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Michael Lyons  
Regional Water Control Board  
320 W. 4th Street, Suite 200  
Los Angeles, California 90013

January 21, 2009

Subject: Carnival Cruise Line Application for Waste Discharge Requirements for maintenance dredging activities

Dear Michael,

Carnival Corporation & PLC is filing an application for Waste Discharge Requirements (WDR) for maintenance dredging activities at their passenger terminal in Long Beach Harbor. Please find attached an electronic version of the Final Sampling and Analysis Plan, Dredged Material Evaluation, and the Master Dredging Permit Application. Relevant information for development of the WDR is provided here.

#### Project Description:

Carnival Corporation & PLC proposes to conduct maintenance dredging of a maximum of 3,000 cubic yards of bottom sediments to deepen the berth to a depth of -30 feet Mean Lower Low Water (MLLW). Existing depth in the area varies from approximately -28.5 to -31.5 feet MLLW. Carnival Corporation proposes to dispose of the dredged material at a constructed fill site within the Port of Long Beach. The material will be temporarily stored at the northeast corner of Pier S. After the material is dry, it will be transferred to Pier G or another approved project site for construction fill.

#### Sediment Analysis Summary

Carnival Corporation has conducted a sampling and testing program for the material to be dredged. A composite sample from three core sample locations was created for sediment analysis. Additional sediment analyses were performed on specific cores for elevated analytes. The sediment chemistry results are summarized in the table below. Sediment levels for DDT and chlordane exceeded the concentration at which toxicity to marine organisms would likely occur (i.e., greater than the Effects Range Median [ERM] level). Sediment levels for certain trace metals (arsenic, copper, lead, nickel) exceed the concentrations at which toxicity to marine organisms might occur (i.e., greater than the Effects Range Low [ERL] level). Sediment levels for PAHs and PCBs were below concentrations at which toxicity to marine organisms would be expected (i.e., lower than the ERL level).

The sediments were predominately fine-grained, containing between 62% silt and 24% clay. Sediments containing high levels of silt and clay are unsuitable for use as beach nourishment.

### Sediment Characteristics – Passenger Terminal Facility Project

Parameter	Range of Composite and individual cores samples
Silver	0.35 ppm
Arsenic	10.6 ppm
Cadmium	0.78 ppm
Chromium	51.7 ppm
Copper	44.7 ppm
Mercury	0.12 ppm
Nickel	33.7 ppm
Lead	59.5 ppm
Selenium	0.28 ppm
Zinc	133 ppm
4,4 DDD	15.3 -25.5 ppb
4,4 DDE	27.8 -37.3 ppb
4,4 DDT	<1 ppb
Total DDTs	50.9 – 62.8 ppb
Total PCB	18.3 ppb
Total PAH	834 ppb
Total Detectable Chlordane	0 -14.6 ppb

If you have any questions regarding these documents or require further information, please contact me directly at 760-497-3527 or via email at [shelly.anghera@westonsolutions.com](mailto:shelly.anghera@westonsolutions.com).

Sincerely,



Shelly Anghera, Ph.D.  
Client Service Manager  
Weston Solutions, Inc.