M54 to M6 Link Road

TR010054

Volume 6

6.3 Environmental Statement Appendices

Appendix 2.1 Environmental Mitigation Schedule

Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

January 2020

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

M54 to M6 Link Road

Development Consent Order 202[ ]

6.3 Environmental Statement Appendices

Appendix 2.1 Environmenal Mitigation Schedule

Regulation Number	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010054
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1 Introduction

1.1.1 As detailed in the Environmental Statement [TR010054/APP/6.1], a wide range of environmental mitigation features have been included within the Scheme design as illustrated in the Environmental Masterplans (Figures 2.1 to 2.7 [TR010054/APP/6.2]). Table 2.1 provides a summary of these environmental mitigation features (and replicates Table 3.4 in the Outline Environmental Management Plan (OEMP) [TR010054/APP/6.11]).

2 Environmental Mitigation Schedule

Table 2.1: Mitigation embedded into the design of the Scheme

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Cultural heritage								
D- CH1	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans	Construction of a retaining wall against the bund to the north-east of Moseley Old Hall to protect to prevent the direct loss of ancient woodland to the south of the M54 and allow retention of the existing noise bund which provides screening and noise reduction. As shown in General Arrangement Plans [TR010054/APP/2.5].	Yes – with respect to tree planting in line with D-L1	Visual screening and the integration of the Scheme into the landscape.	The ES assumes part of this bund would be retained.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
Landscape and visual								
D- L1	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans	Provision of landscape design that includes areas of amenity grassland, grassland with bulbs, species rich grassland and native tree and hedgerow planting. Refer to Environmental Masterplans Figures 2.1 to 2.7 [TR010054/APP/6.2]. Key elements of the landscape design include: areas of woodland to provide visual screening (particularly for residents of Featherstone, Dark Lane and Hilton Lane), landscape integration and ecological habitat; species rich grassland to provide landscape integration and ecological habitat; individual trees to echo the parkland character around Hilton Park.	Yes	The integration of the Scheme into the landscape.	Impacts on local landscape character and visual amenity.	Successful establishment of all planting and seeding areas. Maintenance and monitoring over a five-year period.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor.
D- L2	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans	Landform modelling, including cuttings and embankments, has been employed locally to increase screening and integrate the Scheme more closely to the natural landform and reduce visual intrusion.	No	The integration of the Scheme into the landscape.	Impacts on local landscape character and visual amenity.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 47.	Main works contractor.
D- L3	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans	Provision of a false cutting to the east of Brookfield Farm to provide visual screening. As shown in General Arrangement Plans [TR010054/APP/2.5].	No	For visual screening.	Assessment within the ES, Chapter 7: Landscape and visual assumes a false cutting is provided to minimise impacts on visual amenity.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D- L4	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans	Break out the road surface of the redundant section of the A460 and M6 Junction 11 slip roads for seeding and planting as shown on the Environmental Masterplans (ES Figures 2.1 to 2.7 [TR010054/APP/6.2]).	Yes	The integration of the Scheme into the landscape.	Impacts on local landscape character and visual amenity.	Successful establishment of all planting and seeding areas. Maintenance and monitoring over a five-year period.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 47.	Main works contractor

