



Preliminary Environmental Information Report

Volume 4 Appendix 6.3

Air Quality Summary Tables for Likely Significant and Non-Significant Environmental Effects

Air Quality 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
All receptors	Off-site car parks for construction workers	Establishment and use of off-site car parks including associated traffic movements.	Potential temporary (short-term) 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.
High sensitivity ecological receptors sensitive to nitrogen or ammonia deposition within 200m of roads used during construction phase, including for movements of construction workers and construction goods (impacts from Nitrogen Oxides (NOx) and ammonia (NH3)).	All project components	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site).	Negative Temporary (short-term) air quality effects at high-sensitivity ecological receptors <200m of locations where NOx and NH3 emissions from vehicles are generated.	SPA/Ramsar mitigation Should the critical load be exceeded, the potential for significant negative effects will be assessed. The need for mitigation will be considered further as design and assessment work continues to progress as part of the Environmental Impact Assessment (EIA), and any secondary mitigation developed will be reported in the Environmental Statement.

2 Potential Likely Significant Operational Effects

Table 2: Potential Likely Significant Operational Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
High sensitivity ecological receptors sensitive to nitrogen or ammonia deposition within 200m of roads used during operational phase (impacts from NOx and NH3).	New green open spaces; New blue open spaces; Areas of enhanced public connection; Priority areas for habitat creation, enhancement or mitigation.	Operational traffic	Negative Permanent effects of NOx/NH3 from road traffic on sensitive ecological receptors <200m of roads with particular consideration to receptors within an Air Quality Management Area (AQMA), due to the provision of operational project components.	Special Protection Area (SPA)/Ramsar mitigation Should the critical load be exceeded, the potential for significant negative effects will be assessed. The need for mitigation will be considered further as design and assessment work continues to progress as part of the EIA, and any secondary mitigation developed will be reported in the Environmental Statement.

