



Preliminary Environmental Information Report

Volume 4 Appendix 7.1

Designated Sites for Nature Conservation

1 Designated Sites for Nature Conservation

1.1.1 Tables 1 to 5 below provide further information on the statutory and non-statutory designated sites for nature conservation that are:

- Within the project boundary for the PEIR; and
- Fully or partially within 2km around the project boundary of the PEIR or the extent of the 1 in 100 year floodplain (i.e. the area with a one per cent chance of flooding in any given year) affected by the RTS, whichever is greater.

Table 1: Statutory Designated Sites – Internationally designated sites: Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar (see Figure 5.4 for site locations)

Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Richmond Park SAC	1.29km east of the PEIR boundary	Richmond Park has many ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle <i>Lucanus cervus</i> and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.
South West London Waterbodies (SWLW) Ramsar, and SPA	Fully or partially within the PEIR boundary	A series of reservoirs and former gravel pits supporting a range of man-made and semi-natural open water habitats. These sites provide important feeding and roosting sites for wintering populations of shoveler <i>Anas clypeata</i> and gadwall <i>Anas strepera</i> .
Windsor Forest & Great Park SAC	3.35km west of the PEIR boundary	Windsor Forest and Great Park forms part of the largest continuous tract of woodland and parkland in Berkshire. The site is designated for the presence of old acidophilous oak woods with <i>Quercus robur</i> on sandy plains, Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>), and violet click beetle <i>Limoniscus violaceus</i> .

**Table 2: Nationally Designated Sites: Sites of Special Scientific Interest (SSSI) and National Nature Reserves)
(see Figure 5.4 for site locations)**

Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Bushy Park and Home Park SSSI	0.04km north-east of the PEIR boundary	Site is of special interest for its nationally important saproxylic invertebrate assemblage, population of veteran trees and acid grassland communities. National Vegetation Classification (NVC) types U1 and U4 are found within the grassland mosaic of the site.
Dumsey Meadow SSSI	Fully or partially within the PEIR boundary	Dumsey Meadow is an unimproved, cattle and pony-grazed riverside pasture situated on the floodplain of the River Thames close to Chertsey Bridge. The site consists mainly of crested dog's-tail <i>Cynosurus cristatus</i> - common knapweed <i>Centaurea nigra</i> grassland, a plant community now rare in Surrey. Marshy depressions and semi-natural vegetation along the riverbank contribute to the species diversity on the site.
Knight & Bessborough Reservoirs SSSI (part of SWLW SPA/Ramsar)	0.80km south-east of the PEIR boundary	Knight and Bessborough Reservoirs consist of two connected, artificially embanked water storage reservoirs built in 1906 which support a variety of waterfowl, including nationally important numbers of shoveler. Wintering gadwall, cormorant <i>Phalacrocorax carbo</i> and goldeneye <i>Bucephala clangula</i> also occur in notable numbers. Note that large parts of this site are also part of the South West London Waterbodies Ramsar and SPA.
Langham Pond SSSI	2.12km south-west of the PEIR boundary	Langham Pond and its surrounding alluvial meadows lie on the Thames flood plain and represent a habitat of a type and quality unknown elsewhere in southern England. The combination of alluvial soils and the calcareous influence of the chalk parent rock has led to the development of rich aquatic, marginal and meadow floras. The pond supports several nationally scarce invertebrates. Woodland on adjacent

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Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
		higher ground above the flood plain lies on London Clay and supports a rich community of breeding birds.
Richmond Park SSSI and NNR	1.29km east of the PEIR boundary	The site is a 17 th century deer park designated for its diverse deadwood beetle fauna associated with the high number of ancient trees found throughout the park, with over 1,000 beetle species recorded. The site is at the heart of the south London centre of distribution for stag beetle. The park also supports the most extensive area of dry acid grassland in Greater London. The site is also London's largest NNR.
Staines Moor SSSI (part of SWLW SPA/Ramsar)	0.23km south-east of the PEIR boundary	The site consists of Staines Moor, a semi-natural stretch of the River Colne which flows through it, and three adjacent reservoirs. Staines Moor represents the largest area of alluvial meadows in Surrey and supports a rich flora while the reservoirs hold nationally important populations of wintering wildfowl. A pond at the site carries aquatic flora which is of national importance; this flora includes one plant which is extremely rare in Britain.
Thorpe Hay Meadow SSSI	Adjacent to PEIR boundary	Believed to be the last remaining Thames valley hay meadow in Surrey, this site supports a range of lime-loving plant species. Natural England and Surrey Wildlife Trust have advised that downy-fruited sedge is the primary species of interest for this site.
Thorpe Park No. 1 Gravel Pit SSSI (part of SWLW SPA/Ramsar)	Fully or partially within the PEIR boundary	Thorpe Park No1 Gravel Pit is a former gravel pit now supporting open water, scrub, and woodland habitats. Designated for the nationally important numbers of gadwall it supports in winter. Note that this entire site is also part of the South West London Waterbodies Ramsar and SPA, a series of reservoirs and former gravel pits supporting a range of man-made and semi-natural open water habitats.