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Biodiversity								
D- BIO1	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Aquatic invertebrates and fish:** Replacement ditch habitat for the loss of riparian habitat associated with the culverting of watercourses provided based on a minimum of 1:1 ratio. Within the constraints of the Scheme, mitigation for the loss of running water habitats includes a total of 408 m of watercourse habitat (exceeding the 355 m of watercourses that would be culverted). Although not proposed with ecological benefit as a primary function, ditches would be designed to provide ecological benefit as a secondary function. Where new ponds discharge to the local stream network they would be connected by new ditches rather than pipes. This avoids the need for engineered outfalls, extends existing green corridors, and provides greater connectivity with the proposed treatment and attenuation ponds. These ditches would be carefully designed so that the final form avoids a uniform cross section and maximises biodiversity opportunities. Ponds lost to the Scheme replaced on a minimum of 1:1 ratio. Highway runoff from the operational Scheme runoff would be collected and managed in accordance with the Drainage Strategy, Appendix 13.2 [TR010054/APP/6.3]. Such measures would manage the quantity and quality of highway runoff to the benefit of all aquatic species.	No	To mitigate for habitat loss.	Impacts on aquatic invertebrates and fish.	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D- BIO2	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Breeding and wintering birds:** Replacement habitat for breeding and wintering birds includes the creation of hedgerows, woodland, scrub and grassland habitats, which are incorporated into the Scheme design. Bird boxes would be included on retained trees across the Scheme where suitable which is in addition to the habitat creation outlined above to mitigate for lost nesting opportunity.	No	To mitigate for habitat loss.	Impacts on birds	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D- BIO3	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Terrestrial invertebrates:** Replacement habitat for terrestrial invertebrates includes, the establishment of new woodland and the retention of deadwood habitat.	No	To mitigate for habitat loss.	Impacts on local flora and fauna.	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor.
D- BIO4	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Badger foraging:** Replacement foraging habitat for badgers includes, the creation and establishment of hedgerows, woodland, scrub and grassland habitats, which are incorporated into the Scheme design. **Monitoring:** Monitoring as per Natural England licence for badgers and to assess the success of habitat establishment for foraging and commuting bats.	Yes	To mitigate for habitat loss.	To mitigate for loss of foraging habitat.	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor.
D- BIO5	ES Chapter 8, Section 8.8 and	**Badger and otter:** Provision of mammal tunnels (adjacent to Watercourse 2, 3 and 4) and a mammal ledge (Watercourse 5) to be installed at four locations over the length of the Scheme,	Yes?	To aid the safe crossing of the road by badgers and other animals, and	To mitigate the risks of increased mortality of wildlife	Provision of suitable mammal fencing, to be	Contractual requirement between The	Main works contractor/ Maintenance

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	ES Figures 2.1 to 2.7 Environmental Masterplans	the locations of which are shown on the Environmental Masterplans. Installation of badger fencing to guide badgers and other mammals to safe crossing points and avoid badgers crossing the road and entering the highway.		to mitigate the risks of increased mortality of wildlife once the road becomes operational and used by traffic.	once the road becomes operational	approved by competent ecologist. Annual checks to monitor state of fencing and check for breaches in the fence. Implementation and sign off by ECoW.	Authority and the main works contractor. DCO Requirement 45.	authority.
D- BIO6	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Barn owl:** Planting of grassland and hedgerows with trees and foraging habitats included within the landscape design (as detailed in Figures 2.1 - 2.7 [TR010054/APP/6.2]) as well as to reduce the potential collision risks to barn owl as a result of the Scheme.	No	To minimise the collision risk for barn owl and provide foraging and commuting habitat	To mitigate the risks of increased mortality of wildlife once the road becomes operational	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 47.	Main works contractor/ Maintenance authority.
D- BIO7	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Bat roosts:** Bat boxes would be sited on retained trees within the locality of the confirmed roosts being lost to provide alternative roosting opportunities for the local bat population, and if required (for confirmed high status roosts only), like-for-like roost replacement would be provided. **Monitoring:** Monitoring as per Natural England licence for bats and to assess the success of habitat establishment for foraging and commuting bats.	Yes	To mitigate for habitat loss.	ES assumes loss of two known bat roosts and additional assumed day roosts and potential hibernation roosts within trees within the Scheme boundary.	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D- BIO8	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	**Bat foraging and commuting habitat:** The Scheme shall provide an appropriate lighting design to minimise impacts on bats. The length of the Scheme would be unlit with new lighting limited to the junctions with the M54 and M6, including the associated slip roads. Linear habitat features, including hedgerows, along with grassland and pond to create a habitat matrix have been incorporated into the landscape design (ES Figures 2.1 to 2.7 [TR010022/APP/6.2]) to mitigate for habitats lost and ensure ecological connectivity within and across the Scheme, and into the wider landscape. **Monitoring:** Monitoring as per Natural England EPSML. Surveys required to assess the success of habitat establishment for foraging and commuting bats. Bat crossing point survey to be undertaken yearly up to a maximum of 5 years post construction.	Yes	To minimise impacts to foraging and commuting bats.	ES assumes appropriate lighting design.	Implementation and sign off by ECoW. Monitoring as per Natural England EPSML.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45 and DCO Requirement 47.	Main works contractor
D- BIO9	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	**Great crested newt habitat:** Provision of replacement pond habitat at a ratio of 2:1 for those lost as a direct result of the Scheme. Provision of species rich grassland and hedgerows which will provide suitable terrestrial habitat for great crested newts. **Monitoring:** Monitoring as per Natural England licence for great crested newts and to assess the	Yes	To mitigate impacts on great crested newts.	Assessment in the ES assumes three great crested newt ponds would be lost.	Implementation and sign off by ECoW. Monitoring as per Natural England EPSML.	Contractual requirement between The Authority and the main works contractor. DCO Requirement	Main works contractor

