



LOWER THAMES CROSSING

WRITTEN REPRESENTATIONS ON ECOLOGY FOR DEADLINE 2

BIOSCAN UK LTD, ON BEHALF OF PORT OF TILBURY LONDON LTD (POTLL)

03 August 2023

Introduction

1. The Port of Tilbury London Limited (PoTLL) has previously submitted statements to the Examining Authority addressing ecological matters arising from the Lower Thames Crossing (LTC) proposals. These include within PoTLL's Relevant Representation (RR) [[RR-0863](#)] (and included as Appendix 10 to its Written Representation), Principal Areas of Disagreement Summary Statement (PADSS) [[REP1-276](#)] and the Written Representation (WR) submitted at Deadline 1 [[REP1-274](#)].
2. Whilst there has been no approach from the Applicant to progress discussion of ecological matters with PoTLL since the WR was submitted, we note that Natural England has submitted a WR [[REP1-262](#)] that includes points of relevance to PoTLL.
3. In particular, Natural England's recent WR mirrors the concerns expressed over the Applicant's inadequate baseline survey and assessment, notably in relation to Open Mosaic Habitat and associated invertebrate interest, and consequential implications for the accuracy and robustness of impact assessment and the adequacy of mitigation provision. In that respect, Natural England's recent WR aligns strongly with PoTLL's previous representations, and the key matters affecting PoTLL are summarised below.
4. Natural England also makes reference to two invertebrate reports prepared on behalf of PoTLL and provided directly to Natural England and the Applicant, as follows:
 - Telfer, M.G. (2023). *Invertebrate survey of Tilbury Ashfields in 2022*. Report to Bioscan (UK) Ltd.
 - Telfer, M.G. (2023). *Supplement to an invertebrate survey of Tilbury Ashfields in 2022*. Report to Bioscan (UK) Ltd.

Habitat classification errors in LTC submission material

5. **Image 1** overleaf shows the nomenclature for various locations within the PoTLL area of interest that are referred to below in the discussion of habitat classification errors in the LTC submission material.
6. PoTLL's RR ([REP1-274](#), Appendix 10) set out deficiencies in the Applicant's habitat classification and subsequent calculations of Biodiversity Net Gain (BNG), the concerns over which were exacerbated due to the absence of an accompanying plan showing the baseline habitat types and condition (which is fundamental to the understanding of how BNG scores have been calculated).
7. At PoTLL's request, and after some delay, the Applicant supplied an extract of their baseline habitats in GIS format directly to PoTLL's ecologists. Following a review of this information by PoTLL's ecologists, a summary is set out in **Table 1** overleaf of the main habitat classification errors identified to date, by reference to the locations shown at **Image 1**.

Image 1. Extract from PoTLL’s Relevant Representation [RR-0863] showing relevant land parcels

