



Preliminary Environmental Information Report

Volume 4 Appendix 15.1

Land Use and Agricultural Baseline Desk Based Appraisal



Land Use and Agricultural Baseline

Desk Based Appraisal

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1 Introduction

1.1 Introduction and Context

1.1.1 This Land Use and Agricultural Baseline Desk Based Appraisal (hereafter referred to as the 'Desk Based Appraisal' (DBA)), presents desk-based land use and agricultural data for use by relevant technical specialists when undertaking the Environmental Impact Assessment (EIA) for the River Thames Scheme (RTS). The data will be of particular relevance to the Biodiversity, Health, Landscape and Visual Amenity, Socio-economics and Soils and Land EIA topics.

2 Methodology

2.1 Study Area

2.1.1 The Land Use and Agricultural baseline study area (hereafter known as the 'study area') used for the data collection to inform this report consists of the RTS project boundary for EIA scoping (hereafter referred to as the 'project boundary'), plus a 500m buffer combined with the area within the 1 in 100-year floodplain (i.e. 1 per cent chance of flooding in any given year) that is expected to experience a change in flood risk as a result of the project. This corresponds with, or is greater than, the study areas used for the relevant EIA topics referenced above.

2.2 Methodology and Data Required

2.2.1 The DBA draws on the following guidance:

- Design Manual for Roads and Bridges (DMRB) LA 112 Population and human health;
- Natural England Technical Information Note TIN049: Agricultural Land Classification (ALC): protecting the best and most versatile agricultural land.

2.2.2 DMRB LA 112 provides a basis for land use assessment including the baseline data to be collected. Natural England TIN049 outlines the policies relevant to development proposals which will affect agricultural land and soils, provides definitions of the ALC grades and situations where further survey work is required.

Land Use and Agricultural Baseline

2.2.3 In addition to the data sources prescribed by the above guidance, the scope of the baseline appraisal has included consideration of the criteria for determining significant effects to the Health, Landscape and Visual Amenity, Socio-economics and Soils and Land EIA topics (as stated in the EIA Scoping Report), and the data required to inform these.

2.2.4 The baseline land use and agricultural data that were collected are therefore:

- Agricultural land – ALC (Agricultural Land Classification) Grades 1 to 5 (best and most versatile land graded 1 to 3a)
- Agricultural Environmental Agreements (Environmental Stewardship and Countryside Stewardship)
- Locations of historic and authorised landfill
- Landholding extents and what the land is used for (for example arable, horticulture, pasture – cattle or horses)
- Areas designated for mineral extraction and mineral safeguarding areas
- Socio-economic receptors including:
 - Cultural (including museums, galleries and stately homes);
 - Commercial (including town centre retail, retail parks, offices, commercial uses of lakes and car parks);
 - Education;
 - Industrial (including manufacturing, storage and wholesale distribution, and light industrial businesses);
 - Places of Worship;
 - Recreation (including PRow, National Cycle Routes and the Thames Path, angling lakes, common land, allotments or community growing spaces, bowling greens, tennis courts, golf courses, other sports facilities, play spaces, playing fields, public park or garden, religious grounds, cemeteries);
 - Residential.
- Potential future land uses or designated land uses as determined through local planning policy for residential, educational, commercial, open spaces, Greenbelt and Metropolitan Open Land, recreation, car parking or any other form of land use development or classification.

2.3 Data Sources

2.3.1 Data was collected from the following sources:

- Ordnance Survey mapping;
- Aerial photography (Google and Bing) for use in verifying other spatial data by allowing to virtually visit sites;
- Local and regional planning policies mapping on Local Planning Authority websites;
- Other relevant land use data on Local Planning Authority websites;
- Defra MAGIC website;
- [Environment Agency Historic and Active Landfill Sites Data](#)
- Office of National Statistics;
- Provisional ALC mapping by Natural England;
- Review of 2022 Binnies UKHab survey mapping;
- Discussions with Dalcour McLaren (land agent acting on behalf of the Environment Agency for the RTS), and review of landowner data it holds, acknowledging that some data is not to enter the public domain. This will confirm land uses (commercial, industrial, residential – including the extent to which businesses are solely within the project boundary, where this is known) and agricultural land types (e.g. arable or pasture).

3 Results of the Desk Based Appraisal

- 3.1.1 The results of the information gathered are presented below and in a suite of Figures (1-12) within Appendix A and discussed in the proceeding sections below.
- 3.1.2 Figure 1 provides an overview of the RTS location, the Local Planning Authority (LPA) boundaries, the project boundaries and the study area. Due to the breadth of information, in some sections the areas have been split up by LPA boundary (Figure 2). Figure 3 shows aerial imagery for the area in which the RTS is located and allows for the broad range of land uses to be viewed.
- 3.2 **Agricultural Land Classification (ALC) grades 1 to 5 (best and most versatile land graded 1 to 3a)**
- 3.2.1 ALC is the approved system for grading agricultural land between 1 and 5 with Grade 3 subdivided into subgrades 3a and 3b. The 'Best and Most Versatile' agricultural land is defined within the planning system as Grades 1, 2 and Subgrade 3a (good quality land).

