



Teddington Direct River Abstraction

Preliminary Environmental Information Report

Chapter 15 – Socioeconomics, Community, Access
and Recreation

Volume: 1

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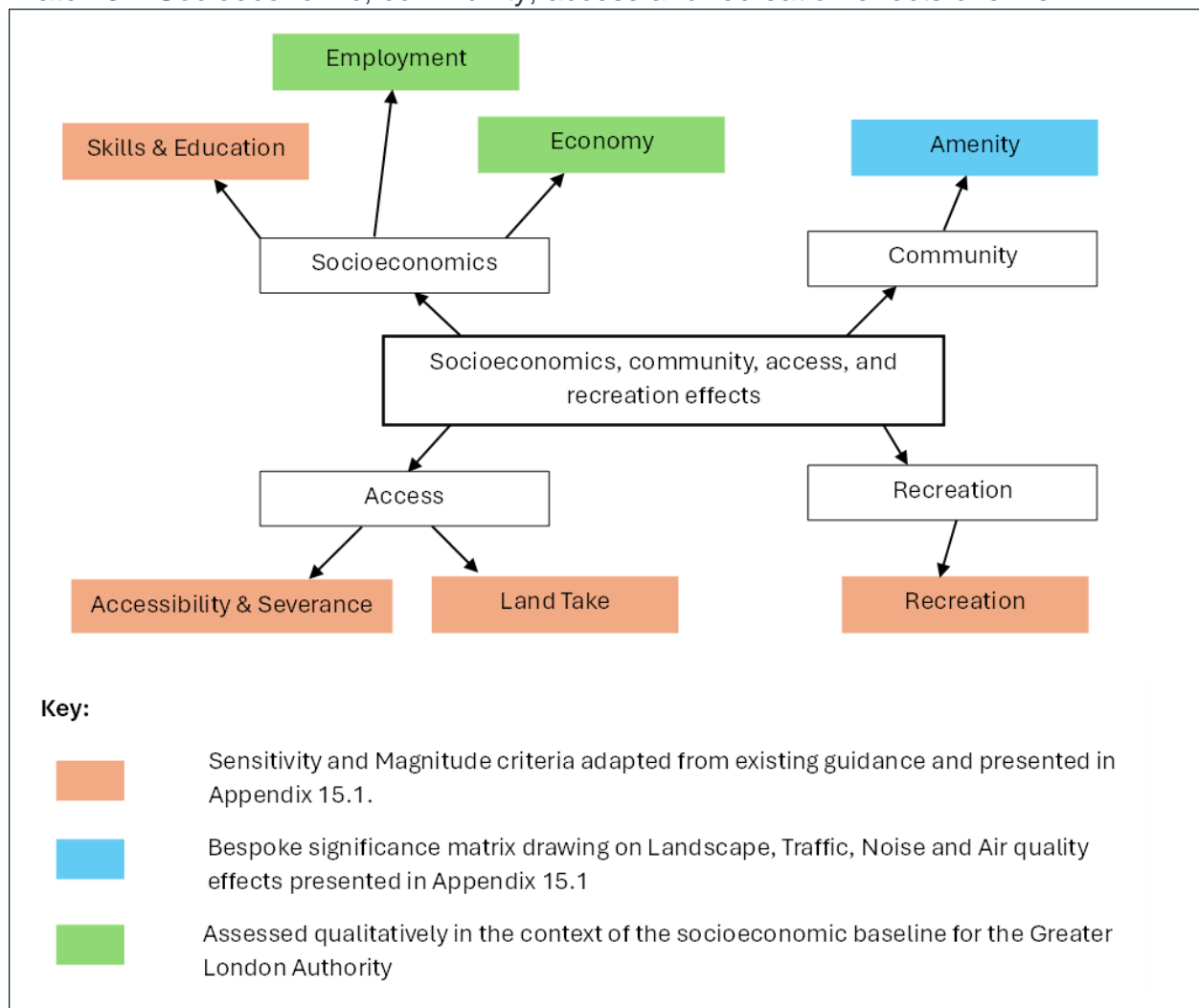
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15. Socioeconomics, Community, Access and Recreation

15.1 Introduction

- 15.1.1 This chapter of the Preliminary Environmental Information (PEI) Report provides preliminary information relating to socioeconomics, community, access and recreation to allow stakeholders and local communities to understand and develop an informed view of the likely significant environmental effects of the Teddington Direct River Abstraction (TDRA) Project (hereafter referred to as 'the Project') at this stage of the Project's programme. This should be read in conjunction with the description of the Project as presented in Chapter 2: Project Description.
- 15.1.2 This chapter is supported by the following Volume 2 PEI Report Figures:
- a. Figure 15.1: Socioeconomics, Community, Access and Recreation Study Area
 - b. Figure 15.2: Residential Receptors
 - c. Figure 15.3: Community Receptors
 - d. Figure 15.4: Commercial Receptors
 - e. Figure 15.5: Recreational Assets
 - f. Figure 15.6: Recreational Land
- 15.1.3 This chapter is supported by the following Volume 3 PEI Report Appendices:
- a. Appendix 15.1: Sensitivity and Magnitude Criteria
 - b. Appendix 15.2: Supplementary Skills and Education Data
 - c. Appendix 15.3: Supplementary Recreation Data
- 15.1.4 The content of this chapter should be read in conjunction with the following chapters:
- a. Chapter 2: Project Description
 - b. Chapter 5: Water Resources and Flood Risk
 - c. Chapter 9: Townscape and Visual
 - d. Chapter 11: Materials and Waste
 - e. Chapter 12: Traffic and Transport
 - f. Chapter 13: Air Quality
 - g. Chapter 14: Noise and Vibration
 - h. Chapter 16: Human Health

15.2 Legislation, policy and guidance

- 15.2.1 A summary of legislation and policy is provided in Appendix 1.1: National Planning Policy and Legislation. This section summarises Policy and Legislation relevant to the assessment presented in this chapter.

Legislation

Planning Act 2008

- 15.2.2 Planning and infrastructure legislation, including the Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017 and the Planning Act 2008 require the EIA to identify, describe and assess in an appropriate manner the direct and indirect significant effects of the Project on population and human health, as well as other factors.

Countryside and Rights of Way Act 2000

- 15.2.3 The Countryside and Rights of Way Act 2000 provides a legal framework for public access to the countryside, including rights of way and open access land. The legislation ensures that projects consider the preservation of public access and recreational spaces.

Environmental Protection Act 1990

- 15.2.4 The Environmental Protection Act 1990 provides for the control of air pollution, land wastes, contaminated land, nuisances and clean air, litter, radioactive substances, genetically modified organisms and nature conservation in order to protect the environment and human populations.

Water Industry Act 1991

- 15.2.5 Sections 2 to 5 of the Water Industry Act 1991 outline the duties of water and sewerage undertakers, including the provision of water services and the protection of water resources. This helps to make sure that water resources are managed effectively to meet current and future demands.

National policy

National Policy Statement for Water Resources Infrastructure

- 15.2.6 Key policies relevant to socioeconomics, community, access and recreation set out in the National Policy Statement (NPS) for Water Resources Infrastructure (Department for Environment, Food and Rural Affairs, 2023) are provided in Table 15.1.

Table 15.1 Key policy from the NPS for Water Resources Infrastructure

Paragraph(s)	Requirement for the Applicant	How the Project addressed this
4.10.10	Existing open space, sports and recreational buildings and land should not be developed unless the land is no longer needed or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. If the applicant is considering proposals which would involve developing such land, it should have regard to any local authority's assessment of need for such types of land and buildings and consult with the local community.	A preliminary assessment of likely significant effects on land take is provided in Section 15.8. This includes impacts on existing open space, sports and recreational receptors.
4.10.13	The general policies controlling development in the countryside apply with equal force in Green Belts but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved except in very special circumstances which are already the subject of government guidance. The applicant should therefore determine whether the proposal, or any part of it, is within the Green Belt and, if so, whether its proposal may be considered inappropriate development within the meaning of Green Belt policy. Metropolitan Open Land and land designated a Local Green Space in a local or neighbourhood plan are subject to the same policies of protection as Green Belt, and inappropriate development should not be approved except in very special circumstances.	A preliminary assessment of likely significant effects on land take is provided in Section 15.8. This includes impacts on metropolitan open land and green space designated in local plans.
4.10.18	Where green infrastructure is affected, the applicant should aim to ensure the functionality and connectivity of the green infrastructure network is maintained and any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space, including appropriate access to National Trails and other public rights of way.	A preliminary assessment of likely significant effects on land take is provided in Section 15.8. This includes impacts on green space and open space, including national trails and PRoW.
4.10.19	The Secretary of State must also consider whether mitigation of any adverse effects	A preliminary assessment of likely

Paragraph(s)	Requirement for the Applicant	How the Project addressed this
	on green infrastructure or open space is adequately provided for by means of requirements, planning obligations, or any other means, for example to provide exchange land and provide for appropriate management and maintenance agreements. Any exchange land should be at least as good in terms of size, usefulness, attractiveness, quality and accessibility. Where sections 131 and 132 of the Planning Act apply, any replacement land provided under those sections will need to conform to the requirements of those sections.	significant effects on land take is provided in Section 15.8. This includes impacts on open space.
4.10.21	Public rights of way, National Trails, and other rights of access to land are important recreational facilities for walkers, cyclists and equestrians. The applicant is expected to take appropriate mitigation measures to address adverse effects on National Trails, other public rights of way, and open access land and, where appropriate, to consider what opportunities there may be to improve or create new access.	A preliminary assessment of likely significant effects on recreation is provided in Section 15.8. This includes impacts on national trails, public rights of way, and open access land used for recreation.
4.10.23	The Secretary of State should not grant consent for development on existing open space, land used for sports and recreational buildings and for other sports and recreational purposes including playing fields, unless an assessment has been undertaken either by the local authority or independently, which has shown the open space and the buildings and/or land to be no longer needed. Alternatively the Secretary of State determines that the benefits of the project (including need) outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities.	A preliminary assessment of likely significant effects on land take is provided in Section 15.8. This includes impacts on existing open space, sports and recreational receptors.
4.10.26	When located in the Green Belt, projects may comprise inappropriate development. Inappropriate development is, by definition, harmful to the Green Belt and there is a presumption against it except in very	A preliminary assessment of likely significant effects on land take is provided in Section 15.8. The project

Paragraph(s)	Requirement for the Applicant	How the Project addressed this
	special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt when considering any application for such development.	is not located in the Green Belt.
4.13.3	The applicant should consider how the impacts of the infrastructure during construction and operational phases, such as job creation and increased spending in local economies, visual impacts, and traffic and transport may affect local communities and amenities.	A preliminary assessment of likely significant effects on the economy, employment and amenity is provided in Section 15.8. Traffic and transport effects are reported in Chapter 12 and visual effects are reported in Chapter 9.
4.13.4	Applicants should describe the existing socioeconomic conditions in the areas surrounding the proposed development, following appropriate consultation with those most affected, and should refer to how the development's socioeconomic impacts correlate with local planning policies. The applicant should also describe the existing demographics within the area and assess how the development could affect any equalities groups. Applicants should assess any likely significant positive and negative socioeconomic or equalities impacts as part of an ES.	Baseline socioeconomic conditions are outlined in Section 15.7. Consideration of local planning policies are considered in Section 15.2. Impacts on equality groups will be considered by a separate Equality Impact Assessment produced alongside the ES. A preliminary assessment of likely significant effects on the economy, employment, and skills and education is provided in Section 15.8.
4.13.5	The assessment should cover any socioeconomic impacts appropriate to the proposed development. Examples include:	A preliminary assessment of likely significant socioeconomic effects is provided in

Paragraph(s)	Requirement for the Applicant	How the Project addressed this
	<ul style="list-style-type: none"> • The creation of jobs and training opportunities • The provision of educational and visitor facilities • The impact of the proposed new facility on tourism, local businesses or local services • Opportunities to provide a direct water supply to local business water users 	Section 15.8. This includes potential effects on the economy, employment, and skills and education. The assessment takes into account the potential impact on local businesses and services and the benefits during operation of a reliable water supply.
4.13.6	Socioeconomic impacts may be linked to other impacts, for example the visual impact or an individual's perception of a development. It may also have an impact on the local economy and local businesses. Where such impacts are relevant to the development, an applicant should include them in their assessments.	A preliminary assessment of likely significant effects on community amenity is provided in Section 15.8. This includes potential effects on community amenity as a result of the combined effects of noise (Chapter 14), traffic (Chapter 12), air quality (Chapter 13) and visual aspects (Chapter 9).
4.13.7	Any cumulative effects on communities should be assessed. For instance, a potential shortage of construction workers to meet the needs of other industries and major projects within the region.	Inter-project cumulative effects are considered in Chapter 19: Cumulative Effects.
4.13.9	Secretary of State should consider whether the mitigation measures put forward by the applicant are acceptable to mitigate any adverse socioeconomic impacts of the development. For example, high quality design and/or screening (such as by natural features) can improve the visual and environmental experience for visitors and the local community alike.	Embedded design (primary) mitigation and standard good practice (tertiary) relevant to this chapter is outlined in Section 15.4. A full list of standard good practice (tertiary) is included in Appendix 4.3 - Draft Code of Construction Practice (CoCP).

National Planning Policy Framework

15.2.7 Paragraph 85 of the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024) outlines the importance of supporting economic growth and productivity, which includes creating

conditions in which businesses can invest, expand, and adapt. It states:
‘Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development’.

- 15.2.8 Paragraph 98 highlights the need to provide social, recreational and cultural facilities and services the community needs. It advises planning policies and decisions to *‘plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments’.*
- 15.2.9 Paragraph 103 emphasises the importance of access to high-quality open spaces and opportunities for sport and physical activity, stating: *‘Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities’.*
- 15.2.10 Paragraph 104 states: *“Existing open space, sports and recreational buildings and land, including playing fields and formal play spaces, should not be built on unless:*
- a. an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or*
 - b. the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or*
 - c. the development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.”*
- 15.2.11 Paragraph 105 emphasises the importance of protecting and enhancing public rights of way and access, stating *“Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails”.*
- 15.2.12 Paragraphs 106 - 108 emphasise the importance of protecting Local Green Spaces designated through local plans.

Regional and local plans and policy

- 15.2.13 In addition to the national policy set out above, the Project must also have regard to relevant regional and local plans and policy.
- 15.2.14 The regional and local policies, strategies, and frameworks relevant to this assessment are outlined below in Table 15.2.

