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Classification:	Open		

Environment Agency comments on WFD Compliance Assessment for Goodwin Sands Aggregate Dredging Scheme Marine Licence Application

Dear Mr Morris,

I write with reference to the Environment Agency letter dated 13th September 2016 (Ref. KT/2016/121740/01-L01) which states that there is missing data from the Water Framework Directive (WFD) Compliance Assessment submitted in support of the Goodwin Sands Aggregate Dredging Scheme Marine Licence Application (Ref. MLA/2016/00227).

The Environment Agency letter specifically refers to the exposure of Goodwin Sands on certain spring tides and the possibility that intertidal areas could be affected by the proposals. The letter then states *"If areas of intertidal are to be dredged, or within 10m of a dredge area, the WFD assessment should screen in hydromorphology for further assessment as per guidance in 'Clearing the Waters'. Please check that hydromorphology should be screened out and provide evidence to justify"*.

The WFD Compliance Assessment scopes the requirements for further assessment in **Table 3.1: Results of Stage 2 for dredging within the Kent South Coastal Water body using the Clearing the Waters Guidance (Environment Agency, 2012)** found on page 11 of **Appendix 7.1**. Here, the two questions relating to the potential for effects on intertidal areas are addressed twice. The first time in biological elements, and then again under hydromorphological elements (intertidal zone structure) as required by the Clearing the Waters guidance. In both instances, the requirement for further assessment is scoped out on the basis that *"Dredging can only be undertaken in depths of water in which a Trailing Suction Hopper Dredger (TSHD) can work (this is deemed to be 5m water depth). This was considered during the site selection exercise undertaken to inform the optimum location (see Section 2 - Description of the Proposed Scheme). As a result of the selection process, dredging will not be undertaken within 10m of Mean Low Water Springs (MLWS)"*. Since this question is answered under biological elements, the hydromorphology response for intertidal zone structure (on page on page 12 of **Appendix 7.1**) just refers back to the biological element text.

Section 2 of the Environmental Statement (ES) (Volume II EIA Outcome) provides further detail:

“The shallow water depths at the South Goodwin Sands will impose a restriction on the maximum draft of dredger (i.e. a TSHD) that can be deployed for the proposed dredging scheme”. This is deemed to be 5m water depth. “South Goodwin Sands is a dynamic and constantly changing environment. The dredging contractor will undertake a multibeam bathymetry survey of the entire proposed dredge area before and after each dredging stage. This survey work will identify any changes to the local bathymetry prior to and after dredging. If necessary, exclusion zones will be put in place around any new intertidal areas present within the proposed dredge area; although the need for such a measure is not anticipated due to the relatively short duration of the proposed dredging scheme. This would be required for operational purposes (i.e. to avoid the dredger grounding) and to ensure any new intertidal areas being used as haul-out sites by seals are avoided”.

