Water body information sheet for water body 4000 in Forth

General details

Water body name:	River Tyne (Birns Water confluence to Estuary)
Water body Identifier code:	4000
Length:	23.88 km
Water body category:	River
River basin district:	Scotland
Area advisory group:	Forth
Catchment:	River Tyne
Associated protected areas:	River Tyne (Haddington to Estuary) - UWWTD SENSITIVE AREA (EXISTING) Lothian / Borders - NITRATE VULNERABLE ZONE River Tyne (Birns Water confluence to Haddington) - UWWTD SENSITIVE AREA (EXISTING) River Tyne - FRESHWATER FISH (EXISTING) River Tyne (Source to Birns Water confluence) - UWWTD SENSITIVE AREA (EXISTING)
Associated groundwater:	Tyne Valley
Responsible body:	SEPA Edinburgh & Lothians
Heavily modified:	No
Artificial:	No
Typology:	Lowland Medium Calcareous
National Grid Reference:	NT 52533 74308
Latitude:	55.95943
Longitude:	-2.76185

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 Moderate with High confidence in 2012 with overall ecological status of Moderate and overall chemical status of Pass.

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:

Year	2012	2015	2021	2027
Status	Moderate	Moderate	Good	Good
Year	2012	2015	2021	2027
Status	Moderate	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**
Point Source Pollution	Sewage disposal	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Increase treatment	Projected	Scottish Water	31/03/2013
	Reduce at source	Agreed	Scottish Water	31/03/2013
Point Source Pollution	Sewage disposal	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Point Source Inputs	Projected	Scottish Water	31/03/2024
Diffuse Source Pollution	Arable farming	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Diffuse Source Inputs	Projected	Farmer(s)	31/12/2020
Morphological Alterations	Impounding - weir / dam	Fish passage	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	**Funding**	**Owner**	**Effective date**
	Removal of barriers or provision of mechanisms to enable fish migration	Projected	Operator	31/12/2020
	Removal of barriers or provision of mechanisms to enable fish migration	Projected	Landowner(s)	31/12/2020
Abstraction	Arable farming	Change from natural flow conditions	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Control Abstraction	Neither Agreed nor Projected	Farmer(s)	31/12/2020
Abstraction	Other beverage production	Change from natural flow conditions	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Control Abstraction	Neither Agreed nor Projected	Operator	31/12/2020

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.

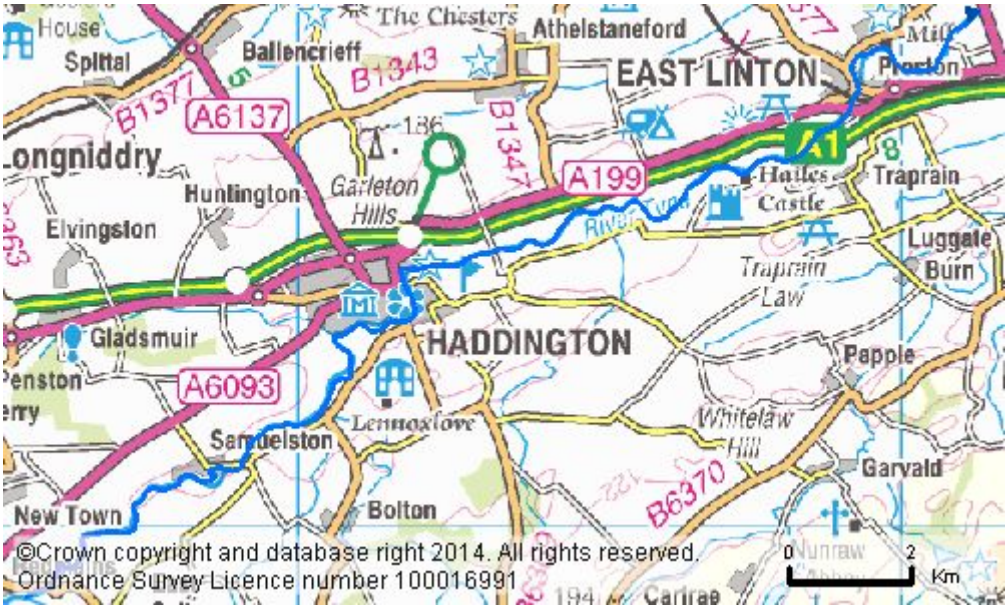
Complete classification for this water body in 2012

Parameter	Status	Confidence of Class
OVERALL STATUS	MODERATE	HIGH
Pre-HMWB status	Moderate	High
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	Low
Isoproturon	Pass	High
Lead	Pass	Low
Naphthalene	Pass	High
Nickel	Pass	Low
pp-DDT	Pass	Low
Simazine	Pass	Low
Trifluralin	Pass	Low
Endosulfan	Pass	Low
Total HCH	Pass	Low
Diethylhexylphthalate (DEHP)	Pass	High
Chlorfenvinphos	Pass	Low
Total Drins	Pass	Low
Diuron	Pass	High
Mercury	Pass	Low
Total DDT	Pass	Low
Overall ecology	Moderate	High
Physico-Chem	Moderate	Medium
Temperature	High	High
Soluble reactive phosphorus	Moderate	Medium
pH	High	High
Dissolved Oxygen	High	High
Biological elements	Moderate	High

Parameter	Status	Confidence of Class
Phytobenthos	Moderate	High
Macrophytes	Good	High
Benthic invertebrates	Good	Medium
Macro-invertebrates (acid)	High	Low
Macro-invertebrates (RiCT)	Good	Medium
Macro-invertebrates (ASPT)	Good	Medium
Macro-invertebrates (NTAXA)	High	High
Alien species	High	Low
Fish	Moderate	Medium
Fish ecology	High	Medium
Fish barrier	Moderate	Medium
Specific pollutants	Pass	High
Arsenic	Pass	Low
Diazinon	Pass	Low
Linuron	Pass	High
Permethrin	Pass	Low
Iron	Pass	Low
Copper	Pass	Low
Zinc	Pass	High
Dimethoate	Pass	Low
2,4-D	Pass	High
Mecoprop	Pass	High
Ammonium	Pass	High
Chromium	Pass	Low
Hydromorphology	Moderate	Medium
Morphology	Good	Medium
Hydrology	Moderate	Medium
Hydrology (impoundment)	Good	Medium
Hydrology (abstraction)	Moderate	Medium
Regulatory BOD	Good	Medium
Regulatory ammonium	High	High
Water quality	Moderate	High
Morphological pressures	Moderate	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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