

# PORT BOTANY CONTAINER TERMINAL EXPANSION PROJECT

## Questions & Answers

### Turbidity - Managing and Monitoring Turbidity During Dredging and Reclamation Activities

All dredging and reclamation activities involve short term effects such as turbidity or cloudy water.

Localised turbidity will be generated by dredging and reclamation activities. Turbidity is common in the active work area during dredging activities.

To minimise and contain turbid water a specially designed silt curtain has been installed between the Sydney Airport third runway and the Port Botany Brotherson Dock. The primary silt curtain is designed to manage turbid water within the active construction zone and delineate the construction zone from the rest of Botany Bay. A second silt curtain has been installed around the designated seagrass habitat near the north end of the construction zone to protect it.

Strict turbidity water quality limits, management requirements and monitoring criteria have been specified in the Planning Minister's Approval and NSW Department of Environment and Climate Change (DECC) Dredging Environment Protection Licence (EPL)

All dredging activities to date have been compliant with the turbidity limits, management requirements and monitoring criteria.

#### **TURBIDITY OUTSIDE THE PRIMARY SILT CURTAIN**

Certain levels of turbidity are allowed outside the primary silt curtain and within the protected seagrass area and these levels are set out in the Planning Minister's Approval and the DECC Licence. If turbidity levels outside the silt curtain exceed the specified limits dredging activities causing the turbidity must stop immediately and not recommence until acceptable turbidity levels are achieved.

The following Planning Minister's Condition of Approval sets the turbidity limit outside the primary silt curtain and the procedures to be followed in the event of a turbidity cloud outside the silt curtain(s):

#### **Condition B2.9**

*All dredging works associated with the project shall be undertaken in a manner that does not cause turbidity outside the silt curtain(s) to exceed the background turbidity by more than an equivalent suspended sediment concentration of 50mg/L. This limit applies within the waters of Botany Bay outside the edge of the silt curtain, when measured in accordance with the Soil and Water Management Plan required under condition B.2.5.*

*If turbidity levels exceed the above limit, the Applicant shall:*

- (a) immediately cease the dredging works contributing to the exceedance of the limit;*
- (b) within 1 hour report the result of the water quality monitoring to the DEC's Environment Line on 131555; and,*
- (c) investigate the cause of the increased levels of turbidity and develop and implement additional measures to prevent recurrence and;*
- d) implement those measures outlined in Table 4 of the document referred to in condition 1.1(m).*

Temporary silt curtains may also be deployed around work areas, where required, for additional protection.

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### WATER QUALITY MONITORING

Six continuous turbidity monitoring buoys have been deployed within Botany Bay to monitor, record and transmit turbidity levels at 15 minute intervals. Supplementary turbidity monitoring is undertaken daily when required. Turbidity monitoring is supplemented by additional weekly and monthly water quality monitoring (temperature, pH, salinity, and dissolved oxygen, nutrients, chlorophyll, contaminants and total suspended solids).

Turbidity and other water quality parameters will continue to be monitored during all dredging and reclamation activities as is required by the DECC Dredging Licence, Planning Minister's Approval and the Project's water quality monitoring program.

Monthly environmental monitoring reports, including water quality are available on the Sydney Ports website at [www.sydneyports.com.au](http://www.sydneyports.com.au)

### DREDGING ACTIVITIES

A trailing suction hopper dredge called the De Bougainville arrived on site in June 2009 and will depart in late July or August 2009. This is a self-propelled dredger that can only dredge loose sand. The dredge is operating both inside and outside the primary silt curtain. Dredging outside the primary silt curtain is occurring to remove high spots within the Port ship turning area shipping channel.

Unlike cutter suction dredgers this dredge sucks or vacuums sand up from the bay floor and deposits the material inside it's own storage "hopper" on board the vessel. It is then transported back inside the primary silt curtain and deposits the sand into the reclamation area using a split bottom hull that opens mechanically.

A large cutter suction dredge called the 'Marco Polo' is due to arrive in August 2009 to finish bulk reclamation dredging, and will remain on site until the completion of dredging approximately March 2010.

To find out more about these activities or the Project, or to register a complaint about any activities related to this Project, please contact the **Project Information Line (free call) on 1800 177 722**, or alternatively visit the website at [www.sydneyports.com.au](http://www.sydneyports.com.au) or send an email to [portbotany@baulderstone.com.au](mailto:portbotany@baulderstone.com.au)

*A separate Q&A information sheet on Dredging and Reclamation activities associated with this project is available by contacting the Project.*