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		success of habitat establishment for foraging and commuting GCN.					45.	
D-BIO10	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	Timber from felled trees shall be used for the creation of deadwood areas within selected areas of retained habitat for saproxylic (dead wood loving) species, with some placed in the understory of woodland blocks to enhance woodlands. Felled trees would be retained on site as whole boughs and trunks.	No	To provide habitat enhancement for a variety of fauna including invertebrates and amphibians.	Impacts on local flora and fauna.	The implementation of the landscape design/ ecological mitigation measures signed off by the ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-BIO11	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	**Ancient woodland compensation:** Ancient woodland compensation planting shall be provided adjacent to an existing area of ancient woodland (Brookfield Farm SBI and LWS) at a ratio of 7:1. In combination with the compensatory planting, conservation led management of both ancient woodlands (Oxdon Leasow (Whitgreave's Wood) and the area within Brookfield Farm SBI and LWS) would seek to develop and improve upon the woodland structure, enhancement measures would include selective thinning. **Monitoring:** Monitoring undertaken as required by Natural England.	Yes	To compensate for the loss of ancient woodland.	ES assumes loss of 2.53 ha of ancient woodland.	Implementation and sign off by ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-BIO12	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	**Designated sites:** New woodland planting, new standing water habitats, new marshy and wet grassland and species-rich grassland to be created to mitigate the loss of habitat at Lower Pool LWS and SBI and Brook Field Farm LWS and SBI sites. The created woodland would be managed to have a variety in structure as well as abundant standing and fallen deadwood and hedgerows would be subject to relatively infrequent, rotational management to maximise biodiversity.	No	To mitigate habitat loss.	The ES assumes replacement habitat provided in line with the Environmental Masterplans Figure 2.1 to 2.7 [TR010054/APP/6.2] .	The implementation of the landscape design/ ecological mitigation measures signed off by the ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-BIO13	ES Chapter 8, Section 8.8and ES Figures 2.1 to 2.7 Environmental Masterplans	**Grassland:** Species-poor semi-improved grassland areas within the Scheme boundary would be replaced with species-rich grassland as part of the landscape design (where highway constraints do not prevail) (refer to Environmental Masterplans [TR010054/APP/6.2]).	No	To mitigate for the loss of biodiversity.	The ES assumes species-poor semi-improved grassland areas would be replaced with species- rich grassland.	The implementation of the landscape design/ ecological mitigation measures signed off by the ECoW.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-BIO14	ES Chapter 8, Section 8.8 and ES Figures 2.1 to 2.7 Environmental Masterplans	**Retained trees:** Retained trees would be protected as per British Standard BS: 5837 in line with the Tree Protection Plans Appendix 7.1 [TR010054/APP/6.3].	No	To protect trees (including veteran trees and woodland) to be retained	The ES assumes some areas of woodland within the Scheme boundary would be retained.	Protection fencing to be approved by the Arboricultural Specialist.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
Noise and vibration								
D- N1	ES Chapter 11,	Thin road surfacing (i.e. low noise surfacing which provides an additional 3 dB(A)	No.	To reduce noise	The assessment in	Implementation	Contractual	Main works

