
**Place Division, Chief Executives Directorate
DEVELOPMENT MANAGEMENT**

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26 August 2025

Your ref. WA010006

Secretary of State
c/o Spencer Barrowman
The Planning Inspectorate
National Infrastructure Planning
Temple Quay House
Temple Quay
Bristol
BS1 6PN

BY EMAIL ONLY

Dear Mr Barrowman,

PINS REF No: WA010006 Teddington Direct River Abstraction (TDRA)

**RE: STATUTORY CONSULTATION ON A PROPOSED APPLICATION FOR
DEVELOPMENT CONSENT UNDER SECTION 42 PLANNING ACT 2008 AND
REGULATION 13 OF THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT
ASSESSMENT) REGULATIONS 2017**

**NOTIFICATION OF PROPOSED APPLICATION, LONDON BOROUGH OF RICHMOND
UPON THAMES RESPONSE – PRE-APPLICATION CONSULTATION (PAC)**

Under section 46 of the Planning Act 2008 (the Act), Thames Water Utilities Ltd. (hereafter referred to as 'the Applicant') intends to submit an application under section 37 of the Act for a Development Consent Order (DCO) to construct, operate, and maintain the Teddington Direct River Abstraction (TDRA) Project, directed by the Secretary of State as a project of national significance under section 35 of the Act.

Section 42 of the Planning Act, 2008 (as amended) requires the Applicant to consult on its proposed DCO application with those persons specified by the Planning Act, 2008 (as amended) and its associated regulations. These persons include, local authorities within or near to the Proposed Development, prescribed consultation bodies, those with an interest in the land to which the DCO application relates and those who may be entitled to bring a claim under certain land compensation legislation should the Proposed Development be constructed and the land used for the Proposed Development.



I refer to the above submission made under Regulation 13(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, which includes the submission of a Preliminary Environmental Information Report (PEIR) prepared in advance of the submission of an Environmental Statement. The EIA Regulations set out that:

“Where the proposed application for an order granting development consent is an application for EIA development, the applicant must, at the same time as publishing notice of the proposed application under section 48(1), send a copy of that notice to the consultation bodies and to any person notified to the applicant in accordance with regulation 11(1)(c).”¹

This consultation response follows on from the Council’s previous consultation response (dated November 2024 – **Appendix 1**) for the Environmental Impact Assessment Scoping Report (SR) concerning the Teddington Direct River Abstraction development.

Although a major part of this proposal would be located within the London Borough of Richmond upon Thames, it has been classed as a Nationally Significant Infrastructure Project and would therefore require a Development Consent Order to be determined by the Planning Inspectorate on behalf of the Secretary of State.

The PEIR outlines the current design and preliminary environmental assessments of potential likely significant effects undertaken to date. The ES that will be submitted with the Development Consent Order (DCO) application will provide the final assessment of likely significant effects, having regards to statutory consultation feedback, further ongoing survey outcomes and design updates informed by the ongoing EIA process.

The Local Planning Authority’s response has reviewed the relevant chapters of the submitted PEIR and responds in detail to each below. This letter constitutes the London Borough of Richmond upon Thames Council’s response to the ‘PEIR’, which will inform consultation and the production of the Environmental Statement (ES).

The Council has provided its initial observations and representations below and attached on whether the report has responded to and addresses the Planning Inspectors response to the Scoping Opinion dated 20th November 2024 (ref. WA010006).

As a summary:

- The Council concludes that the likely impact on the borough would be significant, particularly the impacts on Burnell Avenue and Ham Playing Fields. The Council’s main concerns focus on highways, character and appearance of the Metropolitan Open Land (MOL), water quality and aquatics, public health and ground stability and subsidence as a result of the major excavation works required to facilitate the development. Construction traffic impacts on routes within this borough leading to Mogden STW site are also considered significant, especially on event days at the Allianz Stadium (RFU) when multiple road closures are in place (including Rugby Road and Whitton Road) and high volumes of traffic and pedestrian flows need to be managed in the area.
- Insufficient information has been made available and therefore the applicant’s decisions and processes, particularly in relation to the site selection process (whether or not TDRA is the best long-term option) and assessing the impact of effects, are fundamentally flawed. Additionally, relevant parties did not have access to accurate

¹ The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 Section 13: [The Infrastructure Planning \(Environmental Impact Assessment\) Regulations 2017](#)



and high-quality information on the project and could therefore not adequately review assessments undertaken by the applicant. The full response is set out in this letter. We expect that ongoing detailed discussions with Thames Water will continue whilst the EIA is undertaken, and as environmental implications come to light. This is especially relevant as proposals are developed and amended through the pre-application and consultation process. The Council reserves its right to amend its current comments on environmental impacts as further information is made available.

The Council would formally request that receipt of this response is confirmed by The Planning Inspectorate.

The statutory consultee response is provided without prejudice to any actions the Council may take as landowner should the need arise.

Yours sincerely,

Robert Angus
Head of Development Management
London Borough of Richmond Upon Thames

London Borough of Richmond upon Thames Comments 26 August 2025
Teddington Direct River Abstraction Project
Preliminary Environmental Information Report (PEIR)
Chapter 1: Introduction
<p>No comments. It is noted that the EIA Scoping Boundary now includes The Hawker Centre and Park Gate Playground both of which would be impacted by the project.</p> <p><u>General note</u> – Richmond’s Local Plan (Publication Version), along with supporting documents, was submitted to the Secretary of State for independent examination in public on 19 January 2024. The Local Plan sets out a 15-year strategic vision, objectives and the spatial strategy. The Council have now received the Inspector’s report on the draft Local Plan, which found it to be sound and is now due to be adopted at October’s Full Council. The new Local Plan will supersede the previous Local Plan (2018 version).</p>
Chapter 2: Project Description
<p><u>Paragraph 2.2.13 – 2.2.14 - OMISSION METHODOLOGY</u> –To assess human and environmental risk, the EIA should SCOPE IN a requirement to provide evidence (including data) on the efficacy of the Mogden Tertiary Treatment Process (TTP) in reducing chemical and biological hazards in the wastewater intended for the TDRA. The evidence should also include how the Mogden TTP compares in terms of efficacy to tertiary treatment processes in operation elsewhere in the UK. This was raised previously and has not been included in this chapter.</p> <p><u>Paragraph 2.6.44 - OMISSION</u> - the Intake description still does not describe the permanent change in the towpath at this area arising from construction on top of the lower towpath. Also, it cannot be stated that the abstraction plant being 350 metre upstream of the treated sewage outfall “ensures no risk of recirculation” This is not proven.</p> <p><u>Paragraph 2.6.2 – OMISSION</u> - The normal permitted hours is no work on Sundays or bank holidays or days of public mourning without prior consent. This should be included in addition to the other working hours.</p> <p><u>Plate 2.13 and Plate 2.14 – CLARIFICATION</u> – The applicant should confirm which design they are proposing as it is unclear.</p> <p><u>Paragraph 2.6.43 - CLARIFICATION</u> – PEIR states that “The Applicant will engage with local authorities and regulators (Natural England for the National Trail) to discuss and finalise the temporary and permanent diversion and realignment of PRoW.” The diversions for the PRoW should have greater clarity at this stage.</p> <p><u>Paragraph 2.8.3 – OMISSION</u> “A Townscape and Environmental Master Plan is being developed for the above ground sites for the Project”. The masterplan does not reference the land and River Thames designations as Metropolitan Open Land (MOL) nor does it mention the impacts on this important open land.</p> <p><u>Paragraph 2.7.5 – OMISSION</u> - Anticipated number of workers have been removed</p>

from this chapter.

Paragraph 2.7.20 - OMISSION METHODOLOGY - The mention of routing of traffic along Dysart, Burnell and Beaufort in a possible “gyratory manner”; this is not subsequently mentioned as an issue to be scoped even though it would clearly impact residents on those roads. This should be included within the scoping - **SCOPE IN**

Chapter 3: Consideration of Alternatives

General comments –

1. In terms of assessing alternative sites, Teddington Weir was selected as being preferred site during the phase one consultation. For the phase two consultation Burnell Avenue and Teddington Weir were the preferred sites and were put forward as alternative sites. There is no quantitative information made available as to why Thames Water consider Burnell Avenue to be a more suitable site. The early site selection assessment and weighting exercises do not include quantitative data, instead qualitative assessments were carried out by the Applicant who used their judgement to evaluate the sites. No technical studies or data were available for comparison at site selection stage and no record of the professional evaluation of sites has been published to allow others to consider whether it is appropriate.
2. The PEIR also fails to demonstrate that the TDRA is the best-value option. The PEIR does not exhaust all alternative options, one of which would be improvements to the Beckton Desalination Plant (located in East London) which opened in 2010. Beckton would, when required, turn a mixture of seawater and river water from the River Thames into drinking water. It has long been touted as the alternative scheme to TDRA. Before that, in 2019 it was the alternative to the Deephams reuse scheme. However, there is evidence that Beckton has not been operational for some time, and so there are concerns that a similar trajectory could happen for this this proposed option. The principal reason was cost. There cost of Beckton reuse scheme is never meaningfully considered in that context.

Paragraph 3.5.1 – COMMENT - Taking each in turn, the PEIR identifies a ‘do-nothing’ scenario, which would not take forward any development Therefore, as set out above, the benefits associated with the need for the Project would not be realised. The LBRuT notes Thames Water’s reference that failure to provide the benefits that the project seeks to deliver (in terms of drinking water supply) may place businesses and the growing population of London at risk of water shortage, when the weather is dry and there may be an identified need for the project. However, this does not negate the need to provide a robust assessment of all alternatives for consideration and a full explanation as to why the current scheme is the best option.

