ROSS ISLAND SAND & GRAVEL CO.

November 13, 2012

State of Oregon
Department of Environmental Quality
Northwest Region
2020 W. 4th Ave., Suite 400
Portland, OR 97201

Attn: Jennifer Sutter

RE: Response Comments to Your Letter of 08-29-12

Dear Ms. Sutter:

We appreciate your review of our Annual Monitoring and Maintenance Report (AMMR). We have carefully read your comments in your letter dated August 29, 2012 and have submitted the following responses:

1. On figure 3, you stated concern regarding significant loss of sediment on the subsurface slope adjacent to CAD Cell #3. During the winter and spring of 2012, Ross Island constructed an underwater berm to create an enclosed area in the south end of the lagoon with 6,000 tons of fill. The new berm connects an existing underwater berm that is shown in Figures 9 and 10 to the completed buttressing slope shown in Figure 13 of the 2012 Annual Monitoring Report (2012 AMR). With the underwater berm complete, we will fill the area between the underwater berm and slopes adjacent to CAD Cells #3 and #2. Ross Island plans on using 50,000 cubic yards of clean fill material removed from the Port of Kalama maintenance dredging project, which will stabilize the slopes in this area. The filled area will lessen the steep severity of the slopes near the CAD cells to an acceptable allowance of less than 3H:1V. We expect the finished slopes to be approximately 8H:1V to 12H:1V.

2. The 2010 bathymetric data shown in Figure 4 AMMR has inconsistencies due to following reasons. First, an employee of Ross Island collected the data for the survey in 2010 whereas we had a licensed hydrographic surveyor perform the analysis in 2001, 2009, and 2012. Second, the Ross Island surveyor compiled the data over several months collecting data in a completed area as capping was still in progress in other areas. As a result, a survey in a complete area would overlap an incomplete area. The data was then integrated into one overall survey in analyzing

3. the area in question. During 2001, 2009, and 2012 the licensed surveyor collected all the data on the same day and used a uniform grid pattern to collect the raw data points. Mike Coenen of GeoDesign on June 26, 2012 sent you an email that addressed the inconsistencies in the 2010 data. The attachment has nine figures that illustrate the inconsistencies in the data between the surveys and displays the patch work collection of raw data by the Ross Island surveyor. The attachment also includes a figure showing the comparison between 2010 and 2001 surveys. And finally, a look at the surveys done in 2009, 2010, and 2012 shows the progress of the sediment cap, and it clearly shows we have created a sediment cap thickness of 3 feet or greater across 97 percent of the in-water surface of the remedial action area since the project began in 2001.

4. Regarding the positions of the existing CAD cells relative to the slopes of the buttresses, we see two areas that may be of concern, CAD Cells #3 and #2. For CAD Cell #3, approximately 70 feet of its perimeter parallels the top of the adjacent slope, at an average distance of 70 feet from the slope with a grade of 2.5H:1V as measured on Figures 3 AMMR and Figure 9 of the 2012 AMR. CAD Cell #2 was closer to the top of the buttressing slope in Figure 11 2012 AMR, with a distance of 50 feet. However, only a tip of its perimeter is at the 50 foot distance, while the rest of the cell's edge gets further away from the top of the slope in a northeast or southwest direction as seen in figure 3 of the AMMR. Figure 10 2012 AMR had the steepest cross section slope, with a measurement of 2.4H:1V.

   Along the entire length of the buttressing slope within the remedial action area, approximately 40 percent of the slope has a grade steeper than 3H:1V. This area will be stabilized with an additional 50,000 cubic yards of clean fill material removed from the Port of Kalama maintenance dredging project. We agree that an edit should be made to the bathymetry review form in Appendix A and it should read, "Cross sections generated from 2012 bathymetry indicates general stability with slopes ranging from 12.5H:1V to 2.4H:1V".

5. Ross Island has completed the placement of additional clean fill in the areas within Zone 1 that indicated pH greater than 8.5. We are ready to collect samples and assess the success of the mitigation measures at the earliest cooperation of GeoDesign.

6. We agree that the Rainfall Raw Data table in Appendix A needs to be edited to clearly label the column headings and units. The column heading should be Date, Daily Total, and Hourly Data. The units in the columns should be labeled in hundredths of inches of rainfall.

7. Site monitoring wells will be decommissioned starting in 2014 and shall be completed by the end of 2017.

We hope the above explanations satisfy your comments brought forth in your letter of August 29, 2012. Perhaps the most significant addition to our response is that we propose to pre-fill placement and post-fill placement bathymetric survey of the Port of Kalama event. Please call myself or Misters Jacobs or Murphy if you have any questions.

Sincerely,

ROSS ISLAND SAND & GRAVEL CO.

Greg Murphy, Civil Engineer

Craig Jacobs, Gen Mgr Sand, Gravel & Crushed Stone Operations

President & Chief Operating Officer

ACS:lkl
Attachment

cc: Aaron Courtney
Craig Ware, GeoDesign