River Thames Scheme

Protecting our communities
Securing our economy
Enhancing our Thames

Preliminary Environmental Information Report

Volume 4
Appendix 9.7

Cultural Heritage, Archaeology and Built Heritage Summary Tables for Likely Significant and Non-Significant Environmental Effects

Cultural Heritage, Archaeology and Built Heritage Summary Tables

1 Potential Likely Significant Construction Effects

Table 1: Potential Likely Significant Construction Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Chertsey Abbey Scheduled Monument	Abbey River watercourse improvements; Priority areas for habitat creation, enhancement or mitigation	General construction activities (water); Habitat improvements and planting	Negative Permanent damage to buried archaeology and palaeoenvironmental deposits: The Abbey River runs through part of the Chertsey Abbey Scheduled Monument (specifically the cemetery area identified to the north of the River) and improvement works in this section will directly affect the scheduled area. Improvements to the banks and adjacent land could also affect the scheduled area.	Historic Environment Management Plan (HEMP). There is an opportunity to mitigate the potential effects from improvement works on the banks and adjacent land if the scheduled area was avoided through design. The improvement works due to take place in-channel should be subject to monitoring in the form of a watching brief by qualified geoarchaeologists. The small part of the scheduled area along the river could be avoided to reduce direct effects on the Scheduled Monument (SM).
Earthworks on Laleham Burway Scheduled Monument	Priority areas for habitat creation, enhancement or mitigation	Habitat improvements and planting	Negative Permanent damage to buried archaeology: Habitat works on the former Laleham Golf Course will impact the Scheduled Monument, unless designed to avoid the area and a buffer around it.	Historic Environment Management Plan. Evaluation works are due to take place to determine the date and character of the SM. The potential effect could be mitigated through design to avoid the SM. Suitable design may also confer a positive benefit on the setting of the asset, which is currently a modernised landscape that contributes very little to the significance of the SM. A worst-case scenario has been assumed until design is finalised.
Roman or early medieval fish weir (Ferry Lane Lake (also known as Ferris Meadow Lake))	Spelthorne Channel	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of the extant remains of the Roman or early medieval fish weir which may survive in the edge of the previously quarried area. A large portion of the feature has already been lost to prior extraction but the area is classed as an Area of High Archaeological Potential by Surrey County Council.	Historic Environment Management Plan. Stage 2 trial trenching was not possible in this location due to water levels. The asset will be investigated during construction when its level can be reached. A programme of archaeological woks will be conducted by qualified archaeologists in this part of the Spelthorne Channel and these will be defined in the HEMP for archaeological mitigation.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Possible Bronze Age drainage Network (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of known Bronze Age deposits during construction works on the Abbey floodway. The drainage network was discovered during trial trench evaluations at Abbey Meads.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Mesolithic to Bronze Age flint scatters (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of prehistoric flint scatters during construction works on the Abbey floodway. Assemblages were discovered during trial trench evaluation at Abbey Meads which could represent temporary hunting camps.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Preserved wooden structures from the Iron Age (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of preserved Iron Age features and artefacts. Preserved wooden structures were found during trial trench evaluations at Abbey Meads and radiocarbon dated to the Iron Age.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Preserved wooden structures from the medieval period (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of preserved medieval features and artefacts which could be related to land use during the occupation of Chertsey Abbey. Preserved wooden structures including wattle which could represent fishing gear or water management were found during trial trench evaluation at Abbey Meads.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Medieval stock enclosure (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of preserved medieval features and artefacts which could be related to land use during the occupation of Chertsey Abbey. A stock enclosure is recorded on the Surrey Historic Environment Record although its precise location has not been confirmed on the ground.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Post-medieval wooden structures (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of preserved post-medieval features and artefacts which could show land use post-Dissolution. Preserved wooden structures were found during trial trench evaluation at Abbey Meads which could provide information on land and water management post-Dissolution.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Medieval ridge and furrow/former field system (Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology and earthwork features: Removal of surface and shallow agricultural features representing the surviving remains of medieval agriculture.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Roman period remains Abbey Meads Dry Floodway)	Abbey Meads Floodway	Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of Romano-British features and artefacts. Small fauna discovered in palaeochannels during trial trench evaluation at Abbey Meads indicates that fodder was brought to livestock on the floodplain.