



The Planning Inspectorate
The Square Temple Quay
Bristol
Avon
BS1 6PN

Our ref: AE/2018/122655/01-L01
Your ref: *
Date: 28 April 2018

Dear Sir/Madam

APPLICATION BY PORT OF TILBURY LONDON LIMITED FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR A PROPOSED PORT TERMINAL AT THE FORMER TILBURY POWER STATION (TILBURY 2) – WRITTEN REPRESENTATIONS FOR DEADLINE 3 - FORT ROAD, TILBURY, ESSEX, RM18 7NR

Thank you for the opportunity to comment further on the application for a Development Consent Order for the proposed Tilbury 2 development. Our response includes comments on documents submitted by the applicant at deadline 2. In particular we have reviewed the level 3 Flood Risk Assessment addendum produced by AECOM, dated March 2018 and the Ecological Mitigation and Compensation Plan reference PoTLL/T2/EX/59. As requested by the Examining Authority our representation also refers to the responses we gave to questions at the Issue Specific Hearings held in relation to Tilbury 2 on 18 and 19 April 2018.

1.0 Flood Risk

1.1 We have received and reviewed an addendum Flood Risk Assessment (FRA) produced by AECOM, dated March 2018. We have also discussed our findings with the applicants during a telecoN held on 29 March 2018.

Flood Risk Modelling

1.2 The FRA compares the flood levels which shows that the old Thames levels were higher so has continued to use the old Thames flood levels in the modelling which is considered precautionary. The FRA states that the breach modelling is in line with the updated national breach modelling guidance, it would be beneficial if the FRA could set out how the same parameters as in the breach modelling have been used.

Offsite Flood Risk Analysis

1.3 The FRA now includes maps which show all the offsite differences in flood depths including those less than 100mm, as required. (Issue Specific Hearing, question 19.1)

Offsite Increase in Flood Depths

1.4 The FRA provides details of six locations where the works will increase offsite flood risk. The specific increase in flood depths in the four key flood events is provided in table form for each location.

Tilbury Flood Storage Areas Embankments

1.5 The FRA states that the Tilbury Flood Storage Embankments have now been included in the breach modelling, as required.

Infrastructure Corridor Culvert Modelling

1.6 The FRA states that the model has been updated to include the proposed site levels and sizes of the culverts shown in Appendix B and the ditches connecting the culverts within the model were modified to ensure a consistent depth of water within these connecting ditches. (Issue specific Hearing, question 19.1)

Climate Change Allowances

1.7 The FRA has confirmed that there are no safety critical elements in the proposed port so the high emissions climate change scenario is not required to be assessed or included.(Issue specific Hearing, question 19.1)

Culvert Design

1.8 Cross-sections and long-sections of the proposed culverts have been provided. However details of the existing culverts have not been received. We are aware that the cross-sections of the watercourse shown on the drawings are not always in the same location as the proposed culvert; the correct river cross-sections should be shown on the drawing of the culvert.

1.9 The proposed culverts are not the largest culvert that can be accommodated within the watercourse, they are significantly smaller than the width and depth of the existing watercourse in many locations.

1.10 As previously stated, the proposed culvert should maintain the capacity of the watercourse in terms of the width and depth, and existing sub-standard culverts should not be used to justify a new or replacement insufficiently-sized culvert. If this is not feasible for some reason then robust justification should be provided and detailed mapping of where exceedence flows would go should be provided. Ideally the culverts should be modelled to show they do not increase offsite flood risk. Alternatively the culverts could be designed to contain the design flows, if these are less than the capacity of the watercourse. CIRIA document C689 can be used for best practice in culvert design.

1.11 Culvert 5B is proposed to be three culverts. We look to avoid multiple culverts

wherever possible as the crosswalls can lead to an increased risk of blockage. We would wish to receive further information before we could agree the detailed design of the culverts. We are however satisfied that the detailed design could be secured through the protective provisions, even though we are not confident that the culverts are designed to prevent an increase in flood risk. (Issue Specific Hearing, question 19.5).

