrete were shipped off site for recycling (392 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 intertidal areas and offshore areas
- Activities
 - Completed Season 1 Intertidal excavation in SMA-2 between Stations 15+00 and 16+50 (approximately 984 cubic yards)
 - Completed remaining required subtidal dredging for Season 1 between Stations 4+50 and 6+00 within the -21.5 bench in the SMA-2 south dredge area (CU #6). Dredging was conducted within silt curtain containment. Dredging was conducted with both barge-mounted excavator and environmental clamshell and Manitowoc 3900 crane and clamshell within silt curtain containment.
 - Continued directed re-dredging for missed inventory based on confirmatory samples within the southern SMA-2 dredge area and 2-ft cut area between the north and south SMA-2 dredge areas.
 - Containment booms were maintained through multiple tide cycles following intertidal excavation and capping.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles



PROJECT NO.: 130388-01.02

REPORT PERIOD: December 27, 2015 to January 2, 2016

REPORT NO.: 014

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

- Post-dredge confirmation sampling occurred within completed dredged areas to determine areas for missed inventory re-dredging.

3. Capping and Residual Management Cover (RMC) Placement

- Area worked: SMA-2 EMNR placement, SMA-2 Intertidal Capping, Eelgrass Mitigation Area, Eastern Wharf
 - SMA-2 EMNR placement was performed (approximately 1,026 tons)
 - Completed Season 1 intertidal capping (approximately 742 cubic yards)
 - Placed habitat substrate material over pile removal areas within and adjacent to the Eastern Wharf
 - Completed Eelgrass Mitigation Area bench leveling.
 - Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	125	3,014	-
Off-site concrete recycled (tons)	392	2,536	-
Off-site asphalt recycled (tons)	0	270	-
Off-site disposal (tons)	116	2,586	-
Intertidal excavation (cubic yards)	984	19,098	18,600
Subtidal capping/RMC/EMNR/Eelgrass Mitigation (tons)	1,026	40,121	73,000
Dredging (cy)	3,135	20,650 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement; Final quantities to be calculated based on post-dredge survey.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 12/28/15 through 12/31/15 for the following activities: intertidal excavation, intertidal capping, subtidal dredging with crane and clamshell, and subtidal capping. Exceedances of water quality criteria were observed during monitoring for subtidal dredging and capping on 12/29/15 and 12/30/15. The exceedances appear to be associated with capping activities; however, both capping and dredging operations occurred in SMA-2 during the exceedances. Anchor QEA will review the type of material being placed. Filter material and/or habitat substrate for the type 3 cap has higher fines than the SMA-2 subtidal cap sand. This could be contributing to the exceedances offshore. Anchor QEA will review the tides at the time of exceedances to see if there is any correlation with incoming or outgoing tides.
- PGST, in collaboration with the Kitsap County Health Department and PR/OPG is conducting ongoing biotoxin monitoring and CoC shellfish monitoring.

WEEKLY SUMMARY REPORT

- Routine archaeological monitoring of intertidal excavation and subtidal dredging at SMA-2 was conducted on December 28th. No archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Stockpile consolidation and management

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Subtidal pile pulling and pile processing activities in SMA-2.
- Offloading and off-site hauling of removed piles.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Continue re-dredging for missed inventory based on confirmatory samples in SMA-2.
- Continue subtidal residual management cover (RMC) placement in SMA-2.
- Stockpile management and consolidation.

9. Changes and Modifications

- None.

10. Photos

Photographs	
	
<p>Description: Contingency re-dredging within SMA-2 with crane and clamshell equipment.</p>	<p>Description: Completed intertidal cap north of Pier 4.</p>

WEEKLY SUMMARY REPORT

Photographs



2015/12/29

Description: Placement of EMNR in south portion of SMA-2.



2015/12/29

Description: Contingency re-dredging in SMA-2 with PC400 excavator and environmental bucket.



Description: Loading filter material onto a barge for intertidal capping with marine equipment below El. +0 MLLW.



Description: Leveling Eelgrass Mitigation Area bench with PC400 and steel I-beam.

WEEKLY SUMMARY REPORT

Photographs



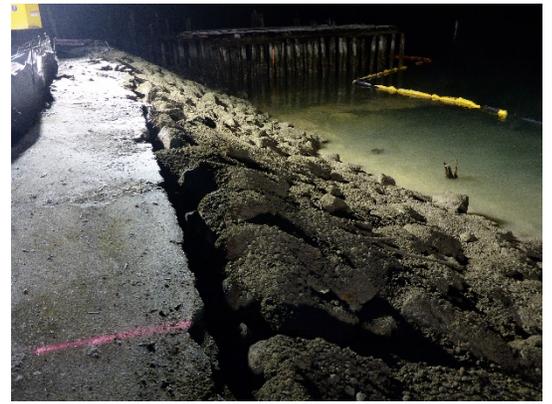
Description: Eastern Wharf demolition and pile pulling.



Description: Removal of concrete encased piles at Eastern Wharf.



Description: Intertidal excavation and pile pulling in north SMA-2.



Description: Placement of post-pile removal habitat material cover at Eastern Wharf.