- 3.2.2 Figure 4 illustrates the ALC within the study area and the project boundary. Whilst the total area of agricultural land within the study area is limited, the quality is generally high, with the majority of agricultural land classified as Grade 3 (good to moderate) or Grade 2 (very good) with occasional areas of Grade 1 (excellent). The study area contains isolated areas of agricultural land throughout, with land around Wraysbury reservoir classed as mainly non-agricultural with a stretch of Grade 3 (good to moderate) to the south and west, Sunbury and Molesey Weirs classed as non-agricultural, and land around Teddington Weir dominated by urban areas.
- 3.2.3 In a similar fashion to the wider study area, and given its urban setting, the total area of agricultural land within the project boundary is also limited and mainly classed as non-agricultural land under the ALC. The pockets of agricultural land present within the project boundary are however, as above, generally high in quality, with the majority of agricultural land classified as Grade 3 (good to moderate) or Grade 2 (very good). The single area of Grade 3 (good to moderate) land within the project boundary, is situated within Elmbridge Borough Council covering four sections of land including (and either side of) the Land between Desborough Cut and Engine River HCA. There are three areas of Grade 2 (very good), including a strip of land noted to the north of Littleton North Lake at Laleham Farm, Thorpe Park and Shepperton and a parcel of Land at Dockett Eddy Lane.
- 3.3 **Agricultural Environmental Agreements (Environmental Stewardship and Countryside Stewardship)**
- 3.3.1 Agricultural land can be covered by various levels of Agricultural Environmental Agreements where farmers are offered financial incentives to adopt agricultural practices to safeguard and enhance the nature conservation, historic and/or landscape value of the land.
- 3.3.2 Environmental Stewardship is a land management scheme with payments made based on three levels; Entry Level Stewardship (ELS), Organic Entry Level Stewardship and High Level Stewardship (HLS) with increasing complexity in the types of land management applied. A Higher Level stewardship denotes a more targeted approach and is designed to offer more support to active and environmentally friendly beneficial

management practices and it also offers grants for capital works such as restoration of traditional farm buildings.

- 3.3.3 Countryside Stewardship provides financial incentives for farmers and land managers to look after the environment in various ways including flood risk management, biodiversity enhancement, preservation of historical features and landscape character and encouraging educational access.
- 3.3.4 Figure 5 illustrates the Agricultural Environmental Agreements within the study area.
- 3.3.5 Within the study area, there are six Environmental Stewardship Agreements (the Higher level stewardship), one situated within the London Borough of Richmond Upon Thames and crosses into the Royal Borough of Kingston upon Thames adjacent to the project boundary at Teddington Weir. The others are located within Spelthorne Borough Council and only one of these is situated within the project boundary at Dumsey Meadow in Chertsey.
- 3.3.6 Within the study area, there are two main patches of land covered by the middle tier Countryside Stewardship Scheme Management Areas, located to the north west of Wraysbury and at Chertsey Meads which lies adjacent to the project boundary. There are no Countryside Stewardship Management Areas within the project boundary.

3.4 Historic and authorised landfill

- 3.4.1 The landscape within the study area has been heavily shaped by extensive mineral workings. Many of the voids within the study area are either permanently filled with water once mineral extraction has finished or are used as landfill sites and are clay lined. There are also a number of raised landfills present across the study area and project boundary. Construction of the two flood channels for the RTS will require excavation through both historic and authorised landfill sites. Historic and authorised landfills are shown on Figure 6.

Runnymede

- 3.4.2 In the Runnymede borough, there are 14 historic landfills within the study area, nine of which fall within the project boundary (located at Royal Hythe which extends south west towards Thorpe Industrial Estate, five small,

isolated pockets within the Norlands Lane potential HCA, Laleham Reach HCA, Land North of Fleet Lake, and Thorpe Park Car Park).

- 3.4.3 One authorised landfill is situated within the project boundary at the Norlands Lane potential HCA.

Spelthorne

- 3.4.4 In the Spelthorne borough, there are 10 historic landfill sites present within the study area, three of which lie within the project boundary, one large area covering a number of lakes (Littleton East Lake, Sheepwalk Lake, Chertsey Tip HCA, Land West of Chertsey Tip, and Land at Renfree Way), another covering Littleton South Lake and at Land south of Chertsey Road.

- 3.4.5 Five authorised landfills fall within the study area in Spelthorne, two of which are situated within the project boundary (Littleton North Lake and the western tip of Halliford Mere Lakes).

Elmbridge

- 3.4.6 In the Elmbridge borough, there are four historic landfill sites located within the study area, with two located within the project boundary in the south of Desborough island (just south of the HCA) and at Grove Farm potential HCA.

- 3.4.7 There are two authorised landfills situated within the study area which do not enter the project boundary.

Royal Borough of Windsor and Maidenhead

- 3.4.8 In the Royal Borough of Windsor and Maidenhead there are seven historic landfills and three authorised landfills within the study area. To the south of Wraysbury reservoir, within the nearest area of land classed as authorised landfill, there is also a small parcel of land which is noted as 'Domestic Landfill' (see Figure 6). The majority of these landfill sites are concentrated to the south and west of Wraysbury reservoir and are not situated within the project boundary.

Royal Borough of Kingston upon Thames

- 3.4.9 There are no historic or active landfill sites within the study area in this borough.

London Borough of Richmond upon Thames

3.4.10 In the London Borough of Richmond upon Thames, there is one historic landfill site located within the study area and within the project boundary (Broom Road Recreation ground).

3.5 Landholding Extents and Agricultural Land Use Type

3.5.1 Following discussions with the land agent, there are certain areas of land within the project boundary, which are understood to be used as arable, pasture (horse grazing, cattle grazing and sheep grazing) and horticulture. These specific areas are illustrated on Figure 7.