Table 15.2 Relevant regional and local policy, strategies and frameworks

Regional and local policy, strategies and frameworks	Relevance to the assessment
<p>The London Plan (Greater London Authority (GLA), 2021)</p>	<p>Good growth objectives include:</p> <ul style="list-style-type: none"> • GG1 Building strong and inclusive communities includes the provision of access to good quality community spaces, services, amenities and infrastructure for communities, and to ensure public spaces where everyone is welcome. • GG2 Making the best use of land includes the protection of open spaces and local spaces, as well as planning for walking, cycling and public transport connections as part of sustainable travel. • GG3 Creating a healthy city includes improving access to and quality of green spaces, as well as areas for recreation, play and sports. • GG5 Growing a good economy includes the diversification of London's economy, sharing the benefits of economic success more equitably, and plans for employment and industrial space for development and regeneration. <p>Policies relating to social infrastructure include:</p> <ul style="list-style-type: none"> • Policy S4 Play and informal recreation aims to ensure a sufficient supply of young person's play and informal recreation facilities. • Policy S5 Sports and recreation facilities aims to ensure a sufficient supply of high-quality sports and recreation facilities, the retention of existing sports and recreational land, and the maintenance of facilities for sports and recreation. <p>Policies relating to the economy include:</p> <ul style="list-style-type: none"> • Policy E4 Land for industry, logistics and services to support London's economic function includes the retention, enhancement and provision of additional industrial capacity with certain locations prioritised. • Policy E8 Sector growth opportunities and clusters includes supporting innovation, research and development and supporting businesses, higher education providers and other organisations to work together, as well as integrating higher and further education providers into regeneration and development opportunities. • Policy E11 Skills and opportunities for all includes supporting employment, skills development, apprenticeships as well as other education and training opportunities. This applies to construction and end-use, and S106 obligations. <p>Policies relating to green infrastructure and the natural environment include:</p>

Regional and local policy, strategies and frameworks	Relevance to the assessment
	<ul style="list-style-type: none"> • Policy G1 Green infrastructure concerns protecting and enhancing the network of green and open spaces. • Policy G3 Metropolitan Open Land covers protecting Metropolitan Open Land from inappropriate development. • Policy G4 Open space includes ensuring that developments do not result in the loss of protected open space, and publicly accessible open space where possible, especially in areas where open space is deficient. • Policy G8 Food growing includes the protection of existing allotments. <p>Policies relating to sustainable infrastructure include:</p> <ul style="list-style-type: none"> • Policy SI14 Waterways – strategic role includes maximising social, economic and environmental benefits of waterways and addressing the strategic importance of the waterways network. Consideration should also be given to marine spatial plans. • Policy SI 16 Waterways – use and enjoyment includes protecting and enhancing cultural, educational and community facilities and events that are water-related. Existing moorings should be protected and enhanced, and existing access to waterways should be protected and enhanced. The Thames Path and towpaths should be improved and expanded as public space. <p>Policies relating to transport include:</p> <ul style="list-style-type: none"> • Policy T2 Healthy streets includes facilitating trips by walking or cycling, and public transport. • Policy T5 Cycling includes removing barriers to cycling.
<p>The London Borough of Hounslow (LBH) Local Plan 2015 – 2030 (LBH, 2015)</p>	<p>Policies outlined in the LBH Local Plan 2015-2030 relevant to the assessment include:</p> <ul style="list-style-type: none"> • Policy ED4 Enhancing local skills includes supporting local jobs through access to training and employment, such as construction training and apprenticeships. • Policy GB1 Green Belt and Metropolitan Open Land includes the promotion of sports, recreation and leisure cultural uses (as outlined in the NPPF) in improving the public access to Green Belt and Metropolitan Open Land. • Policy GB2 Open space includes protecting Local Open Space valued for recreation and amenity and provision of publicly accessible Local Open Space in areas of open space deficiency (quality and quantity). • Policy GB4 The Green Infrastructure Network is to protect and enhance the green infrastructure network, with links to places encouraging walking and cycling.

Regional and local policy, strategies and frameworks	Relevance to the assessment
	<ul style="list-style-type: none"> • Policy GB5 Blue Ribbon Network promotes opportunities for infrastructure to support walking, wheeling, cycling, leisure and recreation in relation to improving access to waterways. • Policy GB8 Allotments, agriculture and local food growing encourages the innovative uses of green space, as well as the continued use of allotments and agricultural land. • Policy GB9 Play space, outdoor sports facilities and burial space includes the protection and provision of play spaces and outdoor sports facilities. • Policy EQ5 Noise highlights the protection of tranquil areas, valued for recreational and amenity value due to being undisturbed by noise.
<p>LBH Local Plan 2020 – 2041 (emerging policy) (Regulation 19) (LBH, 2024a)</p>	<p>Proposed policies outlined in the Hounslow Local Plan 2020–2041 relevant to this assessment include:</p> <ul style="list-style-type: none"> • ED4 Enhancing local skills; GB1 Green Belt and Metropolitan Open Land. • GB2 Open Space. • GB4 The Green Infrastructure Network (with green transport links including walking, wheeling and cycling routes) • GB5 Blue Ribbon Network (including infrastructure relating to waterways also supporting wheeling). • GB8 Allotments, Agriculture and Local Food Growing, GB9 Playspace, Outdoor Sports Facilities and Burial Space, and EQ5 Noise closely reflect the policies outlined in the LBH Local Plan 2015–2030.
<p>Hounslow: Prosperity and Place: Framework for the Regeneration and Growth of the Borough (LBH, 2022)</p>	<p>The framework includes a number of core objectives relevant to the assessment, such as actions covering economic prosperity, the future economy, re-skilling and re-employment as well as regeneration in Hounslow. The framework has specific aims to establish a green environment and economy, by providing support and enabling residents to access green skills and jobs as well as through planning and support for innovation.</p>
<p>Hounslow Green and Blue Infrastructure Strategy (2021) (LBH, 2021)</p>	<p>The strategic approach provides a framework and identifies key initiatives and projects for nature recovery, which are relevant to the socioeconomic and community development of Hounslow. The strategy highlights assets in Hounslow across several relevant themes, including parks and open spaces, nature recovery, access and connectivity, urban greening, and blue infrastructure. Priority areas identified are healthy spaces, which promote community well-being; resilient spaces, which enhance environmental sustainability; wilder spaces, which support biodiversity; and</p>

Regional and local policy, strategies and frameworks	Relevance to the assessment
	<p>destination spaces, which facilitate recreation, income generation and regeneration. Additionally, the strategy outlines a series of strategic programmes for sustainable growth and development, such as strategic riverside routes to improve access and connectivity, Cycle Hounslow to encourage sustainable transportation, and sports and recreation hubs to enhance community recreation facilities.</p>
<p>The London Borough of Richmond upon Thames (LBR) Local Plan 2018 (LBR, 2018)</p>	<p>Policies outlined in the LBR Local Plan 2018 relevant to the assessment include:</p> <ul style="list-style-type: none"> • Policy LP 12 Green Infrastructure details that assessments of development proposals will take into account the protection of the integrity of green spaces and supports improvements to the green infrastructure network, also using the hierarchy of public open space. • Policy LP 13 Green Belt, Metropolitan Open Land and Local Green Space details the protection of Green Belt and Metropolitan Open Land and Local Green Space from inappropriate development. • Policy LP 18 River corridors highlights the importance of existing public access to the riverside and along the river. • Policy LP 29 Education and Training encourages the provision of facilities and services for education and training of all groups and highlights that the construction of new developments can create opportunities for local employment, apprenticeships and work experience. • Policy LP 30 Health and Wellbeing relates to health and wellbeing and includes encouragement of sustainable modes of travel, access to green infrastructure, local open spaces, leisure, recreation and play facilities, local community facilities, toilet facilities, and Active Design. • Policy LP 31 Public Open Space, Play Space, Sport and Recreation highlights the importance of protecting play facilities, formal and informal sports grounds and playing fields, as well as outdoor swimming pools, outdoor ‘green gyms’, courts and greens, and recreational areas. • Policy LP 32 Allotments and food growing spaces covers allotments and food growing spaces and their protection. • Policy LP 43 Visitor Economy highlights support for the growth of the visitor economy and the enhancement and promotion of the borough’s existing tourist attractions, for the benefit of the local area.

Regional and local policy, strategies and frameworks	Relevance to the assessment
LBR Publication (Regulation 19) Draft Local Plan (2023) (LBR, 2023)	<p>The policies in the LBR draft Local Plan (Regulation 19) largely mirror those in the 2018 Local Plan with an emphasis on environmental protection and infrastructure. Policies on open space, the river, economy, education and health include:</p> <ul style="list-style-type: none"> • Policy 26 Visitor Economy covering the sustainable growth of the visitor economy for the benefit of the local area. • Policy 34 Green and Blue Infrastructure (Strategic Policy) relating to appropriately enhancing and restoring green infrastructure. • Policy 35 Green Belt, Metropolitan Open Land and Local Green Space details the protection of Green Belt and Metropolitan Open Land and Local Green Space from inappropriate development. • Policy 37 Public Open Space, Play, Sport and Recreation highlights the importance of protecting play facilities, formal and informal sports grounds and playing fields. • Policy 40 Rivers and River Corridors covers development within the Thames Policy Area, public access, River Thames public riverside walk, and riverside uses, including river-dependent and river-related uses. • Policy 50 Education and Training (Strategic Policy) encourages the provision of facilities and services for education and training of all groups and covers requirements where employment opportunities are generated by construction and end use of a development. • Policy 51 Health and Wellbeing (Strategic Policy) relates to health and wellbeing and includes encouragement of sustainable modes of travel, access to green infrastructure, local community facilities, local healthy food, free public toilet facilities, free drinking water, a safe, inclusive development layout and public realm, Active Design and access to healthy housing.
Richmond Upon Thames Parks and Open Spaces Strategic Principles 2024 (LBR Parks Service, 2024)	<p>Strategic Principles relevant to the assessment are as follows:</p> <ul style="list-style-type: none"> • Principle 3 Our parks will promote active, healthy living and social inclusion for people of all ages and abilities. • Principle 4 The management of Parks and Open Spaces will create a sustainable legacy for future generations. • Principle 8 Richmond’s Parks and Open Spaces will offer positive experiences to all visitors.

Regional and local policy, strategies and frameworks	Relevance to the assessment
Ham and Petersham Neighbourhood Plan 2018 – 2033 (Ham & Petersham Neighbourhood Forum, 2019)	<p>Policies relevant to the assessment include:</p> <ul style="list-style-type: none"> • Policy G1 Open Spaces states that the value of green spaces will be ‘conserved and enhanced by their protection from development and its adverse impacts’. • Policy G3 Allotment Extension and Community Orchard highlights the provision of additional allotment plots is supported. • Community Proposal 6 Ashburnham Road / Ham Street / Wiggins Lane / Woodville Road suggests enhancement of the public realm by renewing the carriageways, footpaths, street furniture and landscape planting.
North Kingston Neighbourhood Plan Submission Plan 2019-2041 (under preparation) (Regulation 16) (North Kingston Neighbourhood Forum, 2024)	<p>Policies listed in the plan relevant to the assessment include:</p> <ul style="list-style-type: none"> • Policy NK16 Local Green Spaces highlights the green spaces designated as Local Green Spaces. • Policy NK18 Public Realm outlines locations where developments need to contribute to improving the public realm in that location.
The Royal Borough of Kingston upon Thames (RBK) Core Strategy 2012 (RBK, 2012)	<p>Policies listed in the RBK Core Strategy 2012 relevant to the assessment include:</p> <ul style="list-style-type: none"> • Policy CS 3 The Natural and Green Environment states that <i>‘the Council will protect and improve Kingston’s valued natural and green environment’</i>, e.g. protecting open space and protecting and enhancing Kingston’s Playing Fields. • Policy DM 5 Green Belt, Metropolitan Open Land (MOL) and Open Space Needs includes the assurance that <i>‘development proposals do not result in the whole or partial loss of public open space, outdoor recreation facilities or allotments’</i> unless net benefits are provided. • CS 11 Economy and Employment includes support for local employment opportunities that are suitable for all residents, the development of education and improving training and skills, health and community facilities for employment, developing the community, voluntary and social enterprise sector and sustainable transport.

Regional and local policy, strategies and frameworks	Relevance to the assessment
<p>RBK Local Plan 2019–2041 (emerging policy) (Regulation 18) (RBK, 2019)</p>	<p>In the draft RBK Local Plan 2019 – 2041 the Council are proposing the following policies relevant to the assessment:</p> <ul style="list-style-type: none"> • Protection and enhancement of green spaces and nature. Draft relevant policies are KN1 Green and Blue Infrastructure, KN2 Open Spaces, KN3 Biodiversity, KN4 Urban Greening and Trees, KN5 Food Growing and KN6 Green Belt and Metropolitan Land. • All developments will be encouraged to improve public access and connections to local parks and open spaces. Draft relevant policies are KN2 Open Spaces and KN6 Green Belt and Metropolitan Land. • Developments should incorporate urban greening measures such as trees, vegetation and landscaping. Draft relevant policies are KN1 Green and Blue Infrastructure and KN4 Urban Greening and Trees. • New developments would be required to provide cycle parking, provide electric vehicle charging points and help support and fund transport improvements. Draft relevant policies are KD2 Design Considerations for Development, KT2 Sustainable Travel and Healthy Streets and KT4 Car Parking and Car Free Development. • Developments will be supported where they provide ‘<i>opportunities to promote the creation of a sustainable, diverse and balanced economy</i>’. Draft relevant policy is KE1 Supporting the Borough’s Economy.
<p>Kingston Economic Development Strategy 2024-2028 (RBK, 2024a)</p>	<p>Key outcomes in the strategy relevant to the assessment include:</p> <ul style="list-style-type: none"> • Outcome 2: A leading green economy where Kingston is ‘<i>a recognised leader in furthering a green economy and decarbonisation</i>’. • Outcome 3: Adaptable, thriving town centres and places of work where ‘<i>town centres and high streets will be welcoming and accessible for people of all ages, hosting more diverse businesses, social, leisure and cultural amenities, essential services, and housing options that enhance their strengths and unique characteristics for community benefit</i>’. • Outcome 4: A fairer economy where ‘<i>Everyone will be able to access quality education, training, jobs, employment space, and housing, especially those facing greater barriers to access, with fairness and inclusion firmly embedded across our economy</i>’.

Regional and local policy, strategies and frameworks	Relevance to the assessment
Kingston Greenspace Strategy (2024-2034) (RBK, 2024b)	<p>Key themes in the strategy relevant to the assessment include:</p> <ul style="list-style-type: none"> • Theme 1 Accessibility and Inclusivity: the strategy acknowledges that the benefits of greenspace are not enjoyed equally across the community. • Theme 2 Public Health and Wellbeing: the strategy recognises the mental and physical health benefits derived from access and use of parks and greenspaces. • Theme 5 Children’s Play Provision and Educational Opportunities: the idea that green spaces are able to accommodate child play and educational opportunities. • Theme 7 Sport, Recreation and Adult Exercise: parks and greenspaces are important venues for a range of sports which all help wellbeing.

15.3 Consultation, engagement and scoping

15.3.1 Table 15.3 presents the section of the scoping opinion relating to Socioeconomics, Community, Access and Recreation and our response to those comments (Planning Inspectorate (PINS), 2024).

Table 15.3 Key scoping opinion comments for socioeconomics, community, access and recreation

PINS ID reference	Comment	Response
Planning Inspectorate (PINS ID: 3.11.4)	For several impact pathways, the Scoping Report states that effect significance would not involve explicit assessment of sensitivity and magnitude but a comparison of impacts from the Proposed Development against the relevant baseline. The Inspectorate is content with this approach but advises that the ES should define the threshold at which the Applicant concludes an effect to be significant.	Thresholds have been defined as outlined in Appendix 15.1 to determine the threshold at which an effect is considered to be significant.
Planning Inspectorate (PINS ID: 3.11.5)	The Scoping Report states that the assessment of community amenity effects would be informed by the outputs of other ES assessments, including traffic and transport, air quality, noise and vibration and townscape and visual amenity. The Inspectorate notes in	Further detail on the methodology for the assessment of amenity effects during operation is provided in Section 15.5.

PINS ID reference	Comment	Response
	several instances it is proposed to scope out operational phase effects for these aspects. The ES should explain how the contribution of these aspects to effects on community amenity during operation of the Proposed Development has been ascertained.	
Planning Inspectorate (PINS ID: 3.11.6)	The Scoping Report states that it may be necessary to engage with affected business and property owners to understand the magnitude of impacts from direct temporary and permanent land take. The ES should describe the outcome of any engagement carried out or, where it is determined not to be required, explain why the desktop data is sufficient to inform the assessment.	Further detail on engagement with business and property owners affected by the Project will be included in the ES.
Planning Inspectorate (PINS ID: 3.11.7)	The ES should set out how usage of recreational resources scoped into the assessment has been ascertained and any limitations with or assumptions made about the data used.	Recreational data have been included in Section 15.7 and further information provided in Appendix 15.3. Figures showing recreational land and assets are also included (Figure 15.5 and Figure 15.6).
Planning Inspectorate (PINS ID: 3.11.8)	The ES should distinguish between mitigation for significant adverse effects and any wider benefits or enhancement measures proposed.	Further information on mitigation and enhancement measures is given in Section 15.9.
Planning Inspectorate (PINS ID: 3.11.9)	The Applicant's attention is drawn to the comments of London Borough of Richmond upon Thames (Appendix 2 of this Opinion), which identify additional recreational receptors that could be affected by the Proposed Development. The Inspectorate advises that these should be considered in the assessment where significant effects are likely to occur.	The methodology for identifying recreational receptors is outlined in Section 15.5 and a preliminary assessment of likely significant effects on recreational receptors is included in Section 15.8. This includes receptors identified by LBR.