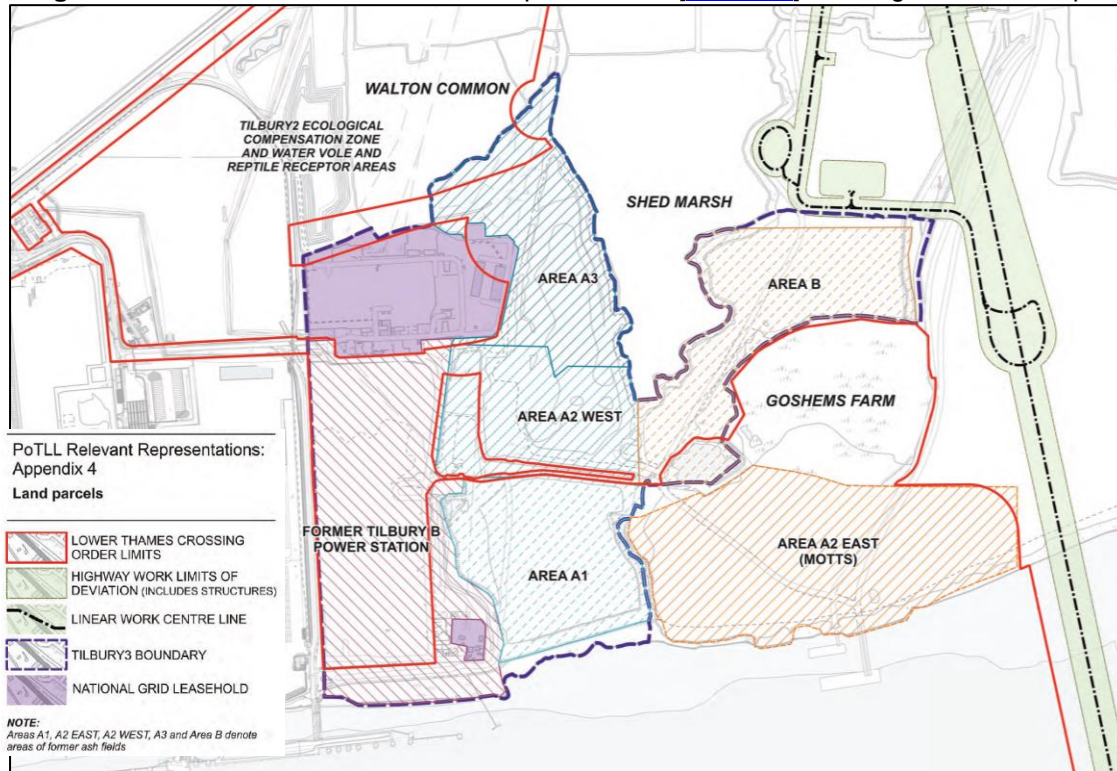


Table 1. LTC habitat classification errors

Land parcel	LTC BNG baseline habitat classification	PoTLL commentary
Tilbury2 Ecological Compensation Zone	Other neutral grassland (moderate condition)	This classification overlooks the presence of the water vole ditch habitat, which effectively comprises linear ‘Priority’ (section 41 NERCA 2006) habitat features (‘Priority Pond’).
National Grid Leasehold land	Other neutral grassland (moderate condition)	This habitat is actually a matrix of reedbed (potential ‘Priority’ habitat) and scrub.
Walton Common	Arable cropland (condition assessment n/a)	This parcel is actually permanent grassland: potentially qualifying as ‘Priority’ Coastal and Floodplain Grazing Marsh (CFPGM). The land falls within the Thurrock Flexible Generation Plant (TFGP) DCO limits and is to be retained by TFGP as a reptile receptor site. Given that TFGP has been identified by the Applicant as a cumulative development for EIA purposes, it is unclear why there has been no apparent engagement or consistency between the two projects on ecology matters, and this calls into question the robustness of the Applicant’s Cumulative Effects Assessment [APP-154].
Former Tilbury B Power Station	Priority ‘Open Mosaic Habitat on Previously Developed Land’ (moderate condition)	PoTLL temporary storage areas, comprising hard-standing, with only a fringe of Open Mosaic Habitat on Previously Developed Land.
Shed Marsh (western margin)	Priority ‘Open Mosaic Habitat on Previously Developed Land’ (good condition)	Representations of Priority ‘Open Mosaic Habitat on Previously Developed Land’ are present by reference to the Telfer “ <i>Supplement to an invertebrate survey of</i>

Land parcel	LTC BNG baseline habitat classification	PoTLL commentary
		<p><i>Tilbury Ashfields in 2022</i>” report, albeit the extent of the Applicant’s mapped polygon may be incorrect. Note that this is inconsistent with draft LEMP documents prepared by Thurrock Flexible Generation Plant (TFGP)¹. Again, it is unclear why there has been no apparent engagement or consistency between the two projects on ecology matters.</p>
Shed Marsh (ditches)	Watercourse footprint (condition assessment n/a)	<p>The Applicant has sought to classify large polygons of ditch and reedbed habitat as a ‘linear feature’. The effect of this is to effectively discount expansive polygons of this habitat type from the BNG calculations by classifying the area-based footprint as a ‘linear feature’, thus undervaluing this resource and excluding reedbed from calculations of BNG.</p>
Ashfield Area A2 west, Ashfield Area A3 & Ashfield Area B	Arable cropland (condition assessment n/a)	<p>This is not arable cropland. We note that Natural England’s WR [REP1-262] states at paragraph 7.2.13 that there is insufficient justification for relying upon a future ‘aspirational masterplan’ which is not supported by a properly discharged planning condition, and over which there is much uncertainty of deliverability. Instead, by reference to the Telfer <i>“Invertebrate survey of Tilbury Ashfields in 2022”</i> and <i>“Supplement to an invertebrate survey of Tilbury Ashfields in 2022”</i> reports, these land parcels contain representations of habitat consistent with Priority ‘Open Mosaic Habitat on Previously Developed Land’.</p>
Ashfield B (ditch JN1)	Watercourse footprint (condition assessment n/a)	<p>Again, the Applicant has sought to classify the large area-based polygons of brackish swamp and reedbed habitat here as a ‘linear feature’, allowing this habitat type to be excluded from the baseline area-based BNG calculations. That is despite this ditch having been found “to be of national significance from just one visit” (see Natural England’s WR [REP1-262] at paragraph 7.2.11). Conversely when calculating BNG, the Applicant has sought to provide an area-based habitat in its place, generating an anomaly in the calculations which allows an uplift in units to be derived by destroying and infilling high quality ditch habitat. This is not a representative or accurate way to calculate the impacts generated by the Applicant here.</p>
Access road between A1 & A2	Arable cropland (condition assessment n/a)	<p>The access road is clearly not arable cropland so it is unclear why the Applicant has mapped it as such.</p>

¹ RPS (13 June 2023). *Thurrock Flexible Generation Plant. Phase 1 Landscape and Ecological Management Plan (LEMP) Addendum – Zone G Construction Access Corridor. Revision C.*

Land parcel	LTC BNG baseline habitat classification	PoTLL commentary
Pylon field between Area A3 and Walton Common	Priority 'Open Mosaic Habitat on Previously Developed Land' (moderate condition)	This area of relict coastal and floodplain grazing marsh supports a mosaic of other neutral grassland and scrub with historic drainage channels.