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Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Windsor Forest and Great Park SSSI	3.35km west of the PEIR boundary	The site provides habitat for a range of rare species of invertebrate which include the internationally important violet click beetle and stag beetle and a rich assemblage of other Red Data book beetles and flies. The range of provisional Red Data List fungi present includes <i>Buglossoporus pulvinus</i> , <i>Phelinus robustus</i> , <i>Boletus regius</i> and <i>Hericium coralloides</i> . In addition there are areas of unimproved acid grassland
Wraysbury & Hythe End Gravel Pits SSSI (partially part of SWLW SPA/Ramsar)	0.02km south-west of the PEIR boundary	Comprises a mosaic of open water, islands, grassland, scrub, and woodland within an area of former gravel extraction. The site supports nationally important numbers of three species of wintering wildfowl together with an important assemblage of breeding birds associated with open waters and wetland habitats, including gadwall and shoveler. In addition, the site supports two nationally scarce invertebrates and several locally uncommon plants. The SSSI forms part of the South West London Waterbodies Ramsar and SPA site designation.
Wraysbury No. 1 Gravel Pit SSSI (part of SWLW SPA/Ramsar)	0.75km west of the PEIR boundary	Wraysbury No 1 Gravel Pit is of national importance for wintering gadwall. Shoveler, goldeneye, and smew <i>Mergus albellus</i> are regular winter visitors in small but significant numbers. The site is also locally important for other wintering bird species including great crested grebe <i>Podiceps cristatus</i> , cormorant, pochard <i>Aythya ferina</i> , tufted duck <i>Aythya fuligula</i> and coot <i>Fulica atra</i> .
Wraysbury Reservoir SSSI (part of SWLW SPA/Ramsar)	0.03km north-east of the PEIR boundary	Wraysbury Reservoir regularly supports nationally important numbers of wintering cormorant, great crested grebe and shoveler. The SSSI is also part of the South London Waterbodies Ramsar and SPA site designation which is formed of four SSSI's within a 2 km radius.

Table 3: Statutory Designated Sites - Local Nature Reserves (LNR)

Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Arthur Jacob Nature Reserve LNR	1.40km north of the PEIR boundary	This site is an old silt lagoon area where a variety of habitats have been established including ponds with fringes of tall wetland habitat, grassland that has been seeded using a wildflower mixture, and woodland and scrub habitat.
Ash Link LNR	0.63km north-east of the PEIR boundary	Contains a variety of wildlife as well as mixed woodland, wildflower glades, ponds, and the River Ash.
Chertsey Meads LNR	0.03km south-west of the PEIR boundary	A remnant floodplain meadow habitat with rich floral lime-loving assemblages. Over 400 species of plants have been recorded, including flowers, grasses and sedges. 108 species of bird have been recorded including lesser whitethroat <i>Sylvia curruca</i> , reed bunting <i>Emberiza schoeniclus</i> , sedge warbler <i>Acrocephalus schoenobaenus</i> and reed warbler <i>Acrocephalus scirpaceus</i> . Some of the flowering plant species found in the grassland are unusual due to calcium carbonate that has been deposited onto the site when the Thames has flooded. These unusual plants, which are usually found in chalk grassland include meadow crane's-bill <i>Geranium pratense</i> .
Ham Common, Richmond, London LNR	0.88km east of the PEIR boundary	Ham Common supports many species and habitats. Additionally, the site is used extensively by the public for the informal enjoyment of nature. Most of the site has been succeeded by birch <i>Betula</i> sp and oak <i>Quercus</i> sp woodland. There is a lot of deadwood habitat valuable for invertebrates, fungi and cavity-nesting birds. A more extensive area of grassland survives at the western end of the common with a wide range of plants typical of dry acid grassland.
Ham Lands LNR	Fully or partially within the PEIR boundary	An attractive area of scrub and grassland beside the River Thames, well known for its remarkably diverse plant life. This area of restored/infilled gravel pits beside the River

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Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
		Thames contains a mosaic of habitats including herb-rich grassland, scrub, water meadows and woodland. There is an area of original flood meadow in the northwest. The site is of considerable value for informal recreation and is also used by local schools for educational projects by students and nature groups.
Molesey Heath LNR	0.50km north of the PEIR boundary	Gravel pits, with some restoration work in progress, wet grassland, scrub and woodland. Important site for birds including breeding and migrant birds and wintering wildfowl. Position in ecological unit is important due to being located near three SNCIs and Knight and Bessborough Reservoir SSSI.
Riverside Walk, Virginia Water LNR	0.44km north of the PEIR boundary	A riverside walk through an area of woodland divided by the River Bourne. Among the 57 species of birds recorded are woodlark <i>Lullula arborea</i> and nightjar <i>Caprimulgus europaeus</i> . There are 250 types of plant. Much of the woodland is wet and supports alder <i>Alnus glutinosa</i> and willow species, but there are also drier areas where oak and birch can be found. Species recorded include deer, fox <i>Vulpes vulpes</i> , and several species of bats.

Table 4: Non-Statutory Designated Sites: Local Wildlife Sites (LWS) (see Figure 5.4 for site locations)

Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Arthur Jacobs Nature Reserve LWS	1.40km north of the PEIR boundary	This site is managed for nature conservation and is a statutorily designated Local Nature Reserve. It is an old silt lagoon area where a variety of habitats have been established including ponds, grassland and woodland/scrub. The ponds have fringes of tall wetland habitat dominated by reedmace <i>Typha</i> sp and common reed <i>Phragmites australis</i> with yellow flag iris <i>Iris pseudacorus</i> and purple loosestrife <i>Lythrum salicaria</i> . The surrounding grassland was seeded using a wildflower seed mixture.
Beveree Wildlife Site LWS	0.54km north-west of the PEIR boundary	The site consists of secondary woodland and semi-improved neutral grassland. A bank of mixed woodland with a dense understorey runs along the edge of Hampton Football Club's ground and an overgrown hedge, now a narrow strip of woodland, runs south from the bank alongside the football pitch. A small meadow beside the hedge is dominated by meadow foxtail <i>Alopecurus pratensis</i> and meadow-grasses <i>Poa spp</i> , with a few common wildflowers.
Bushy Park and Home Park LWS	0.04km north-east of the PEIR boundary	This area provides an extensive and varied open space on the edge of London. The parks contain several nationally scarce plants, as well as a variety of wetlands and some fine old trees. These two adjacent royal parks comprise a large area of old parkland habitats, including some of the best acid grassland in London and a variety of interesting wetlands.
Cassel Hospital LWS	0.51km north-east of the PEIR boundary	Hospital grounds with lawns of acid grassland, a fringe of woodland and an old walled garden. The acid grassland lawns contain a good diversity of wildflowers typical of dry acid soils.

