

**THE PLANNING ACT 2008**

**M4 (JUNCTIONS 3 TO 12) (SMART MOTORWAY) DEVELOPMENT CONSENT ORDER APPLICATION**

**TR010019**

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**Environment Agency**

**Response to Written Representations**

**Appendix B - Comparison of water bodies GB106039023470  
and GB106039023550**

**Deadline III - 5 November 2015**

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Drawing 15.1 ref. number (if present) Waterbody ID No. and Name <sup>3</sup>	Classified as Heavily modified?	Current Overall Status / Potential	Overall Status Objective	Specific Status Objective(s)	Justification if overall objective is not good by 2015	Protected Area Designation	Information on supporting biological elements	Information on supporting elements (Chemical)	Information on supporting conditions (Hydro-morphological )	Information on chemical status	Mitigation Measures for Waterbodies	Hydrological relationship with site
6) GB106039023470 Chalvey Ditch  (used in the WFD)	Yes	Moderate	Good by 2027	Good Ecological Potential by 2027	Technically infeasible	Yes - Freshwater Fish Directive, Nitrates Directive, Urban Waste Water Treatment Directive	Fish – High Invertebrates – Good	Ammonia (Phys Chem) – High Dissolved Oxygen – Good pH – High Phosphate – Good Temperature – High Copper – High Zinc – High Ammonia (annex 8) – High	Quantity and Dynamics of Flow – Does not Support Good (Quite Certain)	Current Status: Does not require assessment	Yes	M4 crosses once near junction 6
GB106039023550 Chalvey Ditches at Slough  (correct reference)	Yes	Moderate (Quite certain)	Good by 2027	Good Ecological Potential by 2027	Disproportionately expensive, Technically infeasible	Yes – Freshwater Fish Directive, Nitrates Directive	Fish – Moderate	NA	Quantity and Dynamics of Flow – Does not Support Good (Quite Certain)	Current Status: Does not require assessment	Yes	M4 crosses once near junction 6

Table 1 Chalvey Ditch WFD baseline data comparison for Water Bodies GB106039023470 and GB106039023550 (entries in red indicate WFD failure)

Table 2 WFD mitigation measures for Chalvey Ditch Water Bodies GB106039023470 and GB106039023550 (Blank = Not relevant)

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Appropriate timing (vegetation control)	In place	In place
Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution	In place	
Increase in-channel morphological diversity	In place	Not in place
Appropriate vegetation control technique	In place	In place

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Educate landowners on sensitive management practices (urbanisation)	In place	In place
Appropriate techniques (invasive species)	In place	In place
Retain marginal aquatic and riparian habitats (channel alteration)	In place	Not in place
Appropriate channel maintenance strategies and techniques - minimise disturbance to channel bed and margins	In place	In place

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Site selection (dredged material disposal) (e.g. avoid sensitive sites)		
Bank rehabilitation / reprofiling		
Avoid the need to dredge (e.g. minimise under-keel clearance; use fluid mud navigation; flow manipulation or training works)		
Prepare a dredging / disposal strategy		
Reduce impact of dredging		

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Reduce sediment re-suspension		
Sediment management		
Awareness raising / information boards (boat wash / sources of fine sediment)		
Manage disturbance		
Phased de-watering and other techniques		
Modify vessel design and vessel management		

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Alter timing of dredging / disposal		
Appropriate water level management strategies, including timing and volume of water moved		
Appropriate channel maintenance strategies and techniques - woody debris	In place	In place
Selective vegetation control regime	In place	In place
Sediment management strategies (develop and revise)	In place	In place

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Improve floodplain connectivity		
Remove obsolete structure		
Operational and structural changes to locks, sluices, weirs, beach control, etc		
Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone	In place	Not in place



Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Structures or other mechanisms in place and managed to enable fish to access waters upstream and downstream of the impounding works.	Not in place	Not in place
Alteration of channel bed (within culvert)		Not in place
Re-opening existing culverts		
Set-back embankments		
Flood bunds (earth banks, in place of floodwalls)		

Mitigation measure	Chalvey Ditch GB106039023470 (used in the assessment)	Chalvey Ditch GB106039023550 (correct reference)
Appropriate techniques to align and attenuate flow to limit detrimental effects of these features (drainage)	Not in place	Not in place
Preserve and, where possible, restore historic aquatic habitats		Not in place
Re-engineering of the river where the flow regime cannot be modified.		
Lateral zoning to concentrate boats within a central track		