PROJECT NO.: 130388-01.02

REPORT PERIOD: January 3 to January 9, 2016

REPORT NO.: 015

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG	Subconsultant:	Star Marine
	John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC		MJ Trucking

1. Structure and Pile Demolition

- Area worked: Subtidal dredge areas in SMA-2
- Activities
 - Pile removal within subtidal areas to remove piles encountered during dredging
 - Subtidal pile removal was conducted within containment and sorbent booms (18 extracted this week).
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 18 creosote-treated were extracted. No piles were left in place.
 - 7 truckloads of creosote piles were shipped off site for disposal (194 tons)
 - 9 loads of concrete were shipped off site for recycling (253 tons)
 - 1 load of asphalt was shipped off site for recycling (27 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- Area worked: SMA-2 offshore areas
- Activities
 - Completed directed re-dredging for missed inventory based on confirmatory samples within the southern SMA-2 dredge area. Dredging was conducted with both barge-mounted excavator and environmental clamshell and Manitowoc 3900 crane and clamshell within silt curtain containment.
 - Offloading dredged sediment at the temporary transload facility, sorting wood debris, and moved dredged material to sediment stockpiles
- Completed post-dredge confirmation sampling within completed dredged areas.

3. Capping and Residual Management Cover (RMC) Placement

- Area worked: SMA-2 RMC placement, South SMA-2 Shoreline, SMA-2 Intertidal Cap
- Activities
 - SMA-2 RMC placement was performed (approximately 2,182 tons) including interim RMC placement over the southern portion of the north SMA-2 dredge area between Stations 11+50 to 13+00
 - Placement of Type 3 cap between elevation +0 and -5 MLLW with marine equipment
 - Placed additional habitat substrate material feeder berm between Stations 0+00 and 3+00 in response to request from Ecology.
 - Performed progress surveys
- No problems encountered or corrective actions



WEEKLY SUMMARY REPORT

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	18	3,032	-
Off-site concrete recycled (tons)	253	2,789	-
Off-site asphalt recycled (tons)	27	297	-
Off-site disposal (tons)	194	2,780	-
Intertidal excavation (cubic yards)	0	19,098	18,600
Subtidal capping/RMC/EMNR/Eelgrass Mitigation (tons)	2,182	42,300	73,000
Dredging (cy)	1,700	22,350 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement; Final quantities to be calculated based on post-dredge survey.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 1/4/16 through 1/8/16 for the following activities: subtidal dredging with excavator, subtidal dredging with crane and clamshell, and subtidal capping with clamshell.
 - Exceedances of water quality criteria were observed during monitoring for subtidal dredging and capping on 1/4/16, 1/7/16, and 1/8/16.
 - On 1/4/16 the exceedances were during an ebb tide while both capping and dredging were taking place and occurred when filter material was being placed in the shallow subtidal cap. This activity is only for limited work below 0 and above -5 MLLW. The filter material has much higher percent fines than the sand and appears to be the cause of this exceedance.
 - On 1/7/16 the exceedances were during an ebb tide while only capping was taking place. Again, they occurred when habitat substrate material (also higher percent fines) was being placed in the shallow subtidal cap. This activity is only for limited work below 0 and above -5 MLLW.
 - On 1/8/16 the exceedance occurred during a flood tide. This tide was one of the first higher tides following the placement of the additional habitat substrate in SMA-2 intertidal area (feeder berm). Turbidity from the initial tides covering this area may have contributed.
- Shellfish and biotoxin monitoring equipment was collected and monitoring activities were concluded for Season 1.
- Routine archaeological monitoring of subtidal dredging at SMA-2 was conducted on January 6th. No archaeological resources were observed.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing

WEEKLY SUMMARY REPORT

- Stockpile consolidation and management

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Subtidal pile pulling and pile processing activities in SMA-2.
- Offloading and off-site hauling of removed piles.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Continue subtidal residual management cover (RMC) placement in SMA-2.
- Place sand within the Eelgrass Mitigation Area.
- Stockpile management and consolidation.

9. Changes and Modifications

- At the direction of Ecology, additional habitat substrate material was placed between Stations 0+00 and 3+00.

10. Photos

Photographs	
	
<p>Description: Placement of additional habitat substrate material on south SMA-2 shoreline.</p>	<p>Description: Grading additional habitat substrate material on south SMA-2 shoreline.</p>

WEEKLY SUMMARY REPORT

Photographs



Description: Placement of shallow subtidal Type 3 cap filter material using Bombay box.



Description: Contingency re-dredging in SMA-2 with crane and clamshell equipment.



Description: Type 3 armor and habitat substrate material loaded on material barge for Type 3 cap placement in shallow subtidal areas.



Description: SMA-2 south shoreline (looking east) following placement of first section of additional habitat substrate.

WEEKLY SUMMARY REPORT

Photographs



Description: RMC placement with crane and clamshell in SMA-2.



Description: Processing creosote piles.



Description: RMC placement in SMA-2 southern prism with both cranes.



Description: Additional habitat substrate material placed on SMA-2 south shoreline.



PROJECT NO.: 130388-01.02

REPORT PERIOD: January 10 to January 16, 2016

REPORT NO.: 016

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking

1. Structure and Pile Demolition

- Area worked: Eastern Wharf
- Activities
 - Demolition and pile removal within Eastern Wharf
 - Containment and sorbent booms were deployed during demolition and pile removal operations
 - Orion removed fallen debris as work progressed. Fallen debris floating within the containment boom was removed using skimmer nets and excavators with screened buckets.
 - Subtidal pile removal was conducted within containment and sorbent booms (282 extracted this week).
 - Creosote piles were processed and cut into 4-foot lengths within the Creosote Processing Area.
- Quantity: 282 creosote-treated were extracted. No piles were left in place.
 - 16 truckloads of creosote piles were shipped off site for disposal (448 tons)
- No problems encountered or corrective actions

2. Bank Excavation and Dredging

- No bank excavation or dredging during this work period.