Flood Risk to the Development

1.12 The FRA states that a higher refuge above the extreme 0.1% (1 in 1000) annual probability flood level including climate change. The FRA has detailed the modelled depth of water above the Proposed Development Level in the location of three of the development buildings; 0.22m depth for CMAT Processing Buildings, 0.53m depth for Administrative/Workshop buildings, and 0.64m deep for Warehouse. However it is not clear whether the 'proposed development level' is the proposed finished floor level or the proposed site level. This should be clarified.

1.13 The FRA states that where possible the finished floor levels from the buildings will be raised 300mm above ground level to reduce the impact from floodwater, and that flood resistant construction will be incorporated where possible, and flood resilient construction where this is not possible. The FRA also states that a Flood Emergency Plan should be developed for the whole Tilbury2 site to establish a procedure to reduce the potential for future users of the Tilbury2 site being exposed to the flood hazard as a result of a potential breach on the site.

2.0 Flood Risk Management

East Dock Sewer

2.1 East Dock Sewer is suffering from issues related to both its condition and its capacity, which are interlinked. The retaining wall of East Dock Sewer adjacent to the Dock Road is in poor condition and disturbance caused by construction may result in its collapse with the potential to cause blockages, increasing flood risk to Tilbury Town. The condition of the retaining wall is also preventing desilting of this section of the East Dock Sewer meaning that capacity cannot be increased (Issue Specific Questions 19.3).

3.0 Flood Defences

3.1 The government is contributing funding towards the first 10 years of investigating, refurbishing and repairing assets in the estuary. As part of Defra's Flood and Coastal Resilience Partnership funding policy, we need to find the remaining 15% of funding from those who benefit from these assets. We are looking to work in partnership with beneficiaries throughout the Thames Estuary, to explore potential contribution options. Therefore, we will be seeking to work in partnership with the applicant to determine the most cost-effective means of delivering the required repairs to these assets as part of our TEAM2100 programme. Contributing to this programme of works means investing in flood defences which will protect the people and properties at risk in the Thames Estuary for the coming 40 years and beyond.

3.2 The FRA identifies that the site benefits from the Thames Tidal Defences, including those up and downstream from the site's primary riverside frontage, and acknowledges the Thames Estuary (TE) 2100 preferred policy for the tidal defences "to keep up with climate change so that flood risk does not increase". Any financial investment in flood defences within Thurrock Council's area throughout the TE2100

Plan will be subject to Defra's flood and coastal resilience partnership funding policy statement. Under these terms financial contributions will be required from partners (including Thurrock Council, Environment Agency, landowners and other key stakeholders) to attract the maximum amount of Flood Defence Grant in Aid funding based upon all economic benefits from the investment and numbers of households moved to a lower flood risk category. This will enable the necessary flood risk management infrastructure required to protect the proposed development over its lifetime.

3.3 The defences at the development site are formed of a clay embankment on top of which raising was carried out post the 1953 tidal surge with a concrete upstand wall supported on timber piles. As part of the raising of the Thameside Walls to coincide with the construction of the Thames Barrier, the existing wall was raised in concrete, with buttresses to the rear and ground anchors to hold it in position. Significant spalling has now taken place, with localised issues of differential settlement opening up gaps in the defence, causing it to not provide a full standard of defence. It has been assessed that the existing wall has reached the end of its serviceable life, and requires replacement. This does not presently increase flood risk to the development as the defence is built to a 0.1% AEP event.(Issue Specific Questions 19.4)

3.4 Work is progressing to consider the options that are suitable regarding the former power station frontage. We are meeting the Port of Tilbury on 22 May 2018 to discuss TEAM2100 projects and we will continue to work with the port in a collaborative manner with regards to this area.

4.0 Dredging and Navigation

4.1 We have been undertaking work with Tilbury Energy Centre in order to establish the impact of cooling water discharges on water quality and how it may impact on the intended future maintenance dredges that will be undertaken by the port of Tilbury. Whilst this work is ongoing the initial findings suggest that the cumulative effects on water quality may be minimal although it may be premature to conclude this without further work in regards to the thermal plume.

4.2 Prior to any future maintenance dredge the Port of Tilbury will be required to apply for a marine licence which will be regulated by the Marine Management Organisation (MMO) and the Port of London Authority. As part of the application process for the marine licence, the Port of Tilbury will need to show that there is no deterioration in water quality by submitting a water framework Directive assessment. We would anticipate that the modelling work being undertaken by Tilbury Energy Centre will be completed by the time the port needs to undertake it's initial maintenance dredge and therefore they will be able to demonstrate conclusively that the cumulative effects will not impact on water quality.(Issue Specific Questions 9.1).