Plate 3.3 – OMISSION - sets out the options appraisal process which involved five stages. One of these stages included a detailed appraisal of the sites and a ‘Red Amber Green’ (‘RAG’) scoring assessment RAG assessment. This has been omitted from the PEIR and the LBRuT would want to see this assessment to understand the justification for selecting Teddington Weir and Burnell Avenue.

Chapter 3.4.8 – COMMENT - The PEIR fails to assess appropriate location alternatives to demonstrate that the TDRA is the best-value option. The WRSE Investment Model referenced in Chapter 3.4.8 suffers from limitations in spatial aggregation, as outlined in the 2022 Independent Review. The model's inability to reflect local environmental variation undermines the claim that TDRA offers the best return on investment. Chapter 3 also references the consideration of smaller-scale abstractions (e.g. 50MI/d) but fails to provide a detailed environmental comparison. Other options, such as improving the Beckton Desalination Plant, aquifer recharge, increasing smart metering, or leak reduction beyond Ofwat's baseline targets, are not sufficiently evaluated, particularly considering the impact they may have on the use of or need for the TDRA. Even low-tech, distributed solutions such as greywater reuse, rainwater harvesting, and sustainable drainage systems are not meaningfully analysed. These could each offer significant water savings without the ecological and financial risks associated with the TDRA.

Chapter 4: Approach to Environmental Assessment

Paragraph 4.3.18 – FURTHER INFORMATION REQUIRED / CLARIFICATION – This paragraph sets out the duration of **temporary** environmental effects and defines short-, medium- and long-term impacts. The PEIR sets out that short term effects are up to 12 months, medium up to 1 year and long term up to 5 years. However, the operational phase of the development may have permanent effects of greater duration, and the Council requests that the significance of long-term impacts are assessed over a 60-year period, and mitigation outlined, once the development is fully in operation. There is a specific concern that permanent environmental impacts on water quality at the outfall and its impacts on public health and aquatic ecology are currently not due to be considered for sufficient period to demonstrate compliance with the WFD requirements to avoid deterioration and not impede future improvements (e.g. to E Coli reductions or additional metals removal) when regulations/standards improve.

Chapter 5: Water Resources and Flood Risk

General comments

1. The scheme proposes to remove water from the River Thames upstream of Teddington Weir via a new intake. Water would travel along a new pipeline connecting to an existing underground tunnel. This would transfer up to 75 million litres of water each day to Thames Water reservoirs to become drinking water. Water would be replaced with tertiary-treated effluent from Mogden Sewage Treatment Works, which would then transfer to the river along a new underground tunnel to an outfall structure upstream of Teddington Weir. The purpose of the works is to provide access to additional supplies of water while maintaining river levels. As there is no evidence yet that the TTP process would produce water of suitable quality for river release, the Council cannot comment at this stage. Comments will follow once water studies and further assessments are completed
2. The applicant should also confirm that the environment and ecology would be protected and the measures that are in place to ensure this. The project would only be operational during droughts, which Thames Water estimate will be every two years, late summer. Outside of these periods, the project would be in 'standby mode', which means a low volume of water would run through it and that would release through their existing outfall at Isleworth

Ait. Clarification is required on the definition of 'drought' and 'low volume' when referring to water that would run through the project in 'standby mode'.

3. As the project progresses, further engagement will be undertaken with the Environment Agency the Greater London Authority (GLA), the Port of London (PLA), the Lead Local Flood Authority (LLFA) and Local Planning Authority (LPA) Environmental Health Officers.

Section 5.2 – OMISSION – Local Policy has not been included. Richmond's Local Plan is due to be adopted and the relevant policies are:

- Policy 8 (Flood Risk and Sustainable Drainage)
- Policy 9 (Water Resources and Infrastructure (Strategic Policy))
- Policy 34 (Green and Blue Infrastructure (Strategic Policy))

Paragraph 5.4.5 - OMISSION - FURTHER INFORMATION REQUIRED - describes the initial results from the TPP pilot plant so far undertaken. The results are phrased as displaying "encouraging trends", "projected performance", "almost all", etc. The performance targets are not specified, the reduction in medians is not specified in relation to anything. In fact, there are still no results of the TTP Pilot at Mogden available for the current consultation. These are easy phrases to use when no actual data is provided. The pilot will run until November 2025, and the results must form part of the DCO application. It is noted that neither the Local Planning Authority, or the public, have been afforded the chance to comment on the impact the treated outfall water quality might have on the river.

Paragraph 5.8.3 – FURTHER INFORMATION REQUIRED - Mogden Sewerage Treatment Works:

- Details around the proposed groundwater control.
- Confirmation of the final depth of the drive shaft.
- Provision of the ground investigation results, which should be reviewed by a geotechnical engineer.
- Supply of the hydrogeological impact assessment to evidence that flood risk will not increase.

Paragraph 5.8.12 - FURTHER INFORMATION REQUIRED - Eastern Work Area:

- Provide the results of the ongoing pilot plant testing at Mogden, the design of the TTP and results of water studies evidencing compliance with WFD at the outfalls during drought periods.
- Provision of the ground investigation results, which should be reviewed by a geotechnical engineer.
- Supply of the hydrogeological impact assessment to evidence that flood risk will not increase.

Paragraph 5.8.32 – FURTHER INFORMATION REQUIRED - Ham Playing Fields:

- Share Flood Response Plan.
- Confirm that the Environment Agency has approved works to take place within flood zone 3.
- Provide the sustainable drainage design to manage Surface Water flooding.
- Is there to be bankside construction at Ham Playing Fields?

Paragraph 5.8.62 – FURTHER INFORMATION REQUIRED - Burnell Avenue and Northern and Southern Works Area:

- Confirm hydrodynamic and geomorphological impact on channel bank and bed from in-river construction activities at intake and outfall in freshwater

Thames.

- Confirm impact on groundwater quantity and quality from construction activities and any impact on local licensed abstractors.
- Confirm impact on riverbed and/or bank stability of the surrounding watercourses.
- Confirm impact of construction activities on surface water quality.
- Further hydraulic modelling is required to assess localised impacts and changes in water levels resulting from the cofferdam; results should be shared.
- Undertake and provide a hydrogeological impact assessment to evaluate potential effects on identified receptors, which would inform future embedded or additional secondary mitigation measures, which will be presented in the Environmental Statement.
- Conduct and provide results of hydraulic modelling to assess localised impacts and changes in water levels. Floodplain mitigation shall be considered to compensate any floodplain volume lost because of the proposed works during the operational phase on a level-for-level basis to avoid fluvial floodwaters being displaced and increasing flood risk elsewhere alongside other appropriate flood mitigation measures. This applies to the 1% AEP flood extents accounting for the appropriate climate change allowance over the operational phase for each area as detailed in PEIR Appendix 5.2 Flood Risk Assessment.
- Detail mitigation for above risks as required.

Paragraphs 5.8.96-5.8.97 – FURTHER INFORMATION REQUIRED - Tudor Drive:

- Effects on drainage infrastructure, including public and private assets should be considered.
- Impacts on flood risk defences through damage from the use of construction machinery and equipment should be considered.
- Water demand during construction should be taken into consideration.
- Effects on public foul water sewer infrastructure should be considered.
- Surface water effects at Mogden STW and Tudor Drive site should be considered.
- Potential temporary impact on water resources from construction activities (e.g. groundwater control and contamination) should be considered.
- Construction leaks and spills should be appropriately mitigated.
- Hydrogeological impact assessment should be conducted to evaluate potential effects on identified receptors, which would inform future embedded or additional (secondary) mitigation measures which will be presented in the Environmental Statement.
- Flood risk at this site should be appropriately mitigated.

Paragraph 5.8.134 – FURTHER INFORMATION REQUIRED - Burnell Avenue and Northern and Southern Work Areas:

- Confirm impacts from increased pluvial and fluvial flood risk.
- Confirm impact on hydrodynamics and geomorphological processes due to abstraction at the intake, and decreased river flow both at the intake and between the intake and outfall in the River Thames.
- Confirm impact on hydrodynamics and geomorphological processes due to input of recycled water at the outfall in the River Thames.
- Confirm impact on water quality standards, underlying water chemistry and water temperature in the freshwater River Thames and tidal River Thames.

Paragraph 5.8.111 – OMISSION – the PEIR has excluded Tudor Drive from

assessment during the operation phase and so **FURTHER INFORMATION IS REQUIRED**, which includes the following:

- Impact on riverbed and/or bank stability at all above ground sites other than the Burnell Avenue site at the intake and outfall.
- The discharge of water into the River Thames from the outfall would not increase flood risk, as the volume discharged will match the volume abstracted upstream at the intake.
- Effects on groundwater flow in superficial deposits, except for flow pathways around the intake to TLT conveyance pipeline and the retaining wall for the embankment at Mogden STW site. Impacts on public water supply infrastructure and public foul sewer infrastructure.
- Appropriate mitigation for the above should be considered and applied.

