Reference: BLR 7570I

REVIEW MEETING AT ENVIROCENTRE WITH PORT OF TYNE REGARDING THE PLACEMENT OF CONTAMINATED DREDGE MATERIAL OFFSHORE.

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This minute is a summary of discussions and points of relevance to Defra and Cefas taken from the meeting held with the Port of Tyne (PoT) and their consultants Envirocentre at their consultant's offices in Glasgow 13th September 2006. These do not constitute the minutes of the meeting but more of a statement of common ground.

Chris Vivian, Jon Rees and Sylvia Blake represented Cefas.
Present on behalf of PoT was Keith Wilson and from the PoT's consultants Envirocentre were, George Fleming, Keith Wilson and Lucy

1. Tier 2 monitoring has been undertaken.

2. The bathymetry data only detects gross changes often with large margins of error. (+/-20 cm resolution in good conditions) Although bathymetry surveys were useful for indications of change, the use of SPI and other techniques have been invaluable in determining the detail, especially when looking at the thin layers. Research is required to determine the best tool/tools for monitoring cap thickness.

3. The greatest risk to the cap is still from moderate storms. However there have already been between between 3 and 8 moderate storms and no evidence of decrease in the cap. A detailed comparison of wave heights and the sediment erosion model will help build confidence in the model.. The placement of a Wave rider buoy offshore between the Tyne and the Tees later in the year should provide the necessary data to inform the model. Data from the Wave rider buoy in real time may be useful to streamline monitoring. Monitoring of the cap could be triggered by readings from the Wave rider to ensure that the work is event led. Depending on the findings of the monitoring this may trigger replenishment of the cap.

4. Tier 2 monitoring suggests that storm events should trigger monitoring, however sand enters the Tyne during storms and dredging is triggered for the applicants at this time. It is in their own interests to dredge this material, which could then be used to place on the cap.

5. A minimum cap thickness **should be0.6m** with a higher the trigger value (to be agreed) to initiate replenishment of the cap. Provided the maintenance dredge material had been recently tested, and an indication of whether material from that area was suitable for use on the cap, it could then be placed as and when required, at the Souter disposal site.

6. A definition of the 0.6m needs to be determined (i.e. mean, mode, median) together with the

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percentage of the area of the site that has to be capped with 0.6m or greater. The area to which the percentage pertains would also need to be agreed.

7. Bathymetry data from Envirocentre and PoT show the centre of the placement site to be a 'hole'. This is due to the fact that over the centre of the site a large volume of CDM was placed in comparison to the edges. Even using conservative estimates of consolidation, the center where the CDM was placed will have consolidated by meters whereas the edges will only have consolidated by centimetres. Hence the difference plots then show the center by differential as a hole.

8. Following the replenishment at the end of June beginning of July the bathymetry shows the cap thickness currently to be 85 cm.
9. The silt material used on the capping site from the maintenance licence may not be as suitable as would have been hoped had discussions taken place about the recent replenishment. PoT will provide Cefas with the details of the placement so that more information regarding the chemical properties can be investigated. Future maintenance dredge placements over the capping site should be coordinated with Cefas to assess the suitability of the capping material. The reason for this is that the sand used on the cap contains lower concentrations of heavy metals and TBT than would the silt. Some areas from within the Tyne are of lower concentration than others that although suitable for sea disposal would not be best placed over the cap.
10. The silt, following recent placement using free fall method rather than being pumped to the floor, has resulted in a final cap thickness together with the sand, of about 0.85m. Therefore silt may be of use in further capping exercises.

11. Cores of the samples were taken whilst the cap was being replenished. The dates and times for samples needs to be clarified.

12. Cefas will look at the TBT levels over the disposal site pre placement, together with the tables provided in the latest monitoring report.

13. The capital dredge material licence for Riverside and Tyne Commission Quay did not allow for any material to go to Souter. PoT had thought this a typo and not realised that it was added to the licence to ensure that inappropriate material was prevented from going to the capping site.

14. A licence condition was added to the licence to ensure that the material from the capital licence was considered for use as resource for future capping. Discussions concluded that as silt may be of use, in addition to the sand then areas A, B, C, F and G would be permitted for use over the cap at Souter Point. This is a total of approximately 200 000 tonnes of material. (Chris telephoned Andy Dixon after the meeting to formally request a variation to the licence for the Capital application to allow those areas only to go to Souter point disposal site.
- A- Harbour Channel North side of channel
- B – Harbour Channel Herd Groyne
- C- The Narrows
- F- Shields Harbour Reach
- G – Northumberland Dock to Jarrow Quay Corner

15. PoT are now concentrating on holding the stakeholder meeting to provide feedback and are undertaking a post project EIA that will provide guidance and notes of best practice in undertaking capping exercises.

16. As part of normal procedure for placement Cefas will write a report of the placement of contaminated sediments for OSPAR.

Yorkhill Basin Site Visit

16. The infilling of Yorkhill Basin is a project currently being managed by Envirocenter. It is part of a large regeneration project on the Clyde involving moving a road and the building of houses.
a) **Picture 1** Yellow buoys indicate the edge of a silt curtain, and compacted crushed demolition material has been used as a bund in front of the dock.

b).**Picture 2** A geotextile membrane was laid across the bund, to prevent fines from the soil being trapped in the bund or being transported into the river.

3. **Picture 3.** Tipped poor quality topsoil from within the construction site and within the planning application area (outside the material would be considered as waste, and for sale as top soil would require exemption under SEPA) is pushed by dozers into the dock and levelled.
   The tide inundates through the bund and membrane and fills up the dock. On leaving the water helps the soil to naturally compact. Whilst the material itself is not suitable for construction, piles can be driven through it as large pieces of rock are removed. Below the dock is bedrock into which the piles can be driven.

17. The area in front of the bund is to be sheet piled and a large void created, into which contaminated dredge material is to be placed and removed from the marine environment.

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