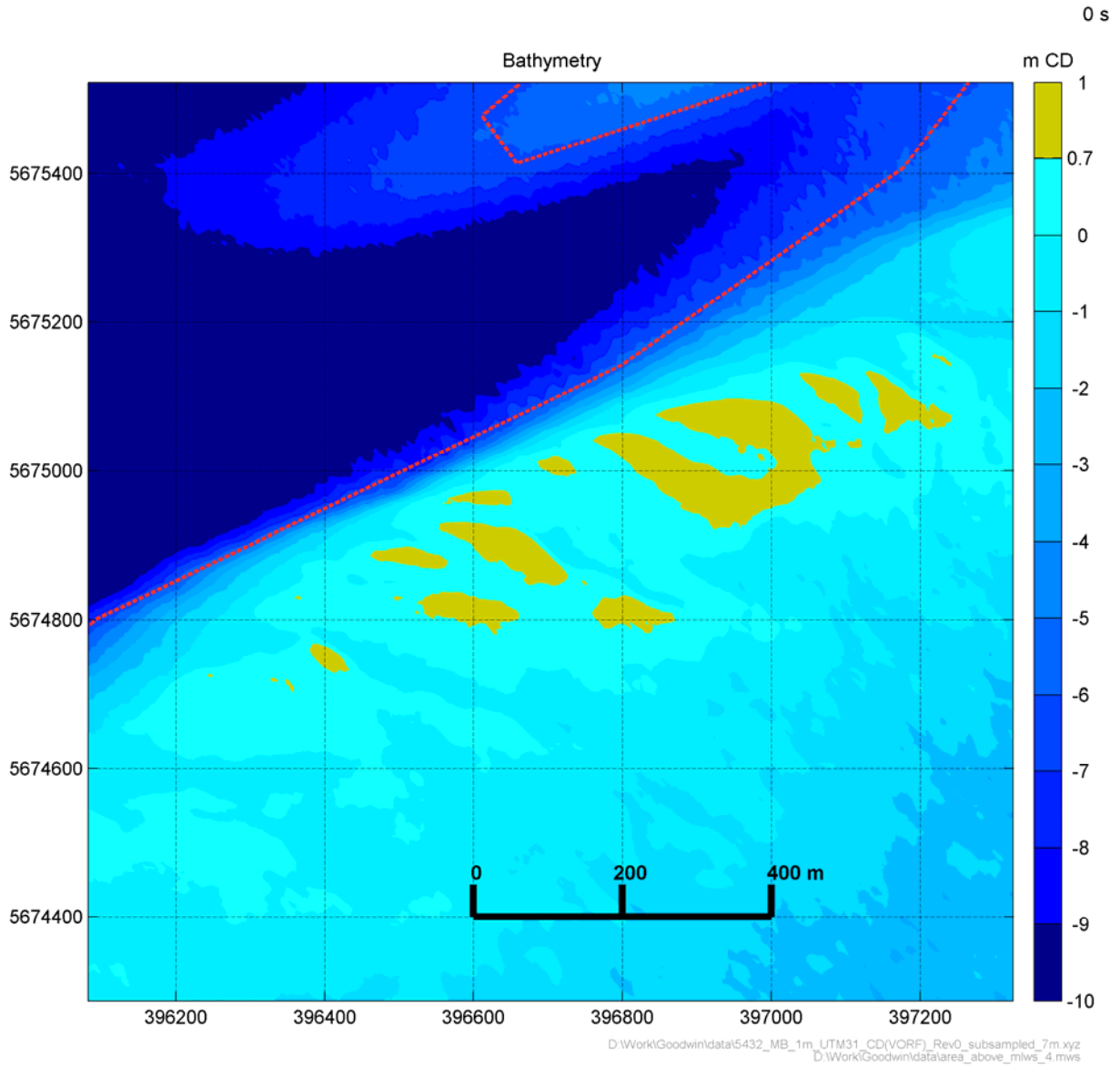
This information is reiterated in **ES Appendix 2.1 - Dredge Area Site Selection**, which describes the process followed and surveys undertaken to underpin the dredge area site selection. Specifically, **Section 1.4.2 - Avoidance of intertidal areas**, which discusses the avoidance of intertidal areas by the scheme. The commitment to exclude any new intertidal areas, should they appear before or during dredging (as detailed in **Section 2** of the ES), will also afford protection of intertidal areas not previously present.

With reference to the above evidence, it was concluded that for the purposes of WFD compliance intertidal areas will not be dredged, and due to the depth required for the dredger to operate within (5m of water) that it was unlikely that dredging within 10m of MLWS would be operationally possible.