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Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Churchyard of St Mary with St Alban, Teddington LWS	0.15km south-west of the PEIR boundary	Mature trees include lime <i>Tilia sp</i> and yew <i>Taxus baccata</i> , and the churchyard is managed in parts and left wilder elsewhere.
Colne Brook LWS	0.01km north-west of the PEIR boundary	The Colne Brook is a river that is a tributary of the River Colne which runs from Uxbridge Moor, there forming the western border of Greater London, to the River Thames just below Bell Weir Lock in Hythe End, Wraysbury.
Coombe Wood Golf Course LWS	1.89km east of the PEIR boundary	Contains acid grassland habitat, a priority habitat for the borough.
Datchet Common and Gravel Pits LWS	1.84km north-west of the PEIR boundary	This site consists of three flooded gravel pits with landscaped trees, improved grassland and a maize and sunflower crop surrounding the lakes. The site has previously been identified for its ornithological interest. According to the bird group, reed warblers have been recorded along the reedbed fringes. The large gravel pit is used for water skiing, where wildfowl roost and feed when there is no human activity. It is also thought that little grebe <i>Tachybaptus ruficollis</i> and great crested grebe breed here. The recent man-made spit, splits one gravel pit into two and has been seeded and planted. Species presented include ribwort plantain <i>Plantago lanceolata</i> , scentless mayweed <i>Tripleurospermum inodorum</i> and dittander <i>Lepidium latifolium</i> .
Fulwell and Twickenham Golf Courses LWS	1.87km west of the PEIR boundary	These two adjacent golf courses contain some fine acid grassland, with small areas of woodland and scrub, several wet ditches and a pond.

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Ham Common West LWS	0.61km north-east of the PEIR boundary	Ham Pond is the common's focal point and it dates back to when horses were watered on the common. The pond attracts a variety of visitors and a variety of bird species to the park.
Ham Lands LWS	Fully or partially within the PEIR boundary	An attractive area of scrub and grassland beside the River Thames, well known for its remarkably diverse plant life. This area of restored gravel pits beside the River Thames contains a mosaic of habitats including herb-rich grassland, scrub and woodland. There is an area of original flood meadow in the northwest.
Hampton Cemetery LWS	1.43km north-west of the PEIR boundary	Hampton Cemetery contains acid grassland in and around the graves with an abundance of species including cat's ear <i>Hypochaeris radicata</i> and oxeye daisy <i>Leucanthemum vulgare</i> . The graves contain an abundance of stonecrops <i>Sedum</i> spp. There is an avenue of cherry trees along the main path along with scattered trees in the cemetery.
Hampton Court House Grounds Hospital LWS	0.21km north-east of the PEIR boundary	Contains a variety of tree, shrub and grassland species and provides nesting sites for common birds.
Hampton Water Treatment Works LWS	0.34km north-west of the PEIR boundary	The site consists of chalk grassland, ruderal and semi-improved neutral grassland as well as a pond/lake. There are also larger water storage beds, Victorian buildings, herb-rich grasslands, bare ground, and wasteland. The large areas of open water are used by large numbers of birds, particularly in winter. Most of the site is still in operational use so marginal vegetation, where it occurs, is generally sparse, although skullcap <i>Scutellaria galericulata</i> is particularly prolific on the edges of the filter beds. The grasslands are among the most herb-rich grasslands in the borough. A large population of the London rarity wild clary <i>Salvia verbenaca</i> is

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		present throughout the grassland as well as vervain <i>Verbena officinalis</i> , bee orchid <i>Ophrys apifera</i> and pyramidal orchid <i>Anacamptis pyramidalis</i> which are associated with chalk grasslands. Recently disturbed areas around the filter beds demonstrate a good example of the early stages of succession.
Hogsmill River in Central Kingston LWS	1.35km south of the PEIR boundary	The Hogsmill River supports many animals, fish, and insects. Most of the area around the river is grassland which has a rich variety of wildlife including plants and birds.
Horton and Kingsmead Lakes LWS	0.67km north-west of the PEIR boundary	A group of old gravel pits and silt pits lying within a large complex of gravel pits and reservoirs at the east edge of Berkshire and west edge of London. Habitats present include patches of wetland and drier areas of woodland and scrub. The complex of pits and reservoirs are important for over-wintering wildfowl and the lakes are mainly used for sailing and fishing.
Hydes Field LWS	1.44km west of the PEIR boundary	Open greenspace playing fields with trees and shrubs.
Kempton Waterworks LWS	1.96km north of the PEIR boundary	Large wetland area hosting many bird species.
Kingston Cemetery LWS	1.86km south-east of the PEIR boundary	The cemetery is on hilly land previously known as Bonner Hill Fields, with the Hogsmill River forming its southern boundary. Some of the native trees, which include oak, birch, ash <i>Fraxinus excelsior</i> , holly <i>Ilex aquifolium</i> , hawthorn <i>Crataegus monogyna</i> and yew, may pre-date the cemetery.
Longford River in Richmond LWS	1.18km north of the PEIR boundary	The 2.7km section of the Longford River supports a diverse range of vegetation including hemlock water-dropwort <i>Oenanthe crocata</i> , marsh woundwort <i>Stachys</i>