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Late Upper Palaeolithic flint scatter (Land South of Wraysbury Reservoir)	Priority areas for habitat creation, enhancement or mitigation	Material excavation (natural ground); Habitat improvements and planting	Negative Permanent damage to buried archaeology: Truncation and/or removal of rare Late Upper Palaeolithic material which was found during excavations at Kingsmead Quarry and may extend into the western end of the ‘Land South of Wraysbury Reservoir’ priority area for habitat creation, mitigation or enhancement.	Historic Environment Management Plan. Archaeological investigations in this location are ongoing and will follow the staged approach which has been agreed with stakeholders. Works during the construction phase could take the form of a strip, map and sample by qualified archaeologists and geoarchaeologists and will be covered by the HEMP for archaeological mitigation.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Abbey River	Abbey River watercourse improvements; Priority areas for habitat creation, enhancement or mitigation	General construction activities (water); Habitat improvements and planting	Negative Permanent damage to buried or riverbed archaeology: Removal of in-channel deposits and material on banks which may date to all periods, but particularly the medieval period when the Abbey River was used by Chertsey Abbey. Impact will depend on the nature and extent of improvement works.	Historic Environment Management Plan. Monitoring during the construction phase would be covered by the HEMP for archaeological mitigation and could take the form of a watching brief and monitoring/sampling of deposits by qualified archaeologists and geoarchaeologists. There is also an opportunity to minimise potential effects on heritage through design.
In-channel sediments and deposits	Bed lowering downstream of Desborough Cut; Chertsey Weir fish passage; Beasley's Ait fish passage; Sunbury Weir; Molesey Weir; Teddington Weir	General construction activities (water); Bed lowering	Negative Permanent damage to buried and riverbed archaeology: Removal of in-channel deposits and artefacts from the existing course of the River Thames through intrusive works to create fish passes, improve weirs and the bed lowering at Desborough. This could include palaeoenvironmental data and artefacts of all periods including weaponry and human remains.	Historic Environment Management Plan. Monitoring during the construction phase would be defined in the HEMP for archaeological mitigation and would take the form of a watching brief and sampling by qualified archaeologists and geoarchaeologists. Archaeological investigations on aits (islands) at Sunbury and Teddington weirs, and in-channel surveys at Desborough have shown a relatively low potential for in situ archaeological deposits but there is still a possibility of recovering artefacts.
Late Neolithic to Bronze Age deposits (Desborough Island)	Priority areas for habitat creation, enhancement or mitigation	Material excavation (natural ground); Habitat improvements and planting	Negative Permanent damage to buried archaeology: Truncation and/or removal of material during habitat works within Desborough Island. A small assemblage of worked flint and pottery was found during trial trench evaluations at Desborough Island representing short-lived activity.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample by qualified archaeologists and geoarchaeologists. There is an opportunity to mitigate the potential effects through design if the depth of intrusive works required for the habitat works is kept to a minimum.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Undated archaeological features (Desborough Island)	Priority areas for habitat creation, enhancement or mitigation	Habitat improvements and planting; Material excavation (natural ground)	Negative Permanent damage to buried archaeology: Truncation and/or removal of material during habitat works within Desborough Island which could also hold dating evidence. Pits, ditches, gullies and possible prehistoric barrows were found during trial trench evaluation at Desborough Island.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place. Works during the construction phase would be covered by the HEMP for archaeological mitigation and in the first instance could take the form of a strip, map & sample by qualified archaeologists and geoarchaeologists. There is an opportunity to mitigate the potential effects through design if the depth of intrusive works required for the habitat works is kept to a minimum.
Mesolithic/Neolithic artefacts (Land between Desborough Cut and Engine River)	Priority areas for habitat creation, enhancement or mitigation	Material excavation (natural ground); Habitat improvements and planting	Negative Permanent damage to buried archaeology: Truncation and/or removal of artefacts during habitat works. Flint assemblages dating to the Mesolithic or Neolithic period are recorded on the Surrey Historic Environment Record.	Historic Environment Management Plan. Archaeological investigations in this location are ongoing and will follow the staged approach. Works during the construction phase could take the form of a strip, map and sample by qualified archaeologists and geoarchaeologists and will be covered by the HEMP for archaeological mitigation.
Medieval boundary of Oatlands Park	Priority areas for habitat creation, enhancement or mitigation	Material excavation (natural ground); Habitat improvements and planting	Negative Permanent damage to buried archaeology: Truncation of a cropmark feature which could represent the park pale of the Oatlands medieval deer park. This feature could be related to the Oatlands Palace medieval Scheduled Monument and the Oatlands Park Registered Park & Garden.	Historic Environment Management Plan. Archaeological investigations in this location are ongoing and will follow the staged approached. There is an opportunity to mitigate the potential effects through design to avoid the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Palaeochannels	Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; Priority areas for habitat creation, enhancement or mitigation; New green open spaces	Material excavation (natural ground); Habitat improvements and planting; Sheet piling	Negative Permanent damage to buried archaeology: Truncation and/or removal of palaeoenvironmental deposits caused by intrusive groundworks during construction. Palaeoenvironmental, organic remains and artefacts from palaeochannels can provide dating evidence and be used for re-creation of past landscapes.