3. Capping and Residual Management Cover (RMC) Placement

- Area worked: SMA-2 RMC placement, South SMA-2 Shoreline, SMA-2 Intertidal Cap
- Activities
 - SMA-2 RMC placement was performed (approximately 505 tons)
 - Placed sand in low areas of Eelgrass Mitigation Area (approximately 1,285 tons)
 - Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	282	3,314	-
Off-site concrete recycled (tons)	0	2,789	-
Off-site asphalt recycled (tons)	0	297	-
Off-site disposal (tons)	448	3,228	-
Intertidal excavation (cubic yards)	0	19,098	18,600



PROJECT NO.: 130388-01.02

REPORT PERIOD: January 10 to January 16, 2016

REPORT NO.: 016

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Subtidal capping/RMC/EMNR/Eelgrass Mitigation (tons)	1,790	44,090	73,000
Dredging (cy)	0	22,350 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement. Final quantities to be calculated based on post-dredge survey.

5. Environmental Controls

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 1/11/16 through 1/14/16 for the following activities: pier demolition, subtidal pile removal, and subtidal capping with clamshell. No exceedances of water quality criteria were observed.
- No archaeological monitoring was conducted for this work period.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean sand material
 - Continue sediment stockpile rinsing
 - Stockpile consolidation and management
 - Demobilization for Season 1.

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Offloading and off-site hauling of removed piles.
- Delivery and stockpiling of clean materials and loading clean material barge.
- Continue subtidal residual management cover (RMC) placement in SMA-2.
- Place sand within the Eelgrass Mitigation Area.
- Place EMNR material in SMA-3 test area.
- Continue demobilization for Season 1.
- Stockpile management and consolidation.

9. Changes and Modifications

- On 1/12/16, Anchor QEA, Orion, and Ecology conducted probing in locations of SMA-2 subtidal cap where survey could not confirm the cap thickness, indicating potential settlement of subgrade. Additional locations were probed on 1/13/16 by Anchor QEA and Orion. All probed locations indicated that the minimum required thickness of cap material had been placed. R. McMillan of Ecology observed and approved of this confirmation approach. Anchor QEA indicated that these additional probing procedures would be incorporated into the CQAP as needed for Season 2.

10. Photos

WEEKLY SUMMARY REPORT

Photographs



Description: Pile removal in Eastern Wharf with excavator from shoreline and crane from barge.



Description: Placement of sand material in Eelgrass Mitigation Area.



Description: Sorting and consolidating dredge material with excavator.



Description: Pile and debris removal in Eastern Wharf with crane and excavator.

WEEKLY SUMMARY REPORT

Photographs



Description: RMC material placement in SMA-2.



Description: Pile removal in Eastern Wharf with excavator from shoreline.



Description: Offloading piles at the transload facility.



Description: Pile and debris removal in Eastern Wharf area with vibratory hammer from barge and excavator from shoreline.



PROJECT NO.: 130388-01.02

REPORT PERIOD: January 17 to January 23, 2016

REPORT NO.: 017

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

WEEKLY SUMMARY REPORT

Report Submitted to:		Contractor Name and Contact:	
To:	Russ McMillan, Celina Abercrombie, WA Dept. of Ecology	General:	Orion Marine Contractors Inc. (OMCI)
cc:	Linda Berry-Maraist, PR/OPG John Laplante, PE, Clay Patmont, Ross Pickering, PE, Jason Cornetta, Anchor QEA, LLC	Subconsultant:	Star Marine MJ Trucking eTrac AES Consultants

1. Structure and Pile Demolition

- No demolition or pile pulling activities during this work period.
- 6 truckloads of creosote piles were shipped off site for disposal (177 tons)

2. Bank Excavation and Dredging

- No bank excavation or dredging during this work period.

3. Capping and Residual Management Cover (RMC) Placement

- Area worked: SMA-2 EMNR, SMA-3 EMNR, and Eelgrass Mitigation Area
- Activities
 - SMA-2 EMNR placement (approximately 556 tons)
 - SMA-3 EMNR placement within a test area was performed (approximately 237 tons) on the last in-water work day of Season 1 (1/19/2016).
 - Placed sand in low areas of Eelgrass Mitigation Area (approximately 704 tons)
 - Performed progress surveys
- No problems encountered or corrective actions

4. Summary of Project Quantities

Activity	Qty This Week	Total Qty To Date	Estimated SMA-2 Quantity ¹
Pile removal (each)	0	3,314	-
Off-site concrete recycled (tons)	0	2,789	-
Off-site asphalt recycled (tons)	0	297	-
Off-site disposal (tons)	448	3,228	-
Intertidal excavation (cubic yards)	0	19,098	18,600
Subtidal capping/RMC/EMNR/Eelgrass Mitigation (tons)	1,497	45,587	73,000
Dredging (cy)	0	22,350 ²	34,400

Note 1: Dash indicates specific quantity break down has not been estimated for SMA-2.

Note 2: Quantity based on barge displacement. Final quantities to be calculated based on post-dredge survey.