- 15.3.2 Non-statutory public consultation was undertaken from October 2023 to December 2023 to seek feedback about the site options for the Project from a variety of people such as landowners, residents, businesses, local authorities and other statutory bodies who might be affected by or interested in the Project. In relation to socioeconomics, community, access and recreation, concerns were raised regarding potential adverse impacts to local communities, open and green spaces including the Thames Path and disruption to recreational and leisure activities.
- 15.3.3 Thames Water established a River Stakeholder Forum. The River Forum was set up at the request of Munira Wilson MP to engage organisations and community groups with an interest in matters associated with the river, particularly river health and water quality. The forum comprised of some 20+ members. The forum met twice with the last meeting held on the 27 September 2023. While the forum has not reconvened since, continued engagement with stakeholders outside of the forum to address river-related concerns has been maintained to ensure ongoing dialogue and collaboration.
- 15.3.4 To enhance understanding of recreational patterns, surveys have commenced. To date, these surveys have included in-person interviews with recreational users, and observational surveys to capture activity types and user numbers. Further information on this engagement is provided in Section 15.5 and results from recreational surveys are summarised in Section 15.7 and Appendix 15.3. Further engagement is planned in 2025 to gather information from sport and recreational organisations via questionnaires. Questionnaires aim to gather further data on how local groups use the study area for recreation.
- 15.3.5 A meeting was arranged with the three host planning authorities (LBH, LBR and RBK) on 29 July 2024 to outline the approach to the socioeconomic, community, access, and recreation assessment. Only representatives from LBR were ultimately able to attend the meeting. The Project team provided an outline of which matters were proposed to be scoped in and which were proposed to be scoped out. During the meeting questions were posed to LBR regarding if there were any gaps in the information presented, any social, economic, community, access or recreational developments, priorities, or initiatives the Project team should be aware of. Attendees agreed with the information presented.
- 15.3.6 A subsequent meeting was held with the three host local planning authorities (LBH, LBR and RBK) on 24 March 2025 to discuss matters raised during the EIA scoping phase in relation to socioeconomics, community, access and recreation. During the meeting, Thames Water confirmed the approach to identifying recreational receptors and use of the study area. Thames Water also confirmed the approach for assessing recreational land take and effects on skills and education. Stakeholders agreed with the approach outlined at the meeting.

- 15.3.7 A meeting was held with Sport England on 2 April 2025. The meeting covered the key aspects of the Project, including the known recreational use and design considerations relating to recreation.

15.4 Embedded design (primary) mitigation and standard good practice (tertiary)

Embedded design (primary) mitigation

- 15.4.1 The Applicant has worked through the design process to avoid or reduce environmental impacts using embedded mitigation. Chapter 3: Consideration of Alternatives, details the design alternatives that have been considered, including the environmental factors which have influenced the decision making.
- 15.4.2 Embedded design (primary) mitigation relevant to this aspect includes:
- Selecting shaft, intake and outfall locations that maximise the distance from human receptors as far as reasonably practicable. (PCR 67)
 - A reduction in the number of intermediate shaft sites from five to one reduces impacts of land take on socioeconomic and community receptors.

Standard good practice (tertiary)

- 15.4.3 Standard good practice (tertiary) would occur as a matter of course due to legislative requirements or standard sector practices. Standard good practice (tertiary) for this aspect includes measures such as communication and community liaison, including a process for enquiries and complaints and advance notice of works. It would also include measures around general site management including reducing nuisance, mechanisms for security and public access, and set working hours (PCR 58). These measures are detailed in Appendix 4.3 – Draft CoCP.
- 15.4.4 Specific controls over matters such as air quality, traffic, noise and visual impacts are also relevant to this chapter and are listed in Chapter 9: Townscape and Visual, Chapter 12: Traffic and Transport, Chapter 13: Air Quality and Chapter 14: Noise and Vibration. For example, traffic management measures during construction would be developed to minimise negative effects on community accessibility and maintain connectivity within the community. Measures would also be put in place to manage traffic and pedestrian movement and help to minimise disruption to pedestrians and other non-motorised users (NMUs).

15.5 Assessment methodology

General approach

- 15.5.1 The assessment examines four different types of potential effects:
- Socioeconomics (considering employment, economic investment and skills and education)
 - Community amenity
 - Access (considering accessibility, severance and land take)

d. Recreation

- 15.5.2 The methodology for assessing each of these effects differs and is outlined in more detail in the following sections of this chapter.
- 15.5.3 In general, the methodology outlined in this assessment is informed by a combination of formal guidance and industry good practice. Key resources include:
- a. Design Manual for Roads and Bridges (DMRB) LA 112 Population and human health (Highways England, 2020b)
 - b. DMRB LA 104 Environmental assessment and monitoring (Highways England, 2020a)
 - c. HM Treasury 'The Green Book' (HM Treasury and Government Finance Function, 2024)
- 15.5.4 Other than the resources listed above, there is limited guidance for the assessment of effects on socioeconomics, community, access and recreation in the UK. Similarly, with the exception of accessibility and land take effects, no formalised sensitivity or magnitude criteria are available to assess effects.
- 15.5.5 As such, the criteria used to determine the sensitivity and magnitude of impact and the significance of effect has been formulated with professional judgement, industry good practice and experience of similar developments, drawing on the sensitivity and magnitude criteria presented in Chapter 4: Approach to Environmental Assessment. This approach was agreed with the three local planning authorities (LBH, LBR and RBK) in a technical working group meeting in March 2025.

Socioeconomics

Employment

- 15.5.6 Construction of the Project would result in temporary and permanent direct, indirect and induced employment effects. Direct employment relates to the individuals employed as part of the construction of the Project. This direct employment then creates indirect employment in upstream industries that supply and support the core construction activities. Induced employment encompasses jobs beyond the construction and its upstream industries and is created by employees spending their money in the broader economy.
- 15.5.7 The assessment will consider the impact of the Project on existing levels of employment within the GLA area. Together with information regarding anticipated required staffing levels during the Project, the number of direct, indirect and induced jobs has been estimated.
- 15.5.8 Sensitivity and magnitude has not been assessed explicitly; rather the number of jobs that would be expected to be filled locally is considered in the context of the total employment baseline within the GLA to determine whether the effect is significant or not significant.

- 15.5.9 Employment effects during the operational phase were scoped out as proposed in the EIA Scoping Report and agreed in the EIA Scoping Opinion.

Economy

- 15.5.10 Effects on individual businesses are considered with the assessment of amenity effects. This assessment therefore considers potential wider economic and supply chain effects – both beneficial and adverse – during construction and operation.
- 15.5.11 Supply chain effects will be assessed based on the anticipated non-labour construction expenditure. The labour portion of construction expenditure will be excluded to avoid double-counting with employment effects.
- 15.5.12 Construction of the Project will result in direct, indirect and induced supply chain effects. Direct effects include direct project expenditure such as the purchase of materials. Indirect effects include business to business spending in the supply chain, whilst induced effects include increased expenditure in the local economy resulting from increased income and the presence of construction workers.
- 15.5.13 Baseline data will be obtained from both the Office for National Statistics (ONS) and UK Government Blue Book on industrial multiplier benchmarks (ONS, 2024e). These would be used to estimate the additional economic activity generated by the Project's expenditure.
- 15.5.14 Sensitivity and magnitude have not been assessed explicitly; rather expenditure effects will be considered against baseline economic performance in the GLA as measured by Gross Value Added (GVA) to determine whether the effects are significant or not significant.

Skills and education

- 15.5.15 The construction process will employ a variety of workers in different professions. It is likely that workers will be upskilled through the Project, either through direct initiatives like apprenticeships, or general experience acquired on a large-scale infrastructure project. Training and upskilling provide a benefit to individuals and to the economy.
- 15.5.16 There is limited guidance on the assessment of effects on skills and education. Sensitivity will be defined by factors such as the literacy rate of the community, access to educational resources, unemployment rates and the presence of specific, high-demand skills crucial for local industries. Magnitude of impact will be defined by the extent to which the Project causes interruptions to educational activities, the extent of loss or damage to educational facilities or resources, and the level of changes in the availability or quality of education and training programs.

- 15.5.17 This includes examining opportunities to enhance education and training provisions, particularly in relation to workforce development, apprenticeships and career guidance. A focus will be placed on ensuring equitable access to skills and education opportunities for all, including those from particular geographic or protected characteristic groups.
- 15.5.18 The overall significance of effect has been formulated with professional judgement, drawing on the sensitivity and magnitude criteria presented in Appendix 15.1, and the significance matrix presented in Chapter 4: Approach to Environmental Assessment.

Community

Community amenity

- 15.5.19 Community amenity is a term used to describe the pleasantness and 'feel' of a community and the ability for people to enjoy the general character or quality of their surroundings. The community amenity assessment has considered the potential for the construction or operation of the Project to change how people perceive their communities or how they use commercial facilities, community facilities and recreational resources.
- 15.5.20 Community receptors such as hospitals and schools may be particularly sensitive to changes in amenity due to the nature of these facilities and the people who use them. Commercial receptors can also be affected by a change in amenity as this could be a feature of a commercial property that makes it more attractive to potential customers, buyers or tenants; for example, a hotel that boasts a particularly good view. Residential and recreational receptors can also be affected.
- 15.5.21 The amenity assessment has drawn on the outputs of other relevant assessments – namely traffic and transport, air quality, noise and vibration, and townscape and visual – to ascertain if a combination of reported residual effects from across these aspects could result in an overall amenity effect for residential, community, recreational and commercial receptors.
- 15.5.22 For some receptors, such as commercial receptors, effects can occur as a result of one direct environmental effect, such as a visual or noise effect; in these cases, the visual or noise effect can lead to a 'secondary' effect on operations or trade. The amenity assessment also considers the potential for secondary effects.
- 15.5.23 Amenity effects will be assessed for individual receptors by taking the residual effects reported in the relevant aspect assessments and determining a 'combined significance' guided by the matrix in Appendix 15.1.

Access

Community accessibility and severance

- 15.5.24 Accessibility relates to the ability of users to access commercial properties, community land and assets, recreational resources and residential properties. Reduced accessibility can result in community severance, i.e. a reduction in the ability of community members to move around their community to access facilities and resources.
- 15.5.25 The accessibility assessment has drawn on the outputs of Chapter 12: Traffic and Transport to determine how changes in severance¹, driver delay, NMU amenity, fear and intimidation, pedestrian delay and hazardous/large loads may impact the ability of users to access resources in the study area. The needs of different user types will be considered including protected characteristic groups (e.g. older people, young people and disabled people), as well as the type of facility (e.g. hospitals or employment hubs) and whether there are alternative facilities available.
- 15.5.26 Effects associated with PRow are considered under the assessment of recreational effects.

Land take

- 15.5.27 Direct land take impacts can lead to a temporary or permanent restriction in the ability of a user to use a property or facility; in turn this can affect the operation and/or commercial viability of that property, facility or land.
- 15.5.28 Receptors to be considered in the land take assessment include community, residential and commercial receptors.
- 15.5.29 Land take impacts on recreational land and assets are considered in the recreation assessment. Effects from permanent land take which arise during construction are assessed as part of the construction phase.
- 15.5.30 An assessment of individual receptors will be conducted for each instance of direct land take and GIS mapping will be used to inform the magnitude of effect on a receptor. This will involve evaluating proposed design and mitigation measures to determine potential impact magnitude. While desktop studies will be prioritised, engagement with affected businesses and property owners, or benchmarking with similar projects may be necessary to accurately assess potential changes.

Recreation

- 15.5.31 The assessment of effects on recreation considers changes to the access, quality, or quantity of recreational opportunities. These changes can be beneficial or adverse and may impact individuals, groups, or communities.

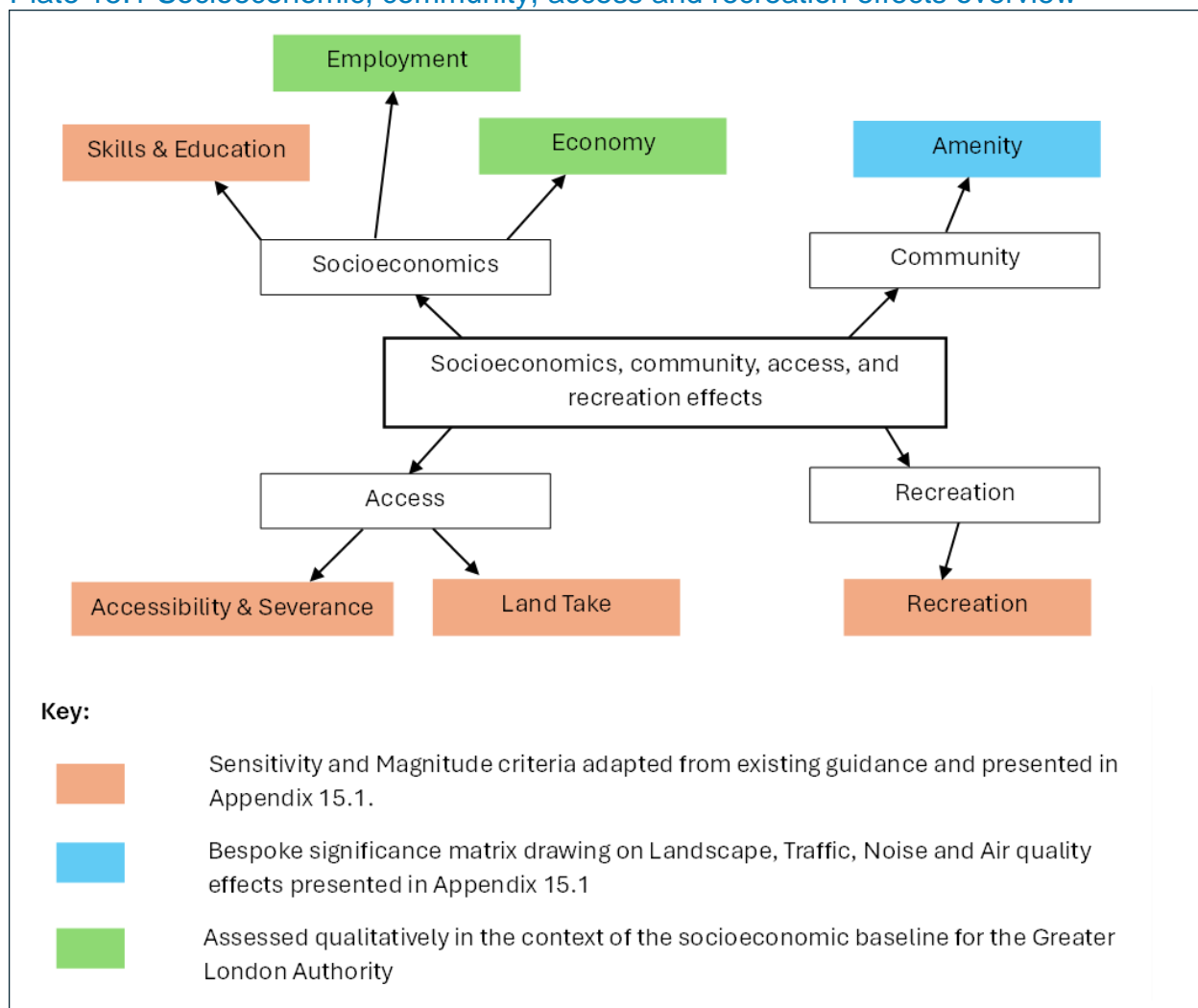
¹ Note that in Chapter 12: Traffic and Transport, severance relates to changes in traffic flow where an increase of 30%, 60% and 90% are regarded as minor, moderate and major changes in severance respectively.