3.5.2 The most common agricultural land type within the boundary is pasture, with horse grazing covering seven parcels of land within the project boundary, incorporating a number of the larger land parcels within the scheme. These are located at: Laleham Reach HCA, Land north of Abbey River, Land West of Chertsey Tip, Land at Dockett Eddy Lane and at Land at Desborough Cut and Engine River (which also incorporates land to the east). Cattle grazing covers three large areas of land, in the south east of Royal Hythe, Laleham Golf Course potential HCA and Land south of Chertsey Road. Sheep grazing is only present at Wraysbury Reservoir potential HCA.

3.5.3 Arable land use covers three main areas within the project boundary, consisting of Maize at Royal Hythe, Hay Crop at Laleham Reach HCA and Land south of Chertsey Water Works. There is only one known area of horticulture land use, located in fields to the north of Littleton North Lake, which is used for fruit farming.

3.6 Areas designated for mineral extraction and mineral safeguarding areas

3.6.1 Figure 8 illustrates the mineral extraction areas and mineral safeguarding areas and information on the existing mineral and waste sites.

3.6.2 Mineral extraction is one of the primary industries within the study area as a result of the valuable reserves of sharp sand and gravel that are present within the River Thames floodplain. These are the predominant minerals worked in Surrey. A large area of former mineral extraction is located within the north of the study area to the south, west and north of Wraysbury reservoir. There are no further former mineral extraction areas located within the project boundary.

- 3.6.3 Mineral safeguarding areas (MSAs) are areas which contain specific mineral resources of local and national importance. There are several designated MSAs across the study area in place to ensure sustainable use of aggregate minerals, the conservation of mineral resources and the prevention of sterilisation by other forms of development. MSAs are designated by Surrey County Council as the Minerals Planning Authority and are therefore identified as locally and nationally important receptors. There are a number of MSAs across the study area, the majority of which are mainly located adjacent too and within the project boundary. In the northernmost part of the study area to the west of Wraysbury Reservoir HCA, lies King George VI reservoir and Staines Reservoir, and this area is covered by an MSA. Other MSAs within the study area cover the northern and southern sections of the proposed Runnymede Channel (including Laleham Golf Course HCA) and an MSA covers the extent of Littleton North Lake and Littleton Lane HCA located at the start of the proposed Spelthorne Channel. Further MSA's within the project boundary are noted at Desborough Island potential HCA and another that covers the Land between Desborough Cut and engine River potential HCA and the 3 sections of land either side. The eastern most section of the study area for the Drinkwater Pit potential HCA, is also covered by an MSA but does not enter the project boundary. Hurst Park, located within the study area for Molesey Weir, has also been designated as an MSA. Within the study area for Sunbury weir, an MSA covers a parcel of land to the north west of the works boundary. There are no existing MSAs within the study area for Teddington Weir.
- 3.6.4 There are a number of Existing Mineral and waste sites (active and restored) within the study area and project boundary. With respect to active existing minerals and waste sites within the study area, one is located to the north east of Wraysbury reservoir and the other at Penton Hook Marina. Further active existing minerals and waste sites situated within the project boundary are located in the south west of the Norlands Lane HCA and a large area of land incorporating Littleton North Lake and areas covering further land to the north and covering Littleton South Lake. With regards to restored existing mineral and waste sites, there is one present at the Norlands Lane HCA. Another is located adjacent to the study area at Molesey Reservoirs Nature Reserve.

- 3.6.5 Within the study area there are five areas of land noted as Primary Aggregate Extraction Preferred Areas (2009-2026; Surrey CC). There are no Primary Aggregate Extraction Preferred Areas within the project boundary.
- 3.6.6 Industrial Land Areas of Search are sites likely to be considered suitable for the development of additional waste management facilities. There is one Industrial Land Areas of Search within the study area and the project boundary, located at Thorpe Industrial Estate, adjacent to the potential HCA at Norlands Lane.
- 3.6.7 There are no Waste Consultation Areas, within the project boundary, with two located within the wider study area to the south of the Drinkwater Pit HCA and the other just entering the north of the study area at Shepperton Recycling Centre.

3.7 Socio-economic Receptors

- 3.7.1 The greatest risk of flooding to human populations (i.e. socio-economic factors) is in the urban areas of Staines, Egham, Chertsey, Walton-on Thames, East Molesey, Teddington and Kingston upon Thames which have the greatest population densities. For further information and detail on the socio-economic factors please refer to the RTS EIA Scoping Report (GBV, 2022).
- 3.7.2 The different socio-economic receptors in the study area are shown on Figure 9. This data is sourced from Ordnance Survey AddressBase Premium. All numbers noted in the proceeding sections are based on the sources of desk based information available, which may not be a complete data set, and therefore potentially underestimates the total numbers of receptor types. Figure 10 shows the Recreational Receptors in the wider area (including PRow).

Residential, Education and Places of Worship

- 3.7.3 Within the study area there are approximately 45,000 residential dwellings along with a wide array of social infrastructure including approximately 50 educational establishments, 60 places of worship and over 100 recreational facilities. Figure 9 shows the socio-economic receptors in the study area.

- 3.7.4 Within the project boundary there are 8 residential properties, this comprises of 3 detached houses located at the upstream end of the Runnymede channel, 4 house boats located at Molesey Weir and 1 detached house off Green Lane, Egham Hythe (see Figure 9). There are no places of worship within the project boundary. There is one educational facility that lies immediately adjacent to the project boundary (Thorpe Nursery pre-school) located to the north west of Thorpe Park.