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Section 11.8.	benefit compared to standard hot rolled asphalt at speeds of ≥75 km/hr) installed within the Scheme extents on the mainline of the new link road and its associated slip roads, junctions and the existing A460 north of M6 Junction 11, with the exception of short sections at the approaches to junctions where high friction surfacing would be used for safety reasons.		impacts from the Scheme.	the ES Chapter 11, Section 11.9 assumes use of thin noise surfacing.	and sign off by the Environment Manager.	requirement between The Authority and the main works contractor. DCO Requirement 45.	contractor
D-N2	ES Chapter 11, Section 11.8 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Approximately 3.0 m high reflective noise barrier on the west side of the main line as it passes close to Dark Lane.	No	To reduce noise impacts at properties on Dark Lane and Park Road.	The assessment in the ES Chapter 11, Section 11.9 assumes a reduction in noise impact based on installation of the noise barrier.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-N3	ES Chapter 11, Section 11.8 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Approximately 1.5 m high reflective noise barrier on the east side of the existing A460 north of M6 Junction 11 in the vicinity of properties on Wolverhampton Road.	No	To reduce noise impacts at properties on Wolverhampton Road.	The assessment in the ES Chapter 11, Section 11.9 assumes a reduction in noise impact based on installation of the noise barrier.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-N4	ES Chapter 11, Section 11.8 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Approximately 2.5 m high reflective noise barrier on the west side of the main line as it passes close to Brookfield Farm.	No	To reduce noise impacts at Brookfield Farm.	The assessment in the ES Chapter 11, Section 11.9 assumes a reduction in noise impact based on installation of the noise barrier.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-N5	ES Chapter 11, Section 11.8 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Approximately 1.5 m high reflective noise barrier on the north side of the M54 eastbound off slip on top of the existing earth bund and the proposed eastern extension of this earth bund incorporated into the design.	No	To reduce noise impacts at properties within Featherstone village.	The assessment in the ES Chapter 11, Section 11.9 assumes a reduction in noise impact based on installation of the noise barrier.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-N6	ES Chapter 11, Section 11.8 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Approximately 3.0 m high reflective noise barrier east of the proposed earth bund on the north side of the M54 extending to the new western dumbbell roundabout.	No	To reduce noise impacts at properties within Featherstone village.	The assessment in the ES Chapter 11, Section 11.9 assumes a reduction in noise impact based on installation of the noise barrier.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement	Main works contractor

