

Water body information sheet for water body 3700 in Forth

General details

Water body name:	Water of Leith (Murray Burn confluence to Estuary)
Water body Identifier code:	3700
Length:	10.70 km
Water body category:	River
River basin district:	Scotland
Area advisory group:	Forth
Catchment:	Water of Leith
Associated protected areas:	Water of Leith - FRESHWATER FISH (EXISTING)
Associated groundwater:	Edinburgh
Responsible body:	SEPA Edinburgh & Lothians
Heavily modified:	Yes
Artificial:	No
Typology:	Mid-altitude Medium Calcareous
National Grid Reference:	NT 24186 74034
Latitude:	55.95332
Longitude:	-3.21571

Current status of this water body

Classification results are updated annually, as part of SEPA's commitment to monitor and assess the condition of the environment.

Once the classification is agreed, as part of river basin management planning, the pressures and measures for every water body are reviewed to ensure that they reflect this improved understanding of the environment. Objectives are reviewed as part of the six yearly planning cycle and any proposed changes to objectives will be presented in the draft river basin plans http://sepa.org.uk/water/river_basin_planning.aspx.

This worksheet was produced using the most up to date classification results but the measures, pressures and objectives shown may not yet align to these classification results. Please contact rbmp@sepa.org.uk if you require further information on this water body.

We have classified this water body as having an overall status of Poor ecological potential with Medium confidence in 2012 with overall ecological status of Poor and overall chemical status of Pass.

It is important to note that the five classification ecological potential classes for Heavily Modified Water Bodies (HMWBs) and Artificial Water Bodies (AWBs) combine the level of mitigation measures for water levels and flow and physical habitat with measurements of the biological and chemical water quality. For example, a HMWB could have all the mitigation measures in place to allow it to reach good ecological potential e.g. a fish pass installed on a dam required for hydropower generation, but if water quality is poor due to elevated phosphorus levels, its overall ecological potential assessment could be moderate, poor or bad depending on the severity of the impact.

The overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2012 is shown at the end of this document.

Targets for the future status of this water body

We have set environmental objectives for this water body over future river basin planning cycles in order that sustainable improvements to its status can be made over time, or alternatively that no deterioration in status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

For this water body we have set the overall environmental objectives for the first, second and third River Basin Management Planning (RBMP) cycles as:

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Year	2012	?	?	?
Status	Poor ecological potential	?	?	?
Year	2012	2015	2021	2027
Status	Poor ecological potential	Pass	Pass	Pass

Pressures and measures on this water body

We have established an ongoing programme of monitoring in order to identify pressures on our water bodies.

The pressures listed below contribute to this water body's failure to meet good ecological status or potential. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

The following table shows our collated information on the pressures on this water body, their causes and the measures which could be introduced to mitigate their effects. We have also indicated the current funding status of the measure; with projected measures being potentially funded and agreed measures having funding in place. Finally, we have included information on the potential or actual owner of the measure, the date it will be effective and information on the justification for extending the deadlines or for setting an alternative objective, where appropriate.

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
Flow Regulation	Impounding - unspecified	Change from natural flow conditions	Good by 2015	
	Provide appropriate baseline flow regime downstream of impoundment	Projected	City of Edinburgh Council	31/12/2012
	Provide appropriate baseline flow regime downstream of impoundment	Agreed	SEPA	31/10/2012
Morphological Alterations		Multiple Pressure	Poor by 2015	Significant risk of unfavourable balance of costs and benefits: low certainty there is a problem to solve

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Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
	Improvement to condition of channel/bed and/or banks/shoreline	Neither Agreed nor Projected	City of Edinburgh Council	31/12/2026
Morphological Alterations		Fish passage	Good by 2015	
	Removal of barriers or provision of mechanisms to enable fish migration	Projected	Landowner(s)	31/12/2010
Flow Regulation		Change from natural flow conditions	Good by 2015	
	Provide appropriate baseline flow regime downstream of impoundment	Projected	City of Edinburgh Council	31/12/2014
	Provide appropriate baseline flow regime downstream of impoundment	Agreed	SEPA	31/10/2012
Point Source Pollution	Sewage disposal	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Projected	Scottish Water	31/03/2024

Footnote – These results show current classification but the measures, pressures and objectives shown may not yet align to these classification results. Please contact rbmp@sepa.org.uk if you require further information on this water body.

Future work

Additional work to identify pressures and to develop and implement measures to mitigate their impacts will continue over subsequent river basin cycles.