Recreation and Cultural

- 3.7.5 There are a variety of formal and informal recreational facilities within the study area. Informal recreational facilities present throughout the study area and project boundary include a complex footpath network consisting of various PRoW, the Thames Path National Trail and National and Local Cycle Network routes. Furthermore, there are a variety of Public Open Spaces, amenity areas and areas of common land across the study area. There are no areas of common land within the project boundary. All common land is open access land under the Countryside and Rights of Way Act 2000 (CRoW). Aside from areas of common land there is no other land within the study area that is designated as open access land under the CRoW Act.
- 3.7.6 A number of formal recreational facilities are also present within the study area and project boundary, Thorpe Park, and Hampton Court and a number of watersports activities (fishing, angling lakes, open water swimming locations, sailing clubs, canoeing and other water sports) (see Figure 10).
- 3.7.7 Within the project boundary and the wider study area there are multiple lakes which are used for various commercial and recreational uses, including angling, water sports, sailing and swimming. Table 1 provides a summary of the water bodies within the red line boundary and what they are currently used for (also see Figure 10).

Table1: Waterbodies and their current use (includes main lakes, and other waterbodies within the project boundary, note this does not include field drains)

Waterbodies within the project boundary for EIA Scoping	Use (recreational, commercial etc)*
Wraysbury reservoir	Utility/water storage
Egham Hythe Pond	Angling/fishing
Meadlake	Private use
Lake South of Green Lane	No known recreational or commercial use
Mead Lake Ditch	No known recreational or commercial use
Lake South of Norlands Lane 1	No known recreational or commercial use
Lake South of Norlands Lane 1	No known recreational or commercial use
Thorpe Park Lakes: Manor Lake, St Ann's Lake, Fleet Lake, Abbey Lake	Commercial recreational water sports (Thorpe Lakes Aqua Park), Angling/fishing, LDB Wake School (SUP boarding, wakeboarding, wake surfing)
The Moat	No known recreational or commercial use
Chertsey Bourne	No known recreational or commercial use
Abbey River	No known recreational or commercial use
Abbey 1	Angling/fishing

Waterbodies within the project boundary for EIA Scoping	Use (recreational, commercial etc)*
Abbey 2	Angling/fishing
Burway Ditch	No known recreational or commercial use
Littleton North	Water sports (including canoeing), Angling/fishing
Littleton South	Angling/fishing
Littleton East	Commercial sailing (Littleton sailing Club), Angling/fishing
Sheepwalk Lakes (west 1, 2 & 3 and East).	Angling/fishing
River Croft Lake	No known recreational or commercial use
Manor Farm Lake	No known recreational or commercial use
Black Ditch Pond	No known recreational use (potential use by the school for educational purposes)
Pool End Ditch	No known recreational or commercial use
The Chap (part of the River Thames)	Recreational uses associated with the River Thames (sailing and watersports)
Ferry Lane Lake	Commercial open water swimming (Shepperton Open Water Swim) and boating

Waterbodies within the project boundary for EIA Scoping	Use (recreational, commercial etc)*
Ferry Lane West (1, 2 & 3)	Private Use
Engine River	No known recreational or commercial use
River Thames (including Desborough Channel)	Sailing, swimming, canoeing, kayaking, fishing, stand up paddle boarding, other watersports and other recreational and commercial activities

* An evaluation of all lakes within the project boundary is currently on going by Dalcour McLaren. This will provide a greater level of detail regarding the use of each waterbody, in particular whether the use is commercial, private or freely accessible.

3.7.8 The Thorpe Park Resort, including the surrounding recreational lakes, represent a significant commercial area and recreational destination in this part of the study area attracting approximately 1.9 million visitors per year. The theme park has dozens of rides, live events and other attractions and has approximately 200 permanent staff and over 1,200 temporary/supporting staff on a seasonal basis between March and November (Merlin Entertainment, 2020).

3.7.9 Cultural receptors include museums, galleries and stately homes. There are two cultural receptors within the study area; Hampton Court Palace located south east of Molesey Weir and the Landmark Art Centre south west of Teddington Weir (see Figure 9). There are no cultural receptors within the project boundary.

Commercial, Industrial and Car Parks

3.7.10 The urban areas of Datchet, Wraysbury, Hythe End, Staines-upon-Thames, Egham Hythe, Chertsey, Shepperton, Walton-on-Thames, Sunbury-on-Thames, Molesey, Kingston upon Thames and Teddington are associated with over 2,100 commercial/industrial properties and multiple public car parks. These developments are supported by a complex infrastructure network, including transport infrastructure and

other critical utilities such as drinking water abstractions, electricity substations and telecommunication masts (GBV, 2022).

- 3.7.11 Commercial developments comprise of offices, hotels, retail, medical and emergency services, community services, animal centres and agricultural businesses. Industrial developments comprise of manufacturing, storage and wholesale distribution, and light industrial businesses.
- 3.7.12 Within the project boundary there are 39 industrial developments, 7 commercial developments and 6 car parks. All 39 of the industrial developments are associated with the Littleton Lane Trading Estate located within and immediately south of the Littleton Lane HCA. Three of the 7 commercial developments are also located at the Littleton Lane Trading Estate, these are an office, a café and a vehicle storage facility. The remaining 4 commercial developments comprise of 3 public conveniences and 1 office (see Figure 9).
- 3.7.13 The following sections highlight the distribution of socio-economic receptors across each of the local authority areas.

Runnymede

- 3.7.14 Within the study area there are two large clusters of the following receptors: residential, commercial, education, places of worship and car parks with dotted recreation receptors within Egham Hythe and Chertsey. There is a large cluster of commercial and industrial receptors comprising of large retail stores, offices and factory and warehousing facilities at The Causeway in north east Egham Hythe. Another large cluster of commercial and industrial receptors within the study area is located at Thorpe Industrial Estate. Other receptors are spread fairly evenly throughout the study area, but there are also large areas where receptors are not present, particularly south of Thorpe Park, south east of Chertsey and north west of Egham Hythe. There are a range of recreation, education, industrial and commercial receptors within the study area around Drinkwater Pit HCA.
- 3.7.15 The River Thames National Trail passes through the study area on the right bank of the Thames between Old Windsor and Staines. Within the study area immediately north of Egham there is an area of common land.

