European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC)

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

H3150 - Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation

SCOTLAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK (Scotland information only)**
1.2 Habitat code	**3150 - Natural eutrophic lakes with Magnopotamion or Hydrocharition - type**

2. Maps

2.1 Year or period	2007-
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	**Atlantic (ATL)**
3.2 Sources of information	Previous report SCM Database https://www.sepa.org.uk/data-visualisation/water-classification-hub/

4. Range

4.1 Surface area (in km²)		
4.2 Short-term trend Period		
4.3 Short-term trend Direction	Stable (0)	
4.4 Short-term trend Magnitude	a) Minimum	b) Maximum
4.5 Short-term trend Method used		
4.6 Long-term trend Period		
4.7 Long-term trend Direction		
4.8 Long-term trend Magnitude	a) Minimum	b) Maximum
4.9 Long-term trend Method used		
4.10 Favourable reference range	a) Area (km²) b) Operator c) Unknown d) Method	 No
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:	
4.12 Additional information	The range is based upon the estimate used in the previous round. Newly collated vegetation map information (HabMoS) has identified some new potential occurrences of this habitat which did not appear in previous Article 17 reporting distribution maps. However, these have not been ground truthed. Therefore the maps and range submitted for the previous reporting period will be used again.	

5. Area covered by habitat

5.1 Year or period	2007-007-			
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value	7.17

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5.3 Type of estimate	Minimum		
5.4 Surface area Method used	Based mainly on expert opinion with very limited data		
5.5 Short-term trend Period	2007-2017		
5.6 Short-term trend Direction	Stable (0)		
5.7 Short-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.8 Short-term trend Method used	Based mainly on expert opinion with very limited data		
5.9 Long-term trend Period			
5.10 Long-term trend Direction			
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.12 Long-term trend Method used			
5.13 Favourable reference area	a) Area (km²) b) Operator c) Unknown No d) Method		
5.14 Change and reason for change in surface area of range	No change The change is mainly due to:		
5.15 Additional information	Lochs can be subject to degradation however loss of extent is has not been reported from any of the sites monitored		

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum	2.85	Maximum
	b) Area in not-good condition (km²)	Minimum	4.32	Maximum
	c) Area where condition is not known (km²)	Minimum		Maximum
6.2 Condition of habitat Method used	Based mainly on extrapolation from a limited amount of data			
6.3 Short-term trend of habitat area in good condition Period	2007-2018			
6.4 Short-term trend of habitat area in good condition Direction	Uncertain (u)			
6.5 Short-term trend of habitat area in good condition Method used	Based mainly on expert opinion with very limited data			
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period?			No
6.7 Typical species Method used				
6.8 Additional information	Two SACs have become unfavourable since 2007 Loch Isbister 36 ha and Loch Watten 373ha out of a total SAC notified area of 717ha.There are 34 SSSIs notified as Eutrophic Loch Sites and 11 Base Rich Lochs 19 are classified as Favourable 5 are Recovering and 21 are Unfavourable.The number of lochs SEPA monitor for the WFD has risen from 332 in 2007 to 334 in 2017. During this period number of lochs classified as High or good has remained fairly stable albeit with a rise in the number of high lochs. The number of Poor or Bad lochs has declined from 79 to 38. It is likely that much of this improvement has been in lowland lochs which overlap with H3150. However given the uncertainty regarding the extent and condition of this habitat generally the short term trend			

has been assessed as uncertain.

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	M
Agricultural activities generating diffuse pollution to surface or ground waters (A26)	H
Invasive alien species of Union concern (I01)	H

Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	M
Agricultural activities generating diffuse pollution to surface or ground waters (A26)	H
Sports, tourism and leisure activities (F07)	M
Invasive alien species of Union concern (I01)	H
Droughts and decreases in precipitation due to climate change (N02)	M

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures: Measures identified and taken

8.2 Main purpose of the measures taken

Maintain the current range, population and/or habitat for the species

8.3 Location of the measures taken

Both inside and outside Natura 2000

8.4 Response to the measures

Long-term results (after 2030)

8.5 List of main conservation measures

Reduce diffuse pollution to surface or ground waters from agricultural activities (CA11)

Reduce impact of mixed source pollution (CJ01)

Management, control or eradication of established invasive alien species of Union concern (CI02)

Management, control or eradication of other invasive alien species (CI03)

Adopt climate change mitigation measures (CN01)

8.6 Additional information

Eutrophication is the main issue. Measures are being taken on a broad scale both through regulation and agri-environment schemes. Additional measures are being undertaken on a limited number of sites. Measures regarding INNS would also be desirable however there is no known effective method of control of Elodea canadensis and E.nuttalii although research continues.

