# M5 Junction 10 Improvements Scheme

**Environmental Statement** 

Appendix 8.2A WFD Surface Water Impact Assessment TR010063 - APP 6.15

Regulation 5 (2) (a) Planning Act 2009 Volume 6 December 2023 Infrastructure Planning Planning Act 2008

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

### **M5 Junction 10 Improvement Scheme**

Development Consent Order 202[x]

### Environmental Statement: Appendix 8.2A WFD Surface Water Impact Assessment

Regulation Number:	Regulation 5 (2) (a)
Planning Inspectorate Scheme Reference	TR010063
Application Document Reference	TR010063/APP/6.15
Author:	M5 Junction 10 Improvements Scheme Project Team

Version	Date	Status of Version
Rev 0	December 2023	DCO Application

### Project Name: M5 Junction 10 Improvements Scheme Screening assessment

Water body Name	Water body ID	Overall Status	Ecological Status	Chemical Status	Hydromorphological Designations	Reasons for not achieving Good	Linked Protected Areas	Screened in/out	Reasons for Screening out
Chelt – source to M5	GB109054032820	Moderate	Moderate	Fail	Heavily Modified	Physical modifications from Local and Central Government and Urban transport	Thames (Churn to Coln) NVZ S457 River Chelt NVZ S580 River Swilgate NVZ S582 Hatherley Bk - conf Norman's Bk to conf R Severn NVZ S579	In	
Chelt – M5 to conf. R. Severn	GB109054032810	Poor	Poor	Fail	Not Heavily Modified or Artificial	Diffuse and Point source pollution from Agricultural land management, Water industry and Urban and transport	River Chelt NVZ S580 Hatherley Bk - conf Norman's Bk to conf R Severn NVZ S580 River Chelt Urban Waste Water Treatment Directive (UKENRI46)	In	
Leigh Bk – source to conf. R. Chelt	GB109054039770	Moderate	Moderate	Fail	Not Heavily Modified or Artificial	Diffuse and Point source pollution from Agricultural land management, Domestic general public and Urban and transport	River Chelt NVZ S580 River Swilgate NVZ S582	In	
Swilgate – source to conf. R. Avon	GB109054039780	Moderate	Moderate	Fail	Not Heavily Modified or Artificial	Diffuse and Point source pollution from Agricultural land management, Water industry, Domestic general public, and Urban and transport	River Chelt NVZ S580 River Swilgate NVZ S583 River Avon (to conf with River Severn) NVZ S590 Hyde Brook Urban Waste Water Treatment Directive (UKENRI152)	Out	No hydrological connectivity to physical works with red long boundary extending north, past Villa Farm M5 Road Bridge, to incorporate signage works which involve limited vegetation removal.
Hatherley Bk - source to conf R Sev	GB109054032801	Moderate	Moderate	Fail	Not Heavily Modified or Artificial	Diffuse and Point source pollution from Agricultural land management, Water industry and Urban and transport	Thames (Churn to Coln) NVZ S457 River Chelt NVZ S580 Hatherley Bk - conf Norman's Bk to conf R Severn NVZ S579	Out	No hydrological connectivity to physical works with red long boundary extending south, past the River Chelt, to incorporate signage works which involve limited vegetation removal.
Severn – conf R Avon to conf Upper	GB109054044404	Moderate	Moderate	Fail	Heavily Modified	Local and Central Government and Urban transport, Urban and transport, Navigation, Water Industry	River Chelt NVZ S580 River Swilgate NVZ S582 Hatherley Bk - conf Norman's Bk to conf R Severn NVZ S579 R Leadon - Glynch Bk to conf R Severn (W Channel) NVZ S578 River Chelt Urban Waste Water Treatment Directive (UKENRI46) River Avon (Warwickshire) Urban Waste Water Treatment Directive (UKENRI10)	In	Included following consultation with Environment Agency

### Project Name: M5 Junction 10 Improvements Scheme Scoping assessment

																P	Potential scheme impact type (√/	) and associated WFD elements t	to be assessed post embedded mitig	ation						
										Biological					Physico-chemical			Specific pollutants			Hydromorphol	logical			Chemical	
Water body Name	Watercourse	Scheme activity type	Scheme activity	Scheme activity design details (if applicable)	Screened in/out	Reasons for Screening in/out	Direct loss or alteration of open channel	Habitat severance	Shading*	Changes in water quantity (due to discharge of surface water runoff to surface water body)	Changes in surface water runoff	Changes in flood mechanisms within the surface water bodies	Creation of new habitats	Changes in water quantity (due to discharge of surface water runoff to surface water body)	Changes in surface water runoff	Changes in flood mechanisms within the surface water bodies	Changes in water quantity (due to discharge of surface water runoff to surface water body)	Changes in surface water runoff	Changes in flood mechanisms within the surface water bodies	Direct loss or alteration of open channe	Habitat severance (changes to el watercourse and riparian zone structure that act to reduce watercourse continuity)	Changes in surface water runoff	Creation of new habitats	Changes in water quantity (due to discharge of surface water runoff to surface water body)	Changes in surface water runoff	Changes in flood mechanisms within the surface water bodies
		New bridge	West Cheltenham Link Road River Chelt Bridge	New bridge with structure width of 20.8m and abutments set back minimum of 4m from the bank top. Inclusion of bank protection in the form of rip-sp as wont case scenario.	, h	Potential for shading and habitat severance as a nexult of a new bridge atracture. Potential reduction of hydromorphological and ecological diversity due bank protection.	1	a .	5	x		x	x	x		x	x		x	4	1		x	×	x	x
	River Chelt	Culvert	River Chelt Culvert	No changes to the upstream section of the river Chelt culvert.	Out	No change in culvert proposed.	NIA	NA	NA	NA		NA	NA	NA		NA	NA		NA	NA	NIA		NA	NBA	NA	NIA
Chelt - source to MS		Drainage	Drainage discharge to the River Chelt	Receiving water body from the A4019 main line at Elms park drainage catchment.	in	Potential for changes in water quality and/or quantity as a result of new drainage discharges to the River Chelt.	x	x	x	x	4	x	x	x	4	x	x	1	x	x	x	J	x	x	1	x
	NWIS	N/A.	NA	NA	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NIA	NA	NA	NA		NA	NA	NA	NA	NA	NA.	NA.	NIA	NA	NIA	NA	NA	NA	NA	NA
	Uckington Most	N/A.	NA	NA	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	ND	NUA	NEA	NA	NIA	NB	NIA
	Drain 21	Drainage	Drainage discharge to Drain 21	Drainage pathway into the River Chelt from the A4019 main line at Elma park drainage calchment.	in .	Potential for changes in water quality and/or quantity as a result of new drainage discharges to the River Chelt.	x	x	x	x	4	x	x	x	4	x	x	4	x	x	x	4	x	x	4	x
	River Chelt	Culvert Drainage	River Chelt Culvert Drainage discharge to the River Chelt	No changes to the river Chell culvert Final receiving water body from S1, S1 South, M5 South of River Chelt, Link Road,	Out	No change in culvert proposed. Potential for changes in water quality and/or quantity as a result of one changes in the Binar Chall	x	x	x	x	x 4	x	x	x	*	x x	x x	*	x	x x	x x	x	x	x x	× -	×
	MMG	Drainage	Drainage discharge to MW3	and B Road Outfall. Drainage pathway into the River Chelt from the S1 drainage catchment	In	Potential for changes in water quality and/or quantity as a result of new drainage discharges to MW3.	×	x	x	x	4	x	x	x	1	x	x	4	x	x	x	3	x	x	5	x
	82024	N/A.	NA	NA	Out	Does not fail within the Scheme footprint. No works proposed. No downatream hydrological connectivity to a Scheme activity.	NIA	NA	NA	NA	NEA	205	NA	NA	NA	NA	NA	NA	NGA.	NA	NIA	NA	NA	NIA	NR	NA
	Drain 12	Culvert	New culvert	New culvert 31.85m long.	in .	Potential for direct loss of habitat, habitat severance and changes to hydromorphology as a result of a new culvert.	1	1	x	x		x	x	x		x	x		x	4	J		x	x	x	×
	Drain 13a	NA	NA	NA	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NDA	NUA	NEA	NA	NA	ND	NA
	Drain 14	Culvert extension	Culvert extension	Culvert replacement with new length of	in the second se	No change in culvert or drainage. No works proposed. Potential for direct loss of open channel and habitat severance	4	4	x	x	NA	x	x	x		x	x	NA.	x	4	4	NA	x	×	×	x
Chelt - M5 to conf. R. Severn	Drain 15	Drainage	Drainage discharge to Drain 15	25.dvm. Original omenations unknown. Receiving water body from the Link Road drainage catchment	in .	Potential for changes in water quality and/or quantity as a result of new drainage discharges to Drain 15.	x	x	x	x	4	x	x	x	1	x	x	4	x	x	x	4	x	x	4	x
	Drain 16	Encroachment	Encroachment	Encroachment due to widening Old Gloucester Road with channel being re- established at the foot of new enbankment as outlined in the landscape and drainage plans.	Out	Potential for changes in hydromorphology as a result of encrosechemet. Mitigated for as part of the landscape and drainage plans.	×	x	x	x		×	×	×		x	x		x	x	x		×	x	x	x
	Dain 17	N/A.	NA	NA.	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NIA	NA	NA	NA	NA	NA
	Drain 19	NGA	NIA	NIA.	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NIA	NA	NA	NA	NIA	105	NA	NA	NA	NA	NA	NA	NIA	NIA	NIA	NDA	NA	NIA	NR	NA
	Drain 20	Encroachment	Encroachment	Encroachment due to widening Cld Gloucester Road with channel being re- established at the foot of new embankment as cutlined in the landscope and drainage	Out	Potential for changes in hydromorphology as a result of encroachment. Mitigated for as part of the landscape and chainage plans.	x	x	x	x		x	x	x		x	x		x	x	8		x	x	x	x
		Culvert extension	Culvert extension (Leigh Brook Culvert)	plans 8.45m US and 7.9m DS extension to existing culvert. An approximate 30% increase.	* 1n	Potential for direct loss of habitat as a result of a new culvert.	4	1	x	x		x	x	x		x	x		x	J.	4		x	x	x	x
	Leigh Brook	Severance of flood flows	Reduction in flood flow within a section of the Leigh Brook.	Removal of the twin culverts beneath the A4019 and elevation of the A4019 reduces flood flows from the River Chall cathomert to the Leigh Book cathomer in the 1 in 100 of the A4019 elevation and removal of the Calverte, the peak flow in the Leigh Book culverte, the peak flow in the Leigh Book	o In	Potential for changes in water quantity as a result of operation of flood compensation areas.	x	x	×	x			x	x			x		4	đ	x		x	x	x	1
				m3/s in the 100 year + CC event.		Delantial for channes in water results and/or manifer as a	-		-	_		-	-	-			-		-		-		-	_		
		Drainage	Drainage discharge to Leigh Brook	combined basin drainage calchments. Extension of 42.34m US and 53.015m DS		result of new drainage discharges to the Leigh Brook.	,				5		Ĺ.		-	,	*	·	*	,		-	*	×	*	*
	Drain 22 (Pills Em)	Severance of flood flows	Econeria attention (Prist Eth Colvert) Increased flood flow through the Pills Ele Colvert	Exercision to examing curver. An approximate 200% increase. Elevation of A4019 and removal of the twin culverts severs flood flows into the kight brock culvert the several flood flows through the Pfils Elin culvert. The Scheme (in present day) does not impact		charges to hydromophology as a result of a culver extension.	4		×	*		x	*	*		* *	*		, ,	- -	J.		x	x	x	x
	Province 2			events lower than the 1 in 100 year+CC.	Out.	Does not fail within the Scheme footprint. No works proposed.	NA	N/A												2.2	No.		NA	NA	NO	NEA
	Drain 3	NDA .	70A		~	No downstream hydrological connectivity to a Scheme activity. Does not fall within the Scheme footprint. No works proposed.																				
	Login 4	NDA .				No downatream hydrological connectivity to a Scheme activity.												100								
	Drain 5	NA.	NA	NA.	Cir.	No downatream hydrological connectivity to a Scheme activity.	NUA	10.0											10A	505.		100	NPA	50A		
Leigh Bk – source to conf. R. Che	Drain 6	N/A	NA.	N9A.	~	No downstream hydrological connectivity to a Scheme activity. Does not fall within the Scheme footprint. No works proposed.	10.0	100	100										10A	10.0			NOA.	non.	NO.	NOA.
	Drain 7	NA	NA	N/A Encroachment due to widening the A4019 with channel bairs to established at the ford		No downstream hydrological connectivity to a Scheme activity. Potential for changes in hydromorphology as a result of																				
	Paris #	Encroachment	Encroachment	of new enhankment as outlined in the landscape and drainage plans	Out	encroachment. Mitigated for as part of the landscape and drainage plans.	x	x	*	x		x	*	×		*	x		*	x	*		X	x	x	x
		Drainage	Drainage discharge to Drain 8	Drainage pathway for J1 and S2 drainage catchment into the Leigh Brook.	in	Potential for changes in water quality and/or quantity as a result of new drainage discharges to Drain 8.	x	x	x	x	1	x	x	x	4	x	x	1	x	x	x	1	x	x	1	x
		Culvert extension	Culvert extension	Culvert extension. Dimensions unknown.	In	Potential for direct loss of open channel and habitat severance	1	1	x	x		x	x	x		x	*		x	4	4		x	x	x	x
	Dain 9	Encroachment	Encroachment	Encroschment due to widening the A4019 with channel being re-established at the foot of new embankment as outlined in the landscope and drainage plans	<sup>6</sup> Out	Potential for changes in hydromorphology as a result of encroachment. Mitigated for as part of the landscape and drainage plans.	×	x	x	x		x	×	×		x	x		x	X	x		×	×	×	×
	Drain 10	Encroachment	Encroschment	Encroachment due to widening the A4019 with channel being re-established at the foot of new embankment as cutlined in the landscope and drainage plans	<sup>6</sup> Out	Potential for changes in hydromorphology as a result of encroachment. Miligated for as part of the landscape and drainage plans.	x	x	x	x		×	×	x		*	x		x	x	x		×	x	x	x
		Culvert extension	Culvert extension	Culvert extension. Dimensions unknown.	in	Potential for direct loss of open channel and habitat severance	4	4	x	x		x	x	x		x	x		x	4	a .		x	x	x	x
	Drain 11	Encroachment	Encroachment	Encroachment due to widening the A4019 and Withybridge Lane with channel being re- established at the foot of new enbankment as outlined in the landscape and drainage relever	Out	Potential for changes in hydromorphology as a result of encroachment. Mitigated for as part of the landscape and drainage plans.	×	x	x	x		×	×	×		x	x		x	x	x		x	x	x	x
	Drain 13	NA	NA	NDA	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NIA	NUA	NEA	NA	NIA	NA	NA
Salate - source is and P A-	River Sullgate	NA	NIA	NGA	Out	No hydrological connectivity to physical works with red long boundary extending north, past Villa Form MD Road Bridge, to incorporate signage works which involve timiled vegatation removal.	NA	NIA	NA	NA	NA	NIA	NA	NA	NIA	NA	NA	108	103.	NIA	1674	165.	NIA	NIA.	NIA	NGA
1.912	Dean Brook	N/A.	NIA	NA	Out	Does not fail within the Scheme footprint. No works proposed. No downstream hydrological connectivity to a Scheme activity.	NIA.	NA	NA	NA	NA	NIA	20.0	10.0	113.	NA	NA	105.	10.5	NA	NEA	103.	NIA	107.	NIA	NGA
Hatherley Bk - source to conf R 5	Hatherley Brook	NA	NA	NIA	Out	No hydrological connectivity to physical vorks with red long boundary extending south, past the River Chelt, to incorporate alignage works which involve limited vegetation removal.	NA	NA	NA	NA	NIA	NA	NIA	NIA	NA.	NA	NA	80.	10.	NA	NUA.	NA	NA	NIA.	NIA	NIA
Severn – conf R Avon to corf Up	r RherSeven	NEA	NA	104	Out	Included following consultation with Environment Agency. There are no barriers to this proposed as part of the Schemes. The drange strategy is in places to manage for this of polylation and springers to surface souther approximate hyperic barro interpretary works will be managed a part of the CEMP with relation to provide segment processing sedment polylation).	NEA	NA	NA	165.	NA	NA	NA	84	165.	NA.	NDA	10.	525.	NEA	105	200.	NIA	NA	NDA.	NGA.