- 3.7.16 Within the project boundary, there are 4 residential properties, 3 of which are located at the upstream end of the Runnymede channel and 1 off Green Lane, Egham Hythe. There is one car park operated by Runnymede Borough Council on Truss Island south of the upstream end of the Runnymede channel. The single industrial receptor is Land Logical located at Norlands Lane potential HCA (see Figure 9). There are a few recreation receptors mainly associated with Thorpe Park and the Thorpe Lakes Aqua Park to the south of the main Thorpe Park. There are a range of industrial, and educational receptors (including Thorpe Nursery Pre-School) located to the north and north west of Thorpe Park. There are no receptors within the project boundary at Drinkwater Pit HCA.

Spelthorne

- 3.7.17 Within the study area situated in the Spelthorne borough, there are various commercial, industrial, car parks, education facilities, places of worship, recreation and residential receptors. Residential receptors are mainly concentrated around Staines Upon Thames, Shepperton and Sunbury on Thames. There is a large cluster of commercial receptors located in Staines Upon Thames in the north of the study area, the largest cluster of non-residential receptors within the study area, this area comprises of town centre retail and restaurant/café units (including Elmsleigh Shopping Centre), large retail units (including Two Rivers Shopping Centre), offices and car parks. All other receptors are spread fairly evenly throughout the study area.
- 3.7.18 The River Thames National Trail runs along the left bank of the River Thames between Staines and Walton on Thames. There are several areas of common land with the study area in Spelthorne including a large area (Shortwood Common) and several smaller areas immediately east of Land South of Wraysbury Reservoir HCA, and several small areas in Lower Halliford.
- 3.7.19 Within the project boundary there are recreation, commercial, industrial and car parks, with the main receptor being industry associated with Littleton Lane Trading Estate home to Brett Aggregates and George Killoughery Ltd. There is also an office space and café at the Littleton Lane Trading Estate. There is one further office space at Wraysbury Reservoir. There are also 5 car parks and 3 public conveniences within the project boundary, with 2 of the public conveniences located in close

proximity to car parks and with the majority of the car parks located next to the bank of the River Thames. Recreational receptors within the project boundary are located at Littleton East Lake which is used by Littleton Sailing Club and by anglers.

- 3.7.20 There are no socio-economic receptors noted within the project boundary of Teddington Weir. The islands at Molesey weir, although not within the project boundary, are however residential in nature. Sunbury Lock island is home to the Middle Thames Yacht Club.

Elmbridge

- 3.7.21 Within the study area, there are a number of residential receptors present, concentrated on the very outskirts of the study area boundary around Weybridge increasing to cover more of the study area at Walton-on-Thames and at Molesey Weir, and covering small parts of Kingston upon Thames. Commercial receptors and car parks are located in very similar locations to the residential receptors as noted above, with the largest clusters noted around Walton-on-Thames, Molesey and the edge of Kingston upon Thames.
- 3.7.22 There are a handful of recreational receptors and places of worship scattered throughout the study area in the Elmbridge Borough. Recreational receptors within the study area include Hurst Park near Molesey Weir, various sports facilities and playing fields. The Thames Path National Trail runs along the right bank of the Thames between Weybridge and just south east of Molesey Weir. Within the study area there is a small, fragmented area of common land south of the Grove Farm HCA.
- 3.7.23 Educational receptors located within the study area are mainly found near Weybridge, Molesey and Kingston upon Thames. Industrial receptors spread out across the study area include Esher Sewage Treatment Works and Sandown Industrial Park to the west of Grove Farm HCA, Ferry Works in Thames Ditton, a used car dealership next to Hampton Court railway station and the BP Amoco Oil Terminal at Walton-on-Thames.
- 3.7.24 There are no socio-economic receptors present within the project boundary in this borough, with some recreation, commercial and industrial receptors located adjacent to the project boundary. There are no socio-economic receptors present at Grove Farm HCA.

Royal Borough of Windsor and Maidenhead

- 3.7.25 Within the study area, the socio-economic receptors are concentrated around Wraysbury, Old Windsor, Hythe End and Datchet urban areas. Residential areas, industry, commercial, places of worship, educational facilities and car parks are all present within the study area in this borough concentrated around those key urban locations (see Figure 9). There are various recreational facilities dotted throughout the study area with several of these associated with lakes such as Silverwings Sailing Club, Wraysbury Dive Centre and Liquid Leisure Windsor (see Figure 10).
- 3.7.26 The project boundary does not extend into this borough, and therefore there are no receptors present within the project boundary at this location.

Royal Borough of Kingston upon Thames

- 3.7.27 The project boundary does not extend into this borough, and therefore there are no receptors present within the project boundary at this location.
- 3.7.28 Within the study area there are a number of recreational and commercial receptors along the River Thames, particularly at Kingston upon Thames. The majority of the receptors are located in the study area around Broom Road Recreation Ground where there are residential, recreation, commercial and educational receptors present.