3 Non-Significant Construction Effects

Table 2: Non-Significant Construction Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Close proximity high sensitivity human receptors affected by construction	Flow control structures; Sunbury Weir; Molesey Weir; Teddington Weir; Permanent maintenance compounds; New green open spaces; Areas of enhanced public connection; New blue open spaces; Chertsey Weir fish passage; Beasley's Ait fish passage; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough.	General construction activities (land); General construction activities (water); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges; Creation/use of construction compounds	Negative Temporary (short-term) generation of dust and particulate matter (PM): impact of fugitive dust emissions at high-sensitivity human receptors within <100m of activities involved with the provision of a new structure (or structures), or their modification or refurbishment.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Close proximity residences within construction (odour) study area for earthwork activities	Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; New green open spaces.	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Temporary changes in land levels; Use of excavated material on-site; Dewatering / over-pumping of waterbodies.	Negative Temporary (short-term) emission of odours resulting from channel excavation, haulage and tipping (through historic landfills and silty or peaty soils), causing a loss of amenity at high-sensitivity human receptors within <50m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Close/intermediate proximity high sensitivity human receptors affected by earthworks	Bed lowering downstream of Desborough Cut; Spelthorne Channel; Temporary material storage sites; Runnymede Channel; Abbey Meads Floodway; Flood embankments and Erosion prevention; Temporary wharfs (River Thames); New green open spaces; Road realignments; Construction compounds; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough; New blue open spaces; Priority areas for habitat creation, enhancement or mitigation; Temporary materials processing sites; New Landforms.	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Bed lowering; Creation/use of construction compounds; Tree/vegetation removal; Temporary changes in land levels; Temporary changes in hard-standing; use of temporary wharfs and mobile pontoons; Habitat improvements and planting; Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Sheet piling; Use of excavated material on-site.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions generated by earthworks on amenity and human health at high-sensitivity receptors within <200m of these activities.	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
Close/intermediate proximity residences within construction (odour) study area for materials processing and construction compounds	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary (short-term) emission of odours resulting from stockpiling non-hazardous waste excavated from historic landfills and silty or alluvial soils, causing a loss of amenity at high-sensitivity human receptors within <200m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Distant proximity high sensitivity human receptors affected by earthworks	Bed lowering downstream of Desborough Cut; Spelthorne Channel; Temporary material storage sites; Runnymede Channel; Abbey Meads Floodway; Flood embankments and Erosion prevention; Temporary wharfs (River Thames); New green open spaces; Road realignments; Construction compounds; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough; New blue open spaces; Priority areas for habitat creation, enhancement or mitigation; Temporary materials processing sites; New Landforms.	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Bed lowering; Creation/use of construction compounds; Tree/vegetation removal; Temporary changes in land levels; Temporary changes in hard-standing; use of temporary wharfs and mobile pontoons; Habitat improvements and planting; Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Sheet piling; Use of excavated material on-site.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions generated by earthworks on amenity and human health at high-sensitivity receptors within 200-400m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Distant proximity residences within construction (odour) study area for materials processing and construction compounds	Construction compounds; Temporary materials processing sites; Temporary material storage sites.	Creation/use of construction compounds; Use of materials processing sites; Temporary stockpiling of materials.	Negative Temporary (short-term) emission of odours resulting from stockpiling non-hazardous waste excavated from historic landfills and silty or alluvial soils, causing a loss of amenity at high-sensitivity human receptors 200-400m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Distant proximity residences within construction (odour) study area for earthwork activities	Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; New green open spaces.	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites; Temporary changes in land levels; Use of excavated material on-site; Temporary stockpiling of materials; Dewatering / over-pumping of waterbodies.	Negative Temporary (short-term) emission of odours resulting from channel excavation, haulage and tipping (through historic landfills and silty or peaty soils), causing a loss of amenity at high-sensitivity human receptors within 200-400m of these activities.	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
Ecological high sensitivity receptors affected by earthworks	Runnymede Channel; Priority areas for habitat creation, enhancement or mitigation	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Temporary changes in land levels; Temporary changes in hard-standing; Habitat improvements and planting.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions generated by earthworks on high-sensitivity ecological sites within <400m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity ecological receptors sensitive to nitrogen or ammonia deposition within 200m of construction traffic routes used to transport excavated material to/from materials processing sites and off-site (impacts from NOx and NH3)	Runnymede Channel; Spelthorne Channel; Temporary materials processing sites; Temporary wharfs (River Thames); Construction compounds; Temporary material storage sites	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site); use of temporary wharfs and mobile pontoons.	Negative Temporary (short-term) air quality effects at high-sensitivity ecological receptors <200m of locations where NOx/NH3 emissions from vehicle movements for haulage of material for processing/placement (including waste/hazardous material) are generated, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity ecological sites within construction study area	Flow control structures; Sunbury Weir; Molesey Weir; Teddington Weir; Permanent maintenance compounds; New green open spaces; Areas of enhanced public connection; New blue open spaces; Chertsey Weir fish passage; Beasley's Ait fish passage; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough.	General construction activities (land); General construction activities (water); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges; Creation/use of construction compounds	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions on high-sensitivity ecological sites within <400m of activities involved with the provision of a new structure (or structures), of their modification or refurbishment.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors within 200m of construction traffic routes used to transport excavated material to/from materials processing sites and off-site (impacts from NO2)	Runnymede Channel; Spelthorne Channel; Temporary materials processing sites; Temporary wharfs (River Thames); Construction compounds; Temporary material storage sites.	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site); use of temporary wharfs and mobile pontoons.	Negative Temporary (short-term) air quality effects at high-sensitivity human receptors <200m of locations where NO2 emissions from vehicle movements for haulage of material for processing/placement (including waste/hazardous material) are generated, with particular consideration to receptors within an AQMA.	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