\* shading is only assessed where it is an isolated impact. Where shading occurs as a result of direct loss of open watercourse (e.g. in the case of a new culvert) shading is assessed as part of the habitat loss as a whole.

Test A: Cause	of deterioration at the	water body sca	ale										
Chelt - source to MS GB	109054332320			1	N						Detailed Impact Assessment Outcome		
Waser Body type: Hydromorphological	NVEI		and a second second second second		River	zeit.		Drain 21	1				
designation: Overall Status (2015):	Moderate	De	scheme activity:	New bridge with structure width of 20.8m and abut	West Cheltenham Link Hoad Kiver Chelt Bridge ments set back minimum of 4m from the bank top. Inclus scenario.	ian of bank protection in the form of rip-rap as worst case	Drainage discharge to the River Chelt Receiving water body from the A4019 main line at Elms park drainage catchment.	Drainage discharge Drainage pathway into the River Chelt from the A4019 main line at Elms park drainage catchment.	Cumulative effects - effects on quality element from scheme component(s) located	Overall effect on quality element at water body scale	Additional mitigation requirements	Residual effect on quality element at water body scale	WFD compliance outcome - potential for deterioration of current status of quality element a
Queral Status Objective	Good by 2027	Impac	t type from scheme activity:						in other WFD water bodies				water body scale
WFD Status Element	WFD Quality Element	RBMP Cycle 2 2015 Status	RBMP Cycle 2 Status Objective	Habitat severance	Shading	Direct loss or alteration to open channel	Changes in surface water runoff	Changes in surface water runoff					
	Fan	Good	Good by 2015	A protect to barr colo a city, barryon y and a barryon the city operations of the city operation of the city operation barryon of the city operation of the city operation of the city operation of the city operation of the city operation of the city operation of a city operation of the city operation of the city operation of a city operation of the city operation of the city operation of a city operation of the city operation of the city operation of a city operation of the city operation of the city operation of a city operation of the city operation of the city operation of the city operation of the city operation operation of the city operation of the city operation of the city operation operation of the city operation of the city operation of the city operation operation of the city operation of the city operation of the city operation operation of the city operation of the city operati	A growth free Cells in this locatio provide wallaw brittle for forecastions. The proposal time Cells Bolgs will be the Bolgs manual strength of the strength of the Section Section 2014 (Section 2014) and an experiment of the Section 2014 (Section 2014) and the inclusion of the strength of the Section 2014 (Section 2014) and the Section 2014 (Section 2014) and the Section 2014 (Section 2014) and the Section 2014 (Section 2014) and the Section 2014 (Section 2014) and the inclusion devices of the strength of the Section 2014 (Section 2014) and the inclusion devices of the strength of the Section 2014 (Section 2014) and the inclusion devices of the strength of the Section 2014 (Section 2014) and the inclusion devices of the strength of the strength of the strength of the section 2014 (Section 2014) and the strength of the section 2014 (Section 2014) and the inclusion devices of the strength of the section 2014 (Section 2014) and the strength of the section 2014	Represent the Barr Carls on Investment provider workshifts batter for the monitories. The properties that control and a state of the state of the properties on the state provider of the state of the state of the state of the state of the state of the state. The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state. State of the state of the state of the state of the state. State of the state of the state of the state of the state. State of the state of the state of the state of the state. State of the state of the state of the state of the state. State of the state of the state of the state of the state.			kov	Lacebook adverse effect anticipated when acteres comparent effects analysis and antibiotics. Neverse and antibiotics and and all gaming active antipated and any and analy Additional engineers and regional	ąs.	Loolind shares effect anti-good when Lobes compared effects confident in solution of goodly and the solution of when tarly scale. Additional integration and registed.	Camplant — no distribution in guilty where status anticipand
Bolgical	low-risk size	нур	Good by 2015	A great the fact of the fact has been been been as a great of the fact of the	A generation have change in the series on states a series on the generation of the series of the ser	A grantest data franc Orak L Mu, terretari a seria a france a data franc	REACT costs work memory panels for all shared memory and height accurate the memory in the shared against methods of hight accurate the shared of against methods of hight accurate the shared of hight accura- ted of a shared of hight accurate the shared of hight accurate shared rates and his to paramit the specification of against methods and hight accurate the specification of against method of hight accurate the specification of hight accurate accurate the specification of hight accurate the specification of against method of hight accurate the specification of hight accurate the accurate the specification of hight accurate the specification of against method of hight accurate the specification of hight accurate the accurate the specification of hight accurate the specification of accurate the specification of hight accurate the specification of accurate the specification of hight accurate the specification of hight accurate the specification of accurate the specification of hight accurate the specification of hight accurate the specification of accurate	Additional management passes for a fail for the second management passes for the second management of the second manageme	kaw	Linclud allow effet attripted allo skere segurat effet attripted allower and an and allower allower allower attripted attripted allower attripted attripted attripted attributed attripted attripted attripted attributed attripted attripted attripted attributed attripted attripted attripted attributed attributed attripted attripted attributed	50.	Looked selence offset anti-particular clubes companies offsets anti-particular clubes of apply alternet integrated at the water tarky scale. Selence of the appliest	Camplane - no determination in spacing viewer video webs gened
	Macrophyles and Phylobesthes - combined	Good	Good by 2015	A present the filter Clark in this location; filter Clark Endings materials and intercepting a control, With and you or evity the properation of the Clark State of the State of the State properation of the Clark State of the State of the State State of the State of the State of the State of the proof State of the State of the State of the State of the proof State of the State of the State of the State of the proof State of the State of the State of the State of the proof State of the State of the State of the State of the proof State of the State of the State of the State of the proof State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the State of the State of the State of the state of the State of the state of the State of the state of the State of	P growt the flater Chef Is this hardson (Darr Chef Allage) activities a latest managed accumular, bit hardson (are applied), subschlase make another than a parametige areas of the control of the second flater Chef Bage and main a studie of the accuracy allage and main a second accuracy are applied and parametic accuracy and the second flater Chef Bage and an accuracy and parametic accuracy of the second flater chef and the second flater chef accuracy and parametic accuracy are applied and parametic accuracy and parametic accuracy and parametic accuracy and parametic accuracy and parametic accuracy accuracy and parametic accuracy and accuracy and accuracy accuracy accuracy accuracy accuracy and parametic accuracy a	A growth the flow Cold in this factor is Barr Cold Balagia and the set of the set of th			Kon	Localised adverse effect anticipated adves software comparent effects canadianed in carabitation. Namerar, no deforturation in attachad goalay simenar tricipated at the autochad sola Addisonel miligates no separat.	aja.	Lacabaet adverse effect anticipated when contractions. Neverse, no deterioration in status of gailing viewest activity and the water body work. Additional mitigation not required.	Compliant - na deteritoration in quality elemen status anticipated
Physicochemical	Physico-chemical quality elements comprise: Ammenia, Dissolved Oxygen, pik, Phosphate and Temperature.	Good	Good by 2015	Element is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable change to quality element.	Demot is insensitive to impact. No measurable change to quality element:	HDRRAF rouche nund? assessment passes for all surface water tens. Negleble effect anticipated when bainced against embedded nitigetion. In enswurdde change in public element anticipated. Enbedded mitigetion enswur- na abranction is quantity without en covining water bold, outbil rotes will be no geneter than generfield sourf rates. Additional mitigetion set required.	HDMRAT routine runciff assessment passes for all surface water tracs. Negligible effect anticipated when balanced against embedde mitigations. New measurable charge in quality eliment anticipated. Embedded mitigation means no abstraction quartity within the routing water bady subfair trans will be no granter than generified runciff state. Additional mitigation are required.	Now	Singligble effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipated. Additional miligation not required.	N/A	Singligble effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipated. Additional intigation not required.	Compliant - no deterioration in quality elemen status anticipated
Specific Pollutant	Copper, Triclosan, Zinc	N/A	N/A	Element is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable change to quality element.	Dement is insensitive to impact. No measurable change to quality element.	HOWART rouche nundf assessment passes for all surface water tests. Neglegble effect anticipated when balanced against embedded mitigation. Neurosci charge in public element anticipated. Enhedded mitigation ensures no alteraction is quantify within the rouking water bold, outfall rates will be no genetar the generfield muntf rates. Addicional mitigation atteragined.	HOWART routive number assessment passes for all surface water tests. Negligble effect anticipated when balanced against ended in displation. Nor measurable charge in quality element anticipated. Entertaided mitigation maxims no abstraction quantity within the receiving water body outfail trans will be no geneter than generified number toos. Additional mitigation art required.	Nore	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element anticipated. Additional miligation not required.	N/A	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element anticipated. Additional mitigation not required.	Compliant - no deterioration in quality elemen status anticipated
24	tremerphological	Supports Good	Supports Good by 2015	There will be implification/ton of in-channel and riporten encurse suscicited with shading and backade abarmers which will att to case to be called band of adversering on certainly through the subcase of the state of the state of the state of the balance completing at a localized state. Localized adverse effect entriported when balanced agenet embedded retrigories. Insevent, on determination in status quality element anticipated atter subra hala acid, Additional applies not required.	There will be complication/from of in-channel and operators registration distances associated with shading. This will act to a case included Changes in indicators which yield works of the adverse of the adverse effects and the background action of lacking and adverse effects and taken backword against embedded mitigation. However, taket and with adverse of against embedded anticipated adverse which using Additional integration not registed.	There will be simplificationly for all in-channel and operation segretation effective associated with shading, segretation lines and task performance. This is a segretation of the segret base of the segretation of the segretation of the segret base of the se	Enhedded cellgelan ensurer on change in outfall obst as a mult in changen in outfan water root? The absorbin in legelanosophulogy as mult. Additional mitgelion net required.	Enhedded obligation environ na change is nathfi rotan an a much in changes to undraw marker rushfi. Na chentaion in Ngdonscrybeloge an anual. Addisional mögsten nat mguintd.	Kon	Localand adverse effect anticipated when behand against entibilitied mitigation. Newwer, no destination in othical of quality viewers enticipated at the weak body scale. Additional mitigation not required.	N/A	Localised adverse effect anticipated when balances against embedded mitigation. Newwww.mo.dimentration in atoms of galances wherems anticipated at the water bedyncsis. Additional intigation not required.	Compliant - no deterioration in quality elemen status anticipated
Chemical	Priority substances	Does not require assessment	Good by 2015	Element is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable change to quality element.	Element is insensible to impact. No measurable change to quality element.	HEMRAF routine sured? assessment parses for all surface water texts. Neglephie effect anticipated when halmood against embedded mitigations. The meanwhile charge in quality element anticipated. Embedded mitigations enumes to alteration in quantity within the routinity awater boly, outilitrates will be no genator than generated for auti- tates. Additional initiations not resulted.	HOWAR routine numb assessment passes for all surface water texts. Negligible effect noticipated where balanced against enterded moligitatios. New neurosciele charge in public yelement anticipated. Onbedded moligitation ensur- nation of the second particle with the ensuing water bady, surfail have set grantice that generated found notice. Additional mitilation on transition.	Nor	Negligble effect articipated when Scheme component effects are considered in combination. No measurable change in quality element articipanet. Additional integration not required.	NA	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element anticipated. Additional intigation not required.	Compliant - no deterioration in quality elemen status anticipated