London Borough of Richmond upon Thames

- 3.7.29 The component of the RTS within the LBRUT is Teddington Weir and any associated temporary working area or site compounds within the project boundary located at Broom Road Recreation Ground.
- 3.7.30 The study area surrounding Teddington Weir is predominantly urban, with a mixture of commercial, places of worship, residential properties and Public Open Spaces. Much of the commercial land use on the immediate left bank relates to sporting facilities. Within the study area there are generally very few receptors, with residential receptors concentrated around Molesey Weir, Broom Road Recreation Ground and Teddington Weir. A large cluster of industrial receptors are located on the island in the Thames to the north west of Hurst Park, with two further industrial receptors located in the study area around Molesey Weir. Hampton Court Park is noted as the largest recreation receptor in the study area comprising of a public park and golf course, with a few further recreation

receptors scattered through the study area. Commercial receptors are concentrated to the north of Molesey Weir, along the Thames frontage at Kingston and south of Teddington Weir. Education receptors are concentrated to the north of Teddington Weir and located to the north of Molesey Weir.

3.7.31 The two cultural receptors located within the study area are both found within the LBRUT; Hampton Court Palace located south east of Molesey Weir and the Landmark Art Centre south west of Teddington Weir (see Figure 9).

3.7.32 The socio-economic receptors located within the project boundary in this borough are Broom Road Recreation Ground, a section of the Thames Path National Trail at Teddington Weir and house boats located at Molesey Weir. There are residential and industrial receptors directly adjacent to the project boundary to the north of Molesey Weir, with residential and commercial receptors also adjacent to the project boundary at Teddington Weir.

3.8 Potential future land uses or designated land uses

Greenbelt and Metropolitan Open Land

3.8.1 Local planning policy allows for the designation of open areas as Green Belt. The purpose of the policy is to control the outward growth of urban areas, creating areas of open land used for farming, forestry and recreation. In general, built development will be restricted within areas designated as Green Belt. Metropolitan Open Land (MOL) is a term used by London planning authorities and is afforded the same level of protection from development as Green Belt.

3.8.2 In addition to Green Belt and MOL local planning authorities can identify other open spaces within which built development is restricted. These areas can be spaces of amenity or recreational value (e.g. sports pitches, parks, allotments) and can contribute to the green infrastructure network. The local planning authorities have designated these areas based on the following list, but all are generally defined in the same way and have similar levels of protection from inappropriate development:

- Runnymede Borough Council and Royal Borough of Windsor and Maidenhead – Local Green Space

- Spelthorne Borough Council – Protected Urban Open Space
- Elmbridge Borough Council – Local Green Space
- Royal Borough of Kingston upon Thames – Local Open Space
- London Borough of Richmond upon Thames – Other Open Land of Townscape Importance (OOLTI) and Public Open Space

3.8.3 Areas designated as Green Belt, MOL and other open space are shown on Figure 11.

3.8.4 The majority of the project boundary and the wider study area is designated as Green Belt or MOL (for areas within Richmond and Kingston). The Green Belt and MOL largely covers areas which are not part of urban centres and includes lakes, reservoirs and the River Thames as well as agricultural land, woodland and parks.

3.8.5 Aside from two small areas in Richmond there are no other designated open spaces within the project boundary. Within the study area there are numerous other open spaces which comprise parks, sports fields and allotments.

3.8.6 The following sections highlights the coverage of Green Belt, MOL and other open space designations across each of the local authority areas.

Royal Borough of Windsor and Maidenhead

3.8.7 While the project boundary does not extend into Windsor and Maidenhead the study area does. Nearly all of the study area is designated as Green Belt with the exceptions being the built up areas of Datchet, Old Windsor and Wraysbury. There are no areas of Local Green Space within the study area.

Runnymede

3.8.8 Nearly all of the project boundary within Runnymede is designated as Green Belt with the only exception being the section where the Runnymede channel connects with the River Thames. All of the land and lakes that form part of Thorpe Park is designated as Green Belt as is the potential HCA at Drinkwater Pit. Within the study area there are areas of Local Green Space in Egham Hythe and Chertsey which include Hythe Park and Gogmore Farm Park.

Spelthorne

- 3.8.9 Nearly all of the project boundary within Spelthorne is designated as Green Belt with the only exception being the narrow section along the right bank of the Thames in Staines. Within the study area there are areas of Protected Urban Open Space in Staines and Shepperton. These include the playing field and sports pitches at The Matthew Arnold School, Staines Park and Shepperton Recreation Ground.

Elmbridge

- 3.8.10 Nearly all of the project boundary within Elmbridge is designated as Green Belt, including the potential HCA at Grove Farm, with the only exception being the right bank of the River Thames at Molesey, however this is adjacent to Hurst Park a Local Green Space. Other Local Green Spaces within the study area include Cigarette Island Park, Albany Reach Park, Felix Road Recreation Ground, Riverside Park and land around the perimeter of Island Barn Reservoir.

Royal Borough of Kingston upon Thames

- 3.8.11 There are small areas of MOL and one small area of Public Open Space within the study area associated with Burnell Avenue Play Space, YMCA Hawker and Canbury Park.

London Borough of Richmond upon Thames

- 3.8.12 The entirety of the project boundary within Richmond is classed as MOL. Within the study area there are large areas of Public Open Space mostly associated with Hampton Court and Ham Lands Local Nature Reserve. There are also small areas of OOLTI in Teddington within the study area associated with small parks, gardens and graveyards.

Local Planning Policy Allocations

- 3.8.13 Each local planning authority has a development plan which directs how they want development to progress over the plan period (typically 10-15 years). As part of that plan existing areas of employment are identified which are to be retained and improved where necessary and new areas are allocated for commercial, residential or mixed-use development. These sites are protected from development which is not in accordance with the reasons for their allocation. Each LPA defines these areas in different ways but each fall either within the category of sites of existing

development and sites of future development, as detailed in Table 2 below.