5. Environmental Controls



WEEKLY SUMMARY REPORT

PROJECT NO.: 130388-01.02

REPORT PERIOD: January 17 to January 23, 2016

REPORT NO.: 017

PREPARED BY: Ross Pickering

PROJECT NAME/LOCATION: Port Gamble Bay Cleanup

- Water quality monitoring was performed in accordance with the Ecology-approved Water Quality Monitoring Plan (Appendix E 401 Water Quality Memorandum and the Water Quality Monitoring Plan (Attachment 2 of Appendix E to the BODR). Water quality monitoring was performed on 1/18/16 and 1/19/16 for the following activities: subtidal capping in SMA-3. No exceedances of water quality criteria were observed.
- Stormwater discharge was sampled at three locations on 1/21/16 and turbidity readings exceeded construction stormwater permit levels. Additional BMPs (straw wattles, sand bags, and silt fence) were added to provide additional filtration prior to stormwater entering the catch basins.
- Herring monitoring was conducted on 1/15/15 and 1/18/16. No herring eggs were observed during monitoring.
- No archaeological monitoring was conducted for this work period.

6. Other On-Site Activities

- Ongoing site management activities:
 - Delivery and stockpiling of clean materials and loading clean material barge.
 - Continue sediment stockpile rinsing
 - Stockpile consolidation and management
 - Post-Season 1 topographic and hydrographic surveys performed over intertidal and subtidal areas.
 - Demobilization for Season 1

7. Health and Safety Observations

- Daily health and safety tool box talks performed.
- No health and safety incidents reported.

8. Anticipated Work for Next Week

- Offloading and off-site hauling of removed piles
- Continue demobilization for Season 1
- Stockpile management and consolidation

9. Changes and Modifications

- None

10. Photos

WEEKLY SUMMARY REPORT

Photographs



Description: Placement of sand in SMA-2 EMNR area.



Description: Season 1 equipment demobilization and offloading.



Description: Completed SMA-2 intertidal cap.



Description: Completed SMA-2 intertidal cap.

APPENDIX C
ARCHAEOLOGICAL MONITORING
REPORT FOR SEASON 1



ARCHAEOLOGICAL MONITORING REPORT
PORT GAMBLE BAY CLEANUP PROJECT (NWS-2013-1270),
SEASON 1

Prepared for

Pope Resources, LP/OPG Properties, LLC

Prepared by

Anchor QEA, LLC

February 2016

ARCHAEOLOGICAL MONITORING REPORT

PORT GAMBLE BAY CLEANUP PROJECT (NWS-2013-1270), SEASON 1

Prepared for

Pope Resources, LP/OPG Properties, LLC

Prepared by

Anchor QEA, LLC

February 2016

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LIST OF ACRONYMS AND ABBREVIATIONS

Ecology	Washington State Department of Ecology
MTCA	Model Toxics Control Act
NRHP	National Register of Historic Places
PR/OPG	Pope Resources, LP/Olympic Property Group, LLC
Project	Port Gamble Bay Cleanup Project
SMA	Sediment Management Area
USACE	U.S. Army Corps of Engineers
WAC	Washington Administrative Code

1 INTRODUCTION

The Washington State Department of Ecology (Ecology) and Pope Resources, LP/Olympic Property Group, LLC (PR/OPG), have worked collaboratively for more than 10 years to accomplish hazardous substance cleanup in Port Gamble Bay. Ecology is requiring PR/OPG to undertake environmental cleanup of Port Gamble Bay in accordance with the requirements of Consent Decree 13-2-02720-0 between Ecology and PR/OPG, entered in December 2013. Cleanup of the site is being performed consistent with the requirements of the Model Toxics Control Act (MTCA), Chapter 70.105D of the Revised Code of Washington (as administered by Ecology under the MTCA Cleanup Regulation), and Chapter 173-340 of the Washington Administrative Code (WAC). Cleanup actions also comply with the WAC Sediment Management Standards Chapter 173-204.

Dredging, capping, removal of creosote-treated piles and remnant creosote-treated structures, and other actions are being performed through 2017 to accomplish the Port Gamble Bay Cleanup Project (Project; Figures 1 and 2). Project activities that require archaeological monitoring occur in two Sediment Management Areas (SMAs) and two existing upland landfill locations. The Project is being constructed in two seasons: Season 1 (June 2015 – January 2016) and Season 2 (June 2016 – January 2017). For a detailed description of the Project, see the *Cultural Resources Survey Report* (Bundy 2014) and *Archaeological Monitoring Plan and Inadvertent Discovery Plan* (Bundy 2015).

The Project required a Nationwide Permit 38 from the U.S. Army Corps of Engineers (USACE), which was issued in 2015 (NWS-2013-1270). USACE must comply with Section 106 of the National Historic Preservation Act. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties. An historic property is a prehistoric or historic building, site, object, structure, or district that is eligible for listing in the National Register of Historic Places (NRHP).

Several NRHP-eligible archaeological sites and built environment properties are located within the Project's Area of Potential Effects. None is within the area of ground disturbance, and USACE has determined that none will be adversely affected by the Project. Two sites that have been determined not eligible for the NRHP are located within the area of ground

