DocName: WFD_Level1_A2AT_SLR1

Assessment COVER SHEET	
Option ID:	WFD_A2AT_Route_Eastern (hybrid)
Option Name:	Eastern Route
Option Description:	
Water company	SRO
Is there enough information to complete the assessment? (Y/N)	Y
If No: What information is lacking? Any further comment appropriate?	
Assessed by:	Charlie Dodd
Assessment Version:	1
Date:	21/06/2022
Checked by:	Rachel Coombes
Date:	14/07/2022
Approved by:	
Date:	

				WFD status	Overall Water Body	Poor	Bad	Moderate	Moderate	Moderate	Moderate	Moderate	Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	
					Chemical	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	
					Ecological	Poor	Bad	Moderate	Moderate	Moderate	Moderate	Moderate	Poor	Moderate	Moderate	Moderate	Moderate	Good	Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	
					Waterbody ID	GB105031050595	GB105032050330	GB105032050340	GB105032050381	GB105033037490	GB105033037550	GB105033037570	GB105033037590	GB105033037610	GB105033038120	GB105033042680	GB105033042690	GB105033042740	GB105033042770	GB105033042800	GB105033042820	GB105033043140	GB105033047921	GB205033000010	GB205033000050	GB205033043375	
Component	**Activity**	**Construction, Operation or Decommissioning**	**Assumptions / Mitigations assumed to be in place**	**Comments**	**Score**	in (including Marho	Billing Brook	Stanground Lode	Nene - Islip to tidal	Debden Water	(Newport to Audley	Tributary of Cam	Audley End to Stapl	Rhee (DS Wendy)	Hoffer Brook	Bin Brook	Bourn Brook	Fen Drayton Drain	Swavesey Drain	Marley Gap Brook	Alconbury Brook	Bury Brook	use (Roxton to Earit	n and Mepal IDB in	Middle Level	Old West River	
Below ground	Construction/repair of new tunnels and conduits	Construction	Tunnels and conduits will be constructed such that they will not form a preferential pathway for the flow of groundwater and to ensure all appropriate pollution prevention measures are adopted during the works, with the ground reinstated as soon as possible.	Assume pipeline will cross all waterbodies end route underground	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Below ground	Construction of below ground structures (shaft/retaining wall) with associated dewatering, with **no** sensitive groundwater feature within 500m	Construction	Risk assessments will be undertaken for excavation works and dewatering to ensure no adverse impact on watercourses, wetland habitats or abstractions. Dewatering discharge will be treated before discharge. Abstraction licences, water activity permits and / or land drainage consents will be obtained as necessary.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Presence of new underground structure (tunnel/shaft/retaining wall), with **no** sensitive groundwater feature within 500m	Operation	Land drainage will be provided on the upgradient side of the scheme such that they will not cause an increase in groundwater flooding risk. This drainage will be discharged into local watercourses to maintain flow.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Construction of below ground structures (shaft/retaining wall) with associated dewatering, within 500m of a sensitive groundwater feature	Construction	Risk assessments will be undertaken for excavation works and dewatering to ensure no adverse impact on watercourses, wetland habitats or abstractions. If impact likely appropriate mitigation to be put in place Dewatering discharge will be treated before discharge.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Presence of new underground structure (tunnel/shaft/retaining wall) within 500m of a sensitive groundwater feature	Operation	Land drainage will be provided on the upgradient side of the scheme such that they will not cause an increase in groundwater flooding risk. This drainage will be discharged into local watercourses to maintain flow.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Construction of new cutting with external dewatering with **no** sensitive groundwater feature within 500m	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Construction of new cutting with external dewatering within 500m of a sensitive groundwater feature	Construction	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Below ground	Construction of new culvert	Construction	At this stage it is not know if any new or modified culverts are required. It is assumed that the pipeline will be below ground but temporary culverts/culvert extensions may be required for plant access, and for access to new AGI. If required, appropriate precautions will be taken when working in the channels of or adjacent to watercourses, providing new	Temporary access culverts have been assumed to be required in all catchments along the route.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Catchment management	Knowledge exchange or education programme	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Changes to land management practices to reduce pesticides, nutrients, sediment or flooding relating to a groundwater source	Operation	Not applicable, it is assumed that once the pipeline has been installed, it will be below ground and current land use and practices will return.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Changes to land management practices to reduce pesticides, nutrients, sediment or flooding relating to a surface water source	Operation	Not applicable, it is assumed that once the pipeline has been installed, it will be below ground and current land use and practices will return.