9. Future prospects

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9.1 Future prospects of parameters	a) Range b) Area c) Structure and functions
9.2 Additional information	Selecting only for sites on the SCM database listed as Base-rich or Eutrophic. Forty-two percent of sites are classified as favourable with an additional 11 percent recovering. This is broadly similar to the 2006 round. The number of Lochs SEPA monitor for the WFD has risen from 332 in 2007 to 334 in 2017. During this period number of lochs classified as High or good has remained fairly stable albeit with a rise in the number of high lochs The number of Poor or Bad lochs has declined from 79 to 38. Habitat quality generally seems to be improving. However, historical issues may continue to cause some declines. Any recovery is unlikely to be rapid due to processes such as internal loading. Given the uncertainty regarding the extent and condition of this habitat generally the future trend has been assessed as overall stable.

10. Conclusions

10.1. Range	
10.2. Area	
10.3. Specific structure and functions (incl. typical species)	
10.4. Future prospects	
10.5 Overall assessment of Conservation Status	
10.6 Overall trend in Conservation Status	
10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
10.8 Additional information	

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region)	a) Minimum b) Maximum c) Best single value 7.17
11.2 Type of estimate	Minimum
11.3 Surface area of the habitat type inside the network Method used	Based mainly on extrapolation from a limited amount of data
11.4 Short-term trend of habitat area in good condition within the network Direction	Decreasing (-)
11.5 Short-term trend of habitat area in good condition within network Method used	Based mainly on extrapolation from a limited amount of data

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11.6 Additional information	Two sites Loch Isbister 36ha and Loch Watten 373ha have changed to unfavourable since 2007