Chapter 6: Aquatic Ecology

General comments –

- It should be noted that LBRuT intend to commence monitoring of river water quality to increase transparency and public confidence. The amount/frequency of adding treated effluent to the River Thames is unclear, imprecise and inconsistent. Assurances from Thames Water are not sufficient – the Council will require specific details of maximum concentrations of specific pollutants. The “treated effluent” is likely to contain additional bacteria (e.g. E. Coli), viruses, parasites, metals, microplastics which Thames Water are not currently obliged to remove. The Council would question to what extent this will impact on water quality, the ecology of the river and human health, used by swimmers, including vulnerable children? How can this be limited/controlled? Problems with pollution centre around concentrations of pollutant, which will be higher when river water levels are lower, likely on hot/warm summer days when the number of receptors, such as people bathing and using the river, are also high. The Council will require much more information on robust baseline data, projected operations, agreed maximum levels, future monitoring and robust SMART (specific, measurable, achievable, reportable and target driven) reports with actions to reduce/cease operations if agreed levels are exceeded, should be required.
 - Current uncertainties regarding the construction design, with particular reference to the requirements for a dewatering pipeline/outfall and associated works, preclude a comprehensive risk assessment being undertaken.
 - The potential risks regarding contaminants within the dewatering discharge must be considered fully upon finalising the construction design and methods. This will likely include analysis of groundwater and surface water run-off in the vicinity of the site. If contaminants are found in the groundwater/surface water at levels that have the potential to cause deleterious effect on the aquatic receptors, alternative disposal methods will be required.
 - Further details of embedded mitigation are required to enable a comprehensive ecological risk assessment of the aquatic receptors to be undertaken.
 - Currently, apart from a fish rescue, there are no plans to translocate designated species (plant and invertebrate) from within the confines of the cofferdam(s) to the adjacent river habitat. This risks avoidable impacts to designated species.
 - No details of the disposal of wastewater from the dewatering

processes are presented. Without appropriate water quality/contaminant testing and/or alternative disposal methods, the discharge of dewatering waste into the channel presents an avoidable risk to the aquatic receptors.

- The embedded mitigation measures for the construction process need to be presented in a comprehensive manner in the ES and associated documents and included in the project's Construction Environmental Management Plan ('CEMP') to ensure their implementation during the construction phase.
- Following the fish rescue and dewatering of the cofferdams, an immediate search of the benthic habitat should be undertaken to find (where practicably possible) and translocate any notable invertebrate species to the adjacent river habitat.
- Full details of the proposed construction dewatering processes need to be presented and water testing and mitigation procedures need to be determined and embedded in the construction process and included in the project's CEMP.

Paragraph 6.2.1 – **CORRECTION** - update to the Local Plan London Borough of Richmond (LBR) Local Plan (2025).

Construction Phase

Mogden Sewage Treatment Works

Table 6.4 – **OMISSION** – The construction phase of the Mogden STW was scoped out of the preliminary environmental impact assessment for aquatic receptors. It is stated in PEIR Chapter 6, that "*proposed works at Mogden STW are not in proximity to watercourses or aquatic species, therefore, no pathways for impact have been identified*". However, no consideration is given to the Duke of Northumberland River that runs through the site.

Ham Playing Fields

Paragraph 6.8.7 - **COMMENT/FURTHER INFORMATION REQUIRED** – The construction works at the Ham Playing Field site will comprise excavation of an intermediate shaft to the conveyance tunnel route for use during construction and operation of the project. The PEIR states that the Main Work Area is not in direct hydraulic connectivity with the river. Assuming best practice is applied regarding (i) the prevention of surface run-off reaching the river via land drains, ditches and/or unmanaged routes and (ii) spill prevention and mitigation, this assertion may be accepted. Surface water management and spill prevention and mitigation measures should be implemented as standard best practice (tertiary mitigation) and should be presented in detail in the project's CEMP. This will need to be produced to accompany the ES.

Paragraph 6.8.13 – **COMMENT** – The Ham Playing Field Support Work Area would be located immediately adjacent to the tidal Thames and the PEIR states correctly that works here have the potential to impact the aquatic habitats.

Paragraph 6.8.8 – **OMISSION** – Whilst Chapter 6 states that the construction design

of the Ham Playing Field site is still in development, the potential pumping of groundwater and accumulated surface water from the shaft construction directly into the river is not discussed, despite this representing a potentially significant environmental risk to the receiving habitat.

Section 6.8.12 – CLARIFICATION REQUIRED - refers to “potential in-river works” that may impact the river. It is not stated what such works might entail. This must be clarified and considered.

Paragraph 6.8.14 – COMMENT – In the absence of a temporary discharge of water from the shaft construction (dewatering pipeline), the conclusions of the preliminary impact assessment of the Ham Playing Field site are likely correct. It is acknowledged that the assessment will be reviewed upon the finalisation of the construction design and methods. **FURTHER INFORMATION REQUIRED** - The details of the construction design and methods are required for a comprehensive assessment of the potential impacts and effects of the Ham Playing field site on the aquatic habitats to be undertaken satisfactorily. Of particular importance is the potential dewatering pipeline and discharge. The groundwater may contain historic pollutants that have the potential to cause deleterious effects on the aquatic communities. In addition, the discharge would likely have a high suspended sediment load. If dewatering is necessary and the groundwater is found to contain pollutants that have the potential to cause a deleterious effect on the aquatic communities, an alternative disposal method would need to be implemented.

Burnell Avenue

General comments –

1. In terms of Burnell Avenue, the Main Works Area comprises the location of the proposed outfall, intake, reception and connection shafts (and associated Thames Lea Tunnel (TLT) connection and the temporary cofferdams). The PEIR does not distinguish between the main Works Area and the Southern and Northern Works Areas as the latter are included in the draft Orders Limits for utilities and PRoW diversions only (see PEIR Chapter 2, 2.6.37). For the purpose of this review, the Burnell Avenue works area shall be considered as a single site as the Southern and Northern Works Areas construction activities are unlikely to influence the aquatic receptors beyond issues relating to general construction in the vicinity of waterbodies.
2. Given that final construction design and methods have not yet to be confirmed, the Council cannot undertake a full assessment of the proposals. The following additional considerations are required:
 - Insufficient information is presented on embedded mitigation and construction best practice protocols regarding piling adjacent to, and within, the watercourse and surface water and groundwater management.
 - Consideration of notable, designated species within the footprint of the cofferdams is required. Whilst it is stated that entrained fish will be removed during the cofferdam dewatering, invertebrate and plant species are not discussed. Immediately on completion of dewatering, a search of the benthic substrate should be undertaken by suitably qualified ecologists to find and remove any priority or designated species, in this case, most notably the large river mussels, *Pseudanodonta complanata* and *Unio tumidus*, as well as the other species listed in Appendix 6.1, Table A.39.

- Dewatering of the shafts, tunnels and other subterranean aspects of the project during construction has not been considered in the aquatic receptors preliminary impact assessment (Chapter 6) or mentioned in Chapter 2 (Project Description). It is considered likely that the water that ingresses into the shafts and tunnels during construction will need to be removed on a regular, or constant basis. As with the works at Ham Playing Fields, discussed above, if this is to be discharged into the Thames channel, considerations of the potential impact of this water and any associated contaminants and sediment loading, will need to be included in the final impact assessment and ES; see below for further discussion.
 - The issue of shifting baselines is of long-term concern and is a subject that requires consideration.
3. Further information is required regarding the disposal of dewatering waste and, if it is to be discharged into the Thames channel, the protocol and testing that will be applied to ensure the water is free of contaminants and sediment loadings that have the potential to cause adverse impact to the aquatic receptors and alternative disposal methods that may be utilised if contaminants are present.

Section 6.4 – FURTHER INFORMATION REQUIRED - PEIR Chapter 6 regularly refers to the embedded design (primary) mitigation and standard good practice (tertiary mitigation) as presented in Chapter 6 Section 6.4. However, little detail is given regarding the protocols for avoidance of (i) contamination of the water with pollutants or suspended sediment, (ii) mitigation for effect of piling on aquatic receptors (primarily fish), (iii) minimising and mitigating the effects of obtrusive light (artificial light at night (ALAN)) and (iv) INNS control. Details of these measures need to be presented and encompassed in the CEMP which will accompany the ES. Appropriate guidelines will need to be referenced, for example (but not restricted to):

1. Contamination of watercourse –
 - CIRIA guidance 532 Control of water pollution from construction sites: Guidance for consultants and contractors.
 - CIRIA guidance 515 Groundwater Control – Design and Practice.
 - Environment Agency's 'Working at construction and demolition sites': PPG 6 Pollution Prevention Guidelines.
2. Piling adjacent to watercourse –
 - JNCC (2010). Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise. Joint Nature Conservation Committee guidance document.
 - ZLS (2016). Guidance Document - Conservation of Tidal Thames Fish through the Planning Process. Zoological Society of London.
3. Obtrusive light –
 - Institution of Lighting Engineers' guidance notes for the reduction of light pollution and the provisions of BS 5489, Code of Practice for the Design of Road Lighting.

Tudor Drive

General comment - The construction phase of the Tudor Drive site was scoped out of the preliminary environmental impact assessment for aquatic receptors. It is stated in PEIR Chapter 6, Table 6.4 that *"no surface waters identified in proximity to the site, therefore, no pathways for impact are identified"*. Some further detail would be useful to confirm this assertion is correct.

Table 6.4 – COMMENT – The construction phase of the conveyance tunnel was scoped out of the preliminary environmental impact assessment for aquatic receptors. It is stated in PEIR Chapter 6, Table 6.4 that the “*conveyance tunnel would be located at sufficient depth and within the London Clay and would not be in hydrological connectivity with surface waters; therefore, no pathways for impact are identified*”. Some further detail would be useful to confirm this assertion is correct.