- 15.5.32 Recreational land and assets have been identified through a combination of desk-based research, field surveys and stakeholder engagement. Desk-based research has used GIS data and information from local authorities to pinpoint recreation grounds, playgrounds, PRoW and other recreational facilities.
- 15.5.33 To enhance understanding of recreational patterns, a programme of surveys and questionnaires to understand type and frequency of recreational asset use has been developed. Surveys commenced in August 2024 and continued to spring 2025. Organisational questionnaires, designed to engage community groups and clubs, will commence in 2025.
- 15.5.34 Additional sources that have helped identify receptors dependent on the amenity of the River Thames include:
- a. Port of London Authority – for details of business and organisations holding permits for use of the River Thames
 - b. Environment Agency lock keeper and Port of London Authority sluice operator
- 15.5.35 The sensitivity of identified recreational receptors has been based on the significance to the local community and level of use. Factors such as the rarity of a resource, its importance for specific user groups, and the potential for alternative recreational opportunities have been considered when determining sensitivity classification of receptors.
- 15.5.36 To determine the potential magnitude of impacts on recreational receptors, a spatial analysis has been conducted to identify those resources likely to be affected by the Project. Information on the usage of these resources and the degree of loss has then been used to understand the potential scale of impact on affected populations and communities.
- 15.5.37 Consideration has also be given to cumulative effects. The methodology for the assessment of cumulative effects is provided in Chapter 19: Cumulative Effects.

Assessing the significance of effects

- 15.5.38 The general approach to assessing the significance of effects is set out in Chapter 4: Approach to Environmental Assessment.
- 15.5.39 Plate 15.1 provides a summary of the various aspects included in the assessment and the method of assigning sensitivity, magnitude and significance criteria for each.

Plate 15.1 Socioeconomic, community, access and recreation effects overview



- 15.5.40 As outlined above, for the assessment of employment and economic effects, sensitivity and magnitude has not been assessed explicitly; rather the economic investment and number of jobs provided by the Project has been considered in the context of the socioeconomic baseline within the GLA to determine whether the effect is significant or not significant.
- 15.5.41 Detailed sensitivity and magnitude criteria for the assessment of accessibility and severance, land take, skills and education, and recreational effects are outlined in Appendix 15.1.
- 15.5.42 Similarly, a bespoke significance matrix for the assessment of community amenity effects is outlined in Appendix 15.1.

Assumptions and limitations

- 15.5.43 The assessment of community amenity effects relies upon the findings of Chapter 9: Townscape and Visual, Chapter 12: Traffic and Transport, Chapter 13: Air Quality and Chapter 14: Noise and Vibration, and the assumptions applied to those assessments therefore also apply to the assessment of community amenity effects.

- 15.5.44 The baseline data used in this assessment are considered accurate and up to date at the time of writing. External factors such as economic shifts, policy changes and natural disasters could influence socioeconomics, community, access and recreation in ways not accounted for in this assessment.
- 15.5.45 There is no guidance on what constitutes a significant effect for employment and economic effects. The significance thresholds used come from professional judgement and examples from other nationally significant infrastructure projects.

15.6 Study area

- 15.6.1 Effects on socioeconomics, community, access and recreation will occur at different spatial scales. For example, effects relating to accessibility and land take are likely to occur within the draft Order limits, whilst other effects, such as effects on employment and the economy may occur further away.
- 15.6.2 The methodology, including the study area for each assessment matter, was agreed with the three host local planning authorities (LBH, LBR and RBK) on 24 March 2025.
- 15.6.3 The study area for each matter assessed is outlined in Table 15.4 and Figure 15.1.

Table 15.4 Study areas for each assessment matter

Assessment matter	Study area	Phase of the Project under consideration
Employment	Employment effects are considered within the administrative area of the GLA as this has been identified as the geography within which 'local' labour may be sourced.	Construction phase
Economy	Economic effects are considered within the administrative area of the GLA as this has been identified as the geography most likely to experience adverse or beneficial effects.	Construction and operational phases
Skills and education	The study area for the assessment of effects on skills and education is the boroughs of LBH, LBR and RBK. These boroughs are expected to be the focus for any local workforce development initiatives due to their proximity to the Project.	Construction phase
Community amenity	The study area aligns with other disciplines that feed into the amenity assessment: Chapter 12: Traffic and Transport, Chapter 13: Air Quality,	Construction and operational phases

Assessment matter	Study area	Phase of the Project under consideration
	Chapter 14: Noise and Vibration, and Chapter 9: Townscape and Visual, and is defined by the maximum extent at which two aspects intersect. Refer to the relevant chapters for individual study area figures.	
Community accessibility and severance	As defined by DMRB LA112 (Highways England, 2020b), the core study area is 500m from the above ground sites. This has been extended where necessary to capture effects associated with traffic movements outside of this 500m buffer, such as those arising from displaced traffic in line with the study area for the assessment of traffic and transport effects in Chapter 12: Traffic and Transport.	Construction and operational phases
Land take	As defined by DMRB LA112 (Highways England, 2020b), the core study area is 500m from the above ground sites.	Construction and operational phases
Recreation	The core study area for the assessment of recreation effects is 500m from the above ground sites. Where necessary, this has been extended to capture effects relating to the use and influence of the River Thames for recreation.	Construction and operational phases

15.7 Baseline conditions

Existing baseline

15.7.1 The baseline data presented in this section have been compiled using the following sources:

- 2021 Census data
- Annual population, business and employment surveys from the ONS
- Borough local plans
- Online mapping applications including Google Maps, Google Earth
- AddressBase Plus data from the Ordnance Survey

Settlement overview

15.7.2 The Project is located in west London, within three boroughs: LBH, LBR and RBK. The geography of these boroughs varies significantly.

- 15.7.3 The LBH is the most densely populated of the three boroughs affected by the Project. Land use surrounding the Mogden Sewage Treatment Works (STW) site, which would be the location of the tertiary treatment plant (TTP), is predominantly residential, with a mixture of flats, semi-detached and terraced properties. There are a range of services including local shops and supermarkets in the local area. Allianz Stadium Twickenham is a prominent feature of the area, being an important sporting asset and regular host for international sports fixtures, music concerts and conferences.
- 15.7.4 Of the three boroughs within which the Project is located, LBR is the least densely populated in part owing to the large areas of green space within its boundary, including Richmond Park, Hampton Court/ Home Park, Old Deer Park and Bushy Park. Housing in the areas surrounding the Project is mixed, from relatively new estates with a combination of housing types, to streets of low rise apartment blocks and townhouses, to streets with older terraced housing, semi-detached and detached properties. There are also some small residential communities located on islands within the River Thames such as Trowlock Island approximately 470m upstream of Teddington Weir and Eel Pie Island, Twickenham, both within LBR. The Project passes through the community of Ham in LBR, which is predominantly residential, with areas of green space (Ham River Lands) close to the banks of the River Thames. The community of Teddington is located to the west of the River Thames.
- 15.7.5 The communities of RBK are south of the Project. The RBK has a range of education, retail and entertainment services and a mix of housing from large, detached houses in landscaped settings, to Victorian and Edwardian villas and terraces and post-war suburbs of semi-detached houses.

Population

- 15.7.6 Between the last two censuses (held in 2011 and 2021), the population in all three boroughs has increased. The total population of LBH was 288,181 in 2021, which represents a rise of 13.5% since 2011 (ONS, 2023b). The LBH population increased by a greater percentage than the overall population of London (7.7%), and by a greater percentage than the overall population of England (up 6.6% since the 2011 census). The population of RBK has increased by 5% since the 2011 census. In 2021, 168,063 people lived in RBK (ONS, 2023c). A similar increase was recorded for LBR, where the population increased by 4.4% to 195,278 inhabitants between 2011 and 2021. In comparison with the London and England average, the populations in RBK and LBR increased by a smaller percentage (ONS, 2023d).

Residential receptors

- 15.7.7 Residential receptors include private property and housing including gardens, private drives and land allocated for housing. Table 15.5 presents the residential receptors identified using AddressBase Plus (2024) mapping that are located within 500m of the draft Order limits for above ground sites (also see Figure 15.2). AddressBase Plus identified a further three receptors that

classified as ‘dual use’². These have been categorised as ‘Other and Undefined’.

Table 15.5 Residential receptors

Receptor category	Number of receptors	Description
Care/Nursing Home	3	St. Johns - Colombo House, The Regard Partnership Limited and The White House
Residential Properties	14,127	This includes dwellings, Houses in Multiple Occupation (HMOs), Bedsits, House Boats and Sheltered Accommodation
Other and undefined	3	This includes dual use receptors such as residential buildings also used for commercial purposes.

Community receptors

15.7.8 Community receptors include community land and assets (e.g. village halls, education facilities, religious facilities and medical facilities). Table 15.6 shows community receptors identified using AddressBase Plus (2024) mapping that are located within 500m of the draft Order limits for above ground sites (also see Figure 15.3).

Table 15.6 Community receptors

Receptor category	Number of receptors	Community Receptors within 500m of the draft Order limits for above ground sites
Community services	87	Includes allotments, art centres/galleries, church hall/religious meeting places/halls, community service centres/offices, libraries, museums/galleries, public/village halls, public household waste recycling centres (HWRCs) youth recreational/social hubs and other community facilities.
Education	31	Includes children’s nurseries/crèches, preparatory/first/primary/infant/junior/middle schools, secondary schools, special needs establishments, universities and ‘other’ educational establishments.
Emergency rescue	4	Includes ambulance stations, fire stations and police/transport police stations.
Medical	16	Includes dentists, general practice surgery/clinics, pharmacies, health care services, professional medical services, health centres and hospitals.

² In the AddressBase classification scheme, a ‘dual use’ receptor refers to an addressable object that serves both residential and commercial purposes.

Receptor category	Number of receptors	Community Receptors within 500m of the draft Order limits for above ground sites
Place of worship	9	Includes churches, kingdom halls and other places of worship.

15.7.9 In some cases, AddressBase Plus only provided a high level of classification of 'community service' or 'education'. Similarly, Figure 15.3 indicates a considerable number of community services to the south of Mogden STW, many of which are identified as public HWRCs. Further analysis will be undertaken for the ES to determine the categorisation of these receptors.

Commercial receptors

15.7.10 Commercial receptors include existing businesses, employment sites and land allocated for business and development land. Table 15.7 shows commercial receptors identified using AddressBase Plus mapping that are located within 500m of the draft Order limits covering above ground sites (also see Figure 15.4).

Table 15.7 Commercial receptors

Receptor category	Number of receptors	Description
Vets	2	Vet/Animal Medical Treatment centres
Hotel and accommodation	5	Hotels/motels
Industrial	161	Includes warehouses/stores/storage depots, factories/manufacturing, wholesale distribution, workshops/light Industrial, industrial applicable to manufacturing, engineering, maintenance, storage/wholesale distribution and extraction sites, and manufacturing.
Office	125	Includes offices/work studios and offices.
Retail	136	Includes shops/showrooms, fast food outlets/takeaways (hot/cold), retail, restaurants/cafeterias, public houses/bars/nightclubs, retail service agents, supermarkets, petrol filling stations, other licensed premises/vendors, betting shops and convenience stores.
Other and undefined	20	N/A - Further analysis will be undertaken during the ES stage to determine the categorisation of these receptors.

15.7.11 AddressBase Plus identified a further 20 commercial receptors. Two are ancillary buildings and 18 were only provided a high level of classification as 'commercial'. These 20 receptors have therefore been categorised as

commercial: other and undefined. Further analysis will be undertaken during the ES stage to determine the categorisation of these receptors.

- 15.7.12 Town centres and local centres in London offer various facilities such as employment, culture, retail, leisure and community services. They are classified into five categories based on size and role: international centres, metropolitan centres, major centres, district centres and Central Activities Zone (CAZ) retail clusters. The 2021 London Plan provides definitions for these categories and also defines local and neighbourhood centres. The location of town centres (metropolitan centres, major centres and district centres) is presented in Figure 15.4.
- 15.7.13 Table 15.8 lists the town, local and neighbourhood centres in LBH, RBK and LBR.

Table 15.8 Town, local and neighbourhood centres

Category	LBH	RBK	LBR
Metropolitan centres	Hounslow Town Centre	Kingston Town Centre	n/a
Major centres	Chiswick	n/a	Richmond
District centres	Feltham High Street, Brentford	New Malden, Surbiton, Tolworth	East Sheen, Teddington, Twickenham, Whitton
Local and neighbourhood centres	Large neighbourhood centres include Hounslow West, Bedfont, Hanworth, Heston, Cranford, Isleworth (36 small neighbourhood centres)	Local centres include Ace of Spades, Alexandra Drive, Berrylands Road, Burlington Road, Cambridge Road, Chessington North, Parade, Chiltern Drive, Coombe Road, Crescent Road, Ewell Road (North), Ewell Road (South), Hook Parade / Elm Road, Kings Road, Kingston Hill (South)/ Park Road, Kingston Road (East), Kingston Road (West), Kingston Vale, Malden Manor, Maple Road, Plough Green, Richmond Road, South Lane, Surbiton Road, The Triangle, Tudor Drive, Villiers Avenue	Local centres include Barnes (High Street and Church Road), East Twickenham, Hampton Hill, Hampton Village, Ham Parade, Kew Gardens, St Margarets. Neighbourhood centres include Castelnau, Friars Stile Road, Hampton Wick (Powder Mill Lane), Sheen Road, Kingston Road (Teddington), Stanley Road (Teddington), White Hart Lane (Barnes/Mortlake). There are also 15 parades of local importance.

Development land

- 15.7.14 In LBH, 41.3% of land use is developed land and 58.1% is non-developed land. Developed land is mostly transport and utilities and residential land, and non-developed land is mostly residential gardens and outdoor recreation space. Vacant land³ makes up 0.6% of total land use in LBH (Department for Levelling Up, Housing and Communities (DLUHC), 2022).
- 15.7.15 In LBR, 28.6% of land use is developed land and 71.3% is non-developed land. Developed land is mostly transport and utilities, and residential land, and non-

³ Vacant land is identified by Ordnance Survey as unclassified land, bounded by hoardings, etc., around the perimeter. It is also yet to be attributed to an address. It is not possible to define whether the vacant land is of a developed or non-developed land use type.

developed land is mostly outdoor recreation space. Vacant land makes up 0.1% of total land use in LBR (DLUHC, 2022).

- 15.7.16 In RBK, 36.0% of land use is developed land and 63.7% is non-developed land. Developed land is mostly transport and utilities and residential land, and non-developed land is mostly residential gardens followed by agriculture. Vacant land makes up 0.3% of total land use in RBK (DLUHC, 2022).
- 15.7.17 Chapter 9: Townscape and Visual (paragraphs 9.6.3–9.6.13) provides an overview of land use, landscape/townscape features, designations and townscape character of the study area.
- 15.7.18 Table 15.9 shows Local Plan site allocations within 500m of above ground sites.