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
							45.	
Population and human health								
D-POH1	ES Chapter 2, Section 2.5 and ES Figures 2.1 to 2.7 Environmental Masterplans.	Provision of rights of way and accommodation bridge, in accordance with the Streets, Rights of Way and Access Plans [TR010054/APP/2.7] and as detailed in the ES Chapter 2: The Scheme [TR010054/APP/6.1].	No.	To provide continued access across the study area.	The assessment within the ES assumes access would be maintained across the study area.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
Road drainage and the water environment								
D-WAT1	ES Chapter 13, Section 13.8, ES Appendix 13.2 [TR010054/APP/6.3] and ES Figures 2.1 to 2.7 [TR010054/APP/6.2]	Drainage treatment areas provided in accordance with ES Appendix 13.2 Drainage Strategy [TR010054/APP/6.3] and Table 13.6 of ES Chapter 13: Road Drainage and the Water Environment [TR010054/APP/6.1].	No	Provision of flood and pollution control.	Refer to Appendix 13.2 of the ES [TR010054/APP/6.3]	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 50.	Main works contractor
D-WAT2	ES Chapter 13, Section 13.8	Realignment and culverting of Watercourse 2 under the Scheme in a culvert, minimum size 1.2 m x 2 m. The culvert base to be set below the current channel bed by a minimum 300 mm to allow substrate conveyance, improved flow capacity and improved species passage. The detailed design of the realignment and diversion of Watercourse 2 would be undertaken within the detailed design stage. The design will follow best practice to maintain flow and stream processes, whilst seeking to provide morphological and ecological enhancement on current channel form. Uniform, artificial channels will be avoided, in favour of more natural designs.	No	To provide no increase in flood risk and no deterioration of WFD watercourses.	The assessment within the ES assumes minimum culvert sizing and use of best practice when designing watercourse realignments.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-WAT3	ES Chapter 13, Section 13.8	Realignment and culverting of Watercourse 3 under the Scheme in a culvert, minimum diameter of 1.2 m. The culvert base will be set below the existing channel bed by a minimum of 300 mm to allow substrate conveyance, improved flow capacity and improved species passage. The detailed design of the realignment and diversion of Watercourses 3 and Lower Pool would be undertaken within the detailed design stage. The design will follow best practice to maintain flow, stream processes and ensuring flood risk is not worsened downstream, whilst seeking to provide morphological and ecological enhancement on current channel form. Uniform, artificial channels will be avoided, in favour of more natural designs.	No	To provide no increase in flood risk and no deterioration of WFD watercourses.	The assessment within the ES assumes minimum culvert sizing and use of best practice when designing watercourse realignments.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-WAT4	ES Chapter 13, Section 13.8	Realignment and culverting of Watercourse 4 to pass under the Scheme in a culvert, minimum diameter of 1.2 m. The culvert base will be set below the existing channel bed by a minimum of 300 mm to allow substrate conveyance, improved flow capacity and improved species passage. The detailed design of the realignment and diversion of Watercourses 4 would be undertaken within the detailed design stage. The design will follow best practice to maintain flow and stream processes, whilst seeking to	No	To provide no increase in flood risk and no deterioration of WFD watercourses.	The assessment within the ES assumes minimum culvert sizing and use of best practice when designing	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor.	Main works contractor

Ref	Source Ref [TR010054/APP/6.1] [TR010054/APP/6.2]	Action/ Commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		provide morphological and ecological enhancement on current channel form. Uniform, artificial channels will be avoided, in favour of more natural designs.			watercourse realignments.		DCO Requirement 45.	
D-WAT5	ES Chapter 13, Section 13.8	Realignment of Watercourse 5 (Latherford Brook) through a 10 m wide single span bridge (Latherford Brook bridge). The detailed design of the minor realignment of Watercourses 5 would be undertaken within the detailed design stage. The design will follow best practice to maintain flow and stream processes, whilst seeking to provide morphological and ecological enhancement on current channel form. Uniform, artificial channels will be avoided, in favour of more natural designs.	No	To provide no increase in flood risk and no deterioration of WFD watercourses.	The assessment within the ES assumes 10 m span design over Watercourse 5.	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor
D-WAT6	ES Chapter 13, Section 13.8	For new highway outfalls the drainage design includes new ditchcourses to convey treated runoff to the receiving watercourses avoiding the need for pipe outfalls supported by concrete headwalls. The design of new ditches would be informed by a geomorphologist and would include where practicable 'natural' features such as a sinuous low flow channel (albeit along a straight corridor) incorporating shallow berms and occasional sections where the channel is narrowed to improve flow.	No	To provide replacement ditch habitat.	The assessment within the ES assumes new ditchcourses will avoid trapezoidal channel profiles and include appropriate geomorphic features to create morphological diversity. WFD Assessment as per Appendix 13.4 [TR010054/APP/6.3]	Implementation and sign off by the Environment Manager.	Contractual requirement between The Authority and the main works contractor. DCO Requirement 45.	Main works contractor