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place at various locations and are ongoing. Works during the construction phase would be defined in a HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Organic archaeological remains (wetlands)	Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; Priority areas for habitat creation, enhancement or mitigation	Material excavation (natural ground); Habitat improvements and planting; Sheet piling	Negative Permanent damage to buried archaeology: Truncation and/or removal of waterlogged deposits which could preserve organic remains caused by intrusive groundworks during construction. Areas have been identified from geoarchaeological deposit modelling that have higher potential for wetland or waterlogged archaeological remains.	Historic Environment Management Plan. Stage 1, 1a and 2 investigations have taken place at various locations and are ongoing. Works during the construction phase would be defined in a HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Palaeolithic remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Creation/use of construction compounds; Use of materials processing sites	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Palaeolithic date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Mesolithic remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Mesolithic date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Neolithic remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Neolithic date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Bronze Age remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Bronze Age date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Iron Age remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Iron Age date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Romano-British remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Romano-British date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Early medieval remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Early Medieval date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Medieval remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Medieval date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Post-medieval remains (previously unknown)	All project components	Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Processing / placement of non-hazardous waste; Sheet piling; Use of materials processing sites; Creation/use of construction compounds	Negative Permanent damage to buried archaeology: Truncation and/or removal of previously unknown remains of Post-Medieval date from undisturbed ground caused by intrusive groundworks during construction, compression from materials and vehicles or change in ground water level.	Historic Environment Management Plan. All intrusive works in undisturbed ground, and where removal of landfill will reach previously undisturbed levels, should be subject to archaeological works which would be defined in the HEMP for archaeological mitigation. The archaeological works will not reduce the potential significant effect as remains will still be damaged or removed, but it is a recognised approach to archaeological mitigation to recover as much information as possible prior to the loss of the receptor.
Historic Landscape - Chertsey	Abbey Meads Floodway	General construction activities (land)	Negative Temporary effect on historic landscapes: Construction works, plant, machinery and vehicles will affect the landscape character. There is some surviving time-depth in the landscape at Abbey Meads which would have formed part of the wider lands of Chertsey Abbey.	No further mitigation identified. The works will be screened as part of the integrated landscape design process to reduce visual impact on these fields during construction. The disturbance to the rural character of these fields during the construction phase will be temporary.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Large Univallate Hillfort and 14th Century Chapel at St Ann's Hill Scheduled Monument	Runnymede Channel	General construction activities (land)	Negative Temporary effect on setting: Construction works will be visible from the viewing area at the top of the hill and will have an effect on the setting of the Scheduled Monument.	No further mitigation identified. Works will be screened as part of the integrated landscape design process although this will not entirely negate the potential visual effect from such a high vantage point. The potential significant effect will be temporary.
St Ann's & The Dingle Registered Park & Garden	Runnymede Channel	General construction activities (land)	Negative Temporary effect on setting: Construction works will be visible from the viewing area at the top of the hill and will have effect on the setting of the Registered Park & Garden.	No further mitigation identified. Works will be screened as part of the integrated landscape design process although this will not entirely negate the potential visual effect from such a high vantage point. The potential significant effect will be temporary.
Remains of St Ann's Chapel, St Ann's Hill and St Ann's Cottage Adjoining. Grade II Listed Building.	Runnymede Channel	General construction activities (land)	Negative Temporary effect on setting: Construction works will be visible from the viewing area at the top of the hill and will have effect on the setting of the Listed Building.	No further mitigation identified Works will be screened as part of the integrated landscape design process although this will not entirely negate the potential visual effect from such a high vantage point. The potential significant effect will be temporary.