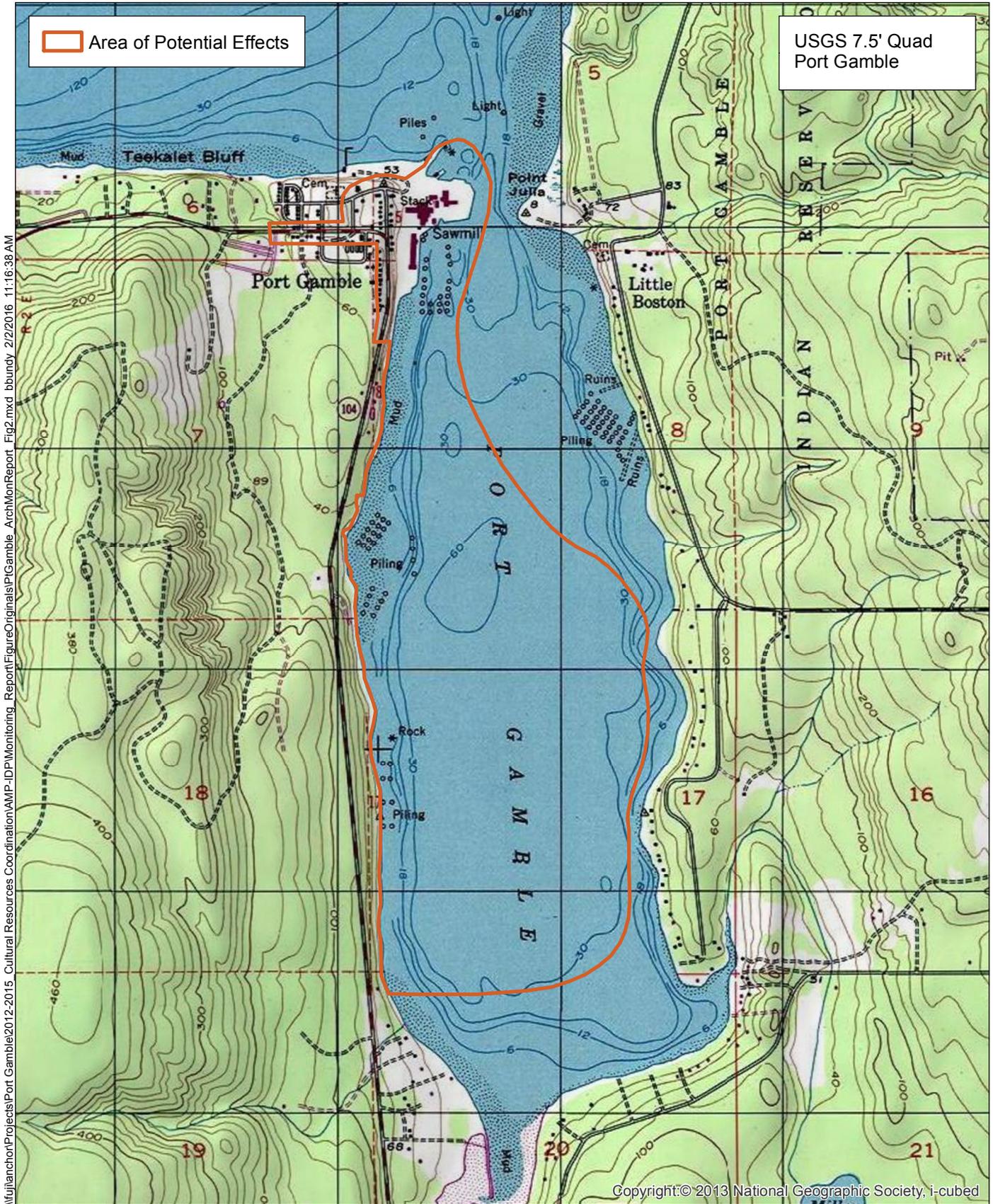
disturbance. One site within SMA-1 and SMA-2, 45KP274, consisted of eight clusters of piling (many were removed during Season 1 construction). The second site, located south of SMA-2, 45KP275, is a widespread scatter of historic debris in the intertidal zone. The two sites in the area of ground disturbance are shown in Figure 3.

USACE required archaeological monitoring of some of the cleanup activities—intertidal and subtidal dredging, and upland debris removal. This report describes archaeological monitoring activities conducted during Season 1.

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Feb 02, 2016 11:59am hhayward



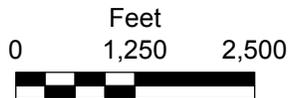
Figure 1
Vicinity Map
Archaeological Monitoring Report
Port Gamble Bay Cleanup Project, Season 1



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Figure 2

Area of Potential Effects
 Archaeological Monitoring Report
 Port Gamble Bay Cleanup Project, Season 1