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		<i>palustris</i> and lesser pond-sedge <i>Carex riparia</i> . Beneath the surface of the clear water, fennel-leaved pondweed <i>Potamogeton pectinatus</i> and hornwort <i>Ceratophyllum demersum</i> can be found. The river holds good populations of fish including chub <i>Squalius cephalus</i> , roach <i>Rutilus rutilus</i> , dace <i>Leuciscus leuciscus</i> and gudgeon <i>Gobio gobio</i> . Adjacent ditches support further wetland plants and rough grassland, and hedges provide additional habitats.
Marble Hill Park and Orleans House Gardens LWS	1.52km north of the PEIR boundary	Landscaped grounds of two 18 th century houses, with meadows, woodland and some old trees.
Petersham Lodge Wood and Ham House Meadows LWS	1.26km north of the PEIR boundary	A small wood and two grassy fields beside the River Thames, which flood on high spring tides, introducing an interesting wetland element to the plants at this site.
Petersham Meadows LWS	1.87km north-east of the PEIR boundary	A small wood and two grassy fields beside the River Thames, which flood on high spring tides, introducing an interesting wetland element to the plants at this site.
Portlane Brook and Meadow LWS	1.46km north-east of the PEIR boundary	Portlane Brook runs in a deep, steep-sided concrete channel whose banks have been invaded by scrub which is now maturing. The meadow consists of rough grassland, with wildflowers such as common knapweed, bird's-foot-trefoil <i>Lotus corniculatus</i> and white clover <i>Trifolium repens</i> . An old hawthorn hedge in the middle of the meadow in the southern half is now a line of trees rather than a hedge.
Queen Mother Reservoir LWS	1.68km north-west of the PEIR boundary	Large waterbody with a track around the top of the reservoir and seeded grassland banks. The site provides refuge for storm driven species and overland passage

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		migrants, waders, and winter wildfowl. A range of red and amber list birds of Conservation Concern have been recorded and include common scoter <i>Melanitta nigra</i> , bittern <i>Botaurus stellaris</i> , turtle dove <i>Streptopelia turtur</i> and black-tailed godwit <i>Limosa limosa</i> . The dry grassland banks have previously been seeded and range from species-poor to moderately rich and are thought to provide a feeding area for passage migrants.
Richmond Park and associated areas LWS	0.88km east of the PEIR boundary	In addition to Richmond Park, this site includes Richmond Park golf course and Sudbrook Park golf course, as well as Ham, Petersham, East Sheen and Palewell Commons. This LWS is also one of London's two NNRs, with a tremendous range of wildlife and habitats including grassland, woodlands, ponds and veteran trees. The site is of great importance for insects, especially saproxylic beetles.
River Thames (and towpath) – Spelthorne LWS	Fully or partially within the PEIR boundary	The River Thames and the tidal sections of creeks and rivers which flow into it comprise several valuable habitats not found elsewhere in London. The mud flats, shingle beach, intertidal vegetation, islands and river channel itself support many species from freshwater, estuarine and marine communities which are rare in London. The site is of particular importance for wildfowl and wading birds.
River Thames and tidal tributaries LWS	Fully or partially within the PEIR boundary	The River Thames and the tidal sections of creeks and rivers which flow into it comprise several valuable habitats not found elsewhere in London. The mud flats, shingle beach, intertidal vegetation, islands and river channel itself support many species from freshwater, estuarine and marine communities which are rare in London. The site is of particular importance for wildfowl and wading birds.

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Royal Park Gate Open Space LWS	0.29km east of the PEIR boundary	Public Park next to the River Thames and adjacent to Ham Lands. The site consists of scrub, trees and a significant area of semi-improved neutral grassland with a diverse grassland flora.
St James' Churchyard, Hampton Hill LWS	1.97km north of the PEIR boundary	A churchyard management scheme was set up in 2017 and created a wildlife meadow area which lies on the east side of the churchyard between the War Memorial and the large oak tree. Habitats include grassland with trees and shrubs.
Stain Hill & Sunnyside Reservoirs LWS	1.24km west of the PEIR boundary	These disused reservoirs support important populations of moulting and wintering waterfowl including nationally significant numbers of shoveler and gadwall in late winter. The dry concrete banks of Stain Hill Reservoirs support one of the UK's largest populations of the nationally scarce plant tower mustard <i>Arabis glabra</i> . Other locally uncommon plants include field mouse-ear <i>Cerastium arvense</i> , vervain and wild clary.
Strawberry Hill Golf Course LWS	1.00km west of the PEIR boundary	A small golf course with areas of woodland, scrub and acid grassland with a single patch of heather. There are some old oaks scattered around the course, with some areas of acid grassland within the rough. The site is an important area in this part of the Borough for birds and butterflies that favour a woodland edge habitat.
Teddington Cemetery LWS	1.04km west of the PEIR boundary	An attractive Victorian cemetery with plenty of mature trees and semi-improved neutral grassland.
The Copse at Hampton Wick and Normansfield Hospital LWS	Adjacent to the PEIR boundary	The Copse is a small educational nature reserve run by the Borough Council. Across Normansfield Road from The Copse is the former Normansfield Hospital. Much of the grounds are parkland with a dense sward of woodland.