Operation Phase

Mogden STW

General comments –

1. It is understood that the only pathway for impacts on aquatic receptors from the Mogden STW TDRA operation would be the modification to the treated water volumes released from the Isleworth Ait discharge culvert. Consequently, the comments regarding the Western and Eastern Works Areas are considered together. During operation of the TDRA scheme, the tertiary treatment plant (TTP) at Mogden STW would impact the existing tidal Thames by reducing the discharge of treated sewage from the existing outfall at Isleworth Ait. The flow would reduce by 75 Ml/d during drought periods, predicted to be once every two years. At intervening times, the flow would be reduced marginally due to the maintenance flow required for the TTP.
2. PEIR Chapter 6 reports that, according to modelling exercises undertaken, the decrease in flow during TDRA operation would affect the tidal inundation at the Isleworth Ait discharge site and increase the sediment exposure during low tide by up to 2%. This is despite the compensatory effect of the input of recycled water of equivalent volume at the Burnell Avenue site above Teddington weir.

Burnell Avenue Main Works

General comments –

1. The Burnell Avenue Main Works site encompasses the proposed locations for the new water abstraction intake and the recycled water discharge outfall. Given that the recycled water input would be designed to compensate for the volume of river water abstracted into the TLT, the direct effects of reduced water flow in the lower reach of the freshwater Thames and the tidal Thames (Thames Tideway) as a result of the additional abstraction are mitigated by the design of the project.
2. The key aspects of the project operation that have the potential to impact the aquatic receptors directly are (i) variation in water temperature, (iii) changes in water velocity, (iii) deterioration of water quality, i.e. nutrient content and any other sewage-associated contaminants (iv) entrainment of aquatic species by the abstraction intake and (v) the dissemination of INNS.
3. PEIR Appendix 5.1 (Surface Water Resources and Water Quality Baseline Information) presents details of the approach to the modelling of the projected temperature plume and water velocity variations for a range of river flow rates and water temperature scenarios during which the project is expected to be active (i.e. abstracting water and returning recycled water). The modelling results are discussed further with specific reference to the

aquatic receptors in Appendix 6.2 (Additional Environmental Data to Support Aquatic Ecology Assessment) and Appendix 6.3 (Supporting Information for Burnell Site Operational Phase Impact Assessment) and summarised in Chapter 6. Detailed discussion of the potential impact of the Burnell Avenue site project operation is presented in Appendix 6.3 and summarised in Chapter 6.

Paragraphs 6.8.171-6.8.176 – **COMMENT** – The modelling predicts that the temperature variations of the river water associated with the recycled water input will be restricted to a small area adjacent to the right hand bank, with the increase in water temperature of 1 – 2 oC limited to a plume extending 70 m downstream of the outfall; see Appendix 6.2. Complete mixing of the effluent and river water is predicted to occur upstream of Teddington weir. It is predicted that following mixing of the recycled water and the river water, the temperature increase during project operation will range between 0.1oC and 0.8oC (see Appendix 6.3, A1.4). Of primary concern with such projects is the disruption or impedance of fish migration. The Chapter 6 and Appendix 6.3 text presents a reasonable argument why the localised and temporary thermal plume would not cause a thermal barrier for fish migration. Furthermore, weaker swimming migratory species, such as eel elvers, typically remain closer to the bank where the current is generally less than the main channel. It is understood that the fish pass at Teddington weir is located on the left hand (south) side of the channel, whilst the project's recycled water outfall and associated thermal plume is on the right-hand (north) side of the channel. Consequently, such migratory fish would likely traverse pass the Burnell Avenue site on the south side of the channel, avoiding the thermal plume. Note: confirmation of the location of any existing eel pass facilities is required to substantiate this suggestion.

Appendix 6.3 – **COMMENT** - Consideration is given to the impacts of increased velocity of the recycled water outfall on aquatic receptors in detail in Appendix 6.3 and summarised in Chapter 6. The predicted increase in water velocity associated with both potential outfall designs is predicted to be localised. Under lower flow conditions, the flow velocities at the point of discharge will increase by 0.05-0.075m/s for approximately 100m downstream (Appendix 6.3, A1.9). The width of the elevated velocity 'plume' is predicted to be 10m and 20m for the bankside and near-bank in river outfall options, respectively. The impact assessment presented in Chapter 6 and discussed further in Appendix 6.3 concluded that impacts associated with change in velocity on all aquatic receptors were 'not significant', primarily 'minor adverse'.

Paragraph 6.8.133 – **FURTHER INFORMATION REQUIRED** - Currently the impact of the project on the nutrient concentration at and below the proposed recycled water discharge site have not been assessed or modelled. Until this data gap has been filled, an assessment of the effect of elevated nutrient levels within the Teddington reach of the freshwater Thames and the upper reaches of the tidal Thames cannot be undertaken with confidence.

Paragraph 6.8.139 – **FURTHER INFORMATION REQUIRED/COMMENT** – Accordingly, the statement in Chapter 6, 6.8.139, that "changes in water quality include slight increases in phosphorus and ammonia, with negligible change outside the immediate mixing zone" is a supposition and cannot be substantiated currently. Unless the TTP removes all nutrients/contaminants from the recycled water, the project would result in an increase in nutrient levels between the recycled water discharge and the Mogden STW discharge at Isleworth Ait (where the treated sewage water would be discharged when the project is not operating) compared to

the existing conditions. As outlined in Chapter 6, elevated nutrient concentrations have the potential to cause direct effects such as algal and microbial blooms and associated water quality degradation such as reduced dissolved oxygen and increased turbidity. Until the details of the nutrient status of the tertiary treated recycled water is reported and the dispersal modelled, the changes in nutrient concentrations within and beyond the effluent plume (mixing zone) cannot be predicted and their effects assessed.

Paragraph 6.8.188-6.8.189 - **COMMENT** - The assessment of the entrainment of species by the abstraction intake has been confined to the consideration of fish species, primarily eels. The embedded design mitigation includes the commitment to install an appropriate intake screen to comply with the Eels (England and Wales) Regulations 2009. This would provide adequate mitigation for the prevention of significant entrainment of fish species in general as well as for eels specifically.

Appendices 6.1 and 6.3 – **COMMENT/FURTHER INFORMATION REQUIRED** - Numerous Invasive Non-Native Species ('INNS') have been recorded in both the tidal and freshwater Thames. These are listed and discussed in Appendix 6.1 (Aquatic Ecology Baseline and Supporting Information). The effects of changes in water temperature, flow velocity and water quality on the INNS population in the vicinity of the Burnell Avenue site are considered and discussed in Appendix 6.3 and summarised in Chapter 6. However, the assessment did not discuss the creation of novel habitat that will be suitable for INNS colonisation or the potential for INNS dissemination and dispersal via the abstraction intake and TLT. Fouling of water intakes by INNS species such as zebra mussel (*Dreissena polymorpha*) is common and the transportation of INNS seed, larvae, juveniles and adults along watercourses and pipelines is a major cause of the spread of such species. It is likely that the abstraction intake at the Burnell Avenue site would be colonised with fouling INNS and, inevitably, viable INNS specimens would be drawn into the intake with the abstracted water. This would have the effect of increasing the local INNS populations and transporting INNS to the Lee Valley Reservoir. Details are required as to how the project would control the fouling of the Burnell Avenue intake and TLT and how viable INNS would be removed from the abstracted water. If this includes the use of biocides, the fate of the residual biocides (i.e. the remaining aqueous biocide that has not been bound or adsorbed within the treatment area) will require consideration. Furthermore, any potential receptor sites for the abstracted water need to be identified and methods to prevent the dissemination of the entrained INNS specimens and propagules need to be presented.

General comments –

1. It is stated that the effects of the recycled water discharge on wastewater parameters (e.g. Phosphate, ammonia, DO) at the discharge sites are 'under review'. In order to undertake a comprehensive Ecological Impact Assessment (EclA) for the aquatic receptors with confidence, details of the final effluent water quality and component compounds (including nutrients, olfactory inhibiting substances and other sewage-related chemicals and elements) to be discharged is necessary. The quality of the discharge water would be dependent on the efficacy of the TTP which in turn, will have direct consequences for the receiving environment. Once this information is available, the impact assessment will need to be reviewed accordingly. Further information regarding the fouling prevention methods to be employed at the abstraction intake and in the TLT is required. If physical removal mechanisms are used, details of the disposal methods need to be provided. If biocide treatments are to be employed, details need to be

provided, and the fate of residual biocide needs to be determined and accounted for.

2. Further details are required regarding the methods and protocols to prevent the dissemination of INNS via the water abstraction intake and passage to the Lee Valley Reservoir site.
3. In the absence of details of the final recycled water effluent components (currently under review), the conclusions of the effects of water quality impacts as 'not significant' cannot be substantiated. The impact assessment will need reviewing on completion of the effluent quality review incorporating the final effluent components and the modelled dilution effects.
4. The potential for dissemination of INNS has not been addressed in the assessment presented in Chapter 6. The spread of INNS represents a significant threat to water bodies throughout the UK and prevention measures need to be in place and described in the EclA and the project ES.
5. Review of the impacts of effluent water quality on the receiving environment on completion of the effluent water quality review.
6. Presentation and instigation of appropriate INNS dissemination prevention protocols for the Burnell Avenue intake.

