RBMP Water body information sheet for water body 100065 in North Highland

General details

Water body name:	Loch Shin
Water body Identifier code:	100065
Area:	32.93 km^2
Water body category:	Lake
Baseline:	Y
River basin district:	Scotland
Area advisory group:	North Highland
Catchment:	River Shin
Associated protected areas:	Caithness and Sutherland Peatlands - SPECIAL AREA OF CONSERVATION Caithness and Sutherland Peatlands - SPECIAL PROTECTION AREA
Associated groundwater:	Kyle of Sutherland North
Responsible body:	SEPA Dingwall
Heavily modified:	Yes
Artificial:	No
Typology:	Lowland Large Low alkalinity Deep
National Grid Reference:	NC 49475 15816
Latitude:	58.10564
Longitude:	-4.55607

Current status of this water body

We have classified this water body as having an overall status of Bad ecological potential with Medium confidence in 2008 with overall ecological status of Bad 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 for the use (eg hydropower) to allow it to reach good ecological potential, 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.

This overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2008 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	2008	2015	2021	2027
Status	Bad ecological potential	Poor	Poor	Good

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. 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.

Pressures and measures on this water body

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**
Morphological Alterations	Electricity, Gas and Water Supply - Specific Industry Sector Not Yet Known Impounding - weir / dam	Single pressure - Shore	Good by 2015	
	Improve Modified Habitat	Neither Agreed nor Projected	Scottish and Southern Energy	31/12/2007
Abstraction	Production of renewable electricity (NB nuclear and pumped hydro are not renewable forms of electricity generation)	Change in the outflow from the lake	Good by 2015	
	Control pattern/ timing of abstraction (Hands off flow/ utilisation of storage (new/existing)	Agreed	Scottish and Southern Energy	31/12/2007
Flow Regulation	Production of renewable electricity (NB nuclear and pumped hydro are not renewable forms of electricity generation)	Change in the outflow from the lake	Good by 2015	
	Provide higher flows as appropriate to enable fish migration downstream of impoundment	Agreed	Scottish and Southern Energy	31/12/2007
Morphological Alterations	Production of renewable electricity (NB nuclear and pumped hydro are not renewable forms of electricity	Fish passage	Poor 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**
	generation) Impounding - weir / dam			
	Removal of barriers or provision of mechanisms to enable fish migration	Projected	Scottish and Southern Energy	31/12/2026

Future work

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

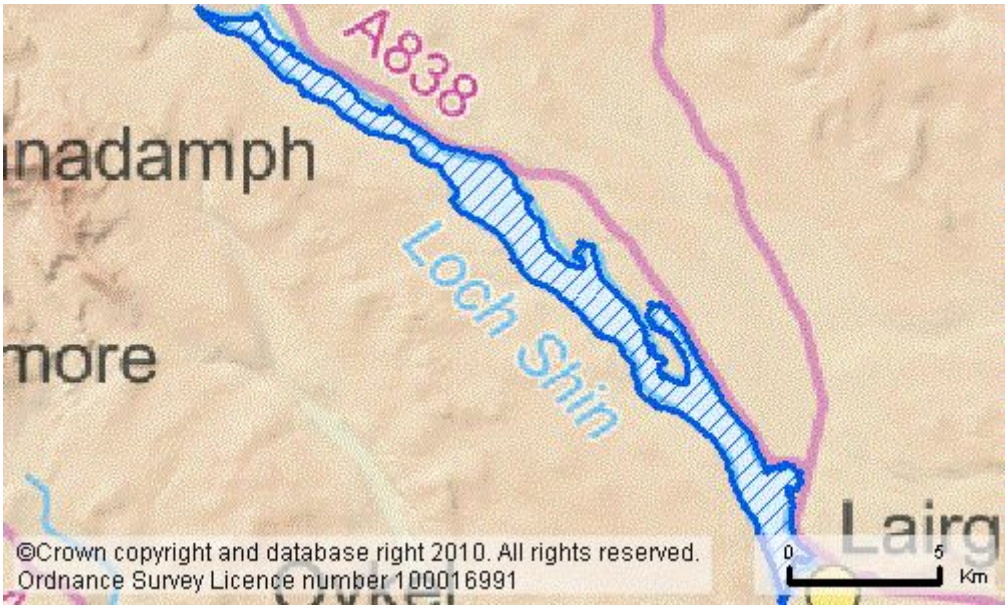
Complete classification for this water body in 2008

Parameter	Status	Confidence of Class
OVERALL STATUS	BAD ECOLOGICAL POTENTIAL	MEDIUM
Pre-HMWB status	Bad	Medium
Overall chemistry	Pass	Low
Priority substances	Pass	Low
Lead	Pass	Low
Overall ecology	Bad	Medium
Physico-Chem	Good	High
Dissolved Oxygen	High	Low
Total Phosphorus	Good	High
Salinity	High	High
Acid Neutralising Capacity	High	High
Biological elements	Good	High
Phytobenthos	High	Low
Macrophytes	Good	High
Benthic invertebrates	High	Low
Macro-invertebrates (acid)	High	Low
Macro-invertebrates (CPET)	High	Low
Alien species	High	Low
Fish barrier	High	Low

Parameter	Status	Confidence of Class
Phytoplankton	High	High
Chlorophyll a	High	High
Cyanobacteria	High	Medium
Specific pollutants	Pass	High
Ammonium	Pass	High
Hydromorphology	Bad	Medium
Morphology	Poor	Medium
Hydrology	Bad	Medium
Water quality	Good	
Morphological pressures	Poor	

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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