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The Copse, Holly Hedge Field and Ham Avenues LWS	1.04km west of the PEIR boundary	A flowery meadow, a stand of ancient oaks and an historic avenue of lime trees combine to provide a habitat for a wealth of animals and plants in an area otherwise dominated by short-mown amenity grassland.
Twickenham Junction Rough LWS	1.93km north-west of the PEIR boundary	Just west of Twickenham station, the railway lines divide and cross over one another, leaving an 'island' of undisturbed wildlife habitat. The site contains a typical mix of rough grassland, tall herbs, scrub and young woodland.
Wraysbury I Gravel Pits LWS	0.15km west of the PEIR boundary	The gravel pits are part of the complex of pits in the area that are important for birds.
Wraysbury II Gravel Pits LWS	Adjacent to the PEIR boundary	The area is adjacent to Wraysbury & Hythe End Gravel Pits SSSI including additional pits in the east and open land in the west. The boundary results from the removal of the SSSI from the Wildlife Site boundary. The gravel pits are part of the complex of pits in the area that are important for birds.

Table 5: Non-statutory designated sites – Sites of Nature Conservation Interest (SNCI) (see Figure 5.4 for site locations)

Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
Abbey Lake Complex SNCI	Fully or partially within the PEIR boundary	Open water and marginal vegetation. Selected as a complex for wintering wildfowl population and for marginal vegetation and position adjacent to St Ann’s Lake SSSI. The area south of Abbey Lake is included for its interesting plant species including silver cinquefoil <i>Potentilla argentea</i> and for its position in the ecological unit adjacent to the SSSI.
Ashford Plant SNCI	1.76km north-west of the PEIR boundary	Eutrophic lakes and surrounding vegetation of willows and other broadleaved trees. Site selected as important for wildfowl and wintering birds, particularly shoveler.
Birch Green by River Ash SNCI	0.60km north-east of the PEIR boundary	The site was selected in 1996 for the wet grassland with ant hills. This type of grassland is uncommon and declining in the county. Following a review in 2010, it was reselected for its diverse emergent flora including NVC communities S5 and S14.
Charlton Quarry SNCI	Fully or partially within the PEIR boundary	Eutrophic lake with grass margins and numerous broadleaved tree species. This wetland habitat has good bird diversity for wildfowl, heron <i>Ardea cinerea</i> , little tern <i>Sterna albifrons</i> , little ringed plover <i>Charadrius dubius</i> and little egret <i>Egretta garzetta</i> .

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Chertsey Bourne at Abbey Lake Complex SNCI	Fully or partially within the PEIR boundary	This includes the stretch of the Chertsey Bourne which runs through several lakes in the Abbey Lake Complex SNCI, as well as a section north of the SNCI. This stretch was classed as important because the lakes through which it flows are an important habitat for aquatic plants, invertebrates and a wide range of breeding and migrant birds.
Chertsey Bourne at Chertsey Meads SNCI	0.04km south of the PEIR boundary	This stretch was classed as important for its location adjacent to Chertsey Meads and for a diverse and abundant assemblage of aquatic plants. Other notable species include bullhead <i>Cottus gobio</i> .
Chertsey Meads SNCI	0.03km south-west of the PEIR boundary	Calcareous and improved grassland and selected for species-rich unimproved grassland. De-notified SSSI.
Chertsey Water Works Well Field SNCI	Fully or partially within the PEIR boundary	Semi-improved grassland, pond and emergent vegetation, neutral grassland. Selected on recommendation of Surrey Botanical Society.
Church Lammas SNCI	0.49km north-west of the PEIR boundary	Selected for species-rich grassland, containing at least 16 species typical of grassland of conservation interest in Surrey. The site also supports swamp and reedbed habitats (NVC S4 and S14) and serves as an Accessible Natural Greenspace within an urban area.
Desborough Island SNCI	Fully or partially within the PEIR boundary	Large area of neutral, species-rich grassland. Bulbous meadow-grass <i>Poa bulbosa</i> (Nationally Scarce) and Alexanders <i>Smyrniium olusatrum</i> (scarce in Surrey) were recorded in 1996. Selected for large area of diverse grassland, which is uncommon, particularly in Elmbridge. The site was also recommended

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Designated Site Name	Distance and direction from PEIR boundary (closest point of site to closest point of PEIR boundary)	Original reasons for notification and integral value
		for its dragonfly interest in 1996. Also important for position in ecological unit adjacent to River Thames SNCI and Ferris Meadows SNCI.
Ditton Common Golf Course SNCI	0.60km east of the PEIR boundary	Ditton Common is characterised by areas of high-quality acid grassland enclosed by deciduous woodland. A large area of the common is leased to Thames Ditton and Esher Golf Club which maintains the common as both a golf course and area of grassland, providing a habitat for many endangered invertebrates, notably burrowing wasps and bees. Also on the site are two ponds.
East of Poyle Meadows SNCI	1.54km east of the PEIR boundary	Diversity of habitats including pond, swamp, grassland, and scrub. Selected for its diverse wetland habitat including NVC swamp communities S4, S7 and S12. Species indicative of Thames alluvial soils are supported including common clubrush <i>Schoenoplectus lacustris</i> . The nationally notable Roesel's bush cricket <i>Metrioptera roeselii</i> has also been recorded on the site.
Fan Grove SNCI	1.36km south-west of the PEIR boundary	Ancient semi-natural woodland habitat.
Ferris Meadows SNCI	Fully or partially within the PEIR boundary	Ferry Lane Lake, a lake created after gravel workings. Several grassland habitats surround the lake.
Field Common / Hershams Pits SNCI	0.28km north-west of the PEIR boundary	Previous gravel pit and common/open space area with a variety of habitats.
Hardwick Court Farm Fields SNCI	1.30km south of the PEIR boundary	Semi-improved grassland habitat.