Paragraph 6.8.2 and Table 6.10 – FURTHER INFORMATION/CLARIFICATION REQUIRED - refer to ecological assessments based on "professional judgment," yet do not disclose the identity, independence, or methodologies used by those professionals. Cumulative effects on wildlife, such as phytoplankton, and impacts on arboriculture and protected species, are frequently deferred to future assessments.

Tudor Drive

General comment –

1. The operational phase of the Tudor Drive site was scoped out of the preliminary environmental impact assessment for aquatic receptors. It is stated in PEIR Chapter 6, Table 6.4 that "the TLT connection shaft at Tudor Drive site is not in proximity to watercourses or aquatic species; therefore, no pathways for impact identified". Some further detail would be useful to confirm this assertion is correct.
2. The operational phase of the conveyance tunnel was scoped out of the preliminary environmental impact assessment for aquatic receptors. It is stated in PEIR Chapter 6, Table 6.4 that "conveyance tunnel would be located at sufficient depth and within the London Clay and would not be in hydrological connectivity with surface waters; therefore, no pathways for impact identified". Some further detail would be useful to confirm this assertion is correct.

Chapter 7: Terrestrial Ecology

Ham Playing Fields

General comments –

1. If Biodiversity Net Gain (BNG) is going on Council land, the Applicant is strongly advised to consult and involve the Council's Ecology Officer from the outset to agree the BNG proposals. In the first instance, the Council would like to see any proposed BNG delivered on or close to sites which

would be affected by the development.

2. The land adjacent to Ham Street car park (Support area) is used mainly for amenity purposes. The applicant should note that there are a number of rare black poplars that could be impacted, and would need to be avoided by ensuring the hedges fencing is correctly situated. The Public Right of Way ('PROW') must be kept open through a diversion.

Paragraph 7.4.11 – states that works will be timed to avoid sensitive periods “where reasonably practicable,” but gives no criteria for determining what is “reasonably practicable”. **FURTHER CLARIFICATION REQUIRED**

Table 7.3 – **FURTHER INFORMATION REQUIRED** - Terrestrial ecology field surveys have been undertaken for the Project since 2021 and a robust baseline has been developed. A Terrestrial Ecology Consolidated Baseline Report will be provided as an appendix to the ES. Where required, *additional terrestrial ecology surveys will be conducted prior to DCO submission to ensure all data are up to date*. But there does remain an **OMISSION** and an ecology survey is required along with the data if it has been collected to date.

- There is a pollination station along the trees behind the informal parking along Ham Street, will this be affected?
- How will the permissive horse path be affected? Will it be closed off during the construction phase?
- How will access to rifle club be affected?
- Will trees need to be lifted to facilitate access for machinery?
- Track matting will be required to prevent compaction to ground?
- Ensuring there are gaps to allow access to the Rifle Club and bridleways to ensure the continued provision of local amenities and horse exercise.

Burnell Avenue

General Comments

1. There are likely to be amenity impacts in this location as a result of the proposals. Stag Beetle loggeries may need to be very carefully moved to another location. The Parks department will need surface treatment details for the PROW diversion.
2. Northern works area– Thames Water have recently planted four poplar trees which should not be removed. The PEIR has stated that follow up surveys will be carried out which is required, and the Council will need to review such.

Tudor Drive

Paragraph 7.8.43 - Dismisses Tudor Drive as unsuitable for bat roosts without evidence of independent review. Therefore, **FURTHER INFORMATION REQUIRED**.

Chapter 8: Historic Environment

General comment

1. Impacts upon the setting of designated heritage assets (such as the Teddington Lock Conservation Area) will be required to be fully assessed

against the submission scheme. The assessment of any impacts arising as a result of the submission scheme upon the setting the identified designated heritage assets should be undertaken in accordance with Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990.

2. Considerations of the effects at this stage are premature until the submission scheme has not been confirmed and therefore cannot be formally assessed. The Council are not able to comment in detail as the setting assessments are still ongoing as well as the design development of both sites.
3. Paragraph 8.4.2 a) - It is noted that the location for the shaft has been confirmed in Ham Playing Fields. Previously there was an option for it to be located in the car park, however, the placement in the Ham Playing Fields is preferred, as it will no longer be within the conservation area.

Paragraph 8.2.19 – **CORRECTION** – the new Local Plan is due to be adopted and the relevant policies are:

- Policy 29 (Designated Heritage Assets)
- Policy 30 (Non-designated Heritage Assets)
- Policy 31 (Views and Vistas)
- Policy 33 (Archaeology)

Construction Phase

Table 8.7 - Indicative views to show the visual impact of the construction phase, particularly from Ham House. Unlikely objections to the identified heritage assets and their respective impacts. Impacts would be temporary subject to the removal on completion of works apart from the shaft and making good to previous condition all affected ground.

Operation Phase

Table 8.12 - Not agreed that the likely impacts on Teddington Lock Conservation Area (CA) and Broom Water CA are not significant. Given there is potential for the impacts to be significant, particularly on Teddington Lock CA depending on the extent of the construction works, their proximity to the CA and it forming part of a number of important views, particularly from Teddington Footbridge.

General comments –

1. It is noted that the final design of the intake and outfall is yet to be confirmed. Some design options have been presented, but the likely impact, depending on design that is decided, would affect the heritage assets differently. Especially when considering the cumulative impact of both intake and the outfall, given their close proximity. The impacts should therefore be reassessed once the full setting assessments have been completed and the design finalised. It is not clear which design is being used to assess the impacts in this PEIR therefore the Council cannot provide meaningful comments.
2. Visual impact assessment which includes views from Teddington Footbridge and other views identified. The views should show both the intake and outfall to understand cumulative impacts of both.

Chapter 9: Townscape and Visual

General comment

1. It is not clear at this stage what the design will be as two options have been provided. As the applicant is aware, the proposal falls on Metropolitan Open Land (MOL). MOL should be protected from inappropriate development in accordance with national planning policy tests that apply to green belts. There is no open space assessment provided with the PEIR and as such the Council is currently unable to assess the proposed works, any enhancements (landscape or ecological) or mitigation measures against such material planning considerations.
2. Paragraph 9.3.2 - Mentions a limited number of stakeholder contacts. but does not include mention of relevant environmental groups or residents' associations. There is also no indication of which environmental experts or public health authorities were invited to directly assess key issues on which they could offer specific insight.

Detailed Comments

Paragraph 9.2.11 – **UPDATE** – the new Local Plan is due to be adopted in October 2015. Therefore, a correction should be made in this paragraph to reflect the status of the plan. The following policies are relevant and should also be referenced and included:

- Policy 28 (Local Character and Design Quality (Strategic Policy))
- Policy 35 (Green Belt, Metropolitan Open Land and Green Space)
- Policy 44 (Design Process)

Table 9.2 – The table confirms that Townscape Character Areas (TCAs) and VPs have been incorporated in addition to those identified within the Teddington Direct River Abstraction EIA Scoping Report, and the revised receptors for assessment within the PEIR/ES are presented in Table 9.4 and Table 9.6. The table also confirms that “opportunities for advanced planting will be considered and reported within the Townscape and Visual Impact Assessment (TVIA) of the ES”. **FURTHER CLARIFICATION REQUIRED** – the Council would want to see and comment on the planting upfront.

Paragraph 9.3.8 - In response, to previous concerns raised and omissions within the Scoping Report the following additional VPs and TCAs have been incorporated. Type 4 visualisations will be included within the ES (refer to Table 9.6), including at new VP 14 and VP15 as requested, subject to landowner agreement for VP15 to allow baseline photography to be captured:

1. VP13: Representative view from Ham Lands Open Space and Local Nature Reserve (LNR)
2. VP14: Representative view from Burnell Avenue Open Space, residential properties at Burnell Avenue, Beaufort Road, Dysart Avenue and Northweald Lane
3. VP15: Representative view from the Lensbury Hotel and Watersports Centre, residential properties on Broom Water, Broom Water West, River Reach and Trowlock Island
4. TCAs C3 Twickenham Riverside and B3 Hampton Wick Residential, as defined within London Borough of Richmond Upon Thames Urban Design Study (Arup, 2023)
5. A VP has not been added at the Allianz Stadium, south of Mogden STW, because views from visitors to the stadium would likely be focused within

the stadium itself and effects would be unlikely to be significant.

Paragraph 9.3.9 – FURTHER INFORMATION REQUIRED – this paragraph confirms that *“site survey work undertaken suggests that this is a historic vista and that intervening vegetation screens the views between the two locations. Recreational users of the River Thames are identified as visual receptors at VP2, VP4, VP6, VP8, VP15 and VP18.”* The Council would want to review and assess the undertaken survey work further.

Paragraph 9.3.10 – FURTHER INFORMATION REQUIRED – confirms that *“Table 9.5 identifies protected trees, including these trees which are protected by TPO. The assessment of impacts on townscape components, such as trees and woodland, and perceptual and aesthetic aspects will be considered within the assessment of effects on townscape character.”* The Council would request that this information is provided before an application is submitted.

Paragraph 9.4.3C) – FURTHER INFORMATION REQUIRED – sets out that *“Sensitive lighting design during construction and operation, such as light emitting diodes, to reduce light spill as far as practicable (PCR 39)”* The Council would want to review this information to ensure there is no adverse impact in terms of light overspill and pollution to the immediate surroundings.

Paragraph 9.5.6 - Given the scale of the project, the Council would disagree that a ZTV is not considered to be a useful or informative tool to inform the extent of the study area or the selection of VPs. An overall ZTV would help to understand how the extent of the study area has been calculated.