Chelt - source t	o M5 GB109054032820	)									Outcome		
WFD Status Objective Element	RNAGs / Measures scop	ed in as potentially a Relevant WFD Quality Element / RNAG(s)	t risk from Proposed Title / Details		River C West Cheltenham Link Road River Chelt Bridge	helt	Drainage discharge to the River Chelt	Drainage discharge	Cumulative effects - effects on RNAG / Measure from scheme component(s) located in other WFD water bodies	Overall effect at water body scale	Additional mitigation requirements	Residual overall effect at water body scale following consideration of additional mitigation	WFD compliance outcome - potential to prevent future attainment of status objective o quality element.
	479871	Physical modification	Road Protection	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Text B	RNAG is insensitive to impact. No measurable impact to Test B	Now	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
Reasons for Not Achieving Good (RNAG)	479872	Physical modification	Urbanisation	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	3/3	Compliant - no prevention of future attainment of quality element status objective.	Compilant - no prevention of future attaine of quality element status objective.
	532185	RFD	High to Good deterioration, no action required (RFD only)	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test B	RNAG is insensitive to impact. No measurable impact to Test 8	RNAG is insensitive to impact. No measurable impact to Test B	Nove	Element is insensitive to impact. No measurable change to quality element.	3(3)	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attainen of quality element status objective.
			Remove obsolete structure	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Dement is insensitive to impact. No measurable change to quality element.	. x(A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Re-engineer river	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test $\hat{\mathbf{u}}$	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Nove	Element is insensitive to impact. No measurable change to quality element.	5/4	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attainen of quality element status objective.
			Remove or soften hand bank	At this stage, the details of the bank protection have not been det bank protection is a dy-top on two-backgedade protection) as a result of an and to the softwarden horizon the graph back protec- neous preparatic validies not carried in the the graph back protec- posalistic states of the softwarden horizon the protection of the softward protection of the softwarden horizon of protection of the softward protection of the softward protection of the softward protection of the softward for the softward protection of the softward protection of the formed det notingeton has been adapted into the protection of them also be for daspiel lighting back reporting or the crustion of horizon	termined. However, given the lack of unalight from the above badge of effect as a more care scenaria. The lack has a lack been splitted core to the length of the pa- senaria care scenaria. The lack has a lack been splitted core of the lack has a lack based on the lack has a lack based on the lack based on the lack has been been badged for the lack based badged badged badged badged matching badged badged badged badged badged badged badged badged provide badged badged badged badged badged badged badged badged badged provide badged badged badged badged badged badged badged badged badged provide badged badged badged badged badged badged badged badged badged provide badged	vakcing segatation growth, it has been assumed this social comprise hard reposed during to a balancia of the Nam C Med, Cener International and the Name C Media and Anna C Media and Anna C Media and Anna C Media and Anna C Media and Anna C Media gen complex social data (of the social sets to take international and the Section Section Theorem Granten and marginal apacts; glanding and section for APP 2.12; and, installation of in classes inceptiological educements for	MEgation Measure is inservitive to impact. No measurable impact to Text B	Mögation Measure is insensible to impact. No measurable impact to Text B	have	Localised adverse effect on Mitgetion Measure articipated when scheme component effects considered in controllation, indexed, effect will impact 0.12% of water body length.	At the detailed design tage, further assessment and consultation with the Eukarannen Agency will determine the must programic autonomatic and courtime the weet for basic particular, and out-of the material and genome targetment with all metaboarus? In molecular possible further measures to military the will be explored, such as maturalised for the response of the second second second second maturalised for the response of the second second second second maturalised for the response of the second secon	Compliant - The implementation of soft back protection is nothering of Fund tank protection will ensure no impact on Mitgation Measure.	Compliant - The implementation of with the protection or suffering of hard bank protect will ensure no impact on Milliption Measu
			Preserve or restore habitats	At greater the River Chall in this location provides subbite habitat cause modification of this reach which may weak constant employee in the second of the target in the above for displet lighting basis reporting or the cruations here example: riffle pool sequences and/or large wood. T	It for fish-incustment. The proposed River Chelt Bridge Is cherr span. While is induced habitat quality and fragmentation of approximat and downstream and which includes 20 in of enhancements to the River Chelt comprising. Edit as and has stage channels to enhance River glain connectivity (78200351 – ). These measures work towards this Mitigation Measure, improving 37 times to	not acting to cause a physical barrier to flah movement the new bridge will habitat contrautly or became a determent to flah passage. Internet ferstion and renginal spacetic physicatic enhancements for heard ferstion and simplication of in channel morphological enhancements for engine which may be regatively impacted by the structure.	MEigstion Measure is insensitive to impact. No measurable impact to Text B	Mitigefon Measure is insensible to impact. No measurable inpact to Test B	Now	Project will not effect Mitigation Measure at a water body scale. Localised adverse effect balanced by localised benefits from enhancements when scheme component effects considered in combination. Ownail restrail effects.	nja -	Compliant - no prevention of implementation of Mitigation Measure.	Compliant - no prevention of implementat of Mitigation Measure.
			in-channel morph diversity	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Attigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Project will contribute to Mitigation Measure. Localised benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3(3	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Bank rehabilitation	Mögstion Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Project will contribute to Mitigation Measure. Localised benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3(5	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Re-opening culverts	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 2	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Alter culvert channel bed	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nove	Dement is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attained of quality element status objective.
			Flood bunds	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Nove	Project will contribute to Mitigation Measure. Localised benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3(3	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Set-back embankments	Möigstion Measure is insensitive to impact. No measurable impact to Test B	Mitgation Measure is insensitive to impact. No measurable impact to Test 2	Möigstion Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 2	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Nore	Project will contribute to Mitigation Measure. Localised benefit articipated when scheme component effects considered in combination. Support of Mitigation Measure.	3/24	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measure
			Roodplain connectivity	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Project will contribute to Mitigation Measure. Localized benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3/24	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measurer
PPM0 Mitiavian			Fish passes	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text 2	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text 8	Mitigation Measure is insensitive to impact. No measurable impact to Test R	Nore	Element is insensitive to impact. No measurable change to quality element.	3(3)	Compliant - no prevention of future attainment of quality element status objective.	Compilant - no prevention of future attains of quality element status objective.
Measures	None available	None available	Fish pass flow releases	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Text 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	x(A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Reduce fish entrainment	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nove	Dement is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attainer of quality element status objective.
			Enhance ecology	The River Chell is currently suitable for fish and invertebrate recru- the potential is work spinnt the Miggs embedded mitigation has been adopted into the polinitinary degl silow for deglecifying back regregations of been example: offle pool sequences and/or large wood. T	street. The new bridge will cause modification of this reach which may resu- tion Measure on a localised scale of approximately 20.0 Em of extenciante w is potential for localised distubance of excorption through building under ge which locales 200 m of entencements to the New Chell comprising. Effo and their stage of the strength scale scale scale scale scales and and their stage checking and the scale scale scale scale scale scale scale these measures work towards this Mitigation Measure, improving 17 time t	uit in reduced habitat quality for invertibities and fails. These impacts have which equates to 0.12% of the waterbody length. The doubtains hanced repairs and marginal equatic planting to enhance biodiversity and 499-132 and, including of an channer impediate glass enhancements for the length which may be negatively impacted by the structure.	MEgation Measure is insensitive to impact. No measurable impact to Text 8	Mitigetion Measure is insensible to impact. No measurable impact to Test 8	Now	Project will not effect Mitigation Measure at a waterbody scale. Localised adverse effect balanced by localised benefits from enhancement when scheme component effect considered in combination. Ownall neutral effects.	nja.	Complant - Scheme is supporting the implementation of Miligation Measures.	Compliant - Scheme is supporting the Implementation of Mitigation Measures
			Changes to locks etc	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Selective vegetation control	Möigstion Measure is insensitive to impact. No measurable impact to Test B	Mitgation Measure is insensitive to impact. No measurable impact to Test 2	Möigstion Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 2	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Nore	Project will contribute to Mitigation Measure. Localised benefit articipated when scheme component effects considered in combination. Support of Mitigation Measure.	3/24	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Vegetation control	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Project will contribute to Mitigation Measure. Localized benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3/2	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measurer
			Vegetation control timing	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Invasive species technique	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Note	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Retain habitats	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Now	Element is insensitive to impact. No measurable charge to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Sediment management strategy	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Now	Element is insensitive to impact. No measurable charge to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Maintain channel bed/margins	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 8	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure it insensitive to impact. No measurable impact to Text B	Now	Element is insensitive to impact. No measurable change to quality element.	N/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Woody debris	Altigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensible to inpact. No measurable inpact to Test B	None	Project will contribute to Mitigation Measure. Localised benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	N/A	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Water level management	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 2	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Text 8	Mögstion Measure is insensitive to impact. No measurable impact to Test B	Nore	Element is insensitive to impact. No measurable change to quality element.	x/A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.
			Algn and attenuate flooding	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Attigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Text B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nore	Project will contribute to Mitigation Measure. Localized benefit anticipated when scheme component effects considered in combination. Support of Mitigation Measure.	3(3	Compliant - Scheme is supporting the implementation of Mitigation Measures.	Compliant - Scheme is supporting the implementation of Mitigation Measures
			Educate landowners	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test 2	Mitigation Measure is insensitive to impact. No measurable impact to Test	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Mitigation Measure is insensitive to impact. No measurable impact to Test B	Nove	Element is insensitive to impact. No measurable change to quality element.	5(A	Compliant - no prevention of future attainment of quality element status objective.	Compliant - no prevention of future attains of quality element status objective.

Project Name: M5 Junction 10 Improvement Detailed Impact Assessment - Effects on cu

Test B: Effects on future attainment of status objectives

# Project Name: M5 Junction 10 Improvements Scheme Detailed Impact Assessment - Effects on current status Test A: Cause of deterioration at the water body scale