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	River restoration - construction phase	Construction	There may be minor short term impacts during the construction phase to remove temporary watercourse crossings.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	River restoration - after construction	Operation	Not applicable, no river restoration measures are currently proposed for the scheme. It is assumed that any that are proposed will work with natural processes and take into account the hydromorphology of the river.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Flow augmentation and licensing	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Terrestrial habitat creation/management - creation	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Terrestrial habitat creation/management - management	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Natural water retention measures (including NFM and wetland creation) - construction	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Natural water retention measures (including NFM and wetland creation)	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Fisheries management	Operation	Not applicable.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Sustainable Urban Drainage Systems (SUDS) - construction	Construction	It is assumed that that Contractor will adopt the most suitable methods to manage construction site runoff (attenuation and treatment) and that this may involve bespoke, temporary sustainable drainage techniques alone or in combination with other proprietary measures.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Sustainable Urban Drainage Systems (SUDS) - after construction	Operation	As the project develops a suitable Drainage Strategy will be required for any new or modified AGIs to ensure that there are appropriate means of capturing, attenuating and discharging surface water runoff from roofs and impermeable surfaces. Although the size of these installations is not likely to be spatially significant, it is assumed that each will involve sustainable drainage systems where appropriate to do so. The Drainage Strategy will need to include a water quality risk assessment to ensure that drainage systems include an appropriate treatment train depending on the level of risk (which is expected to be low).		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catchment management	Integrated catchment management	Operation	Not applicable.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Culvert	Construction of new inverted siphon or drop inlet culvert	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Culvert	Presence of new culvert, in headwaters or on drainage ditches	Operation	At this stage it is not know if any new or modified culverts are required. It is assumed that the pipeline will be below ground but temporary culverts/culvert extensions may be required for plant access, and for access to new AGI. If required, appropriate precautions will be		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Culvert	Presence of new culvert mid or lower catchment	Operation	At this stage it is not know if any new or modified culverts are required. It is assumed that the pipeline will be below ground but temporary culverts/culvert extensions may be required for plant access, and for access to new AGI. If		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Culvert	Presence of new inverted siphon or drop inlet culvert	Operation	Not applicable.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Culvert	Removal of significant in channel watercourse structure (such as impassable weir)	Decommissioning	Not applicable.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Culvert	Removal of existing culverts or other in channel watercourse structure	Decommissioning	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	High volume discharge of water with a quality element of higher WFD status than the receiving water body	Operation	No assumed mitigations	The source of the water for the pipeline is not currently confirmed, but is likely to be SLR. Regardless, water would be treated first	-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	High volume discharge of water with a quality element of a lower WFD status than the receiving water body	Operation	No assumed mitigations		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Low volume discharge of water with a quality element of the same or higher WFD status than the receiving water body	Operation	No assumed mitigations		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Low volume discharge of water with a quality element of a lower WFD status than the receiving water body	Operation	No assumed mitigations		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Low volume discharge of water with a quality element of the same WFD status as the receiving water body	Operation	No assumed mitigations		0	0	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	High volume discharge of water with a quality element of the same WFD status as the receiving water body	Operation	No assumed mitigations		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	New WTW discharge to watercourse	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Transfer of water via a river, canal or aqueduct	Operation	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	New discharge of highly saline water to a coastal or transitional waterbody	Operation	Not applicable.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	New discharge of highly saline water to a surface waterbody or groundwater	Operation	Not applicable.