Table 9.6 – COMMENT – the report now includes that the viewpoints from both the Hawker Centre and Teddington Lock Footbridge will be included in further assessments.

Construction Phase

Paragraph 9.7.9 – Provides very limited information on the construction phase. This paragraph sets out that the following measures would be undertaken:

- a. Vegetation removal to facilitate construction, including removal of trees with TPO status and within conservation areas
- b. Presence and movement of plant, machinery and construction traffic
- c. Earthworks and stockpiles
- d. Presence of tall plant and machinery, including cranes
- e. Presence of construction compounds and welfare facilities
- f. Presence of hoarding/safety fencing around the boundary of construction areas
- g. Presence of temporary lighting
- h. Construction of temporary access routes
- i. Temporary or remedial works to existing highways associated with vehicle movements
- j. Works to install or divert utilities
- k. Presence of cofferdams where required for works within the freshwater River Thames

The limited amount of information for such a large-scale project is a concern and without this information being presented upfront the Council cannot undertake an assessment on its acceptability.

Ham Playing Fields –

Paragraphs 9.7.9-9.7.12 - The Ham Playing Fields would require the construction of the intermediate shaft and main compound. This location avoids the car park and is preferred as it avoids the conservation area. **FURTHER INFORMATION REQUIRED** - Indicative views of visual impact during construction. Details of finished appearance of any permanent changes, and possible site improvements such as tree planting. The applicant is also reminded that the riverside area indicated is within the conservation area, also Metropolitan Open Land and with the Thames Policy Area.

Burnell Avenue –

General comment - This area includes both the proposed inlet and outfall sites and represents the general location of the main permanent changes in LBRUT. The exact locations do not appear to be identified but are approx.180m apart. The design is indicative only and so the Council cannot provide a detailed assessment on the proposals. However, the applicant is advised to pursue designs which relate to the semi-rural character of this Thames side location and limit the amount of proposed development within the area.

There is a need to consider new planting and surfacing, provision of seating and a full range of mitigation measures. It is assumed that any lighting is not being proposed, in particular in relation to impacts upon ecology and light pollution?

Recycled Water Conveyance Tunnel Mogden to Teddington (outfall in Burnell Avenue site) –

Are there any permanent above ground changes proposed? Confirmation on this required.

Operation Phase

General comment – The operation phases only include commentary on Winter year 1 and Summer year 15. Clarification is required as to why only two years and seasons have been selected.

The chapter should factor in the potential impacts of the intake and outfall systems on the character and appearance of the MOL and Conservation Areas. This has not been fully considered or assessed in the PEIR. Given that a design has not been finalised, the Council cannot provide meaningful comment or assessment on this element.

Chapter 10: Ground Conditions and Contaminated Land

General comments –

1. Embankment stability, collapsible ground, ground subsidence impacting the Project or causing damage to neighbouring land or property was previously scoped out, in both construction and operation which was a concern due to the large-scale works which would be associated with the development. Ground subsidence has now been scoped in, however, there are concerns that there are no supporting assessments which have been undertaken to demonstrate the impacts on neighbouring properties during the construction phase. The Council would reiterate that there have been instances in the

borough of land collapse, such as the recent closure on the Thames Towpath at Kew. **OMISSION** - Whilst the Major Accidents and Disasters has been scoped in, it is presented as an Appendix rather than its own chapter and lacks any detail. This is a significant concern and has not sufficiently addressed the previous comments.

2. It was raised in the Council's last response that plans should also still be submitted in regard to any off-grid energy supply requirements where temporary grid supply is demonstrated and evidenced not to be possible. These should include use of battery pack and inertial hybrid options to keep generator loading optimal and reduce operational hours of the engine to a minimum. **OMISSION** - This has not been provided.

Paragraph 10.2.18 – **CORRECTION** – new Local Plan policies should be referenced:

- Policy 53 (Local Environmental Impacts).

Table 10.14 now includes the areas of Ham that were subject to infilling of sand and gravel workings with waste before housebuilding, is now scoped in and considered in the PEIR.

Table 10.1 – **OMISSION** – Under paragraph 4.10.15 it states “A programme of GI is underway for the Project to provide data on the ground conditions. The risk of collapsible ground, embankment stability and subsidence from tunnelling and shaft construction, will be assessed in geotechnical and tunnelling reports following completion of the GI. The results of these assessments will be summarised within the ES”. The proposed tunnel will run under some residential and commercial properties, and the EIA should include an assessment of whether this will lead to an increased risk of subsidence. This information has not been provided, and it is concerning that no assessments have been undertaken at this stage.

Paragraph 10.3.11 – confirms that soil management strategies in line with current good practice, and production of a Materials Management Plan, will be provided as required. Some further detail is needed to confirm this assertion is correct.

Figure 10.3 – this provides an indicative area and so **CLARIFICATION** would be required on the exact ground conditions and contaminated land study area.

Plate 10.2 implies that faulting exists between the boreholes. Therefore, it is necessary to delimit or assess the implications of such and detail where, with some accuracy, those faults actually exist. Therefore, **FURTHER INFORMATION REQUIRED**. The British Geological Survey ought best to be consulted.

Chapter 11: Materials and Waste

General comments:

1. Concerns surrounding the possibility of sludge being taken off site for disposal, particularly along routes into and through the borough as well as at Mogden itself. This should be clarified further and mitigation steps should be proposed.

Table 11.3 – **CORRECTION** – update to reference the new Local Plan, the relevant

policies are as follows:

- Policy 3 (Tackling the Climate Emergency (Strategic Policy))
- Policy 6 (Sustainable Construction Standards)
- Policy 7 (Waste and the Circular Economy)

Paragraph 17.4.28 – CLARIFICATION - Is there existing capacity at Modgen STW to handle the sludge from the Tertiary Treatment Plant ('TTP'). This was raised previously and has not been addressed.

Paragraph 17.5.10 – CLARIFICATION - It is noted that details and tonnages of waste are not known at this stage, hence the number of road and/or river movements transporting waste are also not known with any certainty. SCOPE IN impacts from construction waste is also required for this reason.

The approach of managing the waste should align with the principles of the circular economy not just the waste hierarchy.

Paragraph 17.7.3 – COMMENT - Whilst it is assumed to be addressed within the Construction Management Plan, the prevention of waste and construction materials being spilled onto streets or being dragged out of sites by vehicles is an important issue for the Council and needs to be addressed.

Chapter 12: Traffic and Transport

Table 12.4 – CORRECTION - update with references to the new Local Plan policies, including:

- Policy 48 (Vehicular Parking Standards, Cycle Parking, Servicing and Construction Logistics Management)
- Policy 53 (Local Environmental Impacts)

Construction Phase

Overarching comment - In summary, the key considerations for the EIA will be on construction activity and construction vehicle movements associated with Ham Playing Fields and Burnell Avenue. These are considered to be abnormal in so far as these locations normally generate virtually no construction or heavy vehicle activity. Irrespective of whether or not the development creates adverse impacts within the meaning of the EIA regulations, the local community face a period of potentially prolonged disruption and highway management. The operational phase is considered to have negligible impact in transport terms.

Tables 12.8 and 12.9 confirm that associated to the Mogden STW site, a total number of 47,886 2-way HGV movements are predicted during a 2½ year works period starting in Q3, 2030. This traffic may be routed into the site via several local Routes, but it is assumed that the most likely and direct route will be via the A316 Chertsey Road into Whitton Road/Rugby Road to the Mogden Lane site entrance(south). The Council would advise that traffic entering the area via the A316 from the west and leaving to the west which is, what is proposed, so that traffic is not routed over Twickenham Bridge (Grade II Star Listed) to or from the site. The number of HGV movements may represent an insignificant increase in the context of the total number of HGVs on the A316 but would be a significant increase on Whitton Road, Rugby Road and Mogden Lane. There appears to be no baseline traffic counts for either Whitton Road, Rugby Road or Mogden Lane (Table 12.21). More detailed analysis of the impact of construction traffic would be

required in the Environment Statement or Transport Assessment accompanying an application, including on vulnerable road users and road safety. Rugby Road has a cycle lane on each side. The documentation notes that a Construction Traffic Management Plan ('CTMP') **will** be prepared for the ES construction traffic. However, despite a CTMP not currently having been produced, the Preliminary Environment Report assumes the CTMP will result in downgrading the significance of driver delays along Rugby Road from 'moderate' to 'slight' (12.9.4). Fear and intimidation along Rugby Road and road safety along Rugby Road / Whitton Road are also downgraded from 'moderate' to 'slight' (12.9.6 and 12.9.8) on the basis of the as yet to be produced CTMP. It is also expected that the CTMP ensures HGV movements via the southern entrance to Mogden SWT are outside peak hours on A316 and no HGV movements take place on RFU event days when road closures, including Whitton Road and Rugby Road, are in place.

Figures 12.1, 12.2 & 12.5 shows the affected road network where construction HGV vehicles would deliver to and from the site. The road network map is unclear on the routing of where HGVs would enter and exit the site and dispose of spoil. Plate 12.6 shows an overview of ARN and construction sites which include the directions of the construction HGV movement, but it remains unclear on how the numbers of HGV vehicles indicated in Plate 12.1 (The daily HGV movements across the construction programme to Mogden SWT site) would be distributed.

Without evidence and agreed proposals, the Council does not accept the downgrades in the significance of traffic effects as noted in paragraphs 12.9.4, 12.9.6 and 12.9.8.