Chelt - M5 to conf. R. Se	vern GB109054032810											Detailed Impact Assessment Outcome		
Water body type:	River	Watercourse (receptor value	River Chelt	MW3	Dra	in 12		Drain 15						
Hydromorphological designation:	Not Heavily Modified or Artificial	Scheme activit	Drainage discharge	Drainage discharge	New	Culvert	Culvert	Extension	Drainage Discharge					
Overall Status (2015):	Poor	Description of scheme activit	Final receiving water body from S1, S1 South, M5 South of River Chelt, Link Road, and B Road Outfall.	Drainage pathway into the River Chelt from the S1 drainage catchment	New culvert	31.85m long.	Culvert replacement with new length o	f 25.89m. Original dimensions unknown.	Receiving water body from the Link Road drainage catchment	Cumulative effects - effects on quality element	Overall effect on quality element at		Residual effect on quality element at	WFD compliance outcome - potential
Overall Status Objective	Good by 2027	Impact type from scheme activit	×							WFD water bodies	water body scale	Additional mitigation requirements	water body scale	quality element at water body scale
WFD Status Element	WFD Quality Element	RBMP Cycle 2 2015 Status Objection	Changes in surface water runoff	Changes in surface water runoff	Direct loss of open channel	Habitat severance	Direct loss of open channel	Habitat severance	Changes in surface water runoff					
	Flah	Good by 2027 N/A (dispropertionate burdens)			Approach that 1 is an apphress of data which a percentility of the second second second second second second second second second second second second second resulting to support approximation and second second second second second second second second second second second second second second second second second s	An ensemble they are an explorement down which en- enconsolver or service instability of the halter. It's persony leastion is to fealther be download and recomment. As such, the feature is not likely to apport (scrittistics to be overall water to be fish classification. Nabibitat supervision studies charge in quality densemble anticipated. Additional mitigation not required.	At result that 15 an approximation of animal holes and on anomination to move institute in historic arr promy function is to facilitate individually and another of the segment of the second and recontence. As such, the facilitate is not likely to apport/contribute the event and areas to be for the distribution of the second and the considered to have a negligible effect on fish. Note considered to have a negligible effect on fish. Note considered to have a negligible effect on fish. Note considered to have a negligible effect on fish. Note Additional mitigation not required.	An enset that is in an opherosed drain while an encountering the provise inside this haster. It's premy function is to faultate and draining, and a utility to support a grafticant this however, and recomment. As such, the faultate is not likely to support construction to be verail and the top of the classification. Babitat support can be even all write the event only this classification. This how measuration the support and grafticate fails for how measuration that while element anticipated. Additional mitigation not required.		None	Negligible effect anticipated when Scheme propose effects are considered in combination. New assurable charge in quality element anticipated. Additional intigation not required.	N/A	Neglighbo effect setticipated when Scheme Desponsent effects set considered in combinition. New accuration change in guality element anticipated. Additional mitigation not required.	Compliant - no deterioration in quality element status anticipated
Biological	Invertebrates	Good Good by 2013	HEWWAT reaction number assessment passes for all surface water tests. Negligible effects anticipated when balanced activity alternat stratigization. Enclosed antigration ensure no attention in quantify within the reactivity surface days outful activity within any graders than greater day greatered user faces. Additional mitigation not required.	HEWRAT routine numf assessment passes for all surface water texts. Neighbie refer anticipated whore balanced apaint embedded mitigation. No measurable change in quality element anticipated. Embedded mitigations means on alteration in quality within the receiving water back- greenfield ruom faces. Additional mitigation not required.	Approach Donh 23 is fairly to contain an imposentiable function and an approach and packaged day particular. Notes that 43 are approximately and packaged to base a neighbor derived in some and the base packaged are approximately and base packaged are approximately and base packaged and base packaged and base packaged and approximately and required.	At present that 12 is likely to contain an importanted invertibute community adapted to provide divertibute of the second seco	Approach Cole 13 is fairly to contain an importantial eventabries community adapted to participand any protoci. When a local data of the organization of the water body scale. Revealed scale prior the water body scale. Revealed scale prior the water body scale. Revealed scale prior the water to prior the scale scale scale prior to the water body scale. Revealed scale prior to the scale scale scale scale scale scale prior to the scale required.	At present that 15 is likely to contain an impossible lowerhold reaction of the second secon	HERE reaches source assumed present for all unifore water tests. Negligation effects a socializated when balanced against emissional emission. Emissional emission ensures an alteration in the source of the source of the source of the emission of the source of the source of the source of the source of the source of the source of the source of the source of the source Additional mitigation not required.	None	Negligble effect anticipated when Scheme component effects are considered in conductors. No networkle change in quality demonstration for any second second second required.	NA	Negligible effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element whitipit on not required.	Compliant - no deterioration in quality element status anticipated
	Macrophytes and Phytobenthos - combined	Poor Good by 2027			Appresent Drain 12 supports very limited macrophyse growth. Rents within the channel are dominated by terminal artest, growts and andrag with hegge parts of the channel. Direct loss of 4 and open channel is considered to have a negligible effect on macrophysics at the water body scale. Ite measurable change in quality element anticipate. Acquired a migration not equived.	A present that 12 supports very limited macrophysic growth. Plasts which the channel and command by present hereby, groups and scrub, with hedgerow tree alonged the channel hading parts of the channel. Fragmentation of this open channel is considered to have negligible effect on macrophysics that water body case. No measurable change in quality element anticipated. Additional mitigation net required.	Appresent Drain 15 supports very limited macophyte growth. Plotts within the channel are dominated by terrestila herbit, growts and study with herbity present and the channel. Direct los of 4 m of open channel is considered to have a negligible effect on macrophytes at the water body statis. Normanula change in quality element unicipate. Advanced an inguistro net experient.	A present Grain 15 supports very limited macrophysic granth. Ratis shifts the channel are formated by treatment herebs, grazes and snoh, with hegerow tree alongsite the data thating parts of the channel. Sconierted the fragmentation of this open channel is considered here an englighter data conscriptly per to the water body grant. No measurable change in quality element anticipation and required.		None	Negligble effect anticipated when Scheme component effects are considered in combination. No messarable charge in quality effentet articipated. Addisout integration not registed.	N/A	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipates. Addisout mitigation not required.	Compliant - no deterioration in quality element status anticipated
Physicochemical	Physico-chemical quality elements comprise: Ammonia, Dissolved Oxygen, pH, Phosphate and Temperature.	Good by 2027 Moderate (disproportionate burdens)	HEWAT trackine rundf assessment passes for all surface water tosts. Negligble effect anticipated when balanced against embedded mitigation. No measurable changin uguthy referent astropated. Enhelded lengtion ensurer octilar tasts will be no groster than greenfeld rundf rates Additional mitigation not required.	HUWAT routine runoff assessment passes for all undrace water tests, hypightle fields antipated when halanced against embedded mitigation. No mesurable change in quality eliment antiopated. Embedded mitigation ensures no alteration in quantity which the receiving water body, outili rates will be no greater than greenfield runoff acts. Additional mitigation not required.	Element is insensitive to impact. No measurable		Element is insensitive to impact. No measurable		HOWAT routine runoff assessment passes for all surface water tests. Negligible effect anticipated when balanced against embedded mitigation. Non- measurable charging in quality deman anticipated. Entroded mitigation ensures no alteration in quantity within tereacivity autor doub, outfall rates will be no greater than greenfield runoff rates. Additional mitigation not required.	None	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable change in quality effenent anticipated. Additional mitigation not required.	N/A	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element anticipated. Addisional mitigation not required.	Compliant - no deterioration in quality element status anticipated
Specific Pollutants	Copper, Triclosan, Zinc	High High by 2015	HEWRAT routine runnff assessment passes for all surface water tests. Negligble effect anticipated when balanced against embedded mitigation. No measurable changin usually element anticipated. Embedded mitigation ensure outlini rates will be no greater than greenfeld runnff rates. Additional mitigation not required.	HUWA1 routine runoff assessment parses for all surface water tests. Negligible effect anticipated when balanced against embedded mitigation. No meaurable change in quality eliment attricipated. Embedded mitigation ensures no alteration in quantity which he receiving water body, outfal rates will be no greater than greenfield runoff acts. Additional mitigation not required.	change to quality diement.		change to quality element.		HEWAT routine ruroff accessment passes for all surface water tests. Negligible effect anticipated when balanced against embedded mitigation. No measurable charging in quality deman atticipated. Entreded mitigation ensures no alteration in quantify whith the receiving water body, outfall rates will be no greater than greenfield ruroff rates. Additional mitigation not required.	None	Negligible effect anticipated when Scheme component effects are considered in combination. No mesurable charge in quality element anticipated. Additional integration not required.	N/A	Negligble effect anticipated when Scheme component effects are considered in combination. No mesurable charge in quality element anticipated. Addisional mitigation not required.	Compliant - no deterioration in quality element status anticipated
Hy	fromorphological	Supports Good Supports Good by 201	Endeddel mitigatan ensures no change in outfal rates ar arouth in changes to aufore water rusoff. No alteration in Hydromorphology as a result. Additional mitigation not required.	Embedded mitigation ensures no change in outfal rates as a result in changes to surface water rands. No shearaton in Hydromorphology as a result. Additional mitigation not required.	Here is potential for riperties and in channel expertation taxs and simplification which is likely to be mitigrated for a part of the indicator points. There will be no ious of hydromorphological hydrological your concellent on a water ourset. Environmentally sensitive and water ourset. Environmentally sensitive further. Registre confluences will robust indicate further. Registre confluences and environment anticipative. Additional mitigration not required.	Element is investible to import the researcher change to quality element.	Culvert extension on a drain which has mained flow and is heavily addiment later. Environmentally ensative culotent disrupt all induce any impact to the weight on magnetic strain and the strain of the strain additional charges to addiment addition. Neglight effect anticipated when balances spans enabled effect anticipated and the balances spans enabled anticipated. Additional mitigation not required.	Element la invension to ingrat. Ils invensionale change la quality element.	Exhedded mitgatos ensures na charge in sudial rates a a result in charge to sudian water runal. Na alteration in Hydromosphology as a result. Additional mitgation not required.	None	Negligble effect anticipated when Scheme component effects are considered in confiduation. No messaciale charge in quality dement anticipation not required.	N/A	Negligible effect anticipated when Scheme component effects are considered in combination. No mesuscable charge in quality element anticipates required.	Compliant - no deterioration in quality element status anticipated
Chemical	Priority substances	Does not require Good by 2015	HERRAT michte sond assessment passes for all surface water rans. Herglighe effect satisfysted when balanced against enhedded mitigation. No measurable changes no alteration in quantify within the receiving water boly cottil a rates in which within the receiving water boly additional integration more required.	HUWAT routine runoff assessment passes for all surface water tests. Negligible effect anticipated when balanced against change in quality element anticipated in quality with the necurity guarts body outfit rates will be no greater than greenfield runoff rates. Additional mitigation not required.	Element & insensitive to impact. No measurable change to quality element.		Element is insensitive to impact. No measurable change to quality element.		HEWRAT routine runoff assessment passes for al surface water tests. Negligible effect anticipated when balanced against embedded miligation. No measurable charge in quality demont anticipated quality within the resching water body, conful rates will be no greater than greenfield runoff rates. Additional miligation not required.	Nore	Negligible effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element articipated. Additional mitigation not required.	N/A	Negligible effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipated. required.	Compliant - no deterioration in quality element status anticipated

Test B: Effects on future attainment of status objectives

Chelt – M5 to cor	nf. R. Severn GB109054	1032810									Outcome		
	RNAGs / Measures scoped	d in as potentially at r	isk from Proposed	River Chelt	MW3	Drain 12	Drain 15						
WFD Status Objective Element	RNAG / Measure ID	Relevant WFD Quality Element / RNAG(s)	Title / Details	Drainage discharge	Drainage discharge	New Culvert	Culvert Extension	Drainage Discharge	Cumulative effects - effects on RNAG / Measure from scheme component(s) located in other WFD water bodies	Overall effect at water body scale	Additional mitigation requirements	Residual overall effect at water body scale following consideration of additional mitigation	WFD compliance outcome - potential to prevent future attainment of status objective of quality element.
	517691	Phosphate	Point Source pollution (water industry)	RNAG is insensitive to impact. No measurable impact to	RNAG is insensitive to impact. No			RNAG is insensitive to impact. No measurable impact	None	Element is insensitive to impact. No measurable change to quality element.	NA	Negligible effect anticipated when balanced against embedded mitigation. HEWBAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
	517693	Phosphate	Diffuse pollution (agriculture)	Test 8	measurable impact to Test B			to Test B	None	Element is insensitive to impact. No measurable change to quality element.	NA	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
Reasons for Not	517696	Phosphate	Diffuse pollution (roads)	Negligible effect anticipated when balanced against embedded mitigation. HEWAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Feet & will not be impacted by the Scheme.	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.			Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	None	Negligible effect anticipated when balanced against embedded mitigation. HEWRAI routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test 8 will not be impacted by the Scheme.	N/A	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
Achieving Good (RNAG)	517704	Macrophytes and Phytobenthos - combined	Nutrients (phosphate)			RNAG is intensitive to impact. No measurable impact to Text B	RNAG is intensitive to inpact. No measurable inpact to Test B		None	Element is insensitive to impact. No measurable change to quality element.	NA	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
	517705	Macrophytes and Phytobenthos - combined	Nutrients (phosphate)	RNAG is insensitive to impact. No measurable impact to Test 8	RNAG is insensitive to impact. No measurable impact to Test B			RNAG is insensitive to impact. No measurable impact to Test 8	None	Element is insensitive to impact. No measurable change to quality element.	NA	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test B will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
	517707	Macrophytes and Phytobenthos - combined	Nutrients (phosphate)						None	Element is insensitive to impact. No measurable change to quality element.	N/A	Negligible effect anticipated when balanced against embedded mitigation. HEWRAT routine runoff assessment passes for all surface water tests. No measurable change in quality element anticipated. Test 8 will not be impacted by the Scheme.	Compliant - no prevention of future attainment of quality element status objective.
RBMP Programme of measures (PoM)	No Programme of measures are c fi	considered to be at risk from for this water body.	n the Proposed Scheme										

### Project Name: M5 Junction 10 Improvements Scheme Detailed Impact Assessment - Effects on current status Test A: Cause of deterioration at the water body scale