Chertsey Conservation Area	Runnymede Channel; Abbey Meads Floodway; Chertsey Weir fish passage; Abbey River watercourse improvements	General construction activities (land)	Negative Temporary effect on setting: Construction works to the Runnymede Channel, Abbey River Improvement Works and the Chertsey fish pass will be visible or heard from the Conservation Area and will impact the setting of the asset.	No further mitigation identified. Works will be screened as part of the integrated landscape design process to reduce noise and visual impact and could partially mitigate the temporary effects during construction, although views will still be affected.
Chertsey Abbey Scheduled Monument	Runnymede Channel; Abbey Meads Floodway; Chertsey Weir fish passage; Abbey River watercourse improvements	General construction activities (land); Movement of construction vehicles, equipment and operatives (on site)	Negative Temporary effect on setting: Construction works on the Runnymede Channel, Abbey floodway, Abbey River improvement and Chertsey fish pass will be visible from the Scheduled Monument and will have an impact on its setting.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact and could partially mitigate the temporary effects during construction, although views will still be affected.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Dovecote in farmyard of Abbey Bridge Farm Grade II Listed Building	Abbey River watercourse improvements	General construction activities (water)	Negative Temporary effect on setting: Abbey River improvement works will affect the setting of this Listed Building.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Abbey Farm Barn Grade II Listed Building	Abbey River watercourse improvements	General construction activities (water)	Negative Temporary effect on setting: Abbey River improvement works will affect the setting of this Listed Building.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact and could partially mitigate the temporary effects during construction, although views will still be affected.
Bridge and Remains of Abbey Mills Grade II Listed Building	Chertsey Weir fish passage; Runnymede Channel	General construction activities (water)	Negative Temporary effect on setting: The outflow of the Runnymede Channel and the construction of the Chertsey fish pass will affect the setting of this Listed Building.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact and could partially mitigate the temporary effects during construction, although views will still be affected.
Chertsey Lock Cottage Grade II Listed Building	Chertsey Weir fish passage; Spelthorne Channel; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough	General construction activities (water); Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary effect on setting: The construction of the Chertsey fish pass and outflow of the Spelthorne Channel will be visible from the cottage. Some screening by vegetation at Chertsey Lock will reduce the visual effects. Haul Route J uses Thames Side near the cottage and increased heavy traffic will also affect the Listed Building.	No further mitigation identified. Existing screening by trees at Chertsey Lock and the addition of other suitable screening could mitigate the visual temporary effects during construction of the channel and have been taken into account in the assessment. The haul route will operate for one year when construction begins and could affect the cottage through noise, visual impact and vibration. The cottage sits within the 1 in 5 flood event zone (20% probability of flooding within a one year period) and will benefit through reduction in probability of flood event.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Chertsey Bridge Scheduled Monument and Listed Building	Chertsey Weir fish passage; Spelthorne Channel; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough	General construction activities (water); Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary effect on setting: The construction of the Chertsey fish pass and the outflow of the Spelthorne Channel will affect the setting of the bridge which has uninterrupted views towards the construction site. Haul Route J uses Thames Side at the east of the bridge and the increased heavy traffic will also affect the setting of the asset.	No further mitigation identified. Suitable screening to reduce noise and visual impact could mitigate the temporary effects during construction and have been taken into account in the assessment. The haul route will operate for one year when construction begins and could affect the bridge through noise, visual impact and vibration. The bridge sits within the 1 in 5 flood event zone (20% probability of flooding within a one year period) and will benefit from the project through reduction in probability of flood event.
Eyot House Grade II Listed Building	Spelthorne Channel; Flow Control Structures	General construction activities (water)	Negative Temporary effect on setting: Construction of the Spelthorne Channel and the flow control structure at the outflow at Ferry Lane Lake will affect the setting of this Listed Building. The house is located on a the private D'Oyly Carte Island and is screened from view by vegetation.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Shepperton Conservation Area	Spelthorne Channel; Priority areas for habitat creation, enhancement or mitigation	General construction activities (land); Habitat improvements and planting	Negative Temporary effect on setting: The construction of the Spelthorne Channel will affect the setting of the Conservation Area temporarily through noise and visual impact. It could also be affected by works to Desborough Island.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Lower Sunbury Conservation Area	Sunbury Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Sunbury weir and the fish pass will affect the setting of this Conservation Area temporarily through noise and visual impact.	No further mitigation identified Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