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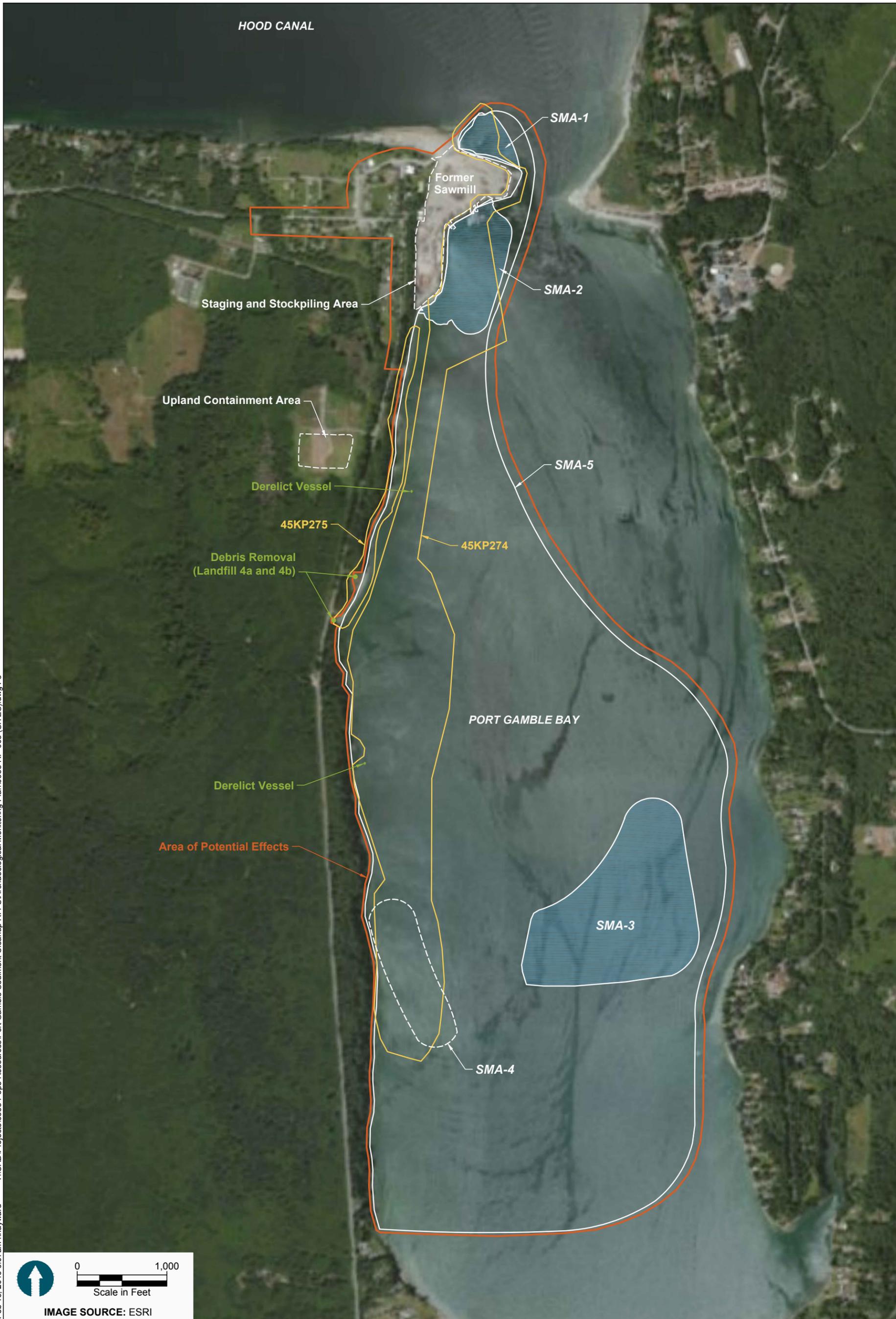


Figure 3
Archaeological Sites in the Area of Ground Disturbance
Archaeological Monitoring Report
Port Gamble Bay Cleanup, Season 1

2 ARCHAEOLOGICAL MONITORING METHODS

Methods used for archaeological monitoring are described in detail in the *Archaeological Monitoring Plan and Inadvertent Discovery Plan* (Bundy 2015), and are briefly summarized here.

Archaeological monitoring was directly supervised by Dr. Barbara Bundy, who meets the Secretary of Interior's Professional Qualifications Standards for archaeology. Dr. Bundy and field technician Alicia Toney conducted the monitoring. A training for the construction team was held on the first day of construction.

Intertidal excavation and subtidal dredging in SMA-2 were monitored. Monitoring of subtidal and intertidal dredging was phased, with an intensive monitoring phase, followed by a routine monitoring phase if no significant cultural materials were observed during excavation activities.

For intensive monitoring, all sediments in the upland portion of the site that could be safely observed were visually inspected by the archaeological monitor on the first 3 days of each of the following two events: intertidal excavation in SMA-2 and subtidal dredging in SMA-2. For subtidal dredging, this meant examining 3 days of stockpiles from night work in 1 day, because excavated materials were stockpiled on the barge during the first 3 days of dredging, preventing access until they were transferred to the uplands.

Because no significant cultural materials were encountered during intensive monitoring of either event, routine monitoring began for both events and continued to the end of the construction season.

For routine monitoring, all sediments in the upland portion of the site that could be safely observed were visually inspected by the archaeological monitor 1 day per week (once every 7 days).

Due to tides, construction sequencing, and the holidays, work was often not continuous. For example, 5 days of intertidal excavation might occur over 2 calendar weeks. Intertidal

excavation and subtidal dredging sometimes occurred simultaneously, in which case they were monitored on the same days. Monitored days were selected by coordinating with the construction team to determine maximum visibility of sediments during each 7-day period. Table 1 shows the days where monitoring occurred.

In addition to scheduled monitoring, on several occasions when the monitor was not on site, potentially significant materials were observed by the construction team. In those instances, information was provided to archaeologists for review in compliance with the Inadvertent Discovery Plan.

Field notes were maintained and are on file at Anchor QEA. Status updates were provided by email to USACE, Department of Archaeology and Historic Preservation, Ecology, Department of Natural Resources, and affected tribes during monitoring.

Table 1
Archaeological Monitoring Activity

Event	Date Completed	Related Email Update
Contractor Training	October 7, 2015	October 12, 2015
SMA-2: Intertidal Excavation, Intensive Monitoring	October 7 – 9, 2015	October 12, 2015
SMA-2: Intertidal Excavation, Routine Monitoring	October 30, 2015	November 5, 2015
	November 5, 2015	November 16, 2015
	November 19, 2015	November 23, 2015
	December 3, 2015	December 9, 2015
	December 10, 2015	December 15, 2015
	December 17, 2015	December 22, 2015
	December 28, 2015	December 29, 2015
SMA-2: Subtidal Dredging, Intensive Monitoring	January 6, 2016	January 7, 2016
	November 10, 2015	November 16, 2015
SMA-2: Subtidal Dredging, Routine Monitoring	November 19, 2015	November 23, 2015
	December 3, 2015	December 9, 2015
	December 10, 2015	December 15, 2015
	December 17, 2015	December 22, 2015
	December 28, 2015	December 29, 2015
	January 6, 2016	January 7, 2016

3 RESULTS

No significant archaeological materials were identified during monitoring. No intact features were identified. Many historic and modern artifacts were observed, including some potentially diagnostic artifacts. One possibly precontact artifact was observed on the active beach, out of the work area (further description of the artifact is in Table 3). The possibly precontact artifact was collected and transferred to the Port Gamble S'Klallam Tribe by PR/OPG, the landowner. Findings are described in detail below, by location.