Leigh Bk – source to co	onf. R. Chelt GB109054039770																C	Detailed Impact Assessment Outcome		
Water body type:	River	Watero	course (receptor value):			Leigh Brook			Drain 22			Drain 8		Dr	ain 10	-				
Hydromorphological designation: Overall Status (2015):	Not Heavily Modified or Artificial	Descrip	Scheme activity:	Colvert ex 8.45m US and 7.9m DS extension to existin	stension ng culvert. An approximate 30% increase.	Severance of flood flows Removal of the twin culverts beneath the A4019 and elevation of the A4019 reduces flood flows from the River Cheft catchment to the Leigh Brook catchment in the I in 100 year + CC and higher events. As a result of the A4019 elevation and removal of the culverts, the peak flow in the	Drainage discharge Final receiving water body for J1, 52 and combined basin drainage catchments.	Culvert I Extension of 42.24m US and 53.015m DS ex 200% in	Extension dension to existing culvert. An approximate ncrease.	Severance of flood flows Elevation of A4019 and removal of the twin culverts severs flood flows into the leigh brock acthemet east of the MS increasing flood flows through the HJFI Elm culvert. The Scheme (in severar that does not innoct humat home flow	Drainage discharge Drainage pathway for J1 and 52 drainage catchment into the Leigh Brook.	Culvert	Extension	Culvert Culvert extension.	Extension	Cumulative effects - effects on quality element from scheme component(s) located in other WFD water bodies	Overall effect on quality element at water body scale	Additional mitigation requirements	Residual effect on quality element at water body scale	WFD compliance outcome - potential for deterioration of current status of quality element at water body scale
						Leigh Brook culvert will be reduced from 9.4m3/s to 3.2 m3/s in the 100 year + CC event.				the 1 in 100 year+CC.										
Overali Status Objective:	Moderate by 2015	Impact typ	e from scheme activity:	Direct loss or alteration of open channel	Habitat severance	Changes in flood mechanisms within the surface water	Changes in surface water runoff	Direct loss or alteration of open channel	Habitat severance	Changes in flood mechanisms within the surface	Changes in surface water runoff	Direct loss or alteration of open channel	Habitat severance	Direct loss or alteration of open channel	Habitat severance					
WFD Status Element	WFD Quality Element	Status	Objective	Survey of the Leigh Brook at this location identified the	Survey of the Leigh Brook at this location identified the	Survey of the Laish Brook at this location identified the channel as being		The drain associated with PIfs Din culvert was not visited during survey. However, review of culvert imperiou/duringe survey results and photos indicate that this culver is associated with histowers during and the survey of the survey o	The drain associated with Pffs Elm culvert was not visited during survey. However, review of culvert inspecies/durings survey results and photos indicate that this culvert is associated with histhers of during	The drain associated with PITs Din culvert was not visited during survey. Nonexer, neives of culvert inspection/drainage survey multi-and obtain collection that the culvert is		Algressent Drain 11 a un sphemeral drain which is not	At present Drain II is an ophemeral drain which is not	At present Drain 10 is an ophermeral drain which is not	At present Drain 10 is an ophermeral drain which is not					
	Fah	N/A	N/A :	Charles a Deep situ data to man. The charles a the operation of the second seco	Includes a long calculated for this / the dealbar and the optimized of the second sec	smultiple for fails. The chernel and this location resembles a filth units adding the supervised that this however, the second manufacture AL as a to be been used this place of the second manufacture and the best of the second manufacture and the second manufacture in the second manufacture and the second manufacture and and the ACCID is the offer constrained to have a coupled with the constrained with the second manufacture and the second manufacture and manufacture and the second manufacture and an additional additional and the second manufacture and an additional additional and the second manufacture and an additional additional and the second manufacture and additional additional additional and the second manufacture and additional additional additional additional additional antigetters and required.		from the KL and a heavily overgrever with invested overgration. It therefore is assumed that it is an opherenal data with the not considered to provide multiple the habitat the second operation of the second second operation with the not considered to provide multiple the averali water body the description that is the averali water body the description that is the averali water body the description that is the averali water body the description that is the averali water body the description that is the averali water body the description that is the averali water body the description	It can the KL and a havely avergener with termstell segnitizer. It therefore is assumed that it is an opherener due to thick is not contacted to possible unlabeled in babble. The primery functions is the facilitation of an eggener due to the second section of the facilitation of the second section of the second section of the second section of the the overall water body that description that the to the neural section of the description that the the neural second section of the description that the the neural second section of the description of the Additional mitigation set required.	executed with high-party durings from the KC and haven's energies and the metal location of the second location of the second location of the second location of the rest and the second location of the second location of the restorement is following and is within the program the interaction is to finding and is within the second location of the second location of the second location of the theorement and metal there are applied in the second location of the second location of the second location of the heart of the second location of the second location of the second location of the second location of the memory of the second location o		developed to personal works in the network of a performance support application. The measurement and evolutioned: As such, the feature is not likely to apport/caretbalent the overall and the body that indexed tracks. More directions of open channel is therefore canademic to have a neighbor effect on this. No measurable dropping auguity almost exitation. Additional mitigation not required.	Concerning to prove under the standard registering upport ignificant to the sources and one contented. A support ignificant to the sources and one contented at work, the feature is not likely to support/contribute to the event autor boy the closed factors. Nature considered to have anyighter effect on the feature considered to have anyighter effect on the Additional mitigation not required.	Concernes to prove used at the host of region of the second secon	conclusive to prove unclean transmission of prime support ignificant the neuroneau and neuroimmet. As used, he feature is not likely to support/contribute the event with how here such that the support to the event with the new culture is the event with the new culture is the event and any support prime antipated Additional integration net required.	-	Lacahed adverse effect enticipated when scheme compares effects considered in constrators leavener, no determination in status of quality element enticipated at the water today scale. Additional intigation not required.	syk.	Localised adverse effect anticipated when whene component effects considered in combination. Novemer, no determination in status of quality densect-additional data to the series to a second second second equivel.	Compliant - no desentration in quality element status antispated
Bolgical	investebration	Gast	Good by 2015	Beignal network has bandleden aurung for the parapet or exclusion of an impacehold and semicor- al statistical and the semicoral statistical semicoral statistical and the semi- lement of the semicoral statistical semi- temport of the semicoral semicoral semi- site of the semicoral semicoral semi- dence of the semicoral semicoral semi- dence of the semicoral semicoral semi- site of the semicoral semicoral semi- sate of the semicoral semicoral semi- tence of the semicoral semicoral semi- sate of the semicoral semicoral semi- tence of the semicoral semicoral semi- tence of the semicoral semicoral semi- sate of the semicoral semicoral semi- sate of the semicoral semicoral semi- sate of the semicoral semi	Beilging an entropy to the second sec	And when the	ISBN: radio configuration prior for a motion grant and a second	An observation of an IV. The solution of an en- classification grant and a solution of the solution of the solution in the solution of the sol	The trans associated with PM. Discubert was off children grant comp, mesoner, minor of children and the sociation association of the planes the socia- tion of the sociation of the planes the sociation of the sociation of the planes the sociation of the sociatio	De data nacional de 19 10 De calacita en a cela de des grans parte de la destructiva de la destructiva de la destructiva de la destructiva de la destructiva de la destructiva de	SERV: nuber outframmer parts for all service and service and service and service based on the service and service and service service and service and service and service means and service and service and service service and service and service and service service and service and service and service service and service and service and service segments.	Algorated bank & blink to contain a regressibility instruction commonly applied by Develope a senior spring of the region of the region developed a senior spring of the region of the set bank and spring of a senior spring of the set of the se	A growth Carl S. May It cannot an inport of an input time of the second second second second second second second second second second second Additional stighters on required.	Agreed Data 12 h Boly to soften an impossibility included a same any data to project project of the control of the same and the same	Algorant Con 21-bits to strain an imposedule business and an analysis of the strain problem of the strain of the strain and the strain of the strain and the strain of the strain and the strain of the strain of the strain of the strain and the strain of the strain of the strain of the strain and the strain of the strain of the strain of the strain and the strain of the strain of the strain of the strain and the strain of the strain of the strain of the strain and the strain of the stra	bere	saalaad alaana aftet antigaad aho solwa angaraad daha analaad a saalaad ahaana alaan aho a aha af ada ahaana alaan ahaa ahaa ahaa Addisaa nigabeena eeyarat.	504	Scalard alone effect astroport when schere component effects and out of schere and provide schere and pro- sider of spatial schere schereging data no schere half scalar Advance instagators no separat	Compilent - no determination in quality deserve status entropated