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Construction of a new outfall structure to a watercourse, coastal waters, transitional waters or reservoir	Construction	Appropriate precautions will be taken when working in the channels of watercourses, to appropriately manage flood risk and the potential for deposition of silt or release of other forms of suspended material or pollution within the water column. All measures will be in line with the requirements set out within the Environment Agency's PPGs (PPG1: General Guide to Prevention of Pollution; PPG5: Works and maintenance in or near water).		1	1	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Cessation of existing discharge to a watercourse	Construction	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Discharge	Maintenance and use of river, coastal or transitional water outfall	Operation	Not applicable.		0	0	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Groundwater	Construction of a new abstraction borehole headworks and associated infrastructure	Construction	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Groundwater	Refurbishment of existing boreholes	Construction	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Groundwater	Drilling new abstraction boreholes	Construction	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Groundwater	Maintenance and use of abstraction borehole infrastructure	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Habitat	Creation of significant areas of riparian habitats	Construction	Not applicable.		-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Habitat	Minor habitat creation	Construction	Appropriate precautions will be taken when working in the channels of or adjacent to watercourses, to appropriately manage flood risk and the potential for deposition of silt or release of other forms of suspended material or pollution within the water column. However, these works will be minor in nature.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Habitat	Daylighting of existing culverts	Construction	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Habitat	Channel realignment with natural bed substrate and good riparian connections	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Habitat	Channel realignment with artificial banks/base	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Intake	Construction or modification of a new pumping station and/or intake from raw water (river or coastal waters)	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Intake	Maintenance and use of river intakes	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Intake	Maintenance and use of coastal intakes	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	Use of existing ground and surface water abstraction licences, within licence conditions and recent abstraction patterns	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	Use of existing surface water and groundwater abstraction licences, within existing licence conditions but outside of the recent actual rates	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	Emergency or drought use of existing surface water or groundwater abstraction outside of licence conditions	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	New or increased surface water abstraction	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	New or increased groundwater abstraction	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	New coastal or transitional waterbody abstraction licence	Operation	Not applicable.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	Reduction of coastal or transitional waterbody abstraction licence	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Licence	Increase of coastal or transitional waterbody abstraction licence	Operation	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pipelines	Trenching and laying of pipe lines within the interfluves of a catchment (no watercourse crossings)	Construction	Assumed that bedding material for pipelines will be constructed such that they do not form preferential pathways for groundwater flow.		0	N/A	0	0	N/A	0	N/A	N/A	0	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A	0	0	0		
Pipelines	Trenching and laying of pipe lines involving watercourse crossings	Construction	Assumed that bedding material for pipelines will be constructed such that they do not form preferential pathways for groundwater flow. Assumed that watercourse crossings will be as perpendicular to the channel as possible and carried out using a non-intrusive technique (e.g. Horizontal directional drilling) with the careful management of any dewaters within launch and receiving pits and the risk that drilling fluids 'frack out' under the watercourse (e.g. bentonite) by the application of suitable pre-works risk assessments when designing the crossing. Pipeline is to be installed at a minimum depth below the natural bed of the watercourse as agreed with statutory stakeholders, but expected to be at least 1.5 m. This is to ensure that is minimal risk of any future exposure from bed scour. For more minor watercourses it may be appropriate to install the pipeline using an intrusive technique involving the temporary diversion or overpumping of the flow and excavation through the beds and bank, Locations where this is appropriate would need to be agreed with statutory consultees and would be subject to the required consents (works beneath the bed of main rivers may also require a Flood Risk Activity Permit). In addition to suitable ecology		1	1	N/A	N/A	1	N/A	1	1	N/A	1	1	1	1	N/A	N/A	N/A	N/A	1	1	N/A	N/A	N/A		