3.1 Intertidal Excavation in SMA-2

During the cultural resources survey for the Project in 2014 (Bundy 2014), historic materials were noted in the SMA-2 intertidal area, and were included in 45KP274. The site has been determined not eligible for listing in the NRHP. The location of the SMA-2 shoreline is shown as intertidal and subtidal on early historic maps, and was gradually filled to its current position beginning in the late nineteenth century (see Bundy 2014). According to town site manager Tom Daley, the mill property was built out to the east and south by deposition of demolition debris from the mill, as well as the Port Gamble town site, in the mid- to late 20th century, including from the demolition of a number of homes.

Observations of the intertidal excavation were consistent with the reported landform history. The sediment matrix below the surface riprap was a loose, silty sand with poorly sorted gravel and a variety of shell fragments, most appearing waterworn. Types and sizes of shell were consistent with those visible on the current beach. The sediment matrix also contained a wide variety of blocks of concrete aggregate, bricks, Styrofoam, asphalt, and other modern or historic materials. Aggregate types ranged from early, unreinforced concrete with large gravels to modern, pre-cast, reinforced concrete. Bricks large enough to be identified were primarily hollow brick (generally used structurally, and reported to have been used in the former plywood drying building on the mill site) and fire brick. Figure 4 shows sediments and conditions at SMA-2.

The artifact assemblage was dominated by unidentifiable fragments of brick, glass, metal, plastic, concrete, ceramics, and other historic and modern materials. These are consistent with materials observed previously at 45KP274. A few potentially diagnostic artifacts were

observed and analyzed, both during archaeological monitoring. When the monitor was not on site, notifications occurred as required by the Inadvertent Discovery Plan. The possibly precontact artifact, a drilled ring, was found outside the SMA-2 intertidal excavation area, but is included in Table 3. These were recorded and evaluated (Tables 2 and 3, Figure 5).

Table 2
Artifacts Observed During Intertidal Excavation in SMA-2

No. ¹	Item	Description	Date Range
1	Tab soda can	A 6-oz. pop-tab can with faded lettering	1963 – present, probably circa 1980s
2	Air brake can	A large air brake can, probably from a semi-truck	Probably modern
3	Boom-stick chain	A chain for a log boom; made of 9 cast-iron links of a sub-rectangular shape, square in cross-section; 28 by 11 cm	Likely early to mid-20th century
4	Boom-stick chain	A chain for a log boom; made of 19 iron links of an oval shape, round in cross-section (14 by 8 cm); a ring on one end and a thick polypropylene line tied to the other end	Probably modern
5	Cut bone	A rib from a large terrestrial mammal, cut at both ends, with clean edges indicative of modern cutting implements, such as a circular saw; minimal weathering; probably a cow rib prepared in a butcher's cut	Probably modern
6	Glass jug top	A brown glass jug top with a screw neck and small handle; "growler" type	Post-1989

1. Corresponds to number on Figure 4

Table 3
Potentially Diagnostic Artifacts Observed Under the Inadvertent Discovery Plan

No. ¹	Item	Description	Date Range
7	Drilled ring	A possibly precontact artifact; an irregular circular object (appears to be naturally occurring, semi-indurated, sedimentary material) with a hole drilled through the ring from front to back in one location	Unknown
8	Iron cog wheel	An industrial wheel, approximately 50 by 40 cm, solid (as opposed to spoked), with a built-in axle and 12 cogs	Unknown
9	Boom-stick chain	A chain for a log boom; made of 6 iron links of an oval shape, round in cross-section, 11 by 9 cm	Probably modern
10	Glass bottle	A machine-made, brown glass bottle; "stubbie" type	1935 – present, probably circa 1950s

No. ¹	Item	Description	Date Range
11	Ceramic sherd	A small, white sherd of porcelain (or similar vitreous ware), approximately 4 by 3 cm; appears to be part of a base; shape indicates a pedestal, as for a dish or a figurine	Unknown

1. Corresponds to number on Figure 4

Artifacts and deposits observed in the intertidal excavation in SMA-2 cannot be linked to a specific time period or group of people, and are unstratified. Artifacts that can be dated span the 20th century. They do not have the potential to yield data that would add to our understanding of Port Gamble residents, development of the town and mill, or other important historic themes; therefore, materials observed during intertidal excavation in SMA-2 are not eligible for listing in the NRHP and do not change the eligibility of site 45KP274.

3.2 Subtidal Dredging in SMA-2

Site 45KP274 is partly within the subtidal dredging area in SMA-2. Geoarchaeological analysis conducted in 2014 found no evidence of stable surfaces that may have been inhabited earlier in the Holocene and then submerged by sea level rise; it appears that any such landforms were eroded by wave action as relative sea level rose (Bundy 2014).