Plate 12.2 details the total construction HGV movements for Ham Playing Fields Site. Ham Playing Fields is predicted to require 2,316 2-way HGV movements in the works period of 15 months starting Q3, 2030. HGV traffic peaks at 18 2-way daily trips. Road access would be to and from the south via Ham Street, Riverside Road, Dukes Avenue and Richmond Road. This would represent a significant increase in HGV traffic on relatively lightly trafficked roads. A construction route by exception only via Sandy Lane, Ham Common and Petersham Road is not generally considered suitable. The Ham Playing Fields area has several rights of way and is used by many walkers and cyclists for general travel and leisure purposes.

Paragraph 12.8.2 – sets out that the CTMP will be developed by the contractor to manage the movement of HGVs. Without the CTMP, the amendments to the significance of the effects are considered presumptuous. It is not demonstrated how the construction activity and HGV traffic would satisfactorily mix with the current amenities and existing active travellers.

Ham Street and Riverside Road near Ham Street have limited width and/or parking that do not allow opposing HGVs to pass. Operational arrangements would need to be in place to manage this. The significance of pedestrian delay effects are listed as 'moderate' for amenities on Ham Street. However, this is downgraded to 'slight' due to the CTMP which is assumed to include the implementation of health and safety awareness training for HGV drivers and speed management measures. For the National Trail / National Cycle Network route, the significance of pedestrian delay is downgraded from 'slight' to 'negligible' through the provision of diversions, signage and lighting for severed routes as part of the CTMP. However, no CTMP is included. The Council would not accept the downgrading from slight to negligible through the provision of diversions at Ham Street and Riverside Road.

With regards to Burnell Avenue, 6,246 2-way HGV movements to/from Burnell Avenue are assumed during the period of works starting Q3, 2030 and ending Q4, 2031. Daily HGV 2-way trips exceed 20 during most of 2031. It should be noted that the highway network local to Burnell Avenue (e.g. Dukes Avenue will also be carrying the HGV traffic going to Ham Playing Fields. Vehicular access would be via Dysart Avenue and Beaufort Road which currently have negligible HGV movements.

There is no real discussion on how this traffic will be satisfactorily managed. The local road junctions and parking arrangements are likely to need some amendment to maintain safety and access. Residential amenity is likely to be significantly tested by having a year of local construction activity and HGV movement.

In terms of Tudor Drive, 1,314 2-way HGV movements are predicted between Q2, 2031 and Q1, 2032. The junction of Tudor Drive and Richmond Road has a relatively poor road safety record. The challenge at this site will be maintaining highway safety in proximity to a busy junction.

A detailed Transport Assessment and CTMP would need to be produced to back up the conclusions made in respect of the significance of the effects.

Chapter 13: Air Quality

General comment - The site is located within an air quality management area and therefore Thames Water will be expected to demonstrate that proposals do not result in a reduction in air quality. The air quality impacts arising from traffic and construction/excavation activities are concerning and further information is required about the impacts and how these will be managed and mitigated.

The following will be required:

- Air Quality Assessment
- Environmental Management Plan
- Construction Logistics Plan

Table 13.5 – CORRECTION - update with references to the new Local Plan policies, including:

- Policy 46 (Amenity and Living Conditions)
- Policy 53 (Local Environmental Impacts)

Chapter 14: Noise and Vibration

General comments - In addition to the comments raised previously (**Appendix 1**), the main areas of concern for construction are to ensure continuous monitoring during noisy/vibration activities. In terms of Burnell Avenue, with cofferdam construction representing a significant source of noise and vibration, a works program needs to be considered carefully. Given the programme is over five weeks and two weeks of piling the pattern of works needs to be designed carefully and communicated to residents.

In terms of monitoring during the works the Council would seek continuous monitoring during significant activity with trigger levels identified to ensure the

Significant Observed Adverse Effect Level (SOAEL) are not exceeded. This is the level above which significance adverse effects on health and quality of life occur. In the event the SOAEL is exceeded works should cease and the causes of the issue identified before restarting works.

The PEIR states that two baseline noise surveys have been undertaken, both at Mogden. No baseline surveys have been undertaken for other potentially sensitive locations, including the Burnell Avenue compound site and surrounding residential areas (including Whitton Road). This omission is of concern, as the assessment of significance relies on a comparison between existing ambient conditions and predicted construction noise levels. Without site-specific baseline data, the robustness of the assessment is questionable.

The thresholds for “Significant Adverse Effects” (SOAEL) have been set at 75 dB LAeq during the daytime and 55 dB LAeq at night. These values are at the upper limit of what is typically considered acceptable, and higher than what many local authorities would usually apply. As a result, the assessment risks underreporting the scale of impact. For example, where local baseline noise levels are typically in the region of 55–60 dB LAeq during the day (and lower at night), increases of 10 dB or more would represent a substantial adverse effect, even if they fall below the 75 dB threshold.

The PEIR highlights that piling, cofferdam construction, and shaft excavation will generate high levels of noise over sustained periods, including possible 24-hour operations for 3–6 months. These are likely to result in significant disturbance to nearby residents, particularly those at Dysart Avenue, Burnell Avenue, Beaufort Road, and adjacent flats. The assessment downplays these impacts by relying on a “temporary” classification, but residents could be exposed to continuous intrusive noise for over a year, which cannot reasonably be considered short term.

The assessment of construction traffic noise is based on data for A-roads, with no baseline traffic counts or noise monitoring undertaken on the smaller residential roads (e.g. Dysart Avenue, Burnell Avenue, Whitton Road). As a result, the conclusion that increases will be less than 0.1 dB and not significant is misleading. For residential roads that currently experience little or no HGV traffic, the introduction of 20–30 HGV movements per day represents a material change that will increase both noise levels and perceived disturbance.

As currently presented, the PEIR underestimates the scale of potential noise impacts associated with the TDRA scheme, particularly for residents in the Burnell Avenue area and Whitton Road. Further site-specific monitoring, a more precautionary application of thresholds, and strengthened mitigation commitments are required before the scheme can be considered acceptable from an environmental health perspective.

Paragraph 14.5.5 - confirms “No operational noise surveys are planned in the vicinity of the area of the intake/outfall sites as these are gravity fed and will therefore have no pumps that could generate noticeable levels of noise”. As such, during operation, with gravity fed flow, and Mogden STW being the location for tertiary treatment the noise impact of residents should be minimal.

Paragraph 14.5.18 - for example, references WHO guidance for nighttime noise levels but makes little mention of other WHO standards.

Paragraphs 14.2.17 and 14.2.18 – **CORRECTION** – include reference to the Local Plan to be adopted in October 2025 and the relevant policies:

- Policy 46 (Amenity and Living Conditions)

Recommendations/further information required:

1. Additional baseline monitoring should be undertaken at Burnell Avenue, Whitton Road and other sensitive receptors to establish an accurate picture of current noise conditions.
2. The SOAEL thresholds should be reviewed and set at more appropriate levels, reflecting local baseline conditions and current best practice (e.g. BS 5228).
3. Night-time working should be strictly limited, with conditions imposed to prevent 24-hour operations except where full justification is provided.
4. The assessment of traffic noise must be revisited, with localised traffic surveys carried out on minor residential roads likely to experience significant increases in HGV activity.
5. A cumulative impact assessment should be undertaken, considering overlapping sources of construction noise and traffic disturbance over the full construction programme.
6. Mitigation measures such as acoustic hoarding, restrictions on working hours, use of quieter piling methods, and advance community liaison should be provided.

Chapter 15: Socioeconomics, Community, Access and Recreation

General comments –

- The report includes a preliminary assessment of likely significant effects on land take in Section 15.8. However, it does not include a full assessment of the effects and confirms that further assessment will be completed for the ES to determine the significance of amenity effects for receptors and groups of receptors and appropriate mitigation measures. Therefore, this section is deficient for the Council to make comment. The Council would also advise that engagement and consultation with the Economic Development Team takes place prior to any submission being made.

Most of the comments raised in the *Scoping Opinion Inspector's Report* in relation to Socio economics, Community, Access and Recreation have been addressed in the PEIR. However, there are two comments which are not fully addressed:

- PEIR has summarised engagement with sites, but it does not include clear reference to engagement with affected business and property owners to understand the magnitude of impacts from direct temporary and permanent land take.
- Some of the recreational receptors are included in PEIR Table 15.10 *Recreational receptors within 500m of the Draft Order Limits*. However, there is limited reference to them beyond inclusion in the table, with the exception of sports facilities at Ham Playing Fields. The recreational receptors included in London Borough of Richmond upon Thames response (6 Nov 2024) as shown in Appendix 2 of the Inspectors Report are not clearly identified in the PEIR (**Appendix 1** of this response).

Table 15.2 – **CORRECTION** – update to include reference to the new Local Plan

policies:

- Policy 26 (Visitor Economy)
- Policy 34 (Green and Blue Infrastructure)
- Policy 35 (Green Belt, Metropolitan Open Land and Local Green Space)
- Policy 37 (Public Open Space, Play, Sport and Recreation)
- Policy 40 (River and River Corridors)
- Policy 50 (Education and Training)
- Policy 51 (Health and Wellbeing)
- Policy 52 (Allotments and Food Growing Spaces)

Chapter 16: Human Health

Overarching comment –

The consultation document indicates public health implications related to the Teddington Direct River Abstraction (TDRA) project in three main ways:

- the risks posed by severe droughts if the project is not implemented,
- the potential impacts during the project's construction and
- impact on river users after implementation (i.e. the operational phase).

