Supplemental to Consent Order (DEQ No. WMCVC-NWR-99-09)
Schedule for Remedial Action
Ross Island Sand and Gravel Co., Multnomah County, Oregon

Effective Data: June , 2006

Introduction and Purpose

The subject Consent Order has been in effect since November 1999 and covers a broad range of environmental activities at the Ross Island Lagoon site, beginning with a Remedial Investigation and continuing through Remedial Design and Remedial Action. Because the extent of remedial action was not known at the time the Consent Order was prepared, a schedule for this phase of work and the associated reporting was not included as part of the Scope of Work for the Agreement.

On December 20, 2005 a Record of Decision (ROD) describing the selected remedial action was signed for this site. The selected remedial action, as described in the ROD, includes the following elements (referenced areas are indicated in Figure 1):

- Capping of shallow surface soil in the processing plant area contaminated with arsenic and zinc (Area A1),
- Stabilization of the slope on the southeastern lagoon shoreline where PCB and PAH concentrations pose a potential threat to the lagoon via erosion (Area A2),
- Long-term management of the existing cap over the TBT-contaminated material confined at the location of the former settling pond (Area B),
- Monitoring of groundwater on the southeastern lagoon shoreline where PAH concentrations in groundwater may pose a threat to the lagoon (Area C)
- Capping and long-term monitoring and management of the surface sediment in the southern portion of the lagoon containing elevated concentrations PCBs and PAHs as a result of the breach of a confined disposal cell (Area D),
- Capping and long-term monitoring of shoreline areas where elevated pH has been detected (Area E),
- Long-term monitoring and management of existing confined disposal cells in the southern portion of the lagoon (Area F),
- Institutional controls to prevent disturbance of all capped areas, and
- Regular reporting on the status of remedial elements, effectiveness in preventing release of contaminants to the environment at levels of concern, and any contingency measures implemented as a result of monitoring data.

The purpose of this supplemental order is to provide a schedule for completing the above activities, successful completion of which will lead to a No Further Action (aside from long term management/monitoring) finding for the site.

Schedule

Task	Due data	Description
A. Health and Safety Plan	July 31, 2006	Health and safety procedures to be followed for all activities associated with implementation of the remedial action.
B. Monthly Progress reports	10th day of each month through remedy implementation	Brief summary of actions taken under this order during the previous month, actions scheduled to be taken in the next two months, sampling, test results, and any other data generated or received during the previous month, and a description of any problems experienced during the previous month and any actions taken to resolve them.
C. Pre-Design Sampling Work Plans/Reports		
a) pH Evaluation – Area E		Evaluation to assess effectiveness in reducing elevated pH levels in shoreline areas (Area E) using currently available reclamation fill
b) Continuous Multi channel tubing (CMT) Well report	April 10, 2006	
2. DEQ comments	May 17, 2006	
3. Revised CMT well report/monitoring plan	July 7, 2006	
4. Follow-up monitoring reports	August 28, 2006; November 27, 2006	
5. Recommendation – Area E, Shoreline Cap	January 15, 2007	
6. DEQ review	February 22, 2007	
b) Upland soil characterization		Define the extent of elevated concentrations of arsenic and zinc in the processing plant area (Area A1)
1. Soil sampling work plan	July 7, 2006	
2. DEQ review	Aug 9, 2006	
3. Implementation	Aug/Sept 2006	
4. Report with recommendations re: extent of upland cap Area A1	October 24, 2006	
c) CAD cell slope/stability		Determine required subsurface contours to ensure stable slopes adjacent to confined aquatic disposal (CAD) cells (Area F) and associated volume and characteristic of fill required to achieve stability. Repair area adjacent to CAD cell 5 where slope failure was observed.
1. Detailed evaluation of bathymetry/slope wi/ recommendations for emergency slope repair adjacent to CAD cell 5.	June 12, 2006	

2. DEQ review	July 12, 2006	
3. Implementation of CAD cell 5 slope repair	July – November 2006	
4. Report documenting CAD cell 5 repair	February 9, 2007	
5. Overall southern bench area slope stability evaluation	July 14, 2006	
6. DEQ review	August 15, 2006	Findings to be incorporated into CAD cell design, Item D.f).
D. Remedial Design Documents		Design specifications for each element of the remedial action
a) Upland soil – processing plant (Area A1) b) Upland soil – shoreline (Area A2) c) Contaminated groundwater		
1. 50% Design meeting	November 15, 2006	
2. 90% Prefinal Design	December 18, 2006	
3. DEQ comments	January 25, 2007	
4. Final Design	February 20, 2007	
5. DEQ review	March 23, 2007	
6. Implementation	April 2007	
7. Construction complete Report	July 10, 2007	
8. DEQ review	August 10, 2007	
d) Lagoon sediment – adjacent to CADs/Breach area e) Lagoon sediment – elevated pH f) CAD cells		
1. 50% Design meeting	February 19, 2007	
2. 90% Prefinal Design	March 22, 2007	
3. DEQ comments	April 24, 2007	
4. Final Design	May 25, 2007	
5. DEQ review	June 27, 2007	
6. Implementation	July 2007	
7. Construction complete Report	October 3, 2007	
8. DEQ review	November 5, 2007	
E. Long Term Monitoring/Maintenance/ Contingency Plan	December 6, 2007	Describes more intensive monitoring of the effectiveness of site controls – capping and stabilization elements over the initial 5 years. Assuming remedial elements are performing satisfactorily, a less intensive monitoring program will be developed at that point. Includes identification of elements that will be included in the 5-

		year review to be conducted in 2010 (5 years after the ROD).
DEQ review	January 15, 2008	
Implementation	February 20, 2008	
F. Deed Notice	December 6, 2007	Documentation to be attached to property records and filed with the County indicating site use restrictions, locations of capped areas, and referencing the long-term monitoring plan.
DEQ review	January 15, 2008	
G. Annual Reports	January 10, 2007 - 2012	Reports filed in conjunction with annual reports documenting reclamation activities that summarize and evaluate long-term monitoring data collected over the previous year, identify any issues and their resolution, and indicate any modifications to the plan.
DEQ review	30 days following report submittal	
H. NFA (aside from monitoring)	February 15, 2008	
I. 5-Year Review Report	January 10, 2010	More detailed assessment of the performance of remedial action elements to be provided in place of the annual report for this year. Evaluations to be included in this report should be described in the Long Term Monitoring, Maintenance, and Contingency Plan (Item E).
DEQ review	30 days following report submittal	
J. Long-term Monitoring Plan Modification	2012	As described above, based on effectiveness evaluation of the first 5 years of monitoring.
DEQ review	2012	

Public Notice

A press release on this Supplement to the Consent Order will be provided to The Oregonian.

Signature

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Dick Pedersen, Administrator
Northwest Region, DEQ

Consent

By: _____ _____
Ross Island Sand and Gravel Co. Date