Observations during subtidal dredging were consistent with the reported landform history. Subtidal sediments were fine-grained and silty. There was day-to-day variation in the proportion of wood waste in the sediments. Most dredged material had a significant proportion of wood waste, including some larger logs, though some dredged material had little wood waste. Naturally occurring shell and living shellfish were observed. Very few artifacts were observed beyond occasional fragments of cable, plastic, and rope. Sediments are shown in Figure 6. No potentially diagnostic artifacts were identified.

The materials removed during the initial subtidal dredging stockpiles are consistent with offshore accumulation of wood waste during industrial mill use. No precontact artifacts or features were observed. The sparse historic/modern materials cannot be linked to a specific time period or group of people and are unstratified. They do not have the potential to yield data that would add to our understanding of Port Gamble residents, development of the

town and mill, or other important historic themes; therefore, materials observed during subtidal dredging in SMA-2 are not eligible for listing in the NRHP.

3.3 Planned Season 2 Activities

The Project will be complete at the end of Season 2. Activities that will be monitored during Season 2 include the following:

- Completion of intertidal excavation and subtidal dredging in SMA-2
- Intertidal excavation and subtidal dredging in SMA-1
- Removal of debris from upland landfills 4a and 4b

These activities will be monitored in compliance with the approved *Archaeological Monitoring Plan and Inadvertent Discovery Plan* for the Project. Season 2 is currently expected to start in June 2016.



Intertidal excavation in SMA-2



Typical sediment from intertidal excavation

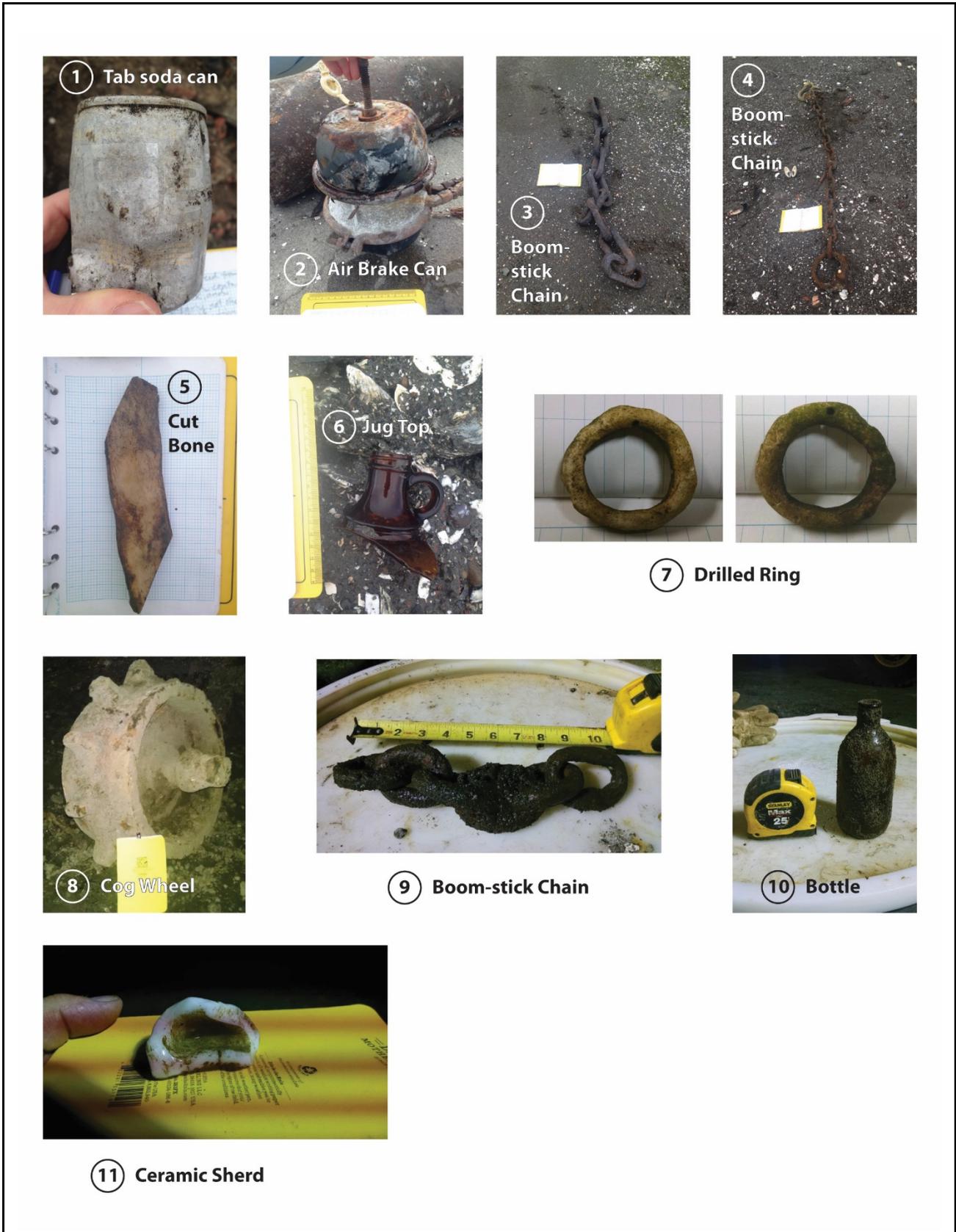


Figure 5
Artifacts from Intertidal Excavation in SMA-2
Archaeological Monitoring Report
Port Gamble Bay Cleanup Project, Season 1

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Subtidal dredging in SMA-2



Typical sediment from subtidal dredging, showing rope and stump