St Mary's Church Grade II* Listed Building	Sunbury Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Sunbury weir and the fish pass will affect the setting of this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Hampton Village Conservation Area	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on character of CA and setting: Works to Molesey weir will directly affect this Conservation Area through noise and visual impact. A potential materials management area at Hurst Park could also impact the setting.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Garrick's Villa Registered Park & Garden	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on setting: A potential materials management area at Hurst Park could impact the setting temporarily through visual impact. Works to Molesey weir are at some distance but may also have an effect.	No further mitigation identified. Suitable screening as part of the integrated landscape design process for works to Molesey Weir to reduce noise and visual impact and screening of the compound at Hurst Park could partially mitigate the temporary effects during construction.
Garrick's House Grade II Listed Building	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on setting: A potential materials management area at Hurst Park could impact the setting temporarily through visual impact. Works to Molesey weir are at some distance but may also have an effect.	No further mitigation identified. Suitable screening as part of the integrated landscape design process for works to Molesey Weir to reduce noise and visual impact and screening of the compound at Hurst Park could partially mitigate the temporary effects during construction.
Garrick's Villa Grade I Listed Building	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on setting: A potential materials management area at Hurst Park could impact the setting temporarily through visual impact. Works to Molesey weir are at some distance but may also have an effect.	No further mitigation identified. Suitable screening as part of the integrated landscape design process for works to Molesey Weir to reduce noise and visual impact and screening of the compound at Hurst Park could partially mitigate the temporary effects during construction.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Garrick's Shakespeare Temple Grade I Listed Building	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on setting: A potential materials management area at Hurst Park could impact the setting temporarily through visual impact. Works to Molesey weir are at some distance but may also have an effect.	No further mitigation identified. Suitable screening as part of the integrated landscape design process for works to Molesey Weir to reduce noise and visual impact and screening of the compound at Hurst Park could partially mitigate the temporary effects during construction.
East Molesey Kent Town Conservation Area	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Conservation Area temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Hampton Court Green Conservation Area	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Conservation Area through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
War Memorial Grade II Listed Building	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Royal Mews and Great Barn Grade I Listed Building	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Old Office House Grade II Listed Building	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Mitre Hotel Grade II Listed Building	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Hampton Court Bridge Grade II Listed Building	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this Listed Building temporarily through noise and visual impact.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Riverside North Conservation Area	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Movement of construction vehicles, equipment and operatives (off site); Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary effect on setting: The setting of the Conservation Area will be affected by the use of the Broom Road Recreation Ground.	No further mitigation identified. Suitable screening as part of the integrated landscape design process to reduce noise and visual impact could partially mitigate the temporary effects during construction, although views will still be affected.
Teddington Lock Conservation Area	Teddington Weir	General construction activities (water)	Negative Temporary effect on a Conservation Area: Works at Teddington Lock, the weir and fish passes will directly affect the Conservation Area.	No further mitigation identified. Suitable screening as part of the integrated landscape design process could potentially mitigate some effects but the character of the CA will be affected during construction. The potential effect would be temporary.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Boathouse Grade II Listed Building	Teddington Weir	General construction activities (water)	Negative Temporary effect on setting: Works at Teddington Lock, the weir and fish passes will affect the setting of the Listed Building.	No further mitigation identified. Suitable screening as part of the integrated landscape design process could potentially mitigate the effects but the views from the asset will be altered during construction. The potential effect would be temporary.
Teddington Footbridge Grade II Listed Building	Teddington Weir	General construction activities (water)	Negative Temporary effect on setting: Works at Teddington Lock, the weir and fish passes will affect the setting of the Listed Building.	No further mitigation identified. Suitable screening as part of the integrated landscape design process could potentially mitigate the effects to an extent but the views from the asset will be altered during construction. The potential effect would be temporary.
Lower Halliford Conservation Area	Spelthorne Channel	Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary effect on Conservation Area: Haul Route N runs through Lower Halliford CA. The increase in heavy traffic will affect the special historic character of the area through visual impact and noise.	No further mitigation identified. The potential effects will be temporary, currently envisaged for 3 months only.
All receptors	Off-site car parks for construction workers	Establishment and use of off-site car parks including associated traffic movements	Potential impacts during construction on all receptors.	No further mitigation identified. The selection and design of these car parks is yet to be undertaken, at which point the need for and nature of any secondary mitigation will be considered