Priority 'Open Mosaic Habitat on Previously Developed Land' & associated invertebrate fauna

8. Natural England's WR [REP1-262] goes on to describe concerns (at page 60 paragraph 7.1.9) relating to LTC Work No. CA5, which align very closely with PoTLL's own concerns (as per PoTLL's WR at section 2.2 [REP1-274]), i.e. that whilst a large area of land surrounding the north portal is proposed by the Applicant for temporary construction uses, such uses are ill-defined and the Applicant cannot therefore claim that the works have been subject to due application of the mitigation hierarchy.
9. This problem is further compounded by the Applicant being unfamiliar with the habitats and faunal assemblages present here, despite the potential for LTC to generate impacts on Priority habitats and invertebrate assemblages of National importance. PoTLL previously set out a tabulated list highlighting the shortcomings in the Applicant's baseline assessment (refer to Appendix 3 of PoTLL RR([REP1-274], Appendix 10)), almost none of which appears to have been addressed by the Applicant, despite the Applicant having had the 2023 survey season to date in which to do so.

Calculations of Biodiversity Net Gain (BNG)

10. Natural England has indicated at page 83 of its WR [REP1-262] that "the proposals should be seeking to deliver a minimum 10% net gain across all three habitat types (area-based, linear and watercourses)" and goes on to advise that "the habitat surveys and condition assessments should be updated (using UK Habitat Classification rather than Phase 1 methodology) to reduce the number of assumptions and limitations". PoTLL would also refer the Applicant to **Table 1** above which highlights specific habitat classification errors within the Applicant's baseline assessment.
11. Natural England's WR [REP1-262] goes on to describe (at page 60 paragraph 7.1.10) concerns relating to compensatory Open Mosaic Habitat creation, as reproduced below:

"Open Mosaic Habitat design prescription. The project intends to create approximately 200 hectares of open mosaic habitats to the north of the Thames as part of its compensation for losses of this habitat. Open Mosaic Habitat (OMH) is a broad habitat type, expressing a diverse range of specific component parts, and is closely associated with terrestrial invertebrate assemblages. Natural England is especially concerned that the proposed compensation of one type of OMH by another of a different kind (but within the umbrella of OMH) is likely to lead to a qualitative change in the habitat provided. Specifically, the role of PFA as a habitat substrate is important, but as submitted the project commits to only a low level of PFA provision within the OMH design prescription (5%). This matter is set out in more detail in section 7.2 (Open Mosaic Habitats) of these Written Representations."
12. These comments align with the concerns raised by PoTLL at pages 41-42 of its RR ([REP1-274], Appendix 10). Of further concern is that the Applicant's proposals for achieving BNG are in large part predicated on providing Open Mosaic Habitat in 'good' condition throughout the entirety of the Tilbury Fields area (46 hectares). However, we dispute that this would be possible on the basis of the Applicant's proposals, which are compared in **Table 2** below against Natural England's condition assessment criteria for this habitat type.²

² Natural England (March 2023). *Biodiversity Metric 4.0*.
<http://publications.naturalengland.org.uk/publication/6049804846366720>

13. Further concerns about the ability for the Applicant to control habitat management of these sensitive habitats arise because, by reference to the Rights of Way and Access Plans [APP-025], Tilbury Fields will have permissive pathways on both its western and eastern flanks, in addition to a cycle-track access, and a new ditch-side public right of way. When the Applicant was asked directly about how access to Tilbury Fields would be controlled, the response given was that “*The LTC DCO application does not include any fencing / railings which would look to constrain people to the footpaths detailed on the [Rights of Way and Access] plan.*” Should Tilbury Fields fail to meet the condition criteria set out in **Table 2** below, then the ability for remedial works to be undertaken successfully may be compromised by the Applicant’s proposal for uncontrolled public access to the site.

