Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A

2019-2024

Conservation status assessment for the habitat:

H3160 - Natural dystrophic lakes and ponds

Wales

Cyfoeth Naturiol Cymru
Natural Resources Wales

JNCC

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This report was produced by JNCC in collaboration with Natural Resources Wales.

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Important note - Please read

- The information in this document represents Wales Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A, for the period 2019-2024.
- It is based on supporting information provided by Natural Resources Wales, which is documented separately.
- The Habitats Regulations reporting 2019-2024 Approach Document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- Maps showing the distribution and range of the habitat are included.
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the assessments. Further underpinning explanatory notes are available in the related country reports.
- 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 not relevant to this habitat (section 11 National Site Network coverage for Annex I habitats).

Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the JNCC website.

Assessment Summary: Natural dystrophic lakes and ponds

Distribution Map

Range Map

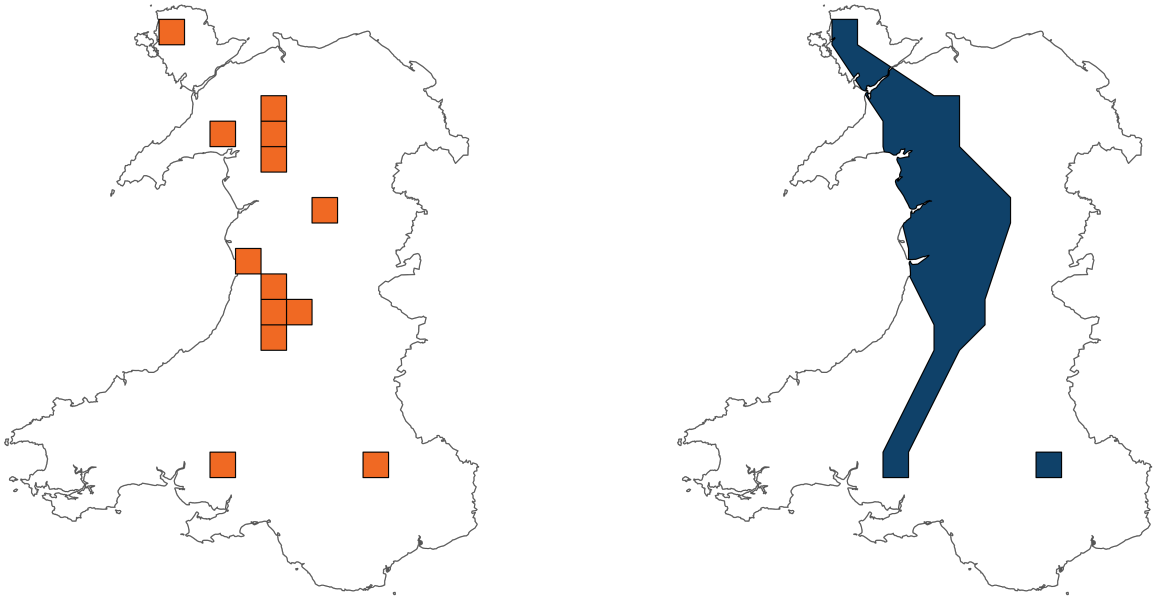

Figure 1: Wales distribution and range map for H3160 - Natural dystrophic lakes and ponds. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority. The 10km grid square distribution map is based on available habitat records within the current reporting period.

Table 1: Table summarising the conservation status for H3160 - Natural dystrophic lakes and ponds. Overall conservation status for habitat is based on assessments of range, area covered by habitat, structure and functions, and future prospects.

Overall Conservation Status (see section 10)

Unfavourable-inadequate (U1)

Breakdown of Overall Conservation Status

Range (see section 4)	**Favourable (FV)**
Area covered by habitat (see section 5)	**Favourable (FV)**
Structure and functions (see section 6)	**Unfavourable-inadequate (U1)**
Future prospects (see section 9)	**Unfavourable-inadequate (U1)**

List of Sections

National Level

1. General information

1.1 Country	Wales
1.2 Habitat code	H3160 - Natural dystrophic lakes and ponds

2. Maps

2.1 Year or period	2007-2024
2.2 Distribution map	Yes
2.3 Distribution map; Method used	Complete survey or a statistically robust estimate

2.4 Additional information

No additional information

Biogeographical Level

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	ATL

3.2 Sources of information

See section 13 References

4. Range

4.1 Surface area (km²)	4,147.13
4.2 Short-term trend; Period	2014-2024
4.3 Short-term trend; Direction	Stable
4.4 Short-term trend; Magnitude	

a) Estimated minimum

b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
4.5 Short-term trend; Method used	Complete survey or a statistically robust estimate
4.6 Long-term trend; Period	
4.7 Long-term trend; Direction	Unknown
4.8 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Rate of decrease	
4.9 Long-term trend; Method used	Insufficient or no data available