2 Potential Likely Significant Operational Effects

Table 2: Potential Likely Significant Operational Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Palaeolithic remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Mesolithic remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Neolithic remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Bronze Age remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Iron Age remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Romano-British remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Early medieval remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Medieval remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Post-medieval remains (previously unknown)	Runnymede Channel; Spelthorne Channel	Existence of the flood channel and other components; Operation during flood events	Negative Permanent damage to buried archaeology: A change in ground water levels adjacent to the new Channels might have an adverse effect on the preservation of unknown buried archaeology. Fluctuating hydrological conditions could accelerate degradation of archaeological remains although the effects are currently unknown.	No further mitigation identified. Groundwater modelling will be conducted and will inform an assessment of the potential effects. A worst-case scenario has been assumed at this time.
Shepperton Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: Raised landforms at Sheepwalk, Land South of Chertsey Road and Manor Farm could affect the setting of the Conservation Area.	No further mitigation identified. There is still the possibility to mitigate this effect through design (primary mitigation). The final height of the landforms and ZTV analysis could reduce the potential significance of the effect.
Egham Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Royal Hythe.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.
Staines Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Royal Hythe.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.
Egham Hythe Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Royal Hythe.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.
St Peter's Church Grade II Listed Building	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Royal Hythe.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Lower Halliford Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Manor Farm.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.
Manygate Lane Conservation Area	New green open spaces	New landforms	Negative Permanent effect on setting: The Conservation Area could potentially be affected by a raised landform and lighting at Manor Farm.	There is still a possibility for mitigation through design. Consideration of the asset during the design process and final ZTV analysis will determine whether the potential effect is significant.
Members of the public	New green open spaces; Areas of enhanced public connection; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough ; New Landforms	L&GI provision; Research outputs; New landforms; Use of publicly accessible areas	Positive Permanent effect on users: Heritage is a consideration in design eg new green open spaces. Interpretation, research outputs and information produced by archaeological works will increase understanding of the heritage of the area, and appreciation of assets.	No secondary mitigation required as the effect is positive.
Earthworks on Laleham Burway Scheduled Monument	Priority areas for habitat creation, enhancement or mitigation	New/enhanced habitat (terrestrial)	Positive Permanent effect on setting: The SM currently sits within a former golf course which contributes very little to its significance. The priority area for habitat enhancement, mitigation or enhancement presents an opportunity to improve the setting of the asset.	No secondary mitigation required as the effect is positive.