High sensitivity human receptors within 200m of construction traffic routes used to transport excavated material to/from materials processing sites and off-site (impacts from PM10 and PM2.5)	Runnymede Channel; Spelthorne Channel; Temporary materials processing sites; Temporary wharfs (River Thames); Construction compounds; Temporary material storage sites	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site); use of temporary wharfs and mobile pontoons.	Negative Temporary (short-term) air quality effects at high-sensitivity human receptors <200m of locations where PM10/PM2.5 emissions from vehicle movements for haulage of material for processing/placement (including waste/hazardous material) are generated, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors within 200m of roads used during construction phase, including for movements of construction workers and construction goods (impacts from PM10 and PM2.5)	All project components	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary (short-term) air quality effects at high-sensitivity human receptors <200m of locations where PM10/PM2.5 emissions from vehicles (other than for earth transport) are generated, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors within 200m of roads used during construction phase, including for movements of construction workers and construction goods (impacts from NO2)	All project components	Movement of construction vehicles, equipment and operatives (on site); Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary (short-term) air quality effects at high-sensitivity human receptors <200m of locations where NO2 emissions from vehicles (other than for earth transport) are generated, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors within the demolition study area	Runnymede Channel; Spelthorne Channel	Demolition of buildings	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions on amenity and human health at high-sensitivity receptors within <400m of activities involving the removal of an existing structure (or structures).	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
High sensitivity human receptors within the trackout study area	Construction compounds; Temporary material storage sites; Permanent maintenance compounds; Runnymede Channel; Spelthorne Channel; Flow Control Structures; Abbey Meads Floodway; Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Sunbury Weir; Molesey Weir; Teddington Weir; Priority areas for habitat creation, enhancement or mitigation; New green open spaces; Temporary wharfs (River Thames); New Landforms.	Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions on amenity and human health at high-sensitivity receptors within <50m of construction routes due to trackout within 500m of potential Site exits.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human and ecological receptors within study area for construction Non-Road Mobile Machinery haulage routes	Bed lowering downstream of Desborough Cut; Spelthorne Channel; Temporary material storage sites; Runnymede Channel; Abbey Meads Floodway; Flood embankments and Erosion prevention; Temporary wharfs (River Thames); New green open spaces; Road realignments; Construction compounds; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough ; New blue open spaces; Priority areas for habitat creation, enhancement or mitigation; Temporary materials processing sites; New Landforms.	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Bed lowering; Creation/use of construction compounds; Tree/vegetation removal; Temporary changes in land levels; Temporary changes in hard-standing; use of temporary wharfs and mobile pontoons; Habitat improvements and planting; Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Sheet piling; Use of excavated material on-site.	Negative Temporary (short-term) effect on air quality at high-sensitivity human and ecological receptors within <200m of any locations where construction plant (NRMM) used, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human and ecological receptors within study area for construction inland water vessel haulage routes	Temporary wharfs (River Thames)	Use of temporary wharfs and mobile pontoons; General construction activities (water)	Negative Temporary (short-term) effect on air quality (human health & ecosystem degradation) from emissions generated by barge movements used to transport material at high sensitivity receptors within <200m of these activities, with particular consideration to receptors within an AQMA.	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
Intermediate proximity residences within construction (odour) study area for earthwork activities	Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; New green open spaces	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites; Temporary changes in land levels; Use of excavated material on-site; Temporary stockpiling of materials; Dewatering / over-pumping of waterbodies.	Negative Temporary (short-term) emission of odours resulting from channel excavation, haulage and tipping (through historic landfills and silty or peaty soils), causing a loss of amenity at high-sensitivity human receptors within 50-200m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Intermediate/distant proximity human receptors affected by construction	Flow control structures; Sunbury Weir; Molesey Weir; Teddington Weir; Permanent maintenance compounds; New green open spaces; Areas of enhanced public connection; New blue open spaces; Chertsey Weir fish passage; Beasley's Ait fish passage; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough.	General construction activities (land); General construction activities (water); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges; Creation/use of construction compounds.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions at high-sensitivity human receptors within 100-400m of activities involved with the provision of a new structure (or structures), or their modification or refurbishment.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Low sensitivity ecological sites within construction study area	Flow control structures; Sunbury Weir; Molesey Weir; Teddington Weir; Permanent maintenance compounds; New green open spaces; Areas of enhanced public connection; New blue open spaces; Chertsey Weir fish passage; Beasley's Ait fish passage; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough.	General construction activities (land); General construction activities (water); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges; Creation/use of construction compounds.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions on low-sensitivity ecological sites within <400m of activities involved with the provision of a new structure (or structures), of their modification or refurbishment.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Low sensitivity ecological sites within trackout study area	Construction compounds; Temporary material storage sites; Permanent maintenance compounds; Runnymede Channel; Spelthorne Channel; Flow Control Structures; Abbey Meads Floodway; Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Sunbury Weir; Molesey Weir; Teddington Weir; Priority areas for habitat creation, enhancement or mitigation; New green open spaces; Temporary wharfs (River Thames); New Landforms.	Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions at low-sensitivity ecologically sensitive sites within <50m of construction routes due to trackout within 500m of potential Site exits.	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
Low sensitivity human receptors within construction (odour) study area for earthwork activities	Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; New green open spaces	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites; Temporary changes in land levels; Use of excavated material on-site; Temporary stockpiling of materials; Dewatering / over-pumping of waterbodies.	Negative Temporary (short-term) emission of odours resulting from channel excavation, haulage and tipping (through historic landfills and silty or alluvial soils), causing a loss of amenity at low-sensitivity human receptors within <400m of these activities.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Low sensitivity human receptors within construction (odour) study area for materials processing and construction compounds	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary (short-term) emission of odours resulting from stockpiling non-hazardous waste excavated from historic landfills and silty or alluvial soils, causing a loss of amenity at low-sensitivity human receptors.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Low sensitivity human and ecological receptors within study area for construction Non-Road Mobile Machinery haulage routes	Bed lowering downstream of Desborough Cut; Spelthorne Channel; Temporary material storage sites; Runnymede Channel; Abbey Meads Floodway; Flood embankments and Erosion prevention; Temporary wharfs (River Thames); New green open spaces; Road realignments; Construction compounds; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough ; New blue open spaces; Priority areas for habitat creation, enhancement or mitigation; Temporary materials processing sites; New Landforms.	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Bed lowering; Creation/use of construction compounds; Tree/vegetation removal; Temporary changes in land levels; Temporary changes in hard-standing; use of temporary wharfs and mobile pontoons; Habitat improvements and planting; Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Sheet piling; Use of excavated material on-site.	Negative Temporary (short-term) effect on air quality at low-sensitivity human and ecological receptors within <200m of any locations where construction plant (NRMM) used, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Low sensitivity human and ecological receptors within study area for construction inland water vessel haulage routes	Temporary wharfs (River Thames)	Use of temporary wharfs and mobile pontoons; General construction activities (water)	Negative Temporary (short-term) effect on air quality (human health & ecosystem degradation) from emissions generated by barge movements used to transport material at low sensitivity receptors within <200m of these activities, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