4.10 Favourable Reference Range (FRR)

a) Area (km²)	
b) Pre-defined increment	Current range is less than 2% smaller than the FRR
c) Unknown	No
d) Method used	Reference-based approach
e) Quality of information	moderate

4.11 Change and reason for change in surface area of range

a) Change	No
b) Genuine change	
c) Improved knowledge or more accurate data	

d) Different method	
e) No information	
f) Other reason	
g) Main reason	

4.12 Additional information

No additional information

5. Area covered by habitat

5.1 Year or period	2014-2024
5.2 Surface area (km²)	
a) Minimum	
b) Maximum	
c) Best single value	0.65
5.3 Type of estimate	Best estimate
5.4 Surface area; Method used	Complete survey or a statistically robust estimate
5.5 Short-term trend; Period	2014-2024
5.6 Short-term trend; Direction	Stable
5.7 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
5.8 Short-term trend; Method used	Based mainly on expert opinion with very limited data
5.9 Long-term trend; Period	1994-2024

5.10 Long-term trend; Direction	Increasing
5.11 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Confidence interval	
d) Rate of decrease	
5.12 Long-term trend; Method used	Based mainly on expert opinion with very limited data
5.13 Favourable Reference Area (FRA)	
a) Area (km²)	
b) Pre-defined increment	Current area is less than 2% smaller than the FRA
c) Unknown	No
d) Method used	Expert opinion
e) Quality of information	

5.14 Change and reason for change in surface area of range

a) Change	No
b) Genuine change	
c) Improved knowledge or more accurate data	
d) Different method	
e) No information	
f) Other reason	
g) Main reason	

5.15 Additional information

No additional information

6. Structure and functions

6.1 Condition of habitat (km²)	
Area in good condition	
ai) Minimum	0.19
aii) Maximum	0.3
Area not in good condition	
bi) Minimum	0.2
bii) Maximum	0.3
Area where condition is unknown	
ci) Minimum	0.15
cii) Maximum	0.15
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	2014-2024
6.4 Short-term trend of habitat area in good condition; Direction	Increasing
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

Typical species were not used directly in the assessment of conservation status for habitat structure and function as a comprehensive list of typical species for each habitat was not available. However, the status of typical species was considered when the

condition of individual sites was assessed using Common Standards Monitoring Guidance. Common Standards Monitoring (CSM) data was used to assess the area of habitat in ‘good’ and ‘not good’ condition (field 6.1). Species were a component of the attributes assessed under CSM. Therefore, an assessment of species is considered to have formed part of the reporting under field 6.1 which supported the Habitats Structure and Function assessment (field 10.3).

7. Main pressures

7.1 Characterisation of pressures

Table 2: Pressures affecting the habitat, including timing and importance/impact ranking. Pressures are defined as factors acting currently and/or during the reporting period (2019–2024). Rankings are: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Pressure	Timing	Ranking
PA22: Drainage for use as agricultural land	Ongoing and likely to be in the future	High (H)
PB19: Forestry activities generating pollution to surface or ground waters (including marine)	Ongoing and likely to be in the future	Medium (M)
PB23: Physical alteration of water bodies for forestry (including dams)	Ongoing and likely to be in the future	Medium (M)
PK03: Mixed source air pollution, air-borne pollutants	Ongoing and likely to be in the future	Medium (M)

7.2 Sources of information

See section 13 References

7.3 Additional information

No 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	Restore the structure and functions, including the status of typical species (related to 'Specific structure and functions')
8.3 Location of the measures taken	Both inside and outside National Site Network
8.4 Response to measures	Medium-term results (within the next two reporting periods, 2025–2036)

8.5 List of main conservation measures

Table 3: Key conservation measures addressing current pressures and/or anticipated threats during the next two reporting periods (2025–2036). Measures are ranked by importance/impact: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Conservation measure	Ranking
MA13: Manage agricultural drainage and water abstraction (incl. the restoration of drained or hydrologically altered habitats)	High (H)
MB10: Reduce diffuse or point source pollution to surface or ground waters (incl. marine) from forestry activities	Medium (M)
MC09: Manage/reduce/eliminate air pollution from resource exploitation and energy production	Medium (M)
ME03: Manage/reduce/eliminate air pollution from transport	Medium (M)
MF05: Reduce/eliminate air pollution from industrial, commercial, residential and recreational areas and activities	Medium (M)
MK01: Reduce impact of mixed source pollution	Medium (M)
MK03: Restoration of habitats impacted by multi-purpose hydrological changes	High (H)

8.6 Additional information

Only part of the measures identified have been taken.