Table 15.9 Site allocations within 500m of above ground sites

Borough	Site allocations
LBH	<p>Site 29 (adopted) 174 Twickenham Road, approximately 0.27ha housing allocation proposed for residential use. Located approximately 340m north west of Mogden STW.</p> <p>Site 30 (adopted) Rugby Road (Site 97 in Emerging Hounslow Local Plan), approximately 0.97ha mixed use allocation proposed to '<i>create a mixed-use light industrial/industrial site with residential uses</i>'. Planning application (P/2019/3339) granted 21 May 2021. Located approximately 267m south of Mogden STW.</p> <p>Site 102 (Emerging Hounslow Local Plan) Victory Business Centre, site size for '<i>redevelopment and intensification of existing industrial uses on site</i>'. Abuts the draft Order limits north of Mogden STW.</p> <p>Site 95 (Emerging Hounslow Local Plan) Tesco Mogden Lane, 2.7ha site size for '<i>redevelopment of site to introduce residential uses, and a single large retail unit delivering the minimum quantum of retail floorspace and structured parking</i>.' Abuts the draft Order limits to the south of Mogden STW.</p>
RBK	None identified.
LBR	<p>SA 9 Richmond upon Thames College, Twickenham (SA 11 in Emerging Richmond Local Plan), site area 8.65ha. '<i>Redevelopment to provide a new replacement college, science / technology / engineering / maths centre, technical hub (B1), a new secondary school and special education needs school, sports centre as well as residential including affordable housing. Protection and upgrading of the playing field to the south of the college, including the installation of a new artificial grass (3G) playing pitch</i>.' Planning application (15/3038/OUT) granted and latest reserved matters granted 29 May 2020 and remains live. Approximately 195m from above ground site on Chertsey Road.</p> <p>SA 10 The Stoop (Harlequins Rugby Football Club), Twickenham (Policy SA 12 in Emerging Richmond Local Plan 2023), site area 4.61ha. '<i>The Council supports the continued use of the grounds for sports uses. Appropriate additional facilities including a new north stand, indoor leisure, hotel or business uses, may be supported provided that they are</i></p>

Borough	Site allocations
	<p><i>complementary to the main use of the site as a sports ground.'</i> Approximately 430m west of above ground site on Chertsey Road.</p> <p>SA 11 Twickenham Stadium, Twickenham (SA 13 in Emerging Richmond Local Plan), site area 12.62ha. <i>'The Council supports the continued use and improvement of the grounds for sports uses. Appropriate additional facilities including a new east and north stand, indoor leisure, hotel and business uses as well as hospitality and conference facilities, may be supported provided that they are complementary to the main use of the site as a sports ground.'</i> Abuts draft Order limits on Rugby Road.</p> <p>SA 15 Ham Close, Ham (SA 23 in Emerging Richmond Local Plan), site area of 4.31ha <i>'The Council supports the regeneration of Ham Close and will work in cooperation with Richmond Housing Partnership in order to rejuvenate Ham Close and its surrounding area. A comprehensive redevelopment of this site, including demolition of the existing buildings and new build reprovion of all residential and non-residential buildings, plus the provision of additional new residential accommodation, will be supported.'</i> Planning application (22/1442/FUL) granted 22 March 2023 and remains live. Approximately 290m from draft Order limits at Riverside Drive.</p> <p>SA 17 (Emerging Richmond Local Plan) Twickenham Riverside and Water Lane/King Street, site area of 1.06ha. <i>'Opportunity for the comprehensive redevelopment of the site to provide residential, including affordable housing, and a range of commercial uses to bring back into use large parts of the area that are currently derelict; either through new-build or converting existing buildings. Development should provide high-quality public realm and improvements to the riverside and open space.'</i> Planning application (21/2758/FUL) granted 21 December 2022 and remains live. Located approximately 500m from draft Order limits at Ham Playing Fields.</p> <p>SA 16 Cassel Hospital, Ham Common, Ham (SA 24 in Emerging Richmond Local Plan), approximately 3.97ha site area. <i>'If the site and the Grade II listed Cassel Hospital are declared surplus to requirements, social and community infrastructure uses are the most appropriate land uses for this site. Conversion or potential redevelopment for residential uses could be considered if it allows for the protection and restoration of the listed buildings.'</i> Located approximately 30m from draft Order limits on Dysart Avenue.</p>

Economy

- 15.7.19 London generates around a quarter of the UK's total Gross Domestic Product (GDP). In 2022, the Greater London GDP stood at £562.2 billion (ONS, 2024d). London's GDP had been rapidly growing since the global economic recession in 2008 until 2020 when the COVID-19 pandemic led to an economic downturn. According to the ONS regional accounts, the 2022 GDP has now exceeded pre-pandemic levels of £511.3 billion (ONS, 2024d). The construction industry in Greater London had an output of £31.3 billion in 2024, of which 11% can be attributed to the infrastructure sector (ONS, 2025).

Employment

- 15.7.20 Based on data from the Annual Population Survey (October 2023 – September 2024) the employment rate aged 16 to 64 for the Greater London area was 75.9%, equating to 4,698,700 people aged between 16 and 64 in employment (ONS, 2024a). This compares to 75.7% which is the England average employment rate for the same time period.
- 15.7.21 In LBH, the employment rate in 2024 was 70.8%. In LBR, the employment rate in 2024 was 71.1%. In RBK, the employment rate is the highest of all boroughs at 82.5% (ONS, 2024a).
- 15.7.22 According to the Annual Population Survey (ONS, 2024c) in 2023, 5.7% of London's workforce was employed in the construction sector. Looking at the census data (2021), in LBH and RBK, the percentage of the workforce employed in the construction industry was 8% and 6.7% respectively (ONS, 2023e). In LBR, 5% of the workforce were employed in the construction industry (ONS, 2023e).
- 15.7.23 GVA is the measure of the value of goods and services produced in an area, industry, or sector of an economy. As construction-related employment produces goods and services to the wider economy, it also inherits a GVA value. The most recent GVA data provided by the ONS are from 2023 and benchmark the GVA of construction-related jobs in the UK at £69,509 per job in current prices (ONS, 2024b).

Education and skills

- 15.7.24 The 2021 census shows that 41.6% of LBH's 16 years or over population are educated to degree level or equivalent (National Vocational Qualification (NVQ) Level 4 and above) (ONS, 2023a). This is below the London rate (46.7%) but above the national rate (33.9%). Across RBK, 51.4% of the population over 16 years have attained a Level 4 or above qualification; within LBR this statistic raises to 60.4% (ONS, 2023a).
- 15.7.25 Nationally, 18.1% of the population aged 16 years and over do not hold any formal qualifications (ONS, 2023a). This means they have not completed GCSEs, A-Levels, or any other recognised qualification. In LBH, this percentage is higher at 18.6% (ONS, 2023a). In comparison, 11.9% of RBK's population and 9.1% of LBR's population have no formal qualifications (ONS, 2023a).
- 15.7.26 Across the three boroughs there are a total of 614 educational addresses: 226 in the LBR, 179 in RBK and 209 in LBH (AddressBase Plus, 2024). This includes nurseries, schools, colleges, universities and further education establishments. Supplementary data, including a detailed breakdown of the type of education establishments based on AddressBase Plus counts by borough are provided in Appendix 15.2.

Education and skills priorities

- 15.7.27 The three boroughs set out their priorities for education and skills in a range of plans and policies. For education, priorities broadly cover improving the support available, as well as the quality of and access to education. Each borough has its own Children and Young People Plan which includes priorities to improve schools and education. For skills, priorities cover identifying local skills needs and then providing the support for the development of the required skills. Key examples of priorities identified in each borough include:
- a. The LBH Opportunity Hounslow’s Business Case for Growth (LBH, 2024b) includes a skills focus on the green jobs market, and a plan to help residents gain the skills to participate in the green economy. LBH’s plans to identify the local skills needs and take a place-based approach to meet borough-level skills needs whilst also focusing on improving LBH will also work to improve access to opportunities. Work Hounslow also runs a ‘Skills Escalator’ (LBH, n.d.) which provides support for those looking for work or to improve skills.
 - b. RBK’s Economic Development Strategy 2024–2028 (‘Confident in Kingston’) (RBK, 2024a) includes the target actions of boosting workforce and skills development in the health and social care sector, as well as developing a pipeline of skills for construction in the green economy and retrofit sector.
 - c. The LBR Employment and Skills Strategy (updated in 2022) (LBR, 2022) has five commitments, which include employment and skills provision for refugees, the inclusion of social value commitments around employment and skills in procurement, skills delivery and employer needs regarding green jobs, and local business support with hiring local staff and skills provision.

Recreational receptors

- 15.7.28 Recreational receptors include recreational land and assets (e.g. common land, village greens, open green space, sports pitches, water sports, national and regional routes, local trails and PRoW).
- 15.7.29 The recreational receptors in Table 15.10 have been identified using AddressBase Plus (2024) mapping, known information from stakeholders via stakeholder engagement, responses to recreational surveys, stakeholder responses to the EIA Scoping Report and information outlined in neighbourhood plans.
- 15.7.30 Whilst the study area for the assessment of recreational effects is typically 500m of the draft Order limits covering above ground sites, it is acknowledged that the nature of recreational groups and activities means that they may not have a fixed address and might simply use the study area; therefore, this report has sought to capture as much information as possible about who is using the space for recreation.
- 15.7.31 Recreational receptors are outlined in Table 15.10, with a number of these shown on Figure 15.5 and Figure 15.6.

Table 15.10 Recreational receptors within 500m of the Draft Order Limits

Receptor category	Approximate number of receptors	Description
Indoor leisure activities	8	Bingo Halls, Cinemas, Conference or exhibition Centres, Theatres, Concert Halls, Recreational/Social Clubs and Activity/Leisure Clubs.
Outdoor leisure activities	1	Twickenham and Thames Valley Beekeepers Association
Non-water sporting facilities (Indoor)	7	Sporting pitches (Indoor), Indoor sporting centres, Racquet Sports Facilities (Indoor)
Non-water sporting facilities (Outdoor)	27	Arena, Stadiums, Sporting pitches, Racquet Sports Facilities, and Sports Fields, Licensed Private Members' Club, Outdoor sporting centres.
Water sporting facilities	13	Angling, boating, rowing, sculling, canoeing, kayaking, paddleboarding, swimming, and other water sports facilities. This includes groups such as Teddington Bluetits, Paddle Teddington, Paddle Richmond, Richmond Canoe Club, The Royal Canoe Club located on Trowlock Way, and The Skiff Club.
Water facilities (non-sporting)	4	Petersham and Ham Sea Scouts, The River Thames Boat Project, The Thames Young Mariners, and Albany Outdoors.
Environmental conservation groups	7	Twickenham Riverside Group, River Thames Society, Twickenham Riverside Trust, Wildfowl and Wetlands Trust, Richmond and Twickenham Friends of the Earth, Tidal Crane Association, Friends of the River Crane Environment (FORCE).
Residents' societies and representation groups	4	Broom Water Association, Trowlock Island Residents, Richmond Society and Teddington Society.
River access	10	There are several locations for boat moorings, notably at Teddington locks. Access to the river is also available at Trowlock Way, Ham Slipway, The Boaters Inn, Ravens Ait, and informal access points close to Hawkers Centre are used by paddleboarders, canoeists, kayakers and swimmers.
National Trails	2	The Thames River Path and National Cycle Network.

Receptor category	Approximate number of receptors	Description
Recreational green space	~75 ⁴	Common land, local open space, metropolitan open land and public open spaces.
Events	n/a	Parkrun (Richmond Parkrun and Kingston Parkrun), The Great River Race, Hounslow Lights, Twickenham Stadium (numerous rugby events including Six Nations and the stadium intends to host 15 concerts a year), Richmond Marathon.

15.7.32 There are also several PRow that are within 500m of the above ground sites draft Order limits that may be used for recreation. PRow are presented in Chapter 12: Traffic and Transport.

Recreational survey data

15.7.33 A series of recreational surveys were completed to gather data with the aim to better understand the potential impacts of the Project on recreation.

15.7.34 Four rounds of surveys have been completed: summer (August 2024 to September 2024), autumn (October 2024 to November 2024), winter (January 2025 to February 2025) and spring (April 2025). Data from the summer and autumn surveys has been processed and analysed and is detailed in Appendix 15.3: Supplementary Recreation Data. Data for winter and spring surveys will be included within the ES.

Equality groups

15.7.35 Baseline data on equality groups are presented in the Approach to Equality Impact Assessment document published alongside the PEI Report.

Future baseline

15.7.36 In the absence of the Project, the future baseline conditions are characterised by changes in the population and planned developments.

15.7.37 Housing-led population projections take into consideration the future availability of housing supply and future population growth. Housing-led projections are recommended by the GLA for most local planning purposes.

15.7.38 The housing-led projections presented in Table 15.11, Table 15.12 and Table 15.13 show that across all three boroughs, the population is expected to grow with the proportion of people aged 65+ increasing and the proportion of people at working age (aged 16 to 64) decreasing (GLA, 2024). Values are rounded to nearest 1,000.

⁴ This number consists of land parcels classified as registered common land, classified as local open space, village greens and land parcels registered as metropolitan open land.

Table 15.11 Population projection for LBH, RBK, LBR and London (housing-led population projections, 10-year central fertility) (GLA, 2024)

Year	LBH	RBK	LBR	London
2030	306,000	180,000	197,000	9.28 million
2040	314,000	192,000	201,000	9.66 million

Table 15.12 Proportion of population 65+ projected for LBH, RBK, LBR and London (housing-led population projections, 10-year central fertility) (GLA, 2024)

Year	LBH	RBK	LBR	London
2030	14%	16%	19%	14%
2040	17%	18%	23%	16%

Table 15.13 Proportion of population at working age (16–64) projected for LBH, RBK, LBR and London (housing-led population projections, 10-year central fertility) (GLA, 2024)

Year	LBH	RBK	LBR	London
2030	68%	68%	64%	69%
2040	66%	66%	61%	68%

15.7.39 In general, climate change is expected to lead to an increase in temperatures, with a greater frequency of hotter, drier summers and warmer, wetter, winters. Climate change is also expected to lead to sea level rise, which will affect tide levels and associated flood risk within the tidal section of the River Thames as far west as Teddington Weir. Further information on projected changes in climate parameters is provided in Chapter 18: Climate Change. Projected future changes in climate (e.g. increase in temperatures) have the potential to interact with effects identified within some environmental aspects and exacerbate or diminish their impact. Such combined impacts are termed In-Combination Climate Impacts (ICCI).

15.8 Preliminary assessment of likely significant effects

15.8.1 This section presents the preliminary assessment of likely significant effects on socioeconomics, community, access and recreation during the construction phase and operation of the Project.

Construction phase

15.8.2 This section sets out the likely significant effects on socioeconomics, community, access and recreation during construction. The assessment assumes that embedded design (primary) mitigation and standard good practice measures in the draft CoCP are in place, and the results of the assessment then inform the need for any additional mitigation requirements during construction. The assessment assumes that embedded design (primary) mitigation and standard good practice (tertiary) measures in the draft CoCP are

in place, and the results of the assessment then inform the need for any additional (secondary) mitigation requirements during construction.

- 15.8.3 Maps showing the locations of the sites outlined in this section are available in Chapter 2: Project Description.
- 15.8.4 The preliminary assessment of effects for the construction phase is presented in Table 15.14 for each of the main construction sites.

Mogden STW site

Community amenity

- 15.8.5 The assessment of community amenity draws on the preliminary assessment of a number of relevant aspects namely traffic and transport, air quality, noise and vibration, and townscape and visual. At this stage of the Project with preliminary assessments recognising the need for further information and assessment conclusions subject to the development of appropriate mitigation, assessing amenity effects is uncertain. Adopting a reasonable worst case position, it is recognised that construction works at Mogden STW could result in potentially significant amenity effects for receptors in close proximity to the works as a result of the combined effects of traffic and transport, air quality, noise and vibration, and townscape and visual effects. 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.

Community accessibility and severance

- 15.8.6 The area around Mogden STW is predominantly residential. Commercial receptors are generally concentrated at industrial or trading estates to the south and north of Mogden STW, and a small group of shops and a retail park are located on Twickenham Road. Community receptors include nearby schools and places of worship. An ambulance station and superstore with a pharmacy are located on Mogden Lane, close to Mogden STW access point. There are some alternative community facilities available at a local level. A public footway runs north to south through Mogden STW, connecting the residential area of Woodlands, north of Mogden STW to Allianz Stadium Twickenham, the Tesco Extra and industrial estate off Mogden Lane in the south. There is some existing severance between communities and community assets and overall high volumes of motorised traffic in the area, with a number of pedestrian crossings present along Twickenham Road, Mogden Lane and Rugby Road, as well as cycle paths, pavements and bus stops.
- 15.8.7 This area is considered to have Medium sensitivity due to the considerable number of residential properties and some existing severance between community and assets. The presence of existing pedestrian crossings, a cycle lane and bus stops along Rugby Road and Twickenham Road helps mitigate severance between communities and community assets, although there are also overall high volumes of motorised traffic in the area, and pedestrian concentrations are expected to be high on event days at Allianz Stadium

Twickenham, at Harlequins Rugby and Football Club, and at the start and end of the learning day in relation to Ivybridge Primary School.