Pipelines	Trenching and laying of pipe lines involving large watercourse crossings with in channel modifications	Construction	Flood risk assessment will be carried out to ensure that new in channel features will not adversely impact on flood risk		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Pipelines	Maintenance of pipe lines	Operation	No assumed mitigations		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pipelines	Draining of pipelines for maintenance	Operation	If water is drained to local watercourse, this will be short term and temporary impacts only. It is assumed best practice would be followed and the source of any water in the pipeline at the time of draining would be treated. The discharge locations and methods for drained water are not known at this stage, though it is assumed that the process would follow best practice to minimise risk to any receiving waterbody.	Further information on this practice, and the potential for hydrostatic testing, should be made available to inform future phases of the assessment.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Pipelines	removal / decommissioning of existing pipeline (no watercourse crossings)	Decommissioning	Risks would be similar to the original laying of the pipeline, although it is assumed that any pipe sections beneath watercourses would be left in situ (assuming they are placed sufficiently deep originally that there is no risk of ever being exposed by bed scour).		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pipelines	removal / decommissioning of existing pipeline (involving watercourse crossings)	Decommissioning	Risks would be similar to the original laying of the pipeline, although it is assumed that any pipe sections beneath watercourses would be left in situ (assuming they are placed sufficiently deep originally that there is no risk of ever being exposed by bed scour).		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pipelines	New above ground pipelines (crossing watercourse)	Construction	Not applicable. It is assumed that no pipe overbridges are proposed.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pipelines	New above ground pipelines (not crossing watercourse)	Construction	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pipelines	Temporary pipelines to support network upgrades or changes	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Construction of reservoir (set back from watercourse)	Construction	No assumed mitigations		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Construction of new storage reservoir (in line/next to watercourse - within 500m)	Construction	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Modification of an existing storage reservoir	Construction	Not applicable.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Presence of new or modified existing storage reservoir	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Modification of an existing service reservoir adjacent in close proximity to watercourse	Construction	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Presence of new reservoir or modified existing service reservoir in close proximity to watercourse	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Modification of an existing service reservoir not in close proximity to watercourse	Construction	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Presence of new reservoir or modified existing service reservoir not in close proximity to watercourse	Operation	Not applicable as these issues are covered by the separate WFD assessment for the proposed new South Lincolnshire Reservoir.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Floating or constructed shade for the reservoir to reduce evaporation	Operation	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
reservoir	Floating or constructed shade for the reservoir to reduce evaporation	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Transfer agreement	New or continuation of contractual agreement between companies to continue providing transfer with no change to abstraction licence associated	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Transfer agreement	Contractual agreement between companies to continue providing transfer with decrease in abstraction licence associated	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Transfer agreement	Contractual agreement between companies to continue providing transfer with increase in abstraction licence associated	Operation	Not applicable.		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Impose water usage restriction under emergency drought orders to business and/or household	Operation	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Communication with business or households to reduce water use in times of drought	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Reduce transfer of water between water companies	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Abstraction management. This could include limiting abstractions of vulnerable sources in times of drought and using more resilient sources more frequently. This could include switching from GW to surface water or reservoir sources. This could include resting some sources to all for recovery of supply.	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Tankering treated water between WRZ	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Usage changes and abstraction management	Tankering raw water or treated effluent	Operation	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WTW	Modification of an existing WTW or pumping station relating to treated water	Construction	No assumed mitigations		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WTW	Construction of a new WTW or pumping station relating to treated water	Construction	No assumed mitigations		0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	