3 Non-Significant Construction Effects

Table 3: Non-Significant Construction Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Bushy Park Registered Park & Garden	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir may have an effect on the setting of this Registered Park & Garden temporarily. A row of houses sits between the River Thames and the park in the vicinity of Molesey Weir. The park is also enclosed by either a brick wall, fence or trees which provides an element of privacy.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Earthworks on Laleham Burway Scheduled Monument	Priority areas for habitat creation, enhancement or mitigation	Habitat improvements and planting	Negative Temporary effect on setting: The setting of the Scheduled Monument on the former Golf Course will be affected habitat works through visual impact. The modern setting currently contributes little to the significance of the asset or an appreciation of it, and is separated from other heritage assets by tree belts and major infrastructure such as the M3.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Hampton Court Park Conservation Area	Molesey Weir	General construction activities (water)	Negative Temporary effect on setting: Works to Molesey weir will have an effect on this asset temporarily through noise and visual impact, although it is a little more distant with the boundary of the CA at Hampton Court Bridge.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Hampton Wick Conservation Area	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Movement of construction vehicles, equipment and operatives (off site); Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary effect on setting: The setting of the Conservation Area will be affected by the use of the Broom Road Recreation Ground. The main views from the CA are to the east over the River Thames, not to the north over the Recreation Ground.	No mitigation is considered necessary to reduce negative effects to an acceptable level.

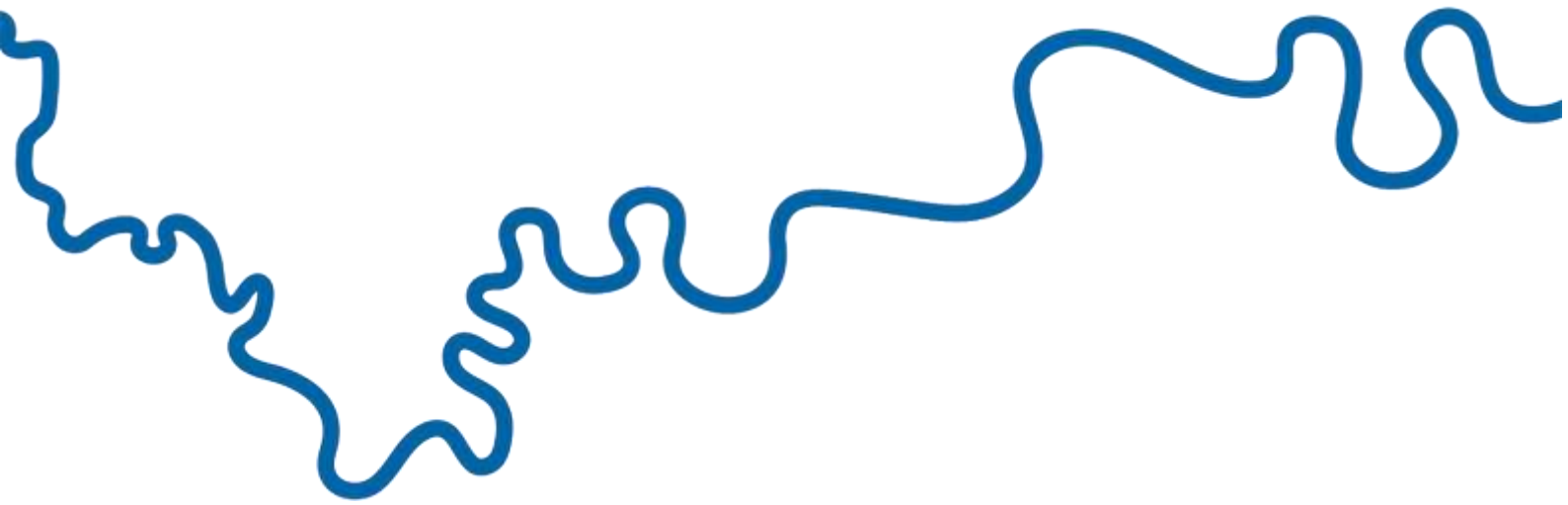
Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Laleham Conservation Area	Priority areas for habitat creation, enhancement or mitigation	Habitat improvements and planting	Negative Temporary effect on setting: Habitat creation works on the former Golf Course could affect the setting of the Conservation Area. There will be a small effect on views from the CA across the river towards the golf course, but it is largely screened by vegetation.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Normansfield Conservation Area	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Movement of construction vehicles, equipment and operatives (off site); Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary effect on setting: The setting of the Conservation Area will be affected by the use of the Broom Road Recreation Ground. Only the view from the CA towards the River Thames will be affected.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Thorpe Conservation Area	Runnymede Channel; Priority areas for habitat creation, enhancement or mitigation	General construction activities (land); Habitat improvements and planting	Negative Temporary effect on setting: Construction works for Runnymede Channel and habitat construction at Norlands Lane will be visible from the Thorpe Conservation Area and will have an effect on the setting of the asset.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
White Lodge Grade II Listed Building	Molesey Weir; Temporary materials processing sites	Use of materials processing sites; General construction activities (water)	Negative Temporary effect on setting: A potential materials management area at Hurst Park could impact the setting temporarily through visual impact. Works to Molesey weir are at some distance but may also have an effect.	The identified primary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