	Mangapata and Papiabatha - cambined	Moderate	Moderate by 2015 (Unfravorable balance of cost and benefits)	Managangka survey of the leght basis at the basis detertified a sprane pairs commonly, while which we are apprecised as the sprane of the leght basis of the leght basis of the leght basis of the leght basis and construct of the sprane of the leght basis of an dwarf to a sprane of the leght basis of the leght basis of the leght basis of the leght basis changes and the leght basis of the leght basis of a dwarf to any of the leght basis of the leght basis changes and the leght basis of the leght basis of the leght basis of the leght basis of the leght basis changes and planes or strapped Additional angletime on respected.	Manushing survey, of the capit band, of the bandle maturing against space comments, which only one- morphic spaces (the survey) and the capital comments of the survey of the survey). The survey of the survey of the survey of manusphere in additional to the survey bandle of the survey of the survey of the survey of manusphere in additional to the survey bandle of the survey of the survey of the survey of manusphere in additional to the survey bandle of the survey of the survey of the survey of manusphere in additional to the survey bandle and support. Additional weights need sequent	Assumption on we divide the statistic to the statistic sectors are presented by the statistic sectors are approximately a statistic sectors are approximately a statistic sectors are approximately a statistic sector sector sectors approximately and statistic sectors are approximately as a statistic sector sector sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as a statistic sector and the statistic sectors are approximately as		The data associated with FMI. Dis advert was net within 6 data successful with a first sector of the sec- tor of the sector of the sector of the sector of the sector field with a sector of the sector of the sector of the memory large sector of the data sector of the sector memory and the sector of the sector of the sector of the sector of the sector of the sector of the memory and the sector of the sector of the sector memory and the sector of the sector of the sector of the sector of the sector of the sector of the sector and the sector of the sector of the sector of the antispanel. Additional religible in the sector of the antispanel. Additional religible in the sector of the antispanel.	The dota associated with PAIs Der schwert was not calculated anges areas, therease, notice of calculate the calculated association with high-space parameters that is a later to associate associated with high-space parameters that the calculated association with high-space parameters that the calculated association with high-space parameters that the calculated association of the space parameters that the calculated association is sociated and the calculated association is sociated and the calculated association of the calculated by the scale high strategies of the parameters with the memourable strategies to parameters and parameters of the calculated by the sociation of the scale high strategies of the parameters of the space of the scale high scale of the parameters of the space of the space of the scale high scale of the space of the parameters of the space of the scale high scale of the space of the parameters of the space of the scale high scale of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of the space of	The data associated by PID The chart was set with effective strategies and the chart sector transmission method with physics drama by the physical set with the set of the s		Al power Danis Augusto way balan menutyky anal. Patro attech dawa a danisa kata balan anala danisa dani teri dawa a danisa kata balan anala danisa dani danisa danisa danisa danisa Danis teri dapa danisi a materia danisa Danis dani dapa danisi a materia danisa danisa hamaya danisa danisa danisa danisa aktipani Addima danjata sa danga danisa aktipani Addima danjata sa danga danisa	A grant Don't tagents on y held managing grant. Hen, with the channel on a monitority the second second second second second transmission of the second second second properties of the second second second second and second second second second second second and second	Al preset Data 31 apports are failed an employed appendix facility and the down are dominately termstatistically appendix and appendix the down many particle and appendix the down and appendix the company of the appendix appendix of the down and appendix the appendix appendix appendix ables to assume the appendix appendix appendix and appendix appendix appendix appendix antipated. Additional entryptem on required	Agreement Damit 31 segaratis way fathad mesanghipe genetic Transis within the charant law demonstrated by the segment of the second second second second second transis and the second s	ken	Secalard adverse office webspace of other solverse memory of device an outpear of a second social devices, or a device or a device of a second devices.	nya.	Scalard alwares effect antispated when scheme companies of almost scalardow of a scheme and scalardow of a scheme and scheme and scalardow of a scheme and scheme and scheme and scheme and scalardow of scheme and scheme and scalardow of scheme and scheme and scheme and scheme and scheme and scheme and scheme and scheme and scheme and scheme and scheme	Complian - an distribution in quality annual salars anticipated
Physicochemical	Physico-chemical quality elements comprise: Ammonia, Dissolved Corgen, pil, Phosphate and Temperature.	Moderate	Moderate by 2015 (Unfavourable balance of cost and benefits)	Element is insensitive to impact. No measurable charge		Element is insensitive to impact. No measurable change to quality	HCNRAF routine numff assessment passes for all surface water tests. Negligible effect anticipated when balanced against embedder dragtopatic. Na measurable charge in quality element anticipated. Enhaded mitigation ensures no adartation is quarity within the resulting water body, outfail rains will be no greater than greenfield numff rates. Additional mitigation not required.	Dement & Insensitive to Impact. No measurable change		Bennet is insertilise to impact. No measurable change to	In STARANT motione number assessment passes for all surface water tests. Negligible effects anticipated when balanced against embedder mitigibles. This measurable change is guidibly element anticipated. Embedded mitigitizes means to allowation logarity withis the meaning water body, outfail rates will be no granter than greenfield number drates additional mitigation not required.	Demert is insentitive to impact. No measurable change		Element is insensitive to impact. No measurable charge		None	Negligible effect articipated when Scheme component effects are considered in combinition. No measurable charge in quality element articipated. Additional mitgation not required.	N/A.	Negligible effect anticipated when Scheme component effects are considered in combustion. Nenesscalable charge is quality element anticipated. Additional mitigation not required.	Compliant - no deterioration in quality element status anticipated
Specific Pollutants	Copper, Tricionan, Zinc	N(A (high)	N/A	to quality element.		denet.	HCWRAT routine runoff assessment passes for all surface water tests. Negligibile effect anticipated when balanced against methodder efficience. No measurable change in quality element anticipated. Embeddad miligation amures no alteration in quarity within the resoluting water body, outfair raise will be no greater than greenfield runoff raise. Additional miligation net required.	to quality element.		quality idenset.	HEWRAT motion number assessment passes for all surface water tests. Neglighte effect anticipated when balanced against embeddier mitigation. No measurable change in guildly element anticipated. Embedded mitigation ensures no alteration in guilts with the the meeting water body, outfail rates will be no greater than generited number rates. All other anticipation net required.	to quality element.		to quility element.		None	Negligible effect anticipated when Scheme component effects are considered in combination. No measurable charge in quality element anticipated. Additional mitigation not required.	N/A	Negligible effect existipated when Scheme component effects are considered in combustion. New acceleration of an equility element antispated acceleration of required.	Compliant - no deterioration in quality element status anticipated
Hyda	remerphological	Supports Good	Supports Good by 2015	Calvert notation on a waterscurse which has minimal flow and is heavily validness later. Environmentally sensitive calvert design all micro-carsy impact to the hydromorphological functioning of the future and designs to address that. Naglythe effect anticipate when balanced activities the micro-future interpret when balanced activities the micro-future interpret when balanced activities the micro-future interpret when balanced activities the micro-future interpret activities that the second activities the measurable change in guality denered anticipated. Additional mitigation not required.	Dennet is insurative to impact to measurable charge to quality element.	In the higher events (1 in 120 year-C2 and above), from through the interaction of hand from over the AG22 way atomic of the later scheme. The second flavor over the AG22 way atomic of the later scheme. The new constructions of the later over the AG22 way atomic of the later scheme. The new constructions of the scheme of the later scheme over the effects are stilling to be scheme. Also scheme of general ended above atomic over the scheme of the later over the effects are stilling to be scheme of laters of general ended above atomic scheme. Additional endergies not required.	Enbedded mitguton ensures no change in curfull rube as a muilt in changes to surface water unseff. No alteration in Hydromospholog zu a result. Additional mitgation not required.	The scale of the scalest extension is significant and may cause none changes to hydromorphology within the datators. Towever, which are specified to the buckled datators. Towever, which are specified to the buckled datators are specified and the state of the specified datators are specified and the specified datators are transmission with weather hold scale. Additional miligation not required.	Element is insumitive to inspace. No measurable change to quality element.	in the higher works () in 320 year-CL and aloned, free generative states () in 320 year-CL and aloned, free works such at the ARCES. This may character fractable of audients by the ARCES. This may character fractable of the fractable strength any other and the ARCES of the type for fractable strength any other and the ARCES of the type for fractable strength and the ARCES of the type of the and the ARCES of the ARCES of the type of the ARCES of the for fractable strength and the ARCES of the type of the arces of the ARCES of the	Enbedded mitgation ensures no change in outfall rubes as a newlit in danges to surface water nuroff. No alteration in Hydromorphology as a newlit, Additonal mitgation not required.	Collect extension on a drain which has instand flow and in heavy validness takes. Environmentally samiture solver diriger windows any reports to the hydromorphological functioning of the feature and dramers to automet lands which could result for superstaion management and multiple applies effect anticipated when balances against embedded mitigation. No means the function and supple effect anticipated and antigetion not required.	Demetris insunitive to inspect. No measurable change to quality element.	Cultert extension on a drain which has mitried from an is headly address takes. Device constrainty sensitive calver diagraph of index any inputs to the hydromorphological functioning of the feature and changes to address taking address taken changes to address taken address. It are regestration margement will insight a pairs address the regestration margement will insight address the address taken taken address the address taken address taken address the address address address taken address address address taken address the address address address address address the address address address address address address the address address addre	Dement is insentitive to impact. No measurable change to quality dement.	New	Escalued adverse effect articipated when scheme component effects considered in constitution. The effect of the scheme sc	sçû.	Looked adverse effect anticipated when whene composet effects considered in combartism. Neuver, no detrivisation in status of guidhy deterent anticipated at the water body used. Additional mitigation not regulared.	Conglient - no deterioration in quality element status anticipated
Chemical	Priority substances	Good	Does not require 1 assessment 2015	Element is insensitive to impact. No measurable charge to quality element.		Element is insensitive to impact. No measurable change to quality adament.	HCRAN route nucl assessment passes for all surface water tests. Negligible effect anticipated when balaxond against ended entigitation. The mean-table charge in quality element anticipated. The badd antightation essenses and adaptive within the receiving-water bady, outful rates will be regreater than greenfield rates. Additional imgainst net inquired.	Element is insensitive to impact. No measurable change to quality element.		Dement is insensitive to impact. No measurable change to quality element.	NEXIMAT routine nutroff assessment passes for all surface water tests. Negligible effect anticipated when charge in quality element anticipated. Checkedde charge in quality element anticipated. Checkedde alligitation ensures an elements in quality which the menting water bady, cutifiant test will be no greater than greenficitation frains. Additional enligitation net inquired.	Bernert is insensitive to impact. No measurable charge to quality element.		Elementic insensitive to impact. No measurable change to quality element.		None	Negligible effect anticipated when Scheme component effects are considered in combination. Nor measurable change in quality element anticipated. Additional mitigation not required.	N/A	Negligible effect existipated when Scheme component effects are considered in component effects are considered in component effects are set of the effect of the set of the set of the required.	Compliant - no deterioration in quality element status anticipated
Test B: Effects or	n future attainment of s	tatus objective	5																	
Leigh Bk – source to co	onf. R. Chelt GB109054039770																	Outcome		
	RNAGs / Measures scoped in	as potentially at risi icheme	k from Proposed			Leigh Brook			Drain 22			Drain 8		Dr	ain 10					