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Hilda May Lake SNCI	0.56km south of the PEIR boundary	A wetland nature reserve with three vegetated islands, valuable nesting habitat for wildfowl, and a good range of <i>Odonata</i> .
Hurst Park (incl. Hurst Minor and Hurst Meadows) SNCI	0.02km south-west of the PEIR boundary	Selected for its species-rich grassland supporting great burnet <i>Sanguisorba officinalis</i> (VC17 Rare) and hoary cinquefoil <i>Potentilla argentea</i> (GBRL – Lower Risk - Near Threatened). Extended in 2016 to include area supporting autumn squill <i>Scilla autumnalis</i> (nationally scarce).
Island Barn Reservoir SNCI	0.09km north of the PEIR boundary	Selected for importance for wintering wildfowl and for its position within the wider ecological unit allowing an interchange of birds with other reservoirs in area including those in the South West London Waterbodies Ramsar and SPA.
Kempton Lake & Half Moon Covert SNCI	1.68km north of the PEIR boundary	Grassland zone around the waterbodies and immediately surrounding the lakes is semi-improved neutral grassland and the Kempton Park racecourse grounds. Habitats include scattered scrub, grassland, tall ruderal, marginal vegetation, standing water (the lake), introduced shrub, bare ground and woodland. The site supports a good range of marginal and emergent vegetation, especially for Half Moon Covert. The site supports a variety of bird assemblages including breeding birds and wintering waterbirds.
Laleham Burway Golf Course SNCI	Fully or partially within the PEIR boundary	Former golf course with small areas of semi-improved and unimproved grassland. Selected for areas of unimproved grassland including two county rarities: field chickweed <i>Cerastium arvense</i> and knotted hedge-parsley <i>Torilis nodosa</i> .

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Littleton Lake - Shepperton Green Reservoir SNCI	0.70km north-east of the PEIR boundary	Approximately 30-year-old gravel working with mature stands of willows and scrub around the lake with good marginal vegetation. The lake supports diverse marginal vegetation with flat-stalked pondweed <i>Potamogeton friesii</i> . It supports wetland habitats including NVC communities S6 and S7. It has also been reported as a refuge for wintering wildfowl including the occasional shoveler and gadwall.
Littleton Lake SNCI	Fully or partially within the PEIR boundary	An important wetland habitat supporting wintering and summer breeding birds of county level importance. Over 100 bird species have been recorded at this site as well as over 2,000 wildfowl in the winter months.
Littleworth Common SNCI	0.86km south-east of the PEIR boundary	The site was formerly open heathland, most of which has developed into birch and oak woodland. Some remnants of acid heathland survive and marshy areas and two large ponds have uncommon communities, including the nationally rare starfruit <i>Damasonium alisma</i> . Wet flushes have extensive bog mosses. Purple hairstreak butterfly <i>Neozephyrus quercus</i> larvae feed on the oak trees.
Molesey Reservoir SNCI	0.78km east of the PEIR boundary	Historically rich bird records for this site which include lapwing, breeding little ringed plover and marsh warbler <i>Acrocephalus palustris</i> . Although the site is not currently particularly species-rich, it meets the SNCI criteria under both 'Potential Value' and 'Position in Ecological Unit' (site is adjacent to Knight and Bessborough Reservoir SSSI/SPA).
Moor Lane Nature Reserve SNCI	0.25km south-east of the PEIR boundary	Wetland nature reserve with two mesotrophic lakes and a pond with associated ditch. Selected for its diverse wetland habitat. Species recorded on the site

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		include the Red Data book species: small water-pepper <i>Persicaria minor</i> and whorled water-milfoil <i>Myriophyllum verticillatum</i> , as well as the lesser water parsnip <i>Berula erecta</i> and thread-leaved crowfoot <i>Ranunculus trichophyllus</i> . It is potentially important for wintering wildfowl.
Pannells Farm SSCI	1.14km south of the PEIR boundary	Wet grassland and pond habitats.
Penton Hook Island SSCI	Fully or partially within the PEIR boundary	A large island in the River Thames. Selected for the diversity of wetland habitats supporting the nationally scarce round fruited rush <i>Juncus compressus</i> and the Surrey scarce meadow crane's-bill.
Queen Elizabeth II Reservoir SSCI	1.02km south-east of the PEIR boundary	Largest waterbody in Surrey, south of the Thames. Important site for wintering wildfowl – good numbers of goosander <i>Mergus merganser</i> , shoveler, shelduck <i>Tadorna tadorna</i> , cormorant and great crested grebe. Common tern <i>Sterna hirundo</i> breed on tern rafts. Also selected for importance for waders and passerines and for important position within ecological unit.
Queen Mary Reservoir SSCI	0.78km north of the PEIR boundary	Large body of open water with tightly grazed slopes, willow scrub and some planted trees. It supports two species, gadwall and shoveler, which are on the Conservation Concern list for Surrey. The site is of international importance within the UK for lesser black-backed gull <i>Larus fuscus</i> and of national importance in Great Britain for herring gull and great crested grebe. The site lies in an important position close to the South West London Waterbodies Ramsar and SPA sites and adjacent to the West of Queen Mary Reservoir SSCI.