WTW	Maintenance and use of pumping stations and WTW	Operation	No assumed mitigations		0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	
WTW	Removal of existing WTW and associated discharge	Decommissioning	Not applicable.		-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WTW	Small desalination temporary unit	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WTW	Construction or modification of a desalination plant	Construction	Not applicable.		1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
WTW	Maintenance and use of desalination plant	Operation	Not applicable.		0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
					Max impact score per waterbody	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

WB ID's requiring further assessment

WB ID's passing the assessment

rook Drain (includin032050330:Billing 032050340:Stanground2050381:Nene - Isli 33037490:Debden 50:Cam (Newport t 3037570:Tributary 0:Cam (Audley End3037610:Rhee (DS 033038120:Hoffer 5033042680:Bin Br033042690:Bourn 3042740:Fen Drayt 33042770:Swavese 3042800:Marley Ga33042820:Alconbur5033043140:Bury B47921:Ouse (Roxto in (Sutton and Mep033000050:Middle 33043375:Old Wes

Assessment Cover Information	
Option ID	WFD_A2AT_Route_Eastern (hybrid)
Option Name	Eastern Route
Water company	SRO
Option Description	0
Assessment undertaken by [internal purposes only]	Charlie Dodd
Enough information to complete the assessment?	Yes
Waterbodies assessed	GB205033000050:Middle Level; GB105032050381:Nene - Islip to tidal; GB105032050330:Billing Brook; GB106038033460:Mimram (Whitwell to Codicote Bottom); GB106038033391:Lee (from Luton to Luton Hoo Lakes); GB105031050595:Brook Drain (including Marholm Brook); GB105033037670:Chicksands Brook; GB105033037690:Purwell; GB105033037790:Flit and Ivel Navigation d/s of Shefford; GB105033037800:Ickwell Brook; GB105033037500:Barton Brook; GB105033037530:New Inn Brook; GB105033043230:Begwary Brook; GB105033047921:Ouse (Roxton to Earith); GB105033043310:Diddington Brook; GB105033043220:Colmworth Brook; GB105033043260:Duloe Brook; GB105033043270:Kym; GB105033042870:Ellington Brook; GB105033042810:Cock Brook; GB105033042820:Alconbury Brook; GB105033042830:Ellington Brook (Trib); GB105033047923:Ouse (Newport Pagnell to Roxton); GB105033038090:Cople Brook;
Number of waterbodies passing WFD assessment	21
Waterbodies passing WFD assessment	GB105031050595:Brook Drain (including Marholm Brook); GB105032050330:Billing Brook; GB105032050340:Stanground Lode; GB105032050381:Nene - Islip to tidal; GB105033037490:Debden Water; GB105033037550:Cam (Newport to Audley End); GB105033037570:Tributary of Cam; GB105033037590:Cam (Audley End to Stapleford); GB105033037610:Rhee (DS Wendy); GB105033038120:Hoffer Brook; GB105033042680:Bin Brook; GB105033042690:Bourn Brook; GB105033042740:Fen Drayton Drain; GB105033042770:Swavesey Drain; GB105033042800:Marley Gap Brook; GB105033042820:Alconbury Brook; GB105033043140:Bury Brook; GB105033047921:Ouse (Roxton to Earith); GB205033000010:Counter Drain (Sutton and Mepal IDB incl. Cranbrook Drain); GB205033000050:Middle Level; GB205033043375:Old West River;
Number of waterbodies requiring further WFD assessment	0
Waterbodies requiring further WFD assessment	N/A
Comment	N/A

Each activity has been predefined an impact score.
The maximum impact score for each waterbody determines if the waterbody requires further assessment or not.
Any waterbodies containing activities that score a 2 or 3 will require a level 2 assessment where mitigation must be demonstrated and PoM, RNAGs and any further data will be considered.

Level 1 assessment	Impact	Impact Score	Description
Waterbody passes Level 1 WFD assessment	Very beneficial	-2	Impacts that, taken on their own, have the potential to lead to the improvement in the ecological status or potential of a WFD quality element for the entire waterbody
	Beneficial	-1	Impacts that, when taken on their own, have the potential to lead to a minor localised or temporary improvement that does not affect the overall WFD status of the waterbody or any quality elements
	No/minimal	0	No measurable change in the quality of the water environment or the ability for target WFD objectives to be achieved.
	Low	1	Impacts that, when taken on their own, have the potential to lead to a minor localised, short-term and fully reversible effects on one or more of the quality elements but would not result in the lowering of WFD status. Impacts would be very unlikely to prevent any target WFD objectives from being achieved.
Waterbody requires level 2 WFD assessment	Medium	2	Impacts that, when taken on their own, have the potential to lead to a widespread or prolonged effect on the quality of the water environment that may result in the temporary reduction in WFD status. Impacts have the potential to prevent target WFD objectives from being achieved.
	High	3	Impacts when taken on their own have the potential to lead to a significant effect and permanent deterioration of WFD status. Potential for high impact on preventing target WFD objectives from being achieved.