General comment –

1. The information provided within the PEIR is insufficient.
 - Baseline data of key indicators such as baseline faecal indicator bacteria (FIB) are not included (despite reference to this being available within the Thames Water Strategic Resource Option (SRO) monitoring data).
 - The community health profiles do not sufficiently describe vulnerable groups within each impacted community.
 - the conclusions drawn from the community health profiles are not robust and are inconsistent, the outcomes of all recreational use surveys are not fully available, community well-being data is not included.
2. There are concerns around water quality resulting from construction activities and post-implementation of the scheme on local leisure users of the river. Consequently, it is important that there is water quality monitoring near the inflow and outflow locations, with comprehensive baseline measurements taken and publicly shared before construction as well as ongoing monitoring during and post construction (i.e. throughout operational phase). This should include appropriate microbial testing alongside hazardous chemicals, and temperature monitoring. Additionally, it is important that outflow options (A or B) are fully considered in terms of safety by river users including those engaged in recreational activities. In summary, a programme of independent Water Quality Sampling should be put in place prior to the scheme and as the scheme is in operation. Richmond Council maintains its right to carry out this function and would make data available.
3. At the **Burnell Avenue site**, there is a predicted temporary reduction in the amount of green space available to local people due to the proposed construction. This is likely to have an impact on residents in terms of sports and recreational activities which are important for health. A comprehensive open space and sports assessment must be undertaken to ascertain the

impact. Financial contributions may be required to upgrade these and other green spaces to facilitate comparable access for residents. There are also likely to be construction noise effects and the visual impacts of hoarding and equipment on residents located opposite to the site. It is therefore important that there is ongoing local engagement particularly with regards to noise and air pollution impacts, and measurements are taken throughout the day. Residents near the Burnell Avenue sites should also be engaged as to how Thames Water could improve local pathways and recreational spaces in terms of design and layout after completion of tunnelling and return of construction sites to their former use.

4. Despite acknowledgement within the Human Health chapter that the understanding of health impacts is not yet complete and that limited information has been gathered to inform the baseline for some of the health related themes, conclusions have still been drawn indicating no residual effects on human health (Chapter 19: Cumulative Effects: receptor groups: Public open space and local residents and community facilities). These conclusions should be removed until all identified 'next steps' have been completed and a sufficient assessment of impacts on human health is available for consultation as part of a reissued PEIR. Stating that this will be available for the Environmental Statement is not acceptable.

Paragraph 16.2.13 – **CORRECTION** – refer to new Local Plan (London Borough of Richmond upon Thames (LBR) Local Plan (LBR, 2025))

Paragraph 16.3.4 – **CLARIFICATION** – This paragraph refers to community participation and engagement. This paragraph sets out that consultation is ongoing. However, a statement of community involvement is strongly encouraged which details methods of consultation with the community and resident groups.

Appendix 16.3 – **COMMENT** - Health Assessment Summary Tables (BioPhysical Environment) the document also appears to indicate that Water Quality has been scoped out of assessment for the operation stage as “agreed in the EIA Scoping Opinion” due to “no likely significant population health effects anticipated”. This should not be scoped out of the assessment. There have been previous representations from London Borough of Richmond to the contrary and there is no evidence to support the claim that ‘no significant population health effects are anticipated’.

Chapter 17: Carbon

Section 17.2 (Legislation, policy and guidance) - **OMISSION** – The Thames Estuary 2100 Plan should be included in Plans and Strategies. This relates to the current and future operation of the Thames Barrier which controls water flow levels which impact this stretch of the river. The impact of the changing use of the Thames Barrier and impact on water levels should be understood as part of the Environmental scoping and assessment.

Paragraph 17.2.11 – **CORRECTION** – remove reference to previous Local Plan which will be superseded by the new Local Plan.

Paragraph 17.2.12 – **CORRECTION** – remove reference to emerging Local Plan as

it is due to be adopted in October 2025.

Table 17.2 – COMMENT/ADVICE - The applicant has clarified that no refurbishment is expected within the 60 years scope of the assessment, but replacement of project assets is. It is proposed that replaced assets are to be included in the Whole Life Carbon Assessment (WLCA) but not refurbishment of buildings/infrastructure. This would seem to be the correct approach. It appears that 60 years after the end of construction has been agreed as the temporal scope of the project at an earlier stage. This takes the end of the scope to 2092. It would likely be possible to extend the life of the project after that with renovation beyond the 60 years however it does not seem reasonable to make any assumptions about what renovation techniques, or the embodied carbon of materials may be in the mid 2090s. If there is any doubt about any part of the project not needing refurbishment for 60 years, then the WLCA process does allow for some to be included, and others excluded.

Paragraph 17.3.9 – OMISSION CLARIFICATION – Previously it was raised that further details should be provided on how the circular economy guidance will be followed and what, if any, circumstances will lead to parts being considered impracticable. This remains deficient and further information must be provided on how the guidance and principles will be followed.

Table 17.4 – There is no data provided for carbon omissions and so no assessment on this has been possible.

Paragraph 17.5.16-17.5.22 - The report includes a section on assessing the significance of the effects, but it does not actually assess the proposals. This will be required on submission of the ES.

Chapter 18: Climate Change

General note – ADVICE - ICCI (in Combination Climate-Change Impact) Assessment is now proposed and a Preliminary ICCI has been provided as Appendix 18.1. This covers all aspects likely to have combined impacts with climate change. The preliminary ICCI will need to be updated when the full ES is issued.

Paragraph 18.2.6 – CORRECTION – update with references to the new Local Plan (adopted in 2025).

Paragraph 18.2.10 – CORRECTION – remove references to the previous Local Plan.

Table 18.1 – OMISSION – The table sets out that the potential climate change impacts on the Project have been identified during the construction and operational phases and will be considered as part of the CCRA and through the design development process. Further information on climate change modelling will be required.

Table 18.2 – COMMENT - Potential impacts from the Thames Barrier have now been scoped in.

Chapter 19: Cumulative Effects

General comments

1. The River Thames Scheme (RTS), a nationally significant infrastructure project, which will impact the Teddington Lock and Weir area in terms of the land and the river, also proposes works in the immediate vicinity at Teddington Weir. This is a flood alleviation scheme currently going through the DCO process. It is noted that reference to assessing the cumulative impacts of the RTS and TDRA Projects is included in Figures 19.1 and 19.2 and Appendix 19.1. However, this is no other mention or recognition in the PEIR, which is a significant concern. There are risks, potential overlaps (e.g. BNG), and proposed mitigations associated with the construction and operation of both schemes and these need to be reflected in the TDRA EIA. This matter was raised previously in the Council's consultee response (**Appendix 1**) but has not been referenced.
2. The documentation tends to concentrate on other potential development/construction. It is possible that roadworks, such as TfL roadworks on A316 at London Rd junction (commenced 21/10/24), could take place in advance or during the works that are currently unknown about. The project should be cognisant of such potential.
3. The recent announcement by the RFU that they plan to redevelop within the Twickenham Stadium site and to increase events, including concerts and sporting activities has not been considered in this chapter. This should be noted and the Inspectorate is still requested to require that the Environmental Statement takes into account recently published information by the RFU regarding operational changes and future construction proposals at the Stadium. All these changes could occur in the timeframe of the project and therefore require the impacts to be assessed, including for the construction phase.
4. In addition to the major access roads, traffic counts should also be taken during the construction phase for the minor roads around Ham and Burnell Avenue sites.
5. Given concerns about the potential impact of construction traffic on Grey Court School, a safety assessment should be undertaken, including engagement with the school.
6. Concerns have been raised about dust, especially for the Burnell Avenue site. The potential for dust impacts could be felt on the other side of Dukes Avenue by residents, particularly during the summer months. Monitoring should therefore include this area.
7. It is necessary to ensure that baseline surveys are conducted for air quality, noise, and dust at both the Ham and Burnell Avenue sites. Furthermore, the cumulative impacts over time need to be assessed.
8. The assessment does not fully consider cumulative noise impacts arising from simultaneous construction activities, construction traffic, and extended working hours. Residents are likely to experience compounding impacts that are greater than those identified for each source in isolation.

Paragraph 19.2.8 – **CORRECTION** – update with references to the newly adopted Local Plan.

Table 19.2 - **FURTHER INFORMATION IS REQUIRED** - The Inspector previously raised that the Applicant is advised to seek agreement regarding developments to be included in the assessment with relevant consultation bodies. The Applicant's



<p>attention was previously drawn to the comments of London Borough of Richmond upon Thames (Appendix 1) identifying additional developments, including the Lower Thames Surbiton to Queen Mary reservoir scheme. The Applicant advised that the list of cumulative developments will be reviewed and updated during preparation of the ES should the status of those schemes change between now and ES submission.</p> <p>CLARIFICATION – There remains queries on what will replace the abstracted water from the Lower Thames Surbiton to Queen Mary Reservoir scheme. This major potential cumulative impact is not mentioned in the PEIR and should be included for the assessment on water quality impacts for the TDRA.</p> <p><u>Figure 19.2</u> – COMMENT - Includes an initial list of sites to be considered has been provided but will need to be continually revised, LPA input will be needed for this.</p>
Chapter 20: Next Steps
No comments.

APPENDICES

Appendix 1 – LBRuT Consultation Response dated 6th November 2024