Table 2. Tilbury Fields BNG condition assessment

	Urban: Open Mosaic Habitat Condition Assessment Criteria	Pass/Fail?
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Potential fail: Insufficient information provided to make an assessment of the likelihood of these criteria being passed. Achievement of these criteria would be more challenging if Tilbury Fields were divided into sub-compartments rather than assessing it as a 46ha entity as the Applicant has sought to do.
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	
C	Invasive non-native plant species (listed in Schedule 9 to the Wildlife and Countryside Act 1981, as amended ³) and others which are to the detriment of native wildlife (using professional judgement) ⁴ cover less than 5% of the total vegetated area ⁵ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Potential fail: Species such as goat’s-rue <i>Galega officinalis</i> or Russian olive <i>Elaeagnus angustifolia</i> may merit inclusion here.
D1	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.	Fail: Natural England’s WR [REP1-262] includes advice at page 65-68 as to how the Applicant might achieve this, and goes on to state that “the prescription currently proposed will not achieve this and will fail to adequately support the core invertebrate assemblage which makes this area nationally significant.” Again, achievement of this criterion would be more challenging if Tilbury Fields were divided into sub-compartments rather than assessing it as a 46ha entity as the Applicant has sought to do.
D2	The parcel contains pools of water such as permanent and ephemeral waterbodies.	Fail: there does not appear to be any provision for such features within the freely draining raised landform of Tilbury Fields. Ditch JN1 could have made a contribution as a permanent waterbody, but the Applicant has instead sought to infill this feature.
All 5 criteria must be passed for ‘good’ condition to be achieved. It appears unlikely that LTC would achieve this.		

³ Wildlife and Countryside Act 1981 (as amended) Schedule 9 <https://www.legislation.gov.uk/ukpga/1981/69/schedule/9>

⁴ Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNS) website <https://www.nonnativespecies.org/home/index.cfm> and Natural England Access to Evidence page should also be checked for up-to-date information: <https://publications.naturalengland.org.uk/publication/40015>

⁵ Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

14. **Furthermore, it has become apparent that all land where LTC works are temporary only, has been excluded from calculations of BNG.** This is of particular concern for PoTLL as it is unclear in what condition the Applicant intends to leave PoTLL landholdings upon vacating, and whether **any shortfall in mitigation/compensation performance may need to be met by the Port as part of future development uses of land temporarily appropriated by the Applicant.**
15. We note the statement that “*Natural England has significant concerns regarding the scheme in its current form, particularly the lack of detail around the environmental mitigation and compensation measures and the securing mechanisms. We strongly advocate much clearer commitments to delivering mitigation measures through the removal of ambiguous wording within the various Control Documents and the provision of much clearer parameters within which the detailed design will be delivered.... Natural England has significant concerns with the scale of detail that the Applicant intends to defer to the post consent stage.*” (Quote taken from NE WR page 13 [REP1-262]). **PoTLL shares these concerns, particularly given the risk that any shortfall in mitigation/compensation performance may need to be met by the Port as part of future development uses of land temporarily appropriated by the Applicant and could impose constraints on meeting the economic growth potential of the Freeport.**

Protected species

16. We note Natural England’s WR [REP1-262] at paragraph 9.5.1 which states that “*Whilst we are continuing to engage with the Applicant to try and reach resolution on our concerns regarding the assessment of impacts and the appropriateness of the mitigation measures at present, we are not able to agree a letter of no impediment.*” PoTLL shares Natural England’s concerns that water vole impact assessment and mitigation has not been adequately addressed by the Applicant, especially in the context of TFGP having removed significant lengths of water vole habitat from Walton Common in July 2023,⁶ and these potential cumulative impacts do not appear to have been subject to assessment by the Applicant.
17. Conversely, we note that at paragraph 9.6.1 of its WR, Natural England states that it has no further comments to make regarding badgers. PoTLL remains, however, concerned that the Applicant proposes to close a substantial (>20 entrance) main badger sett, rather than giving any consideration to avoidance, which could readily be achieved by more sensitive siting of an attenuation basin. Of further concern to PoTLL is the proposal to provide a compensatory artificial sett within PoTLL’s landholdings. If this artificial sett provision were successfully adopted by badgers, this would effectively sterilise works within PoTLL’s landholdings, likely in a (minimum) 20m radius from the sett. Conversely, if there is a risk that this mitigation were unsuccessful, PoTLL could be liable for addressing the Applicant’s failed mitigation within their own land should future land uses dictate it. **This is an unacceptable impact on PoTLL’s landholdings, and the Applicant must consider avoidance options.**

Summary

18. In summary, we note that Natural England shares a considerable number of PoTLL’s concerns about the deficiencies in the Applicant’s baseline survey and assessment, and over the adequacy and deliverability of the Applicant’s proposals for ecological mitigation and compensation.
19. The Applicant has engaged with PoTLL on a number of ecological matters since submission of the Application, but it appears to PoTLL that the Applicant has an insufficient appetite to achieve a resolution in respect of the ecological concerns raised by PoTLL in its representations to date.

⁶ It is unclear whether this has been carried out under a mitigation licence granted by Natural England, given the unseasonal timing.