Complete classification for this water body in 2012

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Parameter	Status	Confidence of Class
OVERALL STATUS	POOR ECOLOGICAL POTENTIAL	MEDIUM
Pre-HMWB status	Poor	Medium
Overall chemistry	Pass	High
Priority substances	Pass	High
Benzo-a-pyrene	Pass	High
Anthracene	Pass	High
Atrazine	Pass	Low
Benzo-(B+K)-Fluoranthene	Pass	High
Cadmium	Pass	Low
Chlorpyrifos	Pass	Low
Fluoranthene	Pass	High
Hexachlorobenzene	Pass	High
Lead	Pass	Low
Naphthalene	Pass	High
Nickel	Pass	Low
pp-DDT	Pass	Low
Simazine	Pass	Low
Trifluralin	Pass	Low
Pentachlorophenol	Pass	Low
1,2 Dichloroethane	Pass	Low
Carbon Tetrachloride	Pass	Low
Chloroform	Pass	Low
Endosulfan	Pass	Low
Total HCH	Pass	Low
Diethylhexylphthalate (DEHP)	Pass	High
Chlorfenvinphos	Pass	Low
Total Drins	Pass	Low
Benzene	Pass	Low
Dichloromethane	Pass	Low
Tetrachloroethene	Pass	Low
Trichloroethene	Pass	Low
4-NonylPhenol	Pass	High

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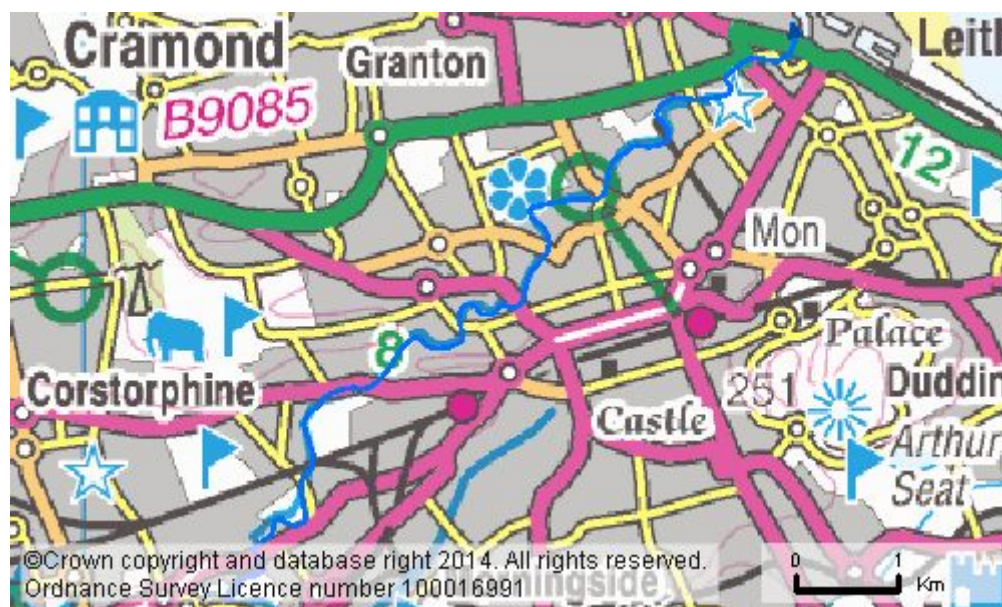
Parameter	Status	Confidence of Class
Octylphenol	Pass	High
Mercury	Pass	Low
Total TCB	Pass	High
Total DDT	Pass	Low
Overall ecology	Poor	Medium
Physico-Chem	High	High
Temperature	High	High
Soluble reactive phosphorus	High	High
pH	High	High
Dissolved Oxygen	High	High
Biological elements	Poor	Medium
Phytobenthos	Moderate	High
Macrophytes	Good	Medium
Benthic invertebrates	Good	High
Macro-invertebrates (acid)	High	Low
Macro-invertebrates (RiCT)	Good	High
Macro-invertebrates (ASPT)	Good	High
Macro-invertebrates (NTAXA)	High	High
Alien species	High	Low
Fish	Poor	Medium
Fish ecology	Poor	Medium
Fish barrier	Poor	Medium
Specific pollutants	Pass	High
2,4-Dichlorophenol	Pass	Low
Arsenic	Pass	Low
Diazinon	Pass	Low
Iron	Pass	Low
Copper	Pass	Low
Zinc	Pass	High
Dimethoate	Pass	Low
Toluene	Pass	Low
Ammonium	Pass	High
Chromium	Pass	Low
Hydromorphology	Moderate	Medium

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Parameter	Status	Confidence of Class
Morphology	Moderate	Medium
Hydrology	High	Medium
Hydrology (impoundment)	High	Medium
Hydrology (abstraction)	High	Medium
Regulatory BOD	High	High
Regulatory ammonium	High	High
Water quality	Moderate	High
Morphological pressures	Poor	Medium

Location of this water body

You can find the geographical location of this water body by searching on water body ID in the interactive maps at www.sepa.org.uk/water/river_basin_planning.aspx



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