- 15.8.8 During construction, traffic on the affected road network is expected to increase; however, as reported in Chapter 12: Traffic and Transport, the total increase will be less than 30% resulting in slight severance effects. Similarly, as reported in Chapter 12: Traffic and Transport, impacts on driver delay and pedestrian delay are expected to be negligible or minor due to the availability of crossing locations for pedestrians.
- 15.8.9 Impacts on community accessibility and severance associated with the presence of abnormal large loads would also be managed. Where sections of construction routes fall on roads outside of the London Lorry Control Scheme permitted routes, Heavy Goods Vehicles are prohibited from using such sections during restricted hours (Monday-Friday from 21:00-07:00 including bank holidays, and Saturday 13:00-Monday 07:00), unless registered to the London Lorry Control Scheme and permission is obtained from Local Councils. It is expected that HGV traffic from the scheme will not occur during these restricted hours, except for Abnormal Indivisible Loads, which are subject to daytime movement restrictions (PCR 84). Mitigation measures outlined in Chapter 12: Traffic and Transport, such as a Construction Traffic Management Plan (CTMP) are expected to mitigate impacts for communities accessing community resources. The magnitude of impact is therefore considered to be Small.
- 15.8.10 The likely significance of effect on community accessibility and severance is Minor adverse (Not Significant).

Recreation

- 15.8.11 Construction activities at Mogden STW are located within the existing STW boundary owned by Thames Water. Other than a public footway running through the site, which is separated from the STW by fencing and controlled gates, there are no other recreational receptors within the draft Order limits and the site is not used by the local community for recreation. The sensitivity is therefore considered to be Low. Construction activity is expected to have Negligible impacts. Therefore, the overall effect is considered to be Neutral (Not Significant).

Land take

- 15.8.12 The majority of construction activities at Mogden STW are located within the existing STW boundary owned by Thames Water. The land is considered to be existing commercial land with Medium sensitivity. Whilst there will be some temporary works to junctions and crossing points outside of the Mogden STW to enable movement of heavy goods vehicles (HGVs), construction in these locations is not expected to result in direct land take effects for residential, community or commercial receptors that compromise the viability of the land. The magnitude of impact is therefore considered to be Small. Therefore, the overall effect is assessed as Minor adverse (Not Significant).

Ham Playing Fields site

Community amenity

- 15.8.13 The assessment of community amenity draws on the preliminary assessment of a number of relevant aspects namely traffic and transport, air quality, noise and vibration and townscape and visual. At this stage of the Project with preliminary assessments recognising the need for further information and assessment conclusions subject to the development of appropriate mitigation, assessing amenity effects is uncertain. Adopting a reasonable worst case position, it is recognised that construction works at Ham Playing Fields site could result in potentially significant amenity effects for receptors in close proximity to the works as a result of the combined effects of traffic and transport, air quality, noise and vibration, and townscape and visual effects. Further assessment will be completed for the ES to determine the significance of amenity effects for receptors and groups of receptors and appropriate mitigation.

Community accessibility and severance

- 15.8.14 The wider area around the Ham Playing Fields site is mainly residential, with numerous houses, schools, community services and places of worship located around Riverside Drive and Dukes Avenue. Retail assets, including a dentist and pharmacy, are located where Dukes Avenue meets Richmond Road. Ham Street and Sandy Lane are also predominantly residential, featuring a police station, school, dentist and healthcare facilities. Community services are accessible from Ham Street, and a village centre is located at the intersection of Sandy Lane and Ham Street. To the north of the area, Ham Street provides access to various recreation and community assets including Ham House Stables, Ham House National Trust Property, Hammerton's Ferry to Twickenham, the Thames River Path, tennis courts, Ham Street Draw Dock and Ham and Petersham Rifle and Pistol Club.
- 15.8.15 The Ham Street area is considered to have a Medium sensitivity as it provides access to the Thames River Path (a promoted national trail) and various recreational facilities in the local area. Pedestrian accessibility in the area also varies with some pavements, pedestrian crossings and bus stops. However, for some receptors such as King George's Fields and Riverside Drive Play Area no formal crossing provision is available from the pavement to the recreational facility. There are limited public transport options and limited local highway capacity with only a few routes in and out of the area. Motorised traffic on Sandy Lane is typically low and on Ham Street is very low. Ham Street is also used by equestrians associated with Ham House Stables.
- 15.8.16 During construction, the affected road network includes Ham Street, Riverside Drive and Dukes Avenue. As reported in Chapter 12: Traffic and Transport, the presence of construction vehicles could result in minor adverse effects for pedestrian delay and NMU amenity for users of Ham Street as a result of a greater than 30% but less than 60% increase in traffic and the lack of existing crossing points. This could result in impacts on community accessibility and severance for those using Ham Street to access the Thames River Path and

community facilities to the north of Ham Street such as Ham House National Trust Property.

- 15.8.17 As reported in Chapter 12: Traffic and Transport, a CTMP will be developed to manage the movement of HGVs. This will not reduce the total number of HGVs but will limit the number of HGVs travelling during the network peak hours and should help to reduce impacts on community accessibility and severance.
- 15.8.18 Additionally, during construction, there could be impacts on community accessibility and severance as a result of a temporary loss of parking along Ham Street and Riverside Drive. There is the opportunity to explore the provision of compensation residential parking south of Riverside Drive Play Area.
- 15.8.19 Given the number of community and recreation facilities in the area, the presence of equestrians, the likely minor increase in traffic above the baseline position, the temporary loss of parking and lack of existing crossing points for pedestrians the overall magnitude of impact is assessed as Small.
- 15.8.20 The likely significance of effect on community accessibility and severance is considered to be Minor adverse (Not Significant). In the next stage of the Project, a more detailed assessment of traffic and transport impacts will be completed.

Recreation

Ham Playing Fields – Main Work Area

- 15.8.21 Recreation surveys for both summer 2024 and autumn 2024 (Appendix 15.3) show that Ham Playing Fields are used mainly for walking, cycling, dog walking and jogging, with a majority of users being adults. The Playing Fields are considered amenity grassland and are equipped with football posts and a baseball pitch.
- 15.8.22 There are some alternative sites available nearby for walking, cycling, dog walking and jogging, namely Ham Lands, the Thames River Path and Ham Riverside Meadow. Similarly, there are four football pitches and two cricket pitches on King George's Field and a further three full sized adult football pitches, a full size baseball diamond and softball area maintained by Kew and Ham Sports Association.
- 15.8.23 Recreational surveys (Appendix 15.3) showed that users depend on the site for recreation and feel that it has a positive influence on their wellbeing.
- 15.8.24 The sensitivity of the site is therefore considered to be Medium.
- 15.8.25 Construction of the Project at Ham Playing Fields will result in partial and temporary loss of land used for recreation. The Playing Fields measure approximately 28,000m², approximately 42% of which would be unavailable temporarily during the construction period. As outlined in Chapter 2: Project Description, works at Ham Playing Fields are likely to be in place for 1.5 years to support the recycled water conveyance tunnel construction, however of this period only some ten months would comprise the site set up and shaft

construction activities. There would be a temporary loss of the area currently equipped with football posts. After construction, the majority of the land will be reinstated and returned to previous use with the exception of a small area of land (approximately 4m² used for a shaft cover) (PCR 94).

- 15.8.26 Given that use of the site is temporary, alternative baseball and football pitches exist in the immediate vicinity at Kew and Ham Sports Association and King George's Field and construction does not compromise the permanent viability of the land for recreation (only 4m² used for a shaft cover), the magnitude of the impact is assessed as Small.
- 15.8.27 The likely significance of effect on recreation for users of Ham Playing Fields is therefore expected to be Minor adverse (Not Significant).

Ham Playing Fields – Support Work Area

- 15.8.28 For the purposes of the assessment, Ham Street Car Park and land used for parking along Ham Street are considered as recreational receptors as they are primarily used to access recreational and leisure facilities. Ham Street Car Park is used as a primary car parking facility for Ham House. Ham Street Car Park and parking on Ham Street are also used to access recreational spaces such as the Thames River Path for walking, dog walking, cycling and to access tennis courts off Ham Street.
- 15.8.29 The land is considered Medium sensitivity because the level of use is frequent, but alternative parking is available within the local vicinity on local roads such as Riverside Drive and further south on Ham Street.
- 15.8.30 During construction approximately five spaces of the 80 available at Ham Street Car Park would be temporarily unavailable. Additionally, some of the parking spaces along Ham Street would be temporarily removed. There is an opportunity to explore the provision of compensation residential parking on the south of Riverside Drive Play Area along Riverside Drive; however, this is intended for residential parking and not parking for recreational purposes.
- 15.8.31 Use of the car park is temporary, and land would be returned to previous use. Temporary loss of the car park is not expected to comprise the viability of recreational assets. Therefore, the magnitude of impact is considered to be Small.
- 15.8.32 The likely significance of effect for users of Ham Street Car Park during construction is expected to be Minor adverse (Not Significant).

Riverside Drive Play Area

- 15.8.33 During construction, a small area of land north of Riverside Drive (approximately 1,800m²) could be temporarily used to provide alternative parking for residents on Riverside Drive.
- 15.8.34 This land is owned by Richmond Council and comprises local greenspace used for informal play such as ball games and a small playground. The sensitivity of the site is considered to be Medium since the surrounding area is an important

area for recreation and there are a limited number of play areas in the local area.

- 15.8.35 During construction, there would be no loss or change in access to the play area itself. The total area of the greenspace containing the play area is approximately 10,500m². Should compensation parking be provided, during construction, there would be temporary loss of approximately 1,800m² (9.5%) of greenspace surrounding the play area. Given that the impact is temporary, and the loss of land is not expected to affect the viability of recreational land/assets, the magnitude of impact is assessed as Small.
- 15.8.36 The likely significance of effect during construction for users of Riverside Drive Play Area is therefore expected to be Minor adverse (Not Significant).

Thames River Path

- 15.8.37 The Thames River Path runs along the River Thames to the north of Ham Playing Fields. Given that the Thames River Path is a national path, this is considered a High sensitivity receptor.
- 15.8.38 During construction, there may be some disruption to the Thames River Path in order to construct the dewatering pipe (if required). This disruption would involve a small diversion for users of the footway while the pipe is being laid. NMU access would be maintained at all times. The magnitude of impact is therefore considered likely to be Small.
- 15.8.39 The likely significance of effect for users of the Thames River Path during construction is therefore expected to be Minor adverse (Not Significant).

PRoW 134

- 15.8.40 PRoW 134 runs east to west from Ham House and Gardens across Ham Street and through Ham Playing Fields. PRoW 134 is a route close to communities which is used for recreational purposes (e.g. dog walking), but for which alternative routes can be taken, for example along the Thames River Path. This is therefore considered a Medium sensitivity receptor.
- 15.8.41 During construction, there may be minor disruption to PRoW 134 in order to construct the dewatering pipe (if required). PRoW 134 may require a diversion and would likely have a stone ramp or similar installed over dewatering pipework to provide continued access for pedestrians. The magnitude of impact is therefore considered likely to be Small.
- 15.8.42 The overall significance of effect during construction for users of PRoW 134 is therefore expected to be Minor adverse (Not Significant).

Land take

- 15.8.43 For the purposes of the assessment, Ham Street Car Park, Ham Playing Fields and the Riverside Drive Play Area (and green space surrounding the play area) are considered recreational land and therefore assessed in the recreational assessment.

- 15.8.44 There would be no loss of commercial, community or residential land and therefore the significance of effect is assessed as No Change (Not Significant).

Burnell Avenue site

Community amenity

- 15.8.45 The assessment of community amenity draws on the preliminary assessment of a number of relevant aspects namely traffic and transport, air quality, noise and vibration, and townscape and visual. At this stage of the Project with preliminary assessments recognising the need for further information and assessment conclusions subject to the development of appropriate mitigation, assessing amenity effects is uncertain. Adopting a reasonable worst case position, it is recognised that construction works at the Burnell Avenue site could result in potentially significant amenity effects for receptors as a result of the combined effects of traffic and transport, air quality, noise and vibration, and townscape and visual. 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.

Community accessibility and severance

- 15.8.46 The area around Burnell Avenue, including Dysart Avenue and Beaufort Road, is predominantly residential with a significant number of houses. Key community assets include schools on Dukes Avenue and Broughton Avenue, a medical facility on Dukes Avenue, retail assets on Richmond Road and the YMCA Hawker Centre, which can be accessed by foot from Burnell Avenue, or by road from Richmond Road. Burnell Avenue, Dysart Avenue and Beaufort Road all have pavements for pedestrians but limited formal crossing points. There are generally moderate motorised traffic volumes on Dukes Avenue and high pedestrian concentrations are expected at the start and end of the learning day in relation to Malden Oaks School and Tuition Service. The area is considered Medium sensitivity given there are few community assets in the area and some existing severance between community and community assets⁵.
- 15.8.47 The affected road network includes local access for Burnell Avenue, Dysart Avenue and Beaufort Road. As outlined in Chapter 12: Traffic and Transport, the overall increase in traffic flow associated with the Project is expected to be less than 30% resulting in minor impacts on driver delay, pedestrian delay and NMU amenity and negligible impacts on severance. The main impact would be from the presence of large loads. Mitigation measures such as traffic management measures outlined in the CTMP are likely to minimise negative effects and maintain connectivity within the community. The magnitude of impact is therefore assessed as Small.
- 15.8.48 The likely significance of effect on community accessibility and severance is considered to be Minor adverse (Not Significant).

⁵ Note that impacts on PRoWs, the Thames Paths and National Cycle Network are considered under the assessment of recreational effects.

Recreation

- 15.8.49 During construction, there could be disruption for recreational receptors at Burnell Avenue (See Figure 15.5 and Figure 15.6). This includes Burnell Avenue Open Space, the Thames River Path and Cycle Network, Royal Park Gate Play Area, those using the River Thames for water-based recreation and those using Burnell Avenue to access the River Thames for water-based recreation and angling.

Burnell Avenue Open Space

- 15.8.50 Burnell Avenue Open Space is used for recreational purposes by the local community and visitors. Kingston parkrun use the green space as the starting point for the weekly 5km running event, which attracts a large number of participants. Recreational survey data (Appendix 15.3) show that Burnell Avenue Open Space is used frequently for recreational purpose(s). These recreational activities included walking, cycling, playing football, dog walking, jogging and general enjoyment of greenspace. The Burnell Avenue site is therefore classified as a Medium sensitivity receptor.
- 15.8.51 The Burnell Avenue construction site, excluding access roads and the part of the site within the River Thames, covers approximately 23,800m². The majority of the site is metropolitan open land.
- 15.8.52 During construction the majority of Burnell Avenue Open Space would be unavailable, which is likely to result in adverse impacts for recreational receptors. As outlined in Chapter 2: Project Description, construction would be temporary, lasting just over two years. There are a number of alternatives in the local area (within 500m) that can be used for outdoor exercise, dog walking and enjoyment of greenspace, including Ham Lands and Ham Common Woods. Post construction, land would be returned to previous use with the exception of land used for kiosks, permanent shaft covers, the intake structure and outfall structure as presented in Chapter 2: Project Description. Given the impacts on recreational events in this location, the magnitude of impact is considered to be Medium.
- 15.8.53 The likely significance of effect on recreation is considered to be Moderate adverse (Significant). Assessment is ongoing in this location, including continued stakeholder engagement with recreational organisations to identify mitigation and enhancement opportunities.

Thames River Path and National Cycle Network

- 15.8.54 The Thames River Path and National Cycle Network adjacent to Burnell Avenue are both used daily by a large proportion of the local community for both commuting and recreational purposes. A breakdown of recreation use is provided in Appendix 15.3. These receptors are also national routes and are therefore classified as High sensitivity.
- 15.8.55 During construction, the Thames River Path and National Cycle Network would need to be temporarily diverted. Staging of the works is being explored to

minimise the duration and extent of the diversion, with consideration being given to safety and accessibility for users.

- 15.8.56 The Applicant will engage with local authorities and regulators (Natural England for the National Trail) to discuss the temporary and permanent PRow diversions. However, illustrations of the Applicant's initial provisions at Burnell Avenue site are provided for reference in Chapter 2: Project Description.
- 15.8.57 Current designs keep users away from the river edge for as short a length as possible whilst maintaining a safe distance from the construction area. The total increase in journey length for users is expected to be less than 250m and therefore the magnitude of impact is considered to be Small.
- 15.8.58 The preliminary assessment of significance for users of the Thames River Path and National Cycle Network during construction is therefore considered to be Minor adverse (Not Significant). Engagement is ongoing with the local planning authorities, Natural England and other stakeholders to create a diversion that is acceptable.