Gs / Measures scoped in	n as notentially at risk	from Descend																
	Scheme	k from Proposed		Leigh Brook			Drain 22			Drain 8		Drai	in 10					
RNAG / Measure ID	Relevant WFD Quality Element / RNAG(s)	Title / Details	Culvert extension		Drainage discharge	Culvert E	Extension	Severance of flood flows	Drainage discharge	Culvert I	Extension	Culvert E	ixtension	Cumulative effects - effects on KNAG / Measure from scheme component(s) located in other WFD water bodies	Overall effect at water body scale	Additional mitigation requirements	Residual overall effect at water body scale following consideration of additional mitigation	WFD compliance outcome - potential to prevent future attainment of status objective of quality element.
512632	Phosphate	Diffuse pollution (agriculture)												None	Dement is insensitive to impact. No measurable change to quality element.	NJA	Dement is insensitive to impact. No measurable change to quality element.	Compliant - no deterioration in quality element status anticipated
512633	Phosphate	Pointsource(Sewage discharge)			Dement is insensitive to impact. No measurable change				Dement is insensitive to impact. No measurable change					None	Dement is insensitive to impact. No measurable change to quality element.	NJA	Dement is insensitive to impact. No measurable change to quality element.	Compliant - no deterioration in quality element status anticipated
519436	Macrophytes and phytobenthos	Phosphate (livestock management)	Dement is insensitive to impact. No measurable charge to quality element. Is insensitive to impact. No measurable charge to quality element.	Dement is insensitive to impact. No measurable change to quality element.	to quality element.	Element is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable change to quality element.	Eement is insensitive to impact. No measurable change to quality element.	to quality element.	Dement is insensitive to impact. No measurable change to quality element.	Dement is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable change to quality element.	Element is insensitive to impact. No measurable chang to quality element.	None	Dement is insensitive to impact. No measurable change to quality element.	n(A	Dement is insensitive to impact. No measurable change to quality element.	Compilant - no deterioration in quality element status anticipated
519437	Macrophytes and phytobenthos	Phosphate (Nutrient management)												None	Dement is insensitive to impact. No measurable change to quality element.	n(A	Dement is insensitive to impact. No measurable change to quality element.	Compilant - no deterioration in quality element status anticipated
519438	Macrophytes and phytobenthos	Phosphate (Urban and transport)			NEWRAT routine nunoff assessment passes for all surface water tests. Negligble effect anticipated when balanced against embedded mitigation. No measurable change in quality element anticipated. Additional mitigation not required.				HEWRAC routine runoff assessment passes for all surface water tests. Negligible effect anticipated when balanoid against embedded mitigation. No measurable change in quality element anticipated. Additional mitigation not required.					None	Negligble effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipated. Additional mitigation not required.	N/A	Negligible effect anticipated when Scheme component effects are considered in combination. No measurable change in quality element anticipated. Addisonal miligation not required.	Compilant - no deterioration in quality element status anticipated
gramme of measures are consi th	dered to be at risk from the is water body.	Proposed Scheme for												Nore	Dement is insensitive to impact. No measurable change to quality element.	N(A	Element is insensitive to impact. No measurable change to quality element.	Compliant - no deterioration in quality element status anticipated
RN.	RG / Measure ID 112022 112033 119136 119136 119137 119138 11915	Kef / Mesure ID         Relevant WPD           0.111 KE Instrument         Datality E Instrument           1.1212         Propriete           1.1213         Propriete           1.1213         Propriete           1.1214         Propriete           1.1215         Propriete           1.1213         Propriete           1.1214         Manuphens and synchrotende           1.1315         Manuphens and synchrotende           1.1312         Manuphens and synchrotende           1.1312         Manuphens and synchrotende           1.1312         Manuphens and synchrotende	Ref / Messure ID         Referent WPD Guilds Elevent         The / Decks           11212         Poupture         Other politics (grandwide)           11213         Poupture         Other politics (grandwide)           11214         Poupture         Petritics or Dependency           11215         Poupture         Petritics or Dependency           11216         Manaphifune of and politicities         Paraphita (politics)           11317         Manaphifune of aphylotherine         Paraphita (politics)           11318         Discriptification         Paraphita (politics)           11319         Discriptification         Paraphita (politics)           11310         Discriptification         Paraphita (politics)           11310         Discriptification         Paraphita (politics)           11310         Discriptification         Paraphita (politics)           11310         Discriptification         Paraphita (politics)	Kd / Masurus D         Kdevast WTD Quality Kinness 13232         Title / Datability Maxwell         Title / Datability (Baser Specification)         Culvert othermician           13232         Respirate         Other public Specification public specification (Specification)         Title / Datability (Specification)         Title / Datability (Specification)           13242         Respirate         Peoplication (Specification)         Peoplication (Specification)         Title / Datability (Specification)         Title / Datability (Specification)	Ref / Measure D         Referent WFO Guidal Element 10201         The / Ceak / Measure 10201         Curvet edention           11201         Respine         Observation (general hydroxymetric hydroxymetric 10201         Strangetone (hydroxymetric hy	Ref / Neuror D         Reference WVPD Quality Elevence 10000         Title / Dealing         Culvet to find to find personal 10000         Culvet to find to find personal 10000         Dealing discharge         Dealing discharge           11200         Respine         Status discharge         Respine         Status discharge         Respine         Respine	Ref / Nature D         Referent WFD Quality Electron Specificy Electron Specific Electron Spe		Reference (M PP)       The / Isea       Cluster (D manufactor)       Cluster (D manufac	Ref /Nature D       Reference / Fite / Data       C.dor the constraint segment of the space of the	Ref Maxur D       Reform T       Ter / Data       Close to the particular distance       Datage dictage       Close to the particular distance       Bearance diffed from the particular distance       Datage dictage       Datage dict	$k_{B}$ Alward Alward Alward Alward Alward Alward	Image: Note the Same state in the	Image: Figure Figur	Image: Problem in the standing of the standing	Image: Appendix and a state in the stat	Image: Province state     Image: Province state <t< th=""><th>Image: here in the state i</th></t<>	Image: here in the state i