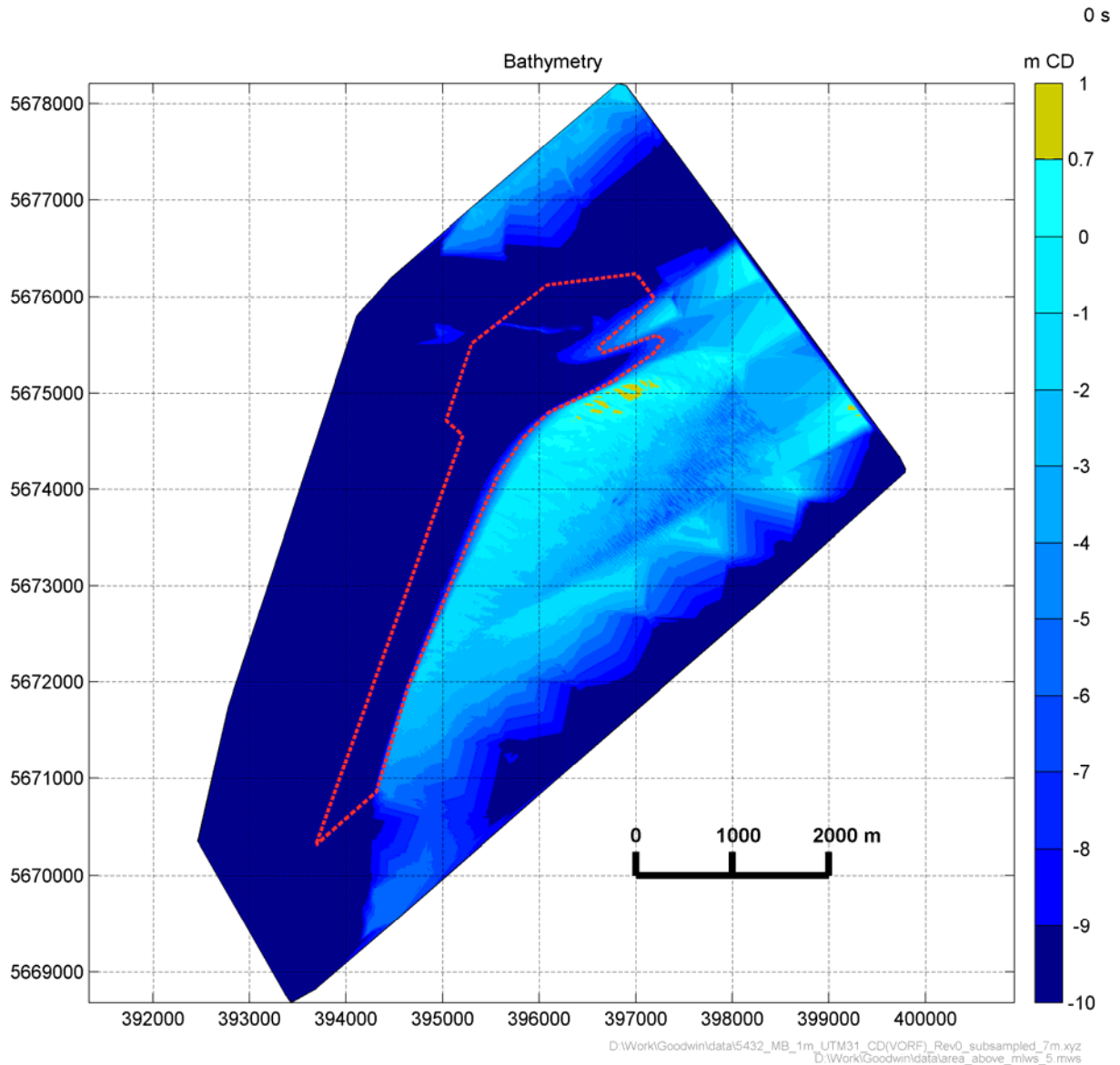
To provide further evidence of this, HR Wallingford have produced two plots showing the level of MLWS, (taken from Deal on the Kent coast) on South Goodwin Sands which is 0.7m above Chart Datum against the dredge boundary on bathymetry data collected in 2015 (for detail on the bathymetric survey please refer to **ES Appendix 2.1 - Dredge Area Site Selection, Sections 1.3-1.4**). Deal is considered to be the most appropriate reference point as it is the nearest point on the coast to the site (approximately 7km to the west of the dredge area) and because the lines of equal tidal range are generally east to west into the Dover Straits.

Plot 1 shows the nearest area with bed levels recording higher than 0.7m above Chart Datum (and therefore above MLWS). These areas are shaded green and the dredge boundary is coloured red. The measurement taken from this plot shows that the dredge boundary is at least 60m from the green shaded areas. **Plot 2** shows the same information but for the entire dredge boundary.

Plot 1 Showing bathymetry nearest to the dredge area boundary (red line)



Plot 2 Showing bathymetry against entire dredge area boundary (red line)



We hope that this clarifies the situation with regard to intertidal areas and the completeness of the WFD Compliance Assessment.

Yours sincerely,

Jessica Moran

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