3.8.14 Areas designated as sites of future development and existing development are shown on Figure 12.

Table: Local Planning Authority identified sites definitions

Local Planning Authority	Sites of Future Development	Sites of Existing Development
Royal Borough of Windsor and Maidenhead	Allocation Sites (No spatial data provided)*	Business Areas, Industrial Areas, Mixed Use Areas, Established Employment Sites in the Green Belt (No spatial data provided)*
Runnymede Borough Council	Allocation Sites, Opportunity Areas	Employment Areas, Enterprise Zones
Spelthorne Borough Council	Allocation Sites	Employment Areas
Elmbridge Borough Council	No spatial data provided**	Employment Areas
Royal Borough of Kingston upon Thames	Allocation Sites	Industrial Locations
London Borough of Richmond upon Thames	Allocation Sites	Mixed Use Area, Key Office Areas, Industrial Locations

* A request for spatial data was made to the Royal Borough of Windsor and Maidenhead however data was not provided and is therefore not shown on Figure 12. Planning policy mapping was viewed online to establish the presence/absence of planning policy areas. Online mapping was viewed at: <https://www.planvu.co.uk/rbwm/> (last accessed 9th January 2023).

** The Elmbridge Core Strategy does not provide specific locations of sites of future development, rather naming towns and villages across the borough where there is an aspiration for development to be delivered.

- 3.8.15 There are no planning policy allocations of either sites for future development or sites of existing development within the project boundary. Within the wider study area there are a range of existing development areas for employment purposes and future development allocations. The following sections describe in more detail the planning policy allocations within the study area for each of the local authority areas.

Royal Borough of Windsor and Maidenhead

- 3.8.16 There are no planning policy allocations of either sites for future development or sites of existing development within the study area.

Runnymede

- 3.8.17 There are several areas of existing employment within the study area at Egham Hythe and Thorpe Industrial Park. There is one area of future development allocation within the study area at Pycroft Road, Chertsey this has been allocated for residential housing and pitches for Gypsies/Travellers.

Spelthorne

- 3.8.18 There are several development allocations within the study area located in Staines and Shepperton, these comprise mainly of existing employment areas in the town centres with some new development allocations for commercial, retail and residential housing close by. Other smaller residential development allocations are located outside of the town centre including an area at Staines and Laleham Sports Club which includes for a mixture of housing along with an upgrade to the sports facilities.

- 3.8.19 There are no planning allocations within the study area around the potential HCA at Drinkwater Pit

- 3.8.20 The planning policy allocations discussed here are taken from Spelthorne Borough Council's existing Development Plan which was adopted in 2009. A new Local Plan which will cover the period 2022 to 2037 is currently in development and is anticipated to be adopted in autumn 2023. Having reviewed the emerging plan it is considered that there would not be a significant change to the baseline presented here.

Elmbridge

Land Use and Agricultural Baseline

- 3.8.21 There are no planning policy allocations of either sites for future development or sites of existing development within the project boundary.
- 3.8.22 The information provided here is taken from Elmbridge's Core Strategy which was adopted in 2011. The Core Strategy does not provide specific locations of sites of future development, particularly with respect to housing, rather naming towns and villages across the borough where there is an aspiration for development to be delivered. Locations where future development may take place within the study area are, Walton on Thames, Weybridge, East and West Molesey, Thames Ditton, Long Ditton and Weston Green.
- 3.8.23 The Elmbridge Core Strategy guides future development up to 2026. A new Local Plan which will cover the period 2022 to 2037 is currently in development and is anticipated to be adopted in summer 2023. While no sites within the borough have yet to be allocated for development, having reviewed the emerging plan it is considered that there would not be a significant change to the baseline presented here.

Royal Borough of Kingston upon Thames

- 3.8.24 There are no planning policy allocations of either sites for future development or sites of existing development within the study area.
- 3.8.25 The information provided here is taken from Kingston upon Thames existing Core Strategy which was adopted in 2012 and guides future development up to 2027. A new Local Plan which will cover the period 2019 to 2041 is currently in development and is anticipated to be adopted in winter 2023. Having reviewed the emerging plan it is considered that there would not be a significant change to the baseline presented here.

London Borough of Richmond upon Thames

- 3.8.26 There are two existing mixed use areas within the study area, one at Hampton Wick and the other at Hampton. There is an area allocated for future development at Platt's Eyot which has been allocated primarily for new business and industrial uses (B1, B2 and B8) although some residential development may be appropriate and another at Ham Close, Ham where there is a desire to regenerate the existing social housing development.

4 Assumptions and Limitations

- 4.1.1 The use of desk-based data does present certain limitations. The provisional ALC mapping from Natural England is not sufficiently accurate for use in the assessment of individual fields instead giving a strategic indication of use. Aerial and Ordnance Survey mapping is used to the latest available date that data is available, however some mapping may be out of date. There is the potential need for further field surveys across the project boundary to inform and determine the ALC grade.
- 4.1.2 The use of the Phase 1 Habitat Survey Plans and consultation with Dalcour McLaren has reduced the uncertainty by providing insights from onsite surveys and direct contact with landowners and tenants.
- 4.1.3 The landholding extents data, provided by Dalcour McLaren, is limited to the project boundary. Landholder data is not available for the wider study area as these areas are not likely to be directly affected by the project and therefore direct contact with Dalcour McLaren (land agent acting on behalf of the Environment Agency for the RTS) is not necessary.
- 4.1.4 The type of data received from the various Local Planning Authorities was not consistent, with some providing more data sets than others. Royal Borough of Windsor and Maidenhead did not provide any data, although having reviewed the planning policy mapping online it was possible to establish the presence/absence of planning policy areas and therefore the effect on the accuracy of data reported is limited.
- 4.1.5 Data provided for the socio-economic receptors is based on the sources of desk based information available, which may not be a complete data set, therefore potentially underestimates the total numbers of receptor types.
- 4.1.6 The data obtained from the local planning authorities is taken from the existing adopted local development plans. In some cases LPAs are in the process of replacing these plans with new plans and therefore the designations and allocations may change in the future once these new plans have been adopted. Having reviewed the emerging plans from Spelthorne Borough Council, Elmbridge Borough Council and the Royal Borough of Kingston upon Thames it is considered that potential changes

would not result in a significant change to the baseline presented in this report.