Mechanism of impact	Description			Element impacted		
		Biological	Physio chemical	Specific pollutants	Hydromorphological	Chemical
Direct loss or alterations to open channel	Any direct loss of watercourse or ditch. This could be from new culverts, culvert extensions, bridges reduced vegetation coverage or installation of hard bed or bank protection which will have a significant impact on the receptor.	$\checkmark$			$\checkmark$	
Habitat severance	Disconnection of habitats within the water body due to activities such as weirs, steep hydraulic gradients, or culverts.	$\checkmark$				
Shading	Loss of light from the channel which is not associated with direct loss of habitat.	$\checkmark$				
Changes in surface water runoff	Changes in the quantity and quality in the receiving watercourses due to any alterations to the impermeable area and drainage system.	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Changes in flood mechanisms within the surface water bodies	Changes in water quality in the receiving water courses due to increased runoff, and pollutants from routine runoff and spillages.	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Creation of new habitats	Any additional habitat creation as part of the Scheme. For example, enhancements of water courses or creation of new ditch length.	$\checkmark$				

Project Name: M5 Junction 10 Improvements Scheme RAYG traffic light decision matrix for assessing magnitude of effects on surface water quality element status class

						Environme
Type of effect	Impact of scheme element on WFD element i.e. in individual cells	Impact on WFD element i.e. at end of row	Impact on WFD water body i.e. the combined effect on the water body as a result of all the effect on WFD elements	Examples	Outcome	Relative El Receptor V
Moderate Beneficial	Impacts when taken on their own have the potential to lead to significant improvement.	Impacts in combination with others have the potential to lead to the improvement in the class of a WFD element.	Impacts in combination with others have the potential to lead to the improvement in the WFD status of the water body.	Creation of significant areas of riparian habitats (for example, within a river diversion) which enhance the value of the water body. Removal of hard bank protection. Removal of barriers to fish species. Major improvement to groundwater quality or improved quality of GWDTE due to groundwater contributions.	Increase in status class for that water body.	Major or Moder
Minor / localised beneficial	Impacts when taken on their own have the potential to lead to a minor localised or temporary improvement.	Impacts in combination with others have the potential to lead to a minor localised improvement of the WFD element.	Impacts in combination with others have the potential to lead to a minor localised or temporary improvement that does not affect the overall WFD status of the water body.	Minor habitat creation measures such as creation of marginal berms up/downstream of a structure. Minor improvement to groundwater quality or improved quality of GWDTE due to groundwater contributions.	Localised improvement, no change in status of WFD water body.	Moderate or Mi
Green (no effect)	No measurable change to any quality elements.	No measurable change to any quality elements.	No measurable change to any quality elements.	Clear span bridge which causes no significant light shading. Changes to flow with no likely impact in macroinvertebrate community/contamination in areas with highly tolerant invertebrate community (e.g. Average Score Per Taxon <4). Minor, temporary encroachment into the channel Improvement in the existing surface water quality through improvement to existing drainage systems. Minor, temporary changes to groundwater levels	No change	Negligible
Yellow – Localised/ temporary adverse effect	Impacts when taken on their own have the potential to lead to a minor localised or impact.	Impacts in combination with others have the potential to lead to a minor localised or temporary impact on the WFD elements. Consideration will be given to habitat creation measures.	Impacts in combination with others have the potential to lead to a minor localised or temporary impact on the WFD elements. Consideration will be given to habitat creation measures.	Loss of macrophytes/phytobenthos due to shading from a bridge or other structure Temporary loss of invertebrates/macrophytes etc. during channel re-alignment Estimated loss in diversity of invertebrates for e.g. <100m of water body (due to habitat loss, changes to flow etc.). Localised loss of fish habitat/numbers of fish. Reduction in water quality with negligible knock on effects to biological elements Localised changes to groundwater levels or quality with no impact to GWDTE or protected water bodies.	No change in status of WFD water body when balanced against mitigation embedded in the scheme.	Minor Adverse
Amber – adverse widespread or prolonged effect	Impacts when taken on their own have the potential to lead to a widespread or prolonged impact. Consideration will be given to habitat creation measures.	Impacts in combination with others have the potential to have an adverse impact on the WFD element. Additional mitigation will be applied.	Impacts in combination with others have the potential to have an adverse impact on the WFD water body. The current WFD risk category will be taken into account when assessing these combined impacts. Consideration will be given to habitat creation measures.	Loss of macrophytes/phytobenthos for a significant length of water due to shading from a long (e.g. >200m) culvert or other similar structure. Likely significant drop in invertebrate diversity over e.g. >300m of water body (due to habitat loss /siltation or combination of various impacts etc.). Obstruction to upstream migration of fish to spawning grounds in a salmonid river therefore affecting fish in the whole of the WFD water body. Reduction in water quality with potential to cause knock on effects to biological elements. Adverse changes to GWDTE or baseflow contributions to protected surface water bodies.	Adverse effect but risk of status change needs to be considered with any additional mitigation, and taking into account the level of confidence.	Moderate Adve
Red – adverse impact on an individual quality element and/or overall status of water body	Impacts when taken on their own have the potential to lead to a widespread or prolonged impact even with mitigation in place.	Impacts in combination with others have the potential to have an adverse impact on the WFD element and change its class. Consideration will be given to habitat creation measures.	Impacts in combination with others have the potential to have an adverse impact on the WFD water body and change its status. The current WFD risk category will be taken into account when assessing these combined impacts. Consideration will be given to habitat creation measures.	Loss or extensive change to a fishery Significant loss of hydromorphological diversity likely to impact the water body scale such as channelisation of a natural watercourse using hard engineering for a significant length. Creation of barriers which will inhibit migration and movement of fish within the system. Significant decline in water quality resulting in knock on effects to biological elements at the water body scale. Loss of or extensive change to GWDTE or baseflow contributions to protected surface water bodies. Any significant change in groundwater quality reducing WFD status.	Decrease in status of WFD water body when balanced against additional mitigation. Outcome is considered to be certain.	Major Adverse

t Statement SMR (water resources and flood risk)	
lue	EIA Receptor value criteria
e Benefit	In addition to below, Contribution to improvement in water body WFD classification. Removal of existing polluting discharge, or removing the likelihood of polluting discharges occurring to a watercourse. Improvement in water body WFD classification.
r Benefit	HEWRAT assessment of either acute soluble or chronic-sediment related pollutants becomes pass from an existing site where the baseline was a fail condition. Calculated reduction in existing spillage risk by 50% or more (when existing spillage risk is <1% annually).
	No risk identified by HEWRAT (pass both acute-soluble and chronic-sediment related pollutants). Risk of pollution from spillages <0.5%.
	Failure of either acute soluble or chronic sediment related pollutants in HEWRAT. Calculated risk of pollution from spillages ≥0.5% annually and < 1% annually. Minor effects on water supplies.
e	Failure of both acute-soluble and chronic-sediment related pollutants in HEWRAT but compliance with EQS values. Calculated risk of pollution from spillages ≥1% annually and <2 % annually. Partial loss in productivity of a fishery. Degradation of regionally important public water supply or loss of major commercial/industrial/agricultural supplies. Contribution to reduction in water body WFD classification.
	Failure of both acute-soluble and chronic-sediment related pollutants in HEWRAT and compliance failure with EQS values. Calculated risk of pollution from a spillage ≥2% annually (spillage assessment). Loss or extensive change to a fishery. Loss of regionally important public water supply. Loss or extensive change to a designated nature conservation site. Reduction in water body WFD classification.