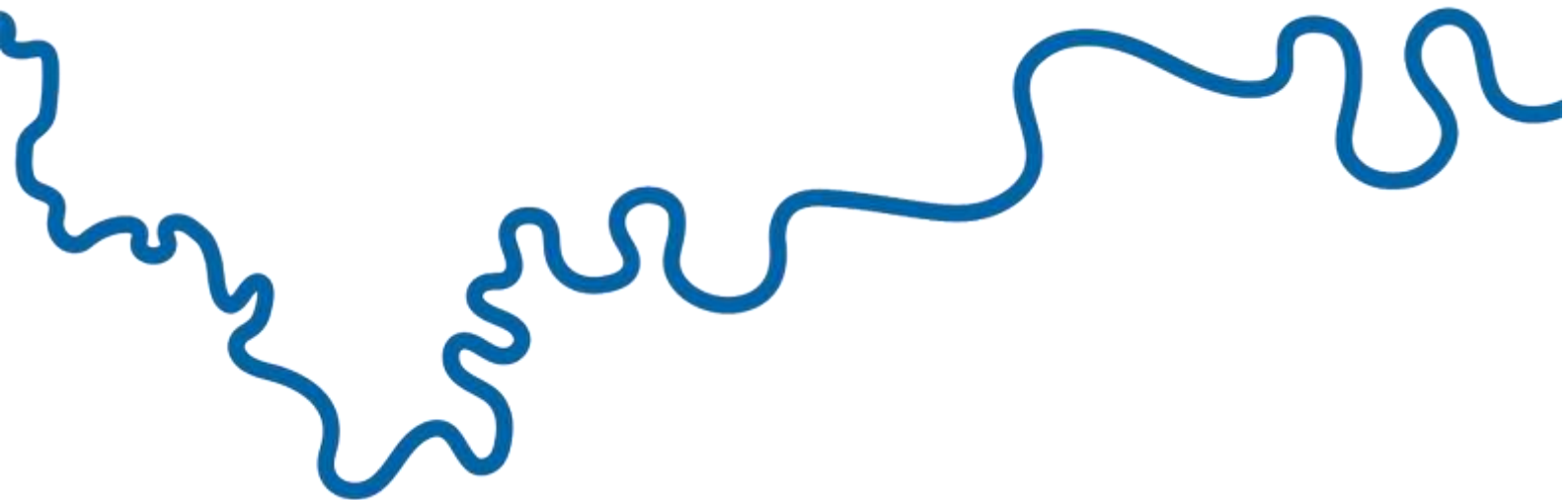
Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Medium sensitivity ecological sites within construction study area	Flow control structures; Sunbury Weir; Molesey Weir; Teddington Weir; Permanent maintenance compounds; New green open spaces; Areas of enhanced public connection; New blue open spaces; Chertsey Weir fish passage; Beasley's Ait fish passage; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough.	General construction activities (land); General construction activities (water); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges; Creation/use of construction compounds.	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions on medium-sensitivity ecological sites within <400m of activities involved with the provision of a new structure (or structures), of their modification or refurbishment.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Medium sensitivity ecological sites within demolition study area	Runnymede Channel; Spelthorne Channel	Demolition of buildings	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions at medium-sensitivity ecologically sensitive sites within <400m of activities involving the removal of existing above-ground structures.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Medium sensitivity ecological sites within trackout study area	Construction compounds; Temporary material storage sites; Permanent maintenance compounds; Runnymede Channel; Spelthorne Channel; Flow Control Structures; Abbey Meads Floodway; Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Sunbury Weir; Molesey Weir; Teddington Weir; Priority areas for habitat creation, enhancement or mitigation; New green open spaces; Temporary wharfs (River Thames); New Landforms.	Movement of construction vehicles, equipment and operatives (off site)	Negative Temporary (short-term) generation of dust and PM: impact of fugitive dust emissions at medium-sensitivity ecologically sensitive sites within <50m of construction routes due to trackout within 500m of potential Site exits.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Medium sensitivity human receptors within construction (odour) study area for earthwork activities	Flood embankments and Erosion prevention; Bed lowering downstream of Desborough Cut; Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; New green open spaces.	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites; Temporary changes in land levels; Use of excavated material on-site; Temporary stockpiling of materials; Dewatering / over-pumping of waterbodies.	Negative Temporary (short-term) emission of odours resulting from channel excavation, haulage and tipping (through historic landfills and silty or alluvial soils), causing a loss of amenity at medium-sensitivity human receptors within <400m of these activities.	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
Medium sensitivity human receptors within construction (odour) study area for materials processing and construction compounds	Construction compounds; Temporary materials processing sites; Temporary material storage sites	Creation/use of construction compounds; Use of materials processing sites; Temporary stockpiling of materials	Negative Temporary (short-term) emission of odours resulting from stockpiling non-hazardous waste excavated from historic landfills and silty or alluvial soils, causing a loss of amenity at medium-sensitivity human receptors.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Medium sensitivity human receptors within study area for construction Non-Road Mobile Machinery haulage routes	Bed lowering downstream of Desborough Cut; Spelthorne Channel; Temporary material storage sites; Runnymede Channel; Abbey Meads Floodway; Flood embankments and Erosion prevention; Temporary wharfs (River Thames); New green open spaces; Road realignments; Construction compounds; New pedestrian / cycle bridges crossing River Thames at Chertsey and Desborough; New blue open spaces; Priority areas for habitat creation, enhancement or mitigation; Temporary materials processing sites; New Landforms.	Material excavation (contaminated); Material excavation (natural ground); Movement of construction vehicles, equipment and operatives (on site); Bed lowering; Creation/use of construction compounds; Tree/vegetation removal; Temporary changes in land levels; Temporary changes in hard-standing; use of temporary wharfs and mobile pontoons; Habitat improvements and planting; Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Sheet piling; Use of excavated material on-site.	Negative Temporary (short-term) effect on air quality at medium-sensitivity human and ecological receptors within <200m of any locations where construction plant (NRMM) used, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Medium sensitivity human receptors within study area for construction inland water vessel haulage routes	Temporary wharfs (River Thames)	Use of temporary wharfs and mobile pontoons; General construction activities (water)	Negative Temporary (short-term) effect on air quality (human health) from emissions generated by barge movements used to transport material at medium sensitivity receptors within <200m of these activities, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