Royal Park Gate Play Area

- 15.8.59 Royal Park Gate Play Area is a small playground located within the Southern Work Area at the Burnell Avenue site.
- 15.8.60 The sensitivity of the site is considered to be Medium since the surrounding area is an important area for recreation and there are a limited number of play areas in the local area.
- 15.8.61 During construction, utilities such as high and low voltage cables, surface drainage pipes and telecoms, will need diverting or protecting to maintain the statutory undertakers service provision. This work is not expected to have significant impacts on the play area, which is expected to remain open and operational for the duration of the construction works. Whilst users may experience some disruption, the magnitude of impact is temporary and considered to be Small.
- 15.8.62 The overall significance of effect on users of the Royal Gate Play Area during construction is likely to be Minor adverse (Not Significant).

Burnell Avenue Thames River Access

- 15.8.63 The Thames River Path opposite Burnell Avenue is also used as an informal access point for those using the River Thames for water sports and for those using the area for angling. This area is considered Medium sensitivity as the site is used reasonably frequently (increased use within summer months compared to winter months).
- 15.8.64 During construction, the presence of the construction compound will result in complete severance between recreational users and the River Thames in this location. Alternative formal sites are available to access the River Thames such as Teddington Harbour (approximately 480m from the Thames River Path opposite Burnell Avenue) and Swan Island Harbour (approximately 1.5km from the Thames River Path opposite Burnell Avenue), both on the southern bank of

the River Thames. Given that alternatives exist locally, the impact is considered to be Small.

- 15.8.65 The overall significance of the impact on those accessing the River Thames for recreation in this location is likely to be Minor adverse (Not Significant).

Users of the River Thames

- 15.8.66 The Project could result in recreation effects for users of the River Thames. The River Thames is considered a High sensitivity recreational receptor given that the river is used extensively for boating, rowing, sculling, canoeing, kayaking, paddleboarding, swimming and other water sports throughout all seasons.
- 15.8.67 Chapter 2: Project Description describes the two design options being considered and assessed within this PEI Report for the outfall structure; a bankside structure or a near bankside in-river structure.
- 15.8.68 Both outfall options as well as the intake structure would likely require a cofferdam to be temporarily installed to enable a safe working area within the river. It is anticipated that the cofferdam for the outfall will extend approximately 20m into the river from the bank and the cofferdam from the intake structure would extend 15m into the river, resulting in a temporary loss of open space in the river for recreation during the construction period⁶.
- 15.8.69 Permanent land take, which will also first occur during the construction phase and extend through to operation, will also include land used for the near bankside in-river structure which also extends into the river. Given the loss of recreational space available, the magnitude of impact is assessed as Medium.
- 15.8.70 The overall significance of the impact on those using the River Thames for recreation in this location is likely to be Moderate adverse (Significant). Proposals are still being developed and further assessment will be conducted as part of the preparation of the ES to determine mitigation and enhancement opportunities in this location.

Land take

- 15.8.71 Loss of recreational land (including Burnell Avenue Open Space, the National Cycle Network and Thames River Path, and the River Thames) is assessed in the section above.
- 15.8.72 There would be no loss of commercial, community or residential land and therefore the significance of effect is assessed as No Change (Not Significant).

Tudor Drive (Thames Lee Tunnel (TLT) Connection) site

Community amenity

⁶ Note that the NPS definition of open space includes area of water including the River. "Open space is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. However, in applying the policies in this section, open space should be taken to mean all open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity." (Defra, 2023).

- 15.8.73 The assessment of community amenity draws on the preliminary assessment of a number of relevant aspects namely traffic and transport, air quality, noise and vibration, and townscape and visual. At this stage of the Project with preliminary assessments recognising the need for further information and assessment conclusions subject to the development of appropriate mitigation, assessing amenity effects is uncertain. Adopting a reasonable worst case position, it is recognised that construction works at the Tudor Drive site could result in potentially significant amenity effects for receptors as a result of the combined effects of traffic and transport, air quality, noise and vibration, and townscape and visual. Further assessment will be completed for the ES to determine the significance of amenity effects for receptors and groups of receptors and appropriate mitigation.

Community accessibility and severance

- 15.8.74 The area surrounding Tudor Drive, including the A307 Richmond Road is predominantly residential with a significant number of residential properties. Key community assets include industrial, and retail shops located at St George's Industrial Estate, and retail assets as well as medical facilities on Richmond Road and Dukes Avenue. Tudor Drive and Richmond Road have pavements for pedestrians, with limited formal crossing points on Tudor Drive and some formal crossing points on Richmond Road, as well as a cycle lane, which may be used by children to access schools from Dukes Avenue. There is a fire station located on Richmond Road in very close proximity to the draft Order limits at the Tudor Drive site with the draft Order limits including part of the apron of the fire station. The area is considered Medium sensitivity given there are community and residential assets in the area and some existing severance.
- 15.8.75 During construction, access to the TLT connection site on Tudor Drive would be off Tudor Drive and the A307. Vehicle movements in and out of the site would require traffic management and careful liaison with the adjacent fire station. The site is bounded by public footways alongside the roads, and traffic management measures as outlined in Appendix 4.3 Draft CoCP would be adopted to manage deliveries whilst limiting disruption and allowing safe passage for pedestrians. This means that while there would be some disruption and inconvenience during the construction period, the measures in place to manage traffic and pedestrian movement will help to mitigate these effects resulting in Small adverse impacts on community accessibility and severance.
- 15.8.76 The likely significance of effect on community accessibility and severance in this location is considered to be Minor adverse (Not Significant).

Recreation

- 15.8.77 The Tudor Drive TLT connection site is a public green space with trees and benches, bordered to the south by Kingston Fire Station. The land is primarily used as a public footway as well as for enjoyment of greenspace.
- 15.8.78 The land is considered to be Low sensitivity as there are alternative areas of open green space available at a local level within the wider community including

amenity land directly north of Tudor Drive and Ham Common within 300m. Similarly, alternative footways exist around the boundary of the site. Additionally, the closure of this space would not cause severance or accessibility issues, as alternative recreational facilities and footways are available within the same community.

- 15.8.79 During construction, some planting and seating would be removed, and there would be a temporary loss of access to the space. The impact is limited to the duration of the construction period, after which the land would be reinstated to its existing use. Therefore, the magnitude of impact is assessed as Small.
- 15.8.80 The overall significance of effect for recreational users of Tudor Drive is likely to be Minor adverse (Not Significant).

Land take

- 15.8.81 The Tudor Drive site is primarily used by local residents as a public footway as well as for recreation, including enjoyment of greenspace. Impacts have therefore been assessed in the section above.
- 15.8.82 There would be no loss of commercial, community or residential land and therefore the significance of effect is assessed as No Change (Not Significant).

Conveyance routes

- 15.8.83 The conveyance routes are underground, which means they do not interfere with surface activities. As a result, no significant effects on socioeconomics, community, access or recreation are expected.

Route wide effects

Economy

- 15.8.84 The change in economic activity resulting from the Project's expenditure is considered within the administrative area of the GLA.
- 15.8.85 The total expenditure for the Project is estimated to be around £429.7 million (2022/23 prices) (Thames Water, 2024a). Further work is required to break down construction labour costs versus plant and materials.
- 15.8.86 In calculating the potential economic effects of the Project associated with expenditure in the supply chain, the following effects need to be considered (HM Treasury, and Government Finance Function, 2024):
- Leakage: the extent to which effects 'leak out' of the target area (GLA) into other areas.
 - Displacement: the extent to which any increase in economic activity is countered by reductions in economic activity in the same area or nearby.
 - Substitution: where a firm substitutes one type of activity for a similar one, but output is not increased.

- 15.8.87 Once these factors are taken into account, the effects of economic investment may not result in significant benefits at a local level.
- 15.8.88 It is not yet known what percentage of capital expenditure is expected to be captured locally. However, the Greater London economy is significant with the GLA Economics (2024) forecast suggesting the region had a GVA of £477 billion in 2024. Therefore, even if 100% of total spend was captured locally, before taking into account leakage, displacement and substitution, the total contribution of the Project would represent just 0.1% of total GVA for the GLA. The impact of the Project on local economic activity is therefore likely to be Minor beneficial (Not Significant).

Employment

- 15.8.89 Construction of the Project is expected to take approximately four years commencing in 2029 and completing in 2032. At peak construction periods, approximately 100 workers are anticipated daily at Mogden STW, 90 at the Burnell Avenue site, 30 at the Ham Playing Fields site and 30 at the Tudor Drive site at any given time.
- 15.8.90 The main occupational types required by the Project during construction include construction operatives, design services and management of construction. Most of the workforce demand levels for these occupations are expected to be fewer than 20 people per role (National Skills Academy for Rail (NSAR), no date). Overall, the employment demands of the Project represent less than 0.3% of the average demand for these roles in London between 2023 and 2027 (NSAR, no date).
- 15.8.91 It is estimated that a percentage of these direct jobs would be filled locally within the GLA area. Considering that the total employment in the GLA area is 4,698,700 (for the years 2023–2024, among those aged 16–64 in employment) (ONS, 2024a), the number of direct, indirect, and induced jobs generated by the Project is expected to be very low in comparison.
- 15.8.92 It is also important to note that while the Project will create employment opportunities, many of these jobs may be filled by workers transitioning from other industries. As a result, the Project is likely to cause a redistribution of existing jobs within the local economy rather than generating significant beneficial employment effects.
- 15.8.93 The impact of the Project on employment is therefore likely to be Minor beneficial (Not Significant).

Skills and education

- 15.8.94 The baseline data show that the proportion of residents with the highest level of qualification (to degree level or equivalent) is above the national average for all three boroughs. Whilst skills gaps exist, the boroughs have set out priorities to identify local skills needs and support for the development of these skills. The area does not depend on the development of skills specific to local industries.

The sensitivity of the study area with regards to skills and education is therefore considered Low.

- 15.8.95 Thames Water aims to use the Project as a vehicle to drive skills and educational attainment within the study area throughout construction. Thames Water has undertaken a workforce analysis to identify key skills required to deliver the Project (NSAR, no date).
- 15.8.96 Additionally, Thames Water is developing an education strategy to drive positive skills development across the Project. The strategy includes objectives to identify local educational facilities and educate and engage young people concerning water challenges and solutions.
- 15.8.97 Whilst skills and education strategies are still being developed for the Project, these are expected to have beneficial impacts on skills and education. The magnitude of impact is therefore assessed as Small (positive).
- 15.8.98 The overall significance of effect on skills and education is considered to be Minor beneficial (Not Significant).

Summary of construction effects

- 15.8.99 Table 15.14 summarises the likely significant effects for socioeconomic, community access, and recreation during construction.

Table 15.14 Preliminary assessment of likely significant effects during construction

Location	Assessment Topic	Sensitivity of receptor	Magnitude of impact	Likely significance of effect
All sites	Community amenity	Various	Various	There is the potential for significant effects. Further assessment will be completed for the ES to determine the significance of amenity effects for receptors and groups of receptors.
Mogden STW	Community accessibility and severance	Medium	Small	Minor adverse (Not Significant)
Mogden STW	Recreation	Low	Negligible	Neutral (Not Significant)
Mogden STW	Land take	Medium	Small	Minor adverse (Not Significant)
Ham Playing Fields	Community accessibility and severance	Medium	Medium	Moderate adverse (Significant)
Ham Playing Fields	Recreation (Main Work Area)	Medium	Small	Minor adverse (Not Significant)
Ham Playing Fields	Recreation (Support Works Area)	Medium	Small	Minor adverse (Not Significant)
Ham Playing Fields	Recreation (Riverside Drive Play Area)	Medium	Small	Minor adverse (Not Significant)
Ham Playing Fields	Recreation (Thames River Path)	High	Small	Minor adverse (Not Significant)
Ham Playing Fields	Recreation (PRoW 134)	Medium	Small	Minor adverse (Not Significant)
Ham Playing Fields	Land take	n/a	n/a	No Change (Not Significant)
Burnell Avenue	Community accessibility and severance	Medium	Small	Minor adverse (Not Significant)

Location	Assessment Topic	Sensitivity of receptor	Magnitude of impact	Likely significance of effect
Burnell Avenue	Recreation (Burnell Avenue Open Space)	Medium	Medium	Moderate adverse (Significant)
Burnell Avenue	Recreation (Thames River Path and Cycle Network)	High	Small	Minor adverse (Not Significant)
Burnell Avenue	Recreation (Royal Park Gate Play Area)	Medium	Small	Minor adverse (Not Significant)
Burnell Avenue	Recreation (Thames River Access)	Medium	Small	Minor adverse (Not Significant)
Burnell Avenue	Recreation (Users of the River Thames)	High	Medium	Moderate adverse (Significant)
Burnell Avenue	Land take	n/a	n/a	No Change (Not Significant)
Tudor Drive TLT Connection	Community accessibility and severance	Medium	Small	Minor adverse (Not Significant)
Tudor Drive TLT Connection	Recreation	Low	Small	Minor adverse (Not Significant)
Tudor Drive TLT Connection	Land take	n/a (assessed under recreation)	n/a (assessed under recreation)	No Change (Not significant)
Conveyance routes	All topics	n/a	n/a	No Change (Not Significant)
Route wide	Economy	n/a	n/a	Minor beneficial (Not Significant)
Route wide	Employment	n/a	n/a	Minor beneficial (Not Significant)
Route wide	Education and skills	Low	Small	Minor beneficial (Not Significant)

Operation phase

- 15.8.100 This section sets out the likely significant effects on socioeconomics, community, access and recreation during operation.
- 15.8.101 The preliminary assessment of effects for the operation phase is presented in Table 15.15 for each of the main sites.

Mogden STW site

Community amenity

- 15.8.102 Operation of the Tertiary Treatment Plant (TTP) at Mogden STW is not expected to result in significant noise and visual effects associated with operation. Therefore, there is likely to be no secondary amenity effects as a result of direct noise and visual effects associated with operation (No Change – Not Significant).

Community accessibility and severance

- 15.8.103 As outlined in the construction phase, the sensitivity of the population is Medium. This is not anticipated to change at operation phase.
- 15.8.104 As outlined in Chapter 12: Traffic and Transport, there would be negligible amounts of additional traffic on the existing road network (including existing roads affected by additional workforce and delivery movements), during the operational and maintenance phase of the Project. As such, the operation of the Project at Mogden STW is not likely to hinder the ability of community members to move around their community to access facilities and resources. The magnitude of impact is therefore anticipated to be Negligible.
- 15.8.105 The overall significance of the effect on community accessibility and severance at Mogden STW is likely to be Minor adverse (Not Significant).

Recreation

- 15.8.106 Operation of the Project at Mogden STW would be contained within the existing STW boundary. Other than a public footway running through the site, which is separated from the STW by fencing and controlled gates, there are no other recreational receptors within the draft Order limits and the site is not used by the local community for recreation. The sensitivity of the site is therefore considered to be Low.
- 15.8.107 Given that all work is contained within the existing STW boundary, operation of the TTP is expected to have Negligible impacts on recreation.
- 15.8.108 The overall significance of effect for recreational receptors at Mogden STW is considered to be Neutral (Not Significant).

Ham Playing Fields site

Community amenity

- 15.8.109 Once construction of the recycled water conveyance tunnel is complete, the shafts would be closed with permanent concrete caps positioned below ground surface where practicable, with access hatches provided for future maintenance. The ground around the hatches would be reinstated to a condition equivalent to its original state, as far as reasonably practicable.
- 15.8.110 Maintenance periods would take place approximately every five to ten years and would consist of condition surveys and clearing out any settled materials or organic matter. Maintenance activity is not expected to result in a significant increase in HGV or vehicle movements. This is expected to result in negligible noise, air quality, townscape and visual, and traffic effects. Therefore, there is likely to be no overall amenity effect (No Change – Not Significant).