5 Summary and Conclusions

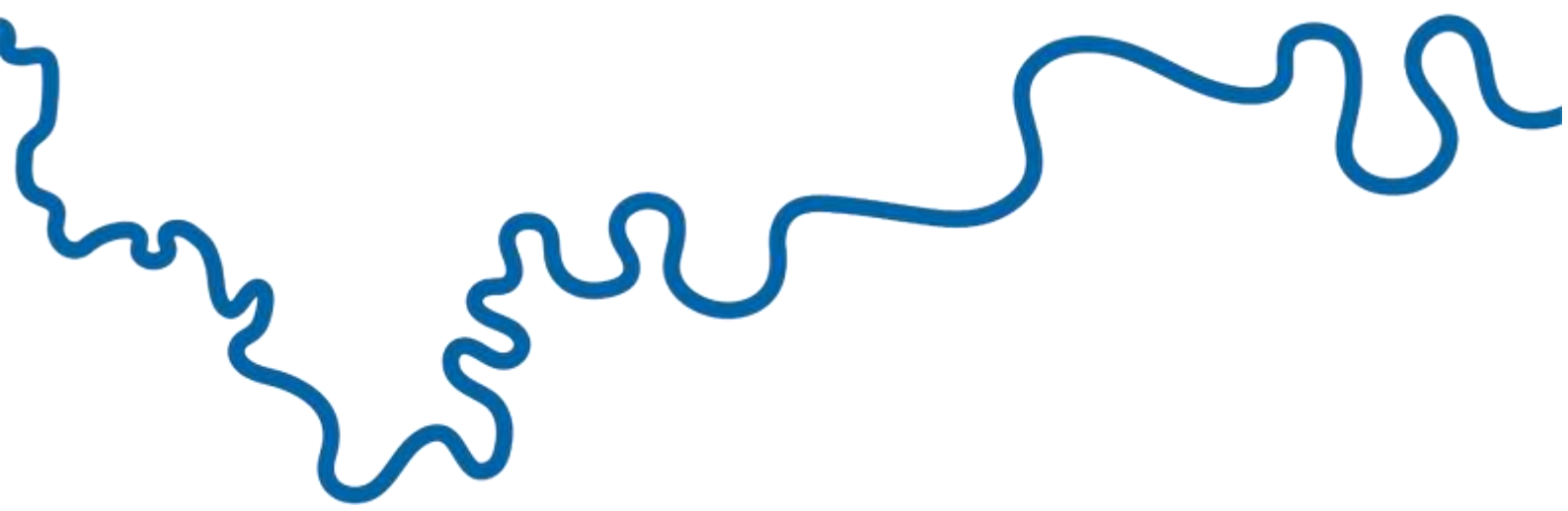
- 5.1.1 In summary, the DBA has presented desk-based land use and agricultural data for use by relevant technical specialists (particularly relevant to the Biodiversity, Health, Landscape and Visual Amenity, Socio-economics and Soils and Land EIA topics) when undertaking the EIA for RTS.
- 5.1.2 The data has indicated that the area covered by the project boundary and wider study area is mostly Green Belt and MOL. Due to its urban nature the land within the project boundary is classed as 'non-agricultural'. The small amount of Agricultural land that is present within the project boundary is generally of high quality (Grade 3 and above) but is largely dominated by horse grazing. With regards to Environmental Stewardship Agreements (the Higher level stewardship), there is only one area located within the project boundary, and there are no Countryside Stewardship Management Areas within the project boundary.
- 5.1.3 There are a number of socio-economic receptors within the wider study area and project boundary, mainly residential with commercial and industrial receptors also very common.
- 5.1.4 Mineral extraction is one of the primary industries within the study area, and there are large areas of the study area and project boundary which are covered by MSAs. A number of Existing Mineral and Waste Sites (active and restored) are located across the study area and project boundary.
- 5.1.5 There are no planning policy allocations of either sites for future development or sites of existing development within the project boundary. Within the wider study area there are a range of existing development areas for employment purposes and future development allocations.

6 Appendix A - Figures

6.1.1 Appendix A contains Figures 1-12 to supplement the information within this report.

6.1.2 Figure List

- Figure 1: Land Use and Agricultural Baseline Study Area
- Figure 2: District and County Boundaries and Authorities
- Figure 3: Aerial Imagery Plan
- Figure 4: Agricultural Land Classification (ALC)
- Figure 5: Agricultural Environmental Agreements
- Figure 6: Historic and Authorised Landfill
- Figure 7: Landholding Extents and Agricultural Land Use Type
- Figure 8: Minerals and Waste Baseline Information
- Figure 9: Socio-economic Receptors
- Figure 10: Recreational Receptors
- Figure 11: Greenbelt and Metropolitan Open Land
- Figure 12: Local Planning Policy Allocations



The River Thames Scheme, delivered in a partnership led by the Environment Agency and Surrey County Council, will reduce flood risk for residents and businesses and improve the surrounding area.