Annex D

EIA report on
"Providing Sufficient Water Depth
for Kwai Tsing Container Basin and its Approach Channel"
A summary of issues discussed by the EIA Subcommittee
at the meeting on 13 September 2010

The Environmental Impact Assessment (EIA) Subcommittee discussed the EIA report on "Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel" at its meeting on 13 September 2010. The issues discussed are summarized below.

Impacts on fisheries

2. Some Members noted the concerns of the fishery sector over the impacts of various dredging activities in the past on the fishing resources despite the assurance of project proponents that the impacts were insignificant. As regards the impacts of the subject project on nearby fish culture zones (FCZs), the project proponent explained that the impact of the project on the water quality of four identified FCZs had been assessed based on water quality modellings. The results showed that suspended solid elevations complied with the Water Quality Objectives (WQO) and maximum suspended solid criterion for fisheries. The exceedance of total inorganic nitrogen (TIN) level was due to the already high ambient level while the non-compliance of dissolved oxygen in wet season was mainly due to the low dissolved oxygen level in the background and not contributed by the project. There was no exceedance in terms of unionised ammonia in the FCZs. Recommended mitigated measures included controlling the number and type of dredgers to be used, the dredging rate and use of closed grab dredgers.

3. The project proponent further explained that to address the concerns of the fishery sector, they had proactively proposed to install frame type silt curtains around dredgers with a view to further reducing the impacts of the project on the water quality. There were 22 proposed water quality monitoring stations in the Environmental Monitoring and Audit (EM&A) Manual, including three control stations for providing controlled data on sediment plume and changes in water quality. Upon commencement of the project, monitoring of the impacts of the project on all four FCZs would be conducted by 24-hour continuous monitoring throughout the construction phase. With the availability of modern technology, continuous real time

monitoring was made possible through efficient transmission of data for taking prompt response actions.

4. On the availability of a contingency plan in case of exceedance detected, the project proponent explained that the EM&A Manual contained a contingency plan with stipulated action levels and limit levels. Any exceedance detected in the 24-hour monitoring stations would be promptly reported for analysis and immediate actions.

5. Regarding consultation and discussion with relevant fishery associations, the project proponent explained that the Ma Wan Fishery Group was consulted in late May 2010 which had raised some concerns over the impacts of the project on the water quality and fishery resources. Consultations and discussions with other concerned fishery groups would continue to be held.

6. On the possibility of setting up liaison groups with the fishery sector as fishermen could provide useful inputs from their experience, the project proponent undertook to consider setting up community liaison groups comprising representatives of affected and concerned parties, including the fishery sector, during the planning and construction phases to facilitate communication.

Impacts on water quality

7. On the generation and control of TIN during the dredging process, the project proponent explained that TIN existed in the contaminated seabed sediments and disturbance to the sediments would potentially release some of the TIN into the water column. Elutriate tests were performed on the sediment samples to simulate the agitation of the dredger to the seabed and to quantify the degree of mobilization of various contaminants and TIN into the water column during dredging. These laboratory simulations were conducted according to international standard practices approved by the Environmental Protection Department (EPD). The sediment samples, including a mixture of grab and vibrocore samples, were collected from a wide range of locations across the whole project area on a grid of about 400 m x 400 m. The worst-case scenario, i.e. the highest level of TIN identified from the sediments and elutriate tests, was adopted in the water quality modelling of the EIA study for assessing the water quality impacts of dredging. Closed grab dredger was recommended as it generated the least sediment plume.

8. Regarding the cumulative impacts of 16 concurrent projects in the vicinity of the project area on the level of TIN, the project proponent explained that all

16 concurrent projects involved some scale of dredging works with some overlapping periods. An assessment of cumulative impacts of the concurrent projects and the subject project was undertaken. The results showed that the subject project would contribute an insignificant level of increase in TIN at the predicted level of 0.002 mg/L. As the background TIN level already exceeded the WQO, the contribution from the current project was considered minimal.

9. On the timing of conducting assessment, field trial and dredging works at the hotspot which was identified to have the chance of reaching very high ammoniacal nitrogen level at more than 20 mg/L, the project proponent explained that dredging at the hotspot was not on the critical path of the project. The dredging works would be scheduled towards the end of the construction programme without affecting the overall construction programme. There would be sufficient time for groundwork study and planning. A more detailed study on the hotspot would be conducted to delineate the area of the hotspot and identify a buffer zone. Once the buffer zone was defined, dredging in this zone would not be permitted. Field trials would be carried out prior to the commencement of dredging works at the hotspot area. Sediment samples would be taken at different dredging rates so as to identify the most appropriate dredging method and dredging rate in controlling the release of ammoniacal nitrogen and unionised ammonia into the water column. With careful planning and good site management, dredging of the hotspot would not have adverse impact on water quality.

10. On the need for further dredging in the next five to ten years to accommodate ultra-large container ships with even larger draft, the project proponent explained that the largest vessel draft anticipated in the next five to ten years would be 16.5 m. The target depth of dredging for the project was -17.5 m below the Chart Datum which should be sufficient for ultra-large container ship and further dredging was not anticipated in the near future.

Conclusion

11. After discussion, Members agreed to recommend to the full Council that the EIA report could be endorsed with some proposed conditions. The meeting also agreed that there was no need to invite the project proponent to attend the full Council meeting.