5.0 - Control of Port of Tilbury Limited over its Tenants

5.1 EMR have an Environmental permit containing a list of conditions by which the Environment Agency regulate their site activities. Their permit requires the operators take appropriate measures, to prevent or where that is not practicable, to minimise emissions from site. They have produced a noise management plan which limits their activities in a number of ways to reduce noise emissions. For example, this prevents them from loading and tipping OA (heavy) scrap before 7am Monday - Saturday and 8am on Sunday.

5.2 We carry out regular inspections at the site to ensure they are working in accordance with their permit conditions. During our last inspection on 9 March 2018 the inspecting officer found that not all of the SMART practices within the noise management plan were being followed and has recorded the site as being non-compliant. Metal was being dropped from a higher height than necessary whilst loading and this meant the noise was not minimised in accordance with the noise management plan. We have met with the Site Manager and Environment Manager for EMR to discuss this breach and have requested an updated Noise Management Plan be submitted by 21 May 2018. This submission of the noise management plan will be reviewed with support from some national specialists. This review will look at whether the measures included in the revised plan are appropriate. (Issue Specific Questions 0.1)

6.0 - Ecology

6.1 We have reviewed the Ecological Mitigation and Compensation Plan (EMCP) drafted for deadline 2 and referenced PoTLL/T2/EX/59 have also had regular correspondence with the applicants regarding ecological matters since deadline 2.

Eels

6.2 We are content with the provisions for eels and their passage in the EMCP, specifically:

- The Environment Agency will have the opportunity to approve the detailed design of the proposed Thames outfall, including the incorporation of eel-friendly control structures ('eel flaps'), pursuant to their protective provisions;
- Compensatory wet ditch habitats will be provided ensuring no net diminution of the quantum of this habitat due to the development.

If these measures are undertaken then there should be no detrimental impact on any eels using the site and greater access to the ditches will be facilitated. In light of this, we now agree with the applicant that further eel surveys are unnecessary.

On-site Habitat Construction

6.3 We welcome the provision of on-site habitat compensation and await the details of this with regards to the pond and reedbed construction in further iterations of the EMCP.

Off-site Habitat Construction

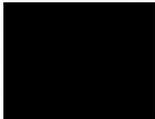
6.4 In principle the Paglesham site could provide suitable compensation for the loss of coastal grazing marsh despite its distance from Tilbury. The grazing marsh establishment method and management will be critical to ensure that the biodiversity potential is maximised. We assume the grazing marsh is to be managed primarily for invertebrates to offset the potential losses on the development site. We suggest that green hay would be a better option for establishing a sward representative of Essex grazing marshes than seeding or natural regeneration. The seawall would be an appropriate source of hay, where an unimproved, and often diverse flora exists. If a seed mix is to be used then a sward with plenty of leguminous species should be sown to provide habitat for the scarce bumblebee fauna, such as shrill carder bee and brown banded carder-bee.

6.5 We currently manage the seawall to the south of the compensation site (a Local Wildlife Site) for scarce invertebrates by undertaking an annual late cut (after 15th September), see attached management plan. We would like to see a management plan for the site which includes a sympathetically managed seawall corridor which will be the main source of colonising invertebrates. Creating a link with the our managed seawall to the south should also enhance the populations of invertebrates on the seawall which will lead to a much quicker and more successful establishment of the new grazing marsh. This is particularly important given the distance from the Tilbury site making long distance dispersal virtually impossible and the absence of invertebrate translocations. A detailed phasing plan for the establishment of the grazing marsh is also essential. (Issue Specific Questions, 2.2).

Future Management of the Mitigation Site

6.6 We welcome inclusion of a 25 year agreement to manage the site. There should be clear management objectives for the grazing, including measures for success (e.g. colonisation of scarce invertebrates such as the shrill carder bee). We are also keen to know whether there is any intention to designate the site as either a Local Wildlife Site once it has been established. There is a risk that after the management agreement ends, the site could be vulnerable.

Yours faithfully



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