## General details

Water body name:	River Clyde (North Calder to Tidal Weir)
Water body Identifier code:	10040
Length:	15.30 km
Water body category:	River
River basin district:	Scotland
Area advisory group:	Clyde
Catchment:	River Clyde
Associated protected areas:	River Clyde (North Calder to Tidal Weir) - UWWTD SENSITIVE AREA (EXISTING) River Clyde - FRESHWATER FISH (EXISTING)
Associated groundwater:	Carmyle and Tollcross Sand and Gravel
Responsible body:	SEPA Glasgow & Dunbarton, South Lanarkshire
Heavily modified:	Yes
Artificial:	No
Typology:	Mid-altitude Large Calcareous
National Grid Reference:	NS 62851 62201
Latitude:	55.83348
Longitude:	-4.19132

## 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 <a href="mailto:rbmp@sepa.org.uk">rbmp@sepa.org.uk</a> 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:

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 C		Owner	Effective date
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Increase treatment	Projected	Scottish Water	31/03/2025
Point Source Pollution	Sewage disposal	Ammonia	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
	Change timing or frequency of discharge	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Change timing or frequency of discharge	Agreed	Scottish Water	31/03/2014
Point Source Pollution  Sewage disposal  Reduce at source	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Agreed	Scottish Water	31/03/2014	
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Change timing or frequency of discharge	Projected	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
				disproportionate burdens
	Change timing or frequency of discharge	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Priority Substances (Annex 10)	Failing to Achieve Good by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Point Source Inputs	Projected	Scottish Water	31/03/2025
Point Source Pollution	Sewage disposal	Priority Substances (Annex 10)	Failing to Achieve Good by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Point Source Inputs	Projected	Scottish Water	31/03/2025
Morphological Alterations		Multiple Pressure	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Improve Modified Habitat	Neither Agreed nor Projected	Glasgow City Council	31/12/2026
Diffuse Source Pollution	Chemicals production	UK Specific pollutants (Annex 8)	Failing to Achieve Good by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Projected	Clyde Gateway URC	31/12/2026
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
				would impose disproportionate burdens
	Reduce at source	Projected	Scottish Water	31/03/2025
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
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	31/03/2025
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad 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
	Reduce at source	Agreed	Scottish Water	31/03/2014
Diffuse Source Pollution		UK Specific pollutants (Annex 8)	Failing to Achieve Good by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
Alien Species		North American signal crayfish - Pacifastacus leniusculus	Not yet set	
Point Source Pollution	Source Sewage disposal Dissolved O		Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Morphological Alterations	Recreational activities Impounding - weir / dam	Single Pressure	Moderate by 2015	Significant risk of unfavourable balance of costs and benefits: low certainty there is a problem to solve
	Removal of engineering structure	Neither Agreed nor Projected	Glasgow City Council	31/12/2026
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Point Source Inputs	Projected	Scottish Water	31/03/2025
Point Source Pollution	Sewage disposal	Dissolved Oxygen	Bad by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014
Point Source Pollution	Sewage disposal	Ammonia	Moderate by 2015	Implementation of the measure by an earlier deadline would impose

Pressure As a Result Measure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
				disproportionate burdens
	Reduce at source	Agreed	Scottish Water	31/03/2014

Footnote – These results show current classification but the measures, pressures and objectives shown may not yet align to these classification results. Please contact <a href="https://www.nc.uk">rbmp@sepa.org.uk</a> 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	POOR ECOLOGICAL POTENTIAL	MEDIUM
Pre-HMWB status	Poor	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	High
Chlorpyrifos	Pass	Low
Fluoranthene	Pass	High
Hexachlorobenzene	Pass	High
Lead	Pass	High

Parameter	Status	Confidence of Class
Naphthalene	Pass	High
Nickel	Pass	High
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
Octylphenol	Pass	High
Mercury	Pass	Low
Total TCB	Pass	High
Total DDT	Pass	Low
Overall ecology	Poor	High
Physico-Chem	Moderate	High
Temperature	High	High
Soluble reactive phosphorus	Moderate	High
рН	High	High
Dissolved Oxygen	Good	High
Biological elements	Poor	High
Phytobenthos	Moderate	High
Macrophytes	Moderate	Medium
Benthic invertebrates	Poor	High
Macro-invertebrates (acid)	High	Low

Parameter	Status	Confidence of Class
Macro-invertebrates (RiCT)	Poor	High
Macro-invertebrates (ASPT)	Poor	High
Macro-invertebrates (NTAXA)	Moderate	High
Alien species	High	Low
Fish	High	Medium
Fish ecology	High	Low
Fish barrier	High	Medium
Specific pollutants	Fail	High
2,4-Dichlorophenol	Pass	Low
Arsenic	Pass	High
Diazinon	Pass	Low
Iron	Pass	High
Copper	Pass	High
Zinc	Pass	High
Dimethoate	Pass	Low
Toluene	Pass	Low
Ammonium	Fail	High
Chromium	Pass	High
Hydromorphology	Good	Medium
Morphology	Good	Medium
Hydrology	Good	Medium
Hydrology (impoundment)	Good	Medium
Hydrology (abstraction)	Good	Medium
Regulatory BOD	Good	Medium
Regulatory ammonium	Moderate	High
Water quality	Poor	High
Morphological pressures	Good	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 <a href="https://www.sepa.org.uk/water/river\_basin\_planning.aspx">www.sepa.org.uk/water/river\_basin\_planning.aspx</a>



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