Community accessibility and severance

- 15.8.111 As outlined in the construction phase, the sensitivity of the population is Medium. This is not anticipated to change at operation phase.
- 15.8.112 The presence of permanent access hatches at Ham Playing Fields is not expected to hinder the ability of the community to move around the area to access community facilities because these hatches occupy only a small portion of the space (see Plate 2.15 for an image of a typical shaft access hatch after completion). Similarly, maintenance activity is not expected to result in a significant increase in HGV or vehicle movements. The magnitude of impact is therefore anticipated to be Negligible.
- 15.8.113 The overall significance of the effect on community accessibility and severance at Ham Playing Fields is likely to be Minor adverse (Not Significant).

Recreation

Ham Playing Fields

- 15.8.114 As outlined in the construction phase, the sensitivity of this area is considered to be Medium. This is not anticipated to change at operation phase.
- 15.8.115 Once construction of the conveyance tunnel is complete, the temporary site compound would be removed, and the shaft would be capped. It is anticipated that access to the new recycled water conveyance tunnel for inspections and maintenance would be required once every five to ten years.
- 15.8.116 At Ham Playing Fields the location of the shaft cover has been designed with consideration of the location of the football and baseball pitches so as to reduce future impacts on the use of the site for recreation. The total area of the playing field is approximately 28,000m² and the shaft cover is located in the south-east corner of the Playing Fields, measuring approximately 4m². The permanent land take therefore represents less than 0.02% of the recreational space available in the Playing Fields.
- 15.8.117 There is recognition that the presence of shaft covers could reduce the area available for recreation in the future (i.e. the opportunity to add an additional football pitch). Designs and technologies to be used for the shaft covers are still

in discussion with consideration of biodiversity, safety and future recreational use and are subject to change. As a worse case assessment, assuming that the design of the cover restricts use of the site for recreation, the magnitude of impact is considered to be Medium.

- 15.8.118 The overall significance of effect for recreational users of Ham Playing Fields is likely to be Moderate adverse (Significant). Work is ongoing in this location, including engagement with recreational users, to identify mitigation and enhancement opportunities.

Ham Street Car Park

- 15.8.119 As outlined in the construction phase, for the purposes of the assessment, Ham Street Car Park is considered as a recreational receptor as it is primarily used to access recreational and leisure facilities. The sensitivity of this site is considered to be Medium.
- 15.8.120 During operation, there would be no permanent loss of land. The magnitude of impact is therefore anticipated to be Negligible.
- 15.8.121 The overall significance of effect for users of Ham Street Car Park is likely to be Neutral (Not Significant).

Burnell Avenue site

Community amenity

- 15.8.122 The assessment of community amenity draws on the preliminary assessment of a number of relevant aspects namely traffic and transport, air quality, noise and vibration, and townscape and visual. At this stage of the Project with preliminary assessments recognising the need for further information and assessment conclusions subject to the development of appropriate mitigation, assessing amenity effects is uncertain. Adopting a reasonable worst case position, it is recognised that construction works at the Burnell Avenue site could result in potentially significant secondary amenity effects for receptors as a result of the direct effects on visual amenity. Further assessment will be completed for the ES to determine the significance of secondary amenity effects for receptors and groups of receptors and appropriate mitigation measures.

Community accessibility and severance

- 15.8.123 As outlined in the construction phase, the sensitivity of the area is considered to be Medium. This is not anticipated to change at operation phase.
- 15.8.124 The presence of permanent infrastructure at the Burnell Avenue site is not expected to hinder the ability of the community to move around the area. Similarly, maintenance activity is not expected to result in a significant increase in HGV or vehicle movements which would affect how people move around or access community facilities. The magnitude of impact is therefore anticipated to be Negligible.

- 15.8.125 The overall significance of the effect on community accessibility and severance at Burnell Avenue is likely to be Neutral (Not Significant).

Recreation

Burnell Avenue Open Space

- 15.8.126 As outlined in the construction phase, the sensitivity of the site is Medium. This is not anticipated to change at operation phase.
- 15.8.127 After completion of the Project, the construction compound would be removed and the site returned to previous use as open space with the exception of land used for kiosks, permanent shaft covers, the intake structure and outfall structure, as presented in Chapter 2: Project Description.
- 15.8.128 The Burnell Avenue Open Space covers approximately 13,000m² and the shaft covers take up approximately 8m² representing less than 1% of the recreational space available.
- 15.8.129 Designs and technologies to be used for the shaft covers, kiosks and intake and outfall structures are still in discussion and are subject to change. However, given the known use of the space, primarily as open space amenity land, permanent infrastructure is not expected to impact the viability of the space for recreation, therefore the magnitude is assessed as Small.
- 15.8.130 The overall significance of effect for recreational users of Burnell Avenue Open Space is likely to be Minor adverse (Not Significant).

Thames Path and National Cycle Network

- 15.8.131 The Thames Path and National Cycle Network adjacent to Burnell Avenue are both High sensitivity receptors, used frequently (i.e. daily) by a large proportion of the local community for both commuting and recreational purposes. A breakdown of recreation use is provided in Appendix 15.3.
- 15.8.132 During operation, the intake structure will intersect with the Thames River Path and National Cycle Network requiring a permanent diversion. The riverbank profile on either side of the structure would be reinstated with landscaping and seeding. If the bankside outfall structure is chosen, this would be buried into the bank to minimise impacts on the landscape and recreational users as far as reasonably practicable.
- 15.8.133 Designs and technologies to be used for outfall and intake are still in discussion and subject to change; however, the length of any permanent diversion required would be less than 250m, and therefore the magnitude of impact on recreational receptors is likely to be Small.
- 15.8.134 The overall significance of effect for recreational users of the Thames Path and National Cycle Network is likely to be Minor adverse (Not Significant). Work is ongoing in this location, including engagement with recreational users, to identify mitigation and enhancement opportunities.

Burnell Avenue Thames River Access

- 15.8.135 As outlined in the construction phase, the sensitivity of the site is Medium. This is not anticipated to change at operation phase.
- 15.8.136 During operation, the presence of permanent infrastructure associated with the intake and outfall structure would be a permanent change to the riverbank. Regardless of whether a bankside or near bankside in river structure is taken forward, the presence of new permanent infrastructure associated with the intake and outfall structures could result in river users needing to find alternative points to access the river for recreational purposes. Given that alternatives access points exist locally for users to get into the river, the magnitude of impact on access to the river is considered to be Small.
- 15.8.137 The overall further detail added significance of effect for recreational users accessing the river at Burnell Avenue is likely to be Minor adverse (Not Significant). Work is ongoing in this location, including engagement with recreational users, to identify mitigation and enhancement opportunities.

Users of the River Thames

- 15.8.138 As outlined for the construction phase, the River Thames is considered a High sensitivity recreational receptor given that the river is used extensively for recreation.
- 15.8.139 The presence of the intake and outfall structures at Burnell Avenue could result in a reduction in space available in the river for recreational users of the River Thames at Burnell Avenue. Given that alternative river space exists locally for users of the River Thames, the magnitude of impact on users of the River Thames at this location is anticipated to be Small.
- 15.8.140 Since the near bankside in-river structure will protrude into the river, protection measures would be designed to ensure the safety of river users. These measures may include wooden piles with ropes and buoys or similar solutions. Ongoing discussions with the Environment Agency and engagement with other recreational river user groups will be undertaken to determine the most appropriate protection measures if this option is chosen.
- 15.8.141 The overall further detail added significance of effect for users of the River Thames at Burnell Avenue is Moderate adverse (Significant). Work is ongoing in this location, including engagement with recreational users, to identify mitigation and enhancement opportunities.
- 15.8.142 Given that proposals are still being developed, further assessment is required as part of the preparation of the ES to determine the overall significance of recreation effects in this location.

Tudor Drive (TLT Connection) site

Community amenity

- 15.8.143 During operation, the remaining features at the Tudor Drive TLT Connection would be permanent access hatches. This is not expected to result in significant noise, air quality, townscape and visual or traffic effects. Therefore, there is no potential for community amenity effects during operation. The overall significance of effect on community amenity is assessed as No Change (Not Significant).

Community accessibility and severance

- 15.8.144 As outlined in the construction phase, the sensitivity of the area is Medium. This is not anticipated to change at operation phase.
- 15.8.145 Maintenance and operations activities for the facilities will only occur infrequently, i.e. once a year or every two years, and would only incorporate a small number of vehicles at any one time. As such, the operation of the Project at Tudor Drive (TLT Connection) is not likely to hinder the ability of community members to move around their community to access facilities and resources. The magnitude of impact is therefore anticipated to be Negligible.
- 15.8.146 The overall significance of the effect on community accessibility and severance at Tudor Drive is likely to be Minor adverse (Not Significant).

Recreation

- 15.8.147 As outlined for the construction phase, the green space at the intersection of Tudor Drive and Richmond Road (A307) is considered to have Low sensitivity.
- 15.8.148 During operation, land would be reinstated to previous use. The permanent infrastructure at Tudor Drive is therefore expected to result in impacts on recreation of Negligible magnitude.
- 15.8.149 The overall significance of the effect for recreational users of Tudor Drive is likely to be Neutral (Not Significant).

Conveyance routes

- 15.8.150 The conveyance routes are underground, which means they do not interfere with surface activities. As a result, no significant effects on socioeconomics, community, access or recreation are expected.

Route wide effects

Economy

- 15.8.151 During operation, whilst there would be limited direct spend associated with the operation of the Project, the wider economic benefits of drought resilience are recognised. The economic impacts of long run droughts can be significant. Costs to London's economy alone would be £500 million each day if there was not enough water (Thames Water, 2024b). In the future, it is expected that resilience measures, such as those which help to protect against drought are likely to attract new businesses and investments to the area, as a stable water supply is a key factor for many industries. Long-term, these benefits contribute

to economic growth, job creation and improved quality of life for residents, making the region more attractive and sustainable. Over the lifetime of the Project, this is expected to result in Major beneficial Significant effects.

Summary of operation effects

15.8.152 Table 15.15 summarises the likely significant effects for socioeconomic, community, access and recreation during operation.

Table 15.15 Preliminary assessment of likely significant effects during operation

Receptor	Impact assessment	Sensitivity of receptor	Magnitude of impact	Likely significance of effect
Mogden STW	Community amenity	n/a	n/a	No Change (Not Significant)
Mogden STW	Community accessibility and severance	Medium	Negligible	Minor adverse (Not Significant)
Mogden STW	Recreation	Low	Negligible	Neutral (Not Significant)
Ham Playing Fields	Community amenity	n/a	n/a	No Change (Not Significant)
Ham Playing Fields	Community accessibility and severance	Medium	Negligible	Minor adverse (Not Significant)
Ham Playing Fields	Recreation (Ham Playing Fields)	Medium	Medium	Moderate adverse (Significant)
Ham Playing Fields	Recreation (Ham Street Car Park)	Medium	Negligible	Neutral (Not Significant)
Burnell Avenue	Community amenity	n/a	n/a	There is the potential for significant effects. Further assessment will be completed for the ES to determine the significance of amenity effects for receptors and groups of receptors.
Burnell Avenue	Community accessibility and severance	Medium	Negligible	Neutral (Not Significant)
Burnell Avenue	Recreation (Burnell)	Medium	Small	Minor adverse (Not Significant)

Receptor	Impact assessment	Sensitivity of receptor	Magnitude of impact	Likely significance of effect
	Avenue Open Space)			
Burnell Avenue	Recreation (Thames Path and National Cycle Network)	High	Small	Minor adverse (Not Significant)
Burnell Avenue	Recreation (Thames River Access)	Medium	Small	Minor adverse (Not Significant)
Burnell Avenue	Recreation (Users of the River Thames)	High	Small	Moderate adverse (Significant)
Tudor Drive TLT Connection	Community amenity	n/a	n/a	No Change (Not Significant)
Tudor Drive TLT Connection	Community accessibility and severance	Medium	Negligible	Minor adverse (Not Significant)
Tudor Drive TLT Connection	Recreation	Low	Negligible	Neutral (Not Significant)
Conveyance routes	All topics	n/a	n/a	No Change (Not Significant)
Route wide	Economy	n/a	n/a	Major beneficial (Significant)

Cumulative effects

15.8.153 A preliminary assessment of intra-project and inter-project cumulative effects (excluding climate change) for socioeconomics, community, access and climate change is contained in Chapter 19: Cumulative Effects.

In-combination effects with climate change

15.8.154 In-combination effects with climate change have been considered against receptor types identified within this chapter, as detailed in Appendix 18.1. From the initial assessment it is anticipated that there would be likely ICCIs related to community amenity throughout the operation phase. Climate projection data in the short term do not indicate sufficient changes in climate parameters which could have a combined impact on the receptors/assessment covered during construction, and therefore no ICCIs have been identified during the construction phase. Further consideration and assessment of the ICCI (and identification of additional (secondary) mitigation if required, or confirmation that existing mitigation is sufficient) will be undertaken for the ES.

15.9 Additional (secondary) mitigation and enhancement measures

Additional (secondary) mitigation

- 15.9.1 Mitigation measures are defined in Chapter 4: Approach to Environmental Assessment. Embedded design (primary) mitigation and standard good practice (tertiary) specific to this aspect are provided in Section 15.4.
- 15.9.2 During construction, where potential significant adverse severance impacts on Public Rights of Way are identified, temporary mitigation such as amended pedestrian and cycle routes; and priority crossing infrastructure may be provided where appropriate and reasonably practicable (PCR 86).
- 15.9.3 Work is ongoing to identify opportunities for mitigation in relation to impacts on recreation in the Burnell Avenue area, and Thames River Path and Cycle Network adjacent to Burnell Avenue.

Enhancement measures

- 15.9.4 Consideration will be given to opportunities to create lasting legacy benefits in education, recreation, community and amenity during Project operation. The potential to enhance the health and wellbeing of the local community, aligned with local policies and strategies, and to promote equality of opportunity for equality groups will also be explored as the development of the Project continues (PCR 69).

15.10 Summary of Residual Likely Significant Effects

Table 15.16 Summary of residual likely significant effects for socioeconomics, community, access and recreation

Site	Description of effect	Likely significance of effect	Additional (secondary) mitigation and enhancement measures	Residual effects
Construction phase				
All sites	Community amenity	There is the potential for significant effects. Further assessment will be completed for the ES to determine significance of effect.	To be developed for the ES.	Unknown – to be completed for the ES

Site	Description of effect	Likely significance of effect	Additional (secondary) mitigation and enhancement measures	Residual effects
Burnell Avenue	Recreation (Burnell Avenue Open Space)	Moderate Adverse	Engagement with recreational groups including Parkrun to determine suitable alternatives.	Unknown – to be completed for the ES
Burnell Avenue	Recreation (Users of the River Thames)	Moderate Adverse	To be developed for the ES.	Unknown – to be completed for the ES
Operation phase				
Burnell Avenue	Community amenity	There is the potential for significant effects. Further assessment will be completed for the ES to determine significance of effect.	To be developed for the ES.	Unknown – Designs still in development and subject to change. To be completed for the ES.
Ham Playing Fields	Recreation (Ham Playing Fields)	Moderate Adverse	Design of shaft covers to be developed for the ES.	Unknown – Designs still in development and subject to change. To be completed for the ES.
Burnell Avenue	Recreation (Users of the River Thames)	Moderate Adverse	To be developed for the ES.	Unknown – Designs still in development and subject to change. To be completed for the ES.
Route wide	Economy	Major Beneficial	None identified	Major Beneficial

15.11 Next steps

- 15.11.1 Receptors will be verified as part of the ES preparation process to confirm that they are accurately identified, allowing for an accurate assessment of their sensitivity and the magnitude of potential impacts. By confirming the status of

these receptors, a better understanding of how the Project might affect socioeconomics, community, access and recreation can be understood.

- 15.11.2 Further assessment work will be undertaken to understand the likely effects for users of the River Thames for recreation during the construction and operation stages of the Project.
- 15.11.3 As outlined above, further consideration will be given to opportunities to create lasting legacy benefits in education, recreation, community and amenity during Project operation as the Project develops.
- 15.11.4 Ongoing work will continue as part of the planned approach to understand type of use and frequency of use of recreational asset(s). This will include delivery of organisational questionnaires together with on-site interviews with the public and on-site observational surveys. Output from recreational survey work will help to support continued development of wider benefits and legacy plan(s).

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