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Redhouse Reservoir SNCI	1.85km west of the PEIR boundary	Habitats include woodland, scrub, tall ruderal, running water and dry ditch, and it forms part of the Kempton Park Reservoirs SSSI and South West London Waterbodies SPA/Ramsar with the woodland acting as a protective buffer zone. The site is important as it supports breeding bird/wintering waterbird assemblages.
River Ash SNCI: Splash Meadow to Gaston Bridge SNCI	0.63km north-east of the PEIR boundary	River with good aquatic and marginal flora. Included in the area shown by Environment Agency to fall in the top 10% of UK watercourses due to its macroinvertebrate diversity.
River Ash: Gaston Bridge to Watersplash Farm SNCI	0.11km west of the PEIR boundary	The River Ash is a small, narrow river and is rich in plant and insects, particularly reeds, diverse sedges, pond skaters, amphibians, moths and butterflies.
River Ash: Shepperton Green SNCI	0.88km north-east of the PEIR boundary	Short section of gently flowing river with overgrown riverbank containing good marginal and aquatic vegetation. This stretch of river was selected in 1996 as it fell within the top 10% of UK watercourses due to its macro-invertebrate diversity. This section supports priority species European eel <i>Anguilla anguilla</i> . In addition, the site supports three Nationally Scarce species; fringed waterlily <i>Nymphoides peltata</i> , intermediate water-starwort <i>Callitriche hamulate</i> , and yellow water-lily <i>Nuphar lutea</i> .
River Ash: Splash Meadow SNCI	0.66km north-east of the PEIR boundary	River with good aquatic and marginal flora and a recreation field with reclaimed gravel pit. Of the notable species recorded within the site there was a county

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		rarity. Included in the area shown by Environment Agency to fall in the top 10% of UK watercourses due to its macroinvertebrate diversity.
River Colne (from County Boundary to Staines Moor), Stanwell Moor SSSI	0.90km north-east of the PEIR boundary	Fast-flowing river with good aquatic and marginal vegetation and areas of bare ground, which are attractive to breeding birds.
River Thames - Elmbridge SSSI	Fully or partially within the PEIR boundary	Habitat at the water's edge and on the eyots supports nesting and resident mallard <i>Anas platyrhynchos</i> , diving ducks <i>Anatinae</i> sp, mandarin duck <i>Aix galericulata</i> , pochard, grebe, moorhen <i>Gallinula chloropus</i> , coot, swans <i>Cygnus</i> sp, Egyptian goose <i>Alopochen aegyptiaca</i> , Canada goose <i>Branta canadensis</i> , visiting heron <i>Ardeidae</i> sp, barnacle goose <i>Branta leucopsis</i> , cormorant, tern, black-headed gull <i>Chroicocephalus ridibundus</i> , hobby <i>Falco subbuteo</i> , summer migrants and kingfisher <i>Alcedo atthis</i> . The vegetation that overhangs the river margins and the relative tranquillity of the Thames here is essential for these water birds to thrive.
River Thames Runnymede SSSI	Fully or partially within the PEIR boundary	Selection of the entire length of the River Thames through Surrey is supported by Natural England and Environment Agency who have confirmed that the Thames falls within the top 10% of UK waterways on the grounds of numbers of macroinvertebrate species present. The fringing habitats provide a corridor for species migration and act as a buffer zone to protect the riverine environment. The Thames provides an important highway for migratory fish and birds.

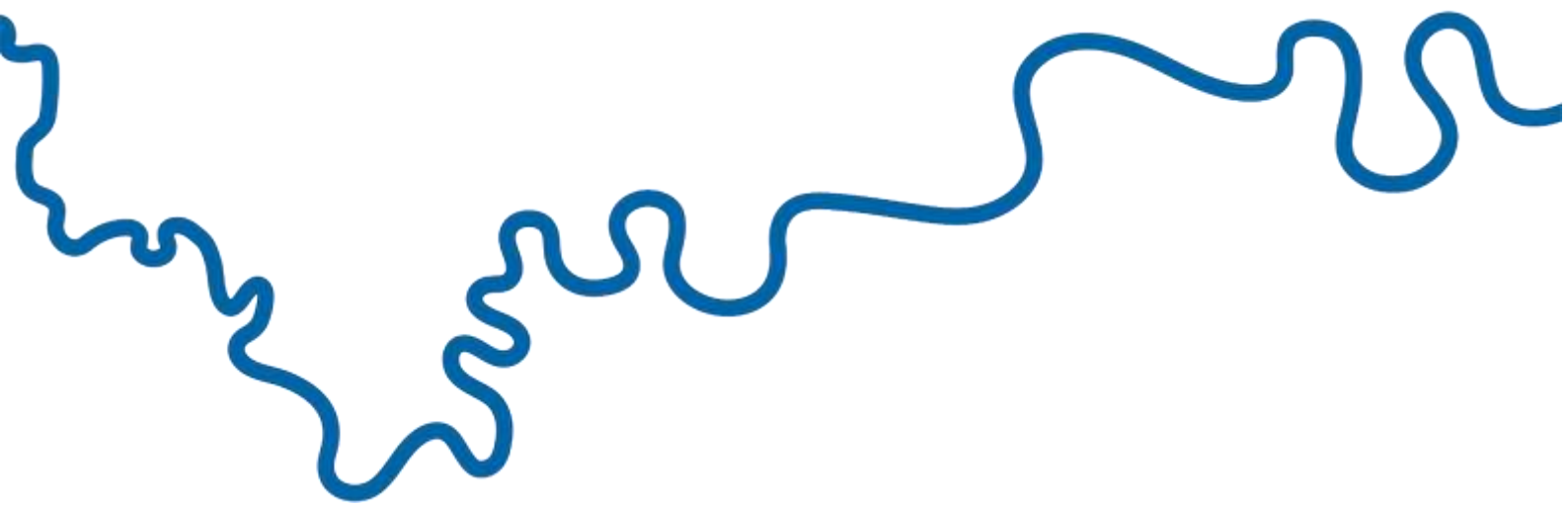
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River Wey – Elmbridge SNCI	Adjacent to the PEIR boundary	This section supports bullhead and is likely to support brook lamprey <i>Lampetra planeri</i> . Greater dodder <i>Cuscuta europaea</i> , a nationally scarce species is found along the banks of this stretch of river.
River Wey - Runnymede SNCI	1.17km south-west of the PEIR boundary	These habitats provide a corridor for species migration, act as a buffer zone to protect the riverine environment and may also have important communities in their own right. Most of this stretch was classed as important mainly for the diverse marginal and aquatic flora, including unbranched bur-reed <i>Sparganium emersum</i> and fat duckweed <i>Lemna gibba</i> , two uncommon species in Surrey.
Riverside Walk, The Bourne SNCI	0.40km north of the PEIR boundary	Diverse range of riverside habitats and wildlife and plant species along the river.
Runnymede SNCI (including Cooper's Hill and Cooper's Hill Slopes)	1.50km west of the PEIR boundary	Large area of unimproved grassland with small remnants of ancient semi-natural woodland. Selected for its position bordering a SSSI and forming part of a much larger important matrix.
Sheepwalk Lake SNCI	Fully or partially within the PEIR boundary	Selected as an important wetland, supporting bird assemblages of county importance for both wintering and summer breeding birds. Nearly 300 terrestrial and aquatic species have been recorded here. Additionally, over 100 bird species have been recorded at this site as well as over 2000 wildfowl in the winter months.
Shepperton Quarry SNCI	Fully or partially within the PEIR boundary	Two large bodies bordering the River Thames have a good range of wetland habitats important for wintering wildfowl, including five species found on the RSPB's Birds of Conservation Concern (1996): pochard, herring gull <i>Larus</i>