4 Non-Significant Operational Effects

Table 4: Non-Significant Operational Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
All designated assets within the 1 in 100 year flood boundary	All project components	Operation during flood events	Positive Reduction in flood risk: The assets will be affected by a change in the flood regime as flooding events will be less frequent. This will have a beneficial effect on the preservation of the assets through more stable hydrological conditions. Assets do appear to be generally well-preserved in this area so infrequent flood events are assumed to have a small effect on their condition.	No secondary mitigation required as the effect is positive.
All non-designated assets (including known and currently unknown buried archaeology) within the 1 in 100 year flood boundary	All project components	Operation during flood events	Positive Reduction in flood risk: The assets will be affected by a change in the flood regime as flooding events will be less frequent. This will have a beneficial effect on the preservation of the assets through more stable hydrological conditions. Assets do appear to be generally well-preserved in this area so infrequent flood events are assumed to have a small effect on their condition.	No secondary mitigation required as the effect is positive.
Eyot House Grade II Listed Building	Flow Control Structures	Use of flow control structures	Negative Permanent effect on setting: The flow control structure at the Spelthorne Channel outflow may be visible from the Listed Building on D'Oyly Carte Island.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Chertsey Abbey Scheduled Monument	Priority areas for habitat creation, enhancement or mitigation	New/ enhanced habitat (terrestrial)	Negative Effect on setting: habitat creation involves planting schemes, such as woodland, which would alter the character from the existing grassed field.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Historic Landscape - Chertsey	Runnymede Channel	Existence of the flood channel and other components	Negative Permanent effect on historic landscape: There will be a small change to the historic landscape character from a field to a dry floodway in the vicinity of the Chertsey Abbey SM, on land which was once associated with the Abbey. The land will still remain rural in character.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Lower Sunbury Conservation Area	Sunbury Weir	Existence of the flood channel and other components	Negative Permanent effect on setting: The modern structures at Sunbury Ait will affect the view across the river from the Conservation Area.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
St Mary's Church Grade II* Listed Building	Sunbury Weir	Existence of the flood channel and other components	Negative Permanent effect on setting: The modern structures at Sunbury Ait will affect the view across the river from the Listed Building.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Teddington Footbridge Grade II Listed Building	Teddington Weir	Existence of the flood channel and other components; Fish passage	Negative Permanent effect on setting: Modern structures such as radial gates will affect the views from the Listed Building. The relationships between the locks, weirs and aits within the river channel can still be appreciated	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Teddington Lock Conservation Area	Teddington Weir	Existence of the flood channel and other components; Fish passage	Negative Permanent effect on Conservation Area: Modern structures such as radial gates will become a permanent feature of the Conservation Area. However, the lock itself is a modern construction and the configuration of locks, weirs and aits can still be appreciated.	No mitigation is considered necessary to reduce negative effects to an acceptable level.



SURREY COUNTY COUNCIL

Environment Agency

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.

River Thames
Scheme