4 Non-Significant Operational Effects

Table 3: Non-Significant Operational Effects

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
High sensitivity human receptors within 200m of roads used during operational phase, including movements of maintenance workers/equipment and traffic associated with new green and blue open spaces (impacts from NO2)	New green open spaces; New blue open spaces; Areas of enhanced public connection; Permanent maintenance compounds.	Operational traffic	Negative Permanent effects of NO2 from road traffic due to provision of priority areas for habitat creation, or mitigation, open spaces, and green infrastructure works, on human receptors <200m of roads, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors within 200m of roads used during operational phase, including movements of maintenance workers/equipment and traffic associated with new green and blue open spaces (impacts from PM10 and PM2.5)	New green open spaces; New blue open spaces; Areas of enhanced public connection; Permanent maintenance compounds	Operational traffic	Negative Permanent effects of PM10/PM2.5 from road traffic due to provision of priority areas for habitat creation, enhancement or mitigation, open spaces, and green infrastructure works, on human receptors <200m of roads, with particular consideration to receptors within an AQMA.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
High sensitivity human receptors in the air quality - odour study area.	Runnymede Channel; Spelthorne Channel; Abbey Meads Floodway; Flow Control Structures; Sunbury Weir; Molesey Weir; Teddington Weir	Existence of the flood channel and other components; Operation during flood events; Introduction of augmented flow; Use of flow control structures; Channel maintenance to restore design profile	Negative Potential odour generated as a result of fish mortality from all causes associated with the project, including the introduction of nutrient rich water to lakes and operation of the weir gates following high precipitation and flood events. Causes may include flow changes; habitat damage/disturbance from operational activities; spread/escape of INNS/pathogens; changes in flood plain connectivity.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.



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.