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		<i>argentatus</i> , lapwing <i>Vanellus vanellus</i> , kingfisher and goldfinch <i>Carduelis carduelis</i> .
Shortwood Common North SNCI	1.22km north-east of the PEIR boundary	Selected as a remnant of important alluvial grassland contiguous to Shortwood Common SSSI. The site supports the spiny rest harrow <i>Ononis spinosa</i> which is described as Rare in Surrey's Rare Plant Register.
Simplemarsh Farm SNCI	1.75km south of the PEIR boundary	Important area for bird assemblages.
Sunbury Park SNCI	0.05km north-west of the PEIR boundary	Selected for wood pasture and veteran trees. The site supports one or more nationally rare or declining species as listed in the latest Red Data Books and is an Accessible Natural Greenspace within an urban area.
The Dell - Ancient Woodland SNCI	1.56km north of the PEIR boundary	This site is made up of three very small blocks of woodland, two are secondary broadleaved woodland typical of the area and the other called Broom Cottage Wood is a Victorian landscaped woodland which has retained some of its original features including ponds, footpaths, and ornamental planting. The woods provide a refuge for wildlife in the suburban surrounding landscape.
The Heath SNCI	1.62km south of the PEIR boundary	Secondary, mixed woodland with some areas of heath. Green-flowered helleborine <i>Epipactis phyllanthes</i> has also been recorded on the site, a Nationally Scarce species. Selected for relict heathland with further potential for heathland restoration.

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The Moat, Woodcock Farm SNCI	0.34km south-west of the PEIR boundary	Stream with two county rarities; shining pondweed <i>Potamogeton lucens</i> and stream water-crowfoot <i>Ranunculus penicillatus</i> . Selected for the presence of the above plus its position (flowing into Thorpe Park No 1 Gravel Pit SSSI).
Trumps Mill SNCI	0.44km north-east of the PEIR boundary	Dry broadleaved and alder woodland.
West of Poyle Meadows SNCI	1.32km north-east of the PEIR boundary	A natural river channel with good marginal vegetation long the western bank. The site was selected in 1996 because the river supported a diverse macroinvertebrate fauna. This stretch of river was shown by the Environment Agency to be in the top 13% of UK watercourses due to its macroinvertebrate diversity. It was also selected as a natural river channel with good marginal vegetation including blue water-speedwell <i>Veronica anagallis-aquatica</i> , scarce in Surrey, and arrowhead <i>Sagittaria sagittifolia</i> , uncommon in Surrey. The eastern bank forms part of the Poyle Meadow SSSI and the SNCI is an important protective buffer to the SSSI.
West of Queen Mary Reservoir SNCI	0.69km east of the PEIR boundary	Complex of lakes, scrub and grassland with ruderal communities created by old gravel workings. Selected for its importance for visiting seabirds and wildfowl, including the little ringed plover. Three plants recorded on the site: hound's tongue <i>Cynoglossum officinale</i> , celery-leaved buttercup <i>Ranunculus sceleratus</i> , and water dock <i>Rumex hydrolapathum</i> are on the Surrey Rare Plant Register. The site is also adjacent to Queen Mary Reservoir.

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Wey Navigation (including Addlestone Mill Pond) SNCI	0.07km south-west of the PEIR boundary	Primarily riparian habitat.
Woburn Park Stream SNCI	0.36km south-west of the PEIR boundary	This section of the Bourne known as Woburn Park Stream has been selected based on river corridor survey data provided by the Environment Agency. This stretch was classed as important for its proximity to Chertsey Meads, its woodland setting, the presence of greater dodder and a diverse riffle glide sequence.
Wraysbury Reservoir SNCI	Fully or partially within the PEIR boundary	Wraysbury Reservoir regularly supports nationally important numbers of wintering cormorant, great crested grebe, shoveler and gadwall.



The River Thames Scheme represents a new landscape-based approach to creating healthier, more resilient and more sustainable communities by reducing the risk of flooding and creating high quality natural environments