12. Complementary information

12.1 Justification of % thresholds for trends
12.2 Other relevant information

Distribution Map

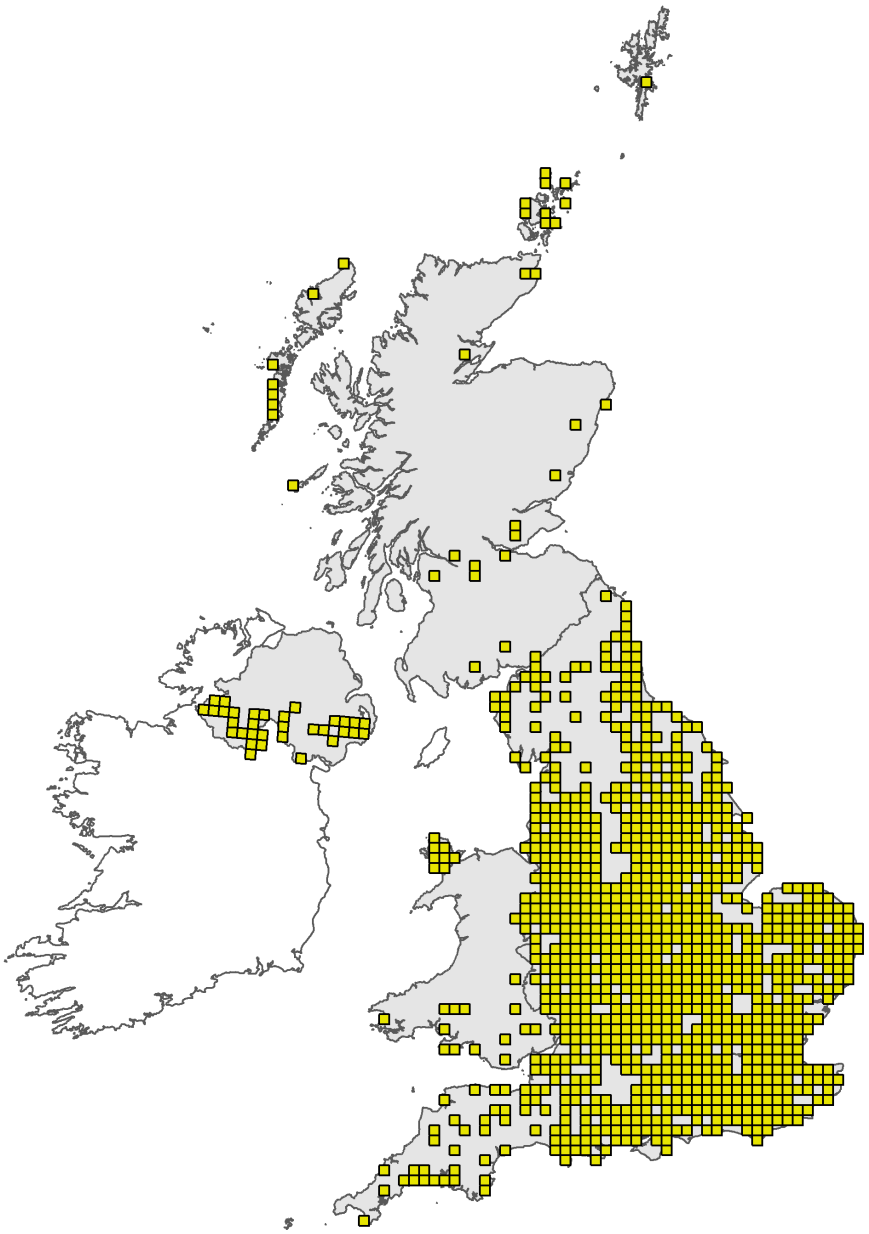

Figure 1: UK distribution map for H3150 - Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

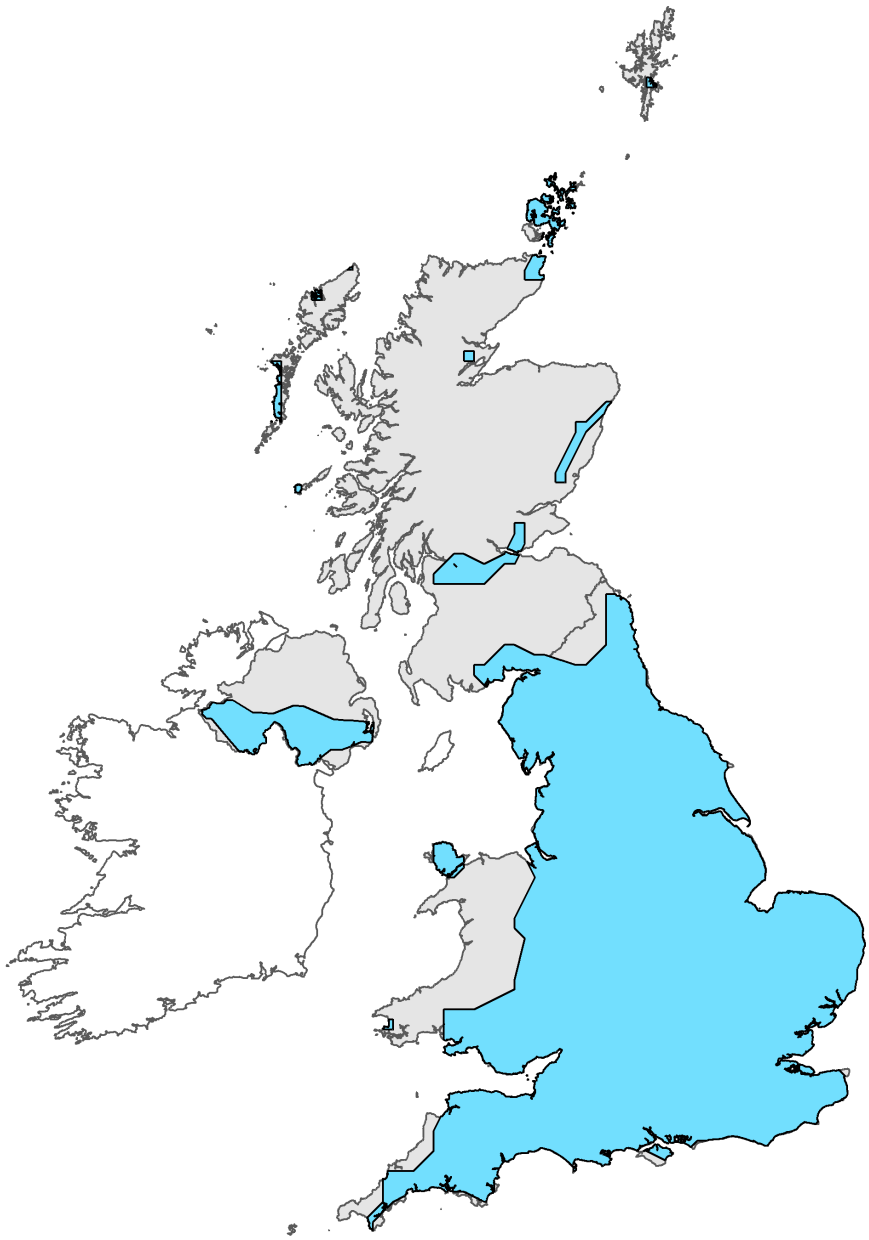

Figure 2: UK range map for H3150 - Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.