9. Future prospects

9.1a Future trends of parameters

ai) Range	Overall stable
bi) Area	Overall stable
ci) Structure and functions	Overall stable

9.1b Future prospects of parameters

aii) Range	Good
bii) Area	Good
cii) Structure and functions	Poor

9.2 Additional information

No additional information

10. Conclusions

10.1 Range	Favourable (FV)
10.2 Area	Favourable (FV)
10.3 Specific structure and functions (incl. typical species)	Unfavourable-inadequate (U1)
10.4 Future prospects	Unfavourable-inadequate (U1)
10.5 Overall assessment of Conservation Status	Unfavourable-inadequate (U1)
10.6 Overall trend in Conservation Status	Improving

10.7 Change and reason for change in conservation status

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

10.7 Change and reason for change in conservation status trend

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

10.8 Additional information

No additional information

11. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (km²)

a) Minimum	
b) Maximum	
c) Best single value	0.354
11.2 Type of estimate	Best estimate
11.3 Habitat area inside the network; Method used	Complete survey or a statistically robust estimate
11.4 Short-term trend of habitat area within the network; Direction	Stable
11.5 Short-term trend of habitat area within the network; Method used	Complete survey or a statistically robust estimate
11.6 Short-term trend of habitat area in good condition within the network; Direction	Increasing
11.7 Short-term trend of habitat area in good condition within the network; Method used	Based mainly on extrapolation from a limited amount of data

11.8 Additional information

No additional information

12. Complementary information

12.1 Justification of percentage thresholds for trends

No justification information

12.2 Other relevant information

No other relevant information

13. References

Biogeographical and marine regions

3.2 Sources of information

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Interagency Freshwater Group. 2015. Common Standards Monitoring Guidance for Freshwater Lakes. JNCC, Peterborough. Available online at https://data.jncc.gov.uk/data/1b15dd18-48e3-4479-a168-79789216bc3d/CSM-FreshwaterLakes-2015.pdf

Joint Nature Conservation Committee. 2007. Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006. Peterborough: JNCC. Available from: https://webarchive.nationalarchives.gov.uk/ukgwa/20180804091020/http://jncc.defra.gov.uk/page-4060

Kernan M, Battarbee RW, Curtis CJ, Monteith DT, Shilland EM 2010. Recovery of lakes and streams in the UK from the effects of acid rain. UK Acid Waters Monitoring Network 20 Year Interpretative Report. Report to Defra. ISSN: 1366-7300. https://uk-air.defra.gov.uk/assets/documents/reports/cat13/1206251208_20yearInterpRpt.pdf

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Main pressures

7.2 Sources of information

No sources of information

14. Explanatory Notes

Field label	Note
2.3: Distribution map; Method used	Data is based on Hatton-Ellis (2014) and subsequent surveys that were not included in that assessment (Goldsmith et al. 2014a, 2014b; Baxter & Stewart 2015; Goldsmith et al. 2016). The 10km square data is reasonably complete for larger examples of this habitat (Hatton-Ellis, 2025 - Figure 1). However, small peaty ponds and pools are much more likely to occur in smaller fragments of bog and acid fen and these could not be included. This is likely to have a disproportionate effect on the 10km square distribution, though it is unlikely to be very significant in terms of overall conservation status because the areas involved are so small. No amendments have been made to the distribution since 2019.
4.1: Surface area	The surface area of H3160 in Wales is unlikely to have changed, as the number and location of occupied 10km squares have not been altered. Any difference between this and the 2019 report will therefore reflect method changes.
4.2: Short-term trend; Period	The standard period has been used.
4.3: Short-term trend; Direction	The range is not considered to have changed significantly between reporting periods.
4.4: Short-term trend; Magnitude	Not applicable.
4.5: Short-term trend; Method used	The range data is considered to be robust and representative of the general picture, although it is possible that some smaller peaty bog pools may have been overlooked. See text under 2.3.
4.6: Long-term trend; Period	The standard period has been used

4.7: Long-term trend; Direction	The long-term range trend for this habitat cannot be assessed adequately, due to a lack of data at the start of the trend assessment period.
4.8: Long-term trend; Magnitude	Not applicable
4.9: Long-term trend; Method used	There are insufficient data to assign a long-term trend in range for dystrophic lakes.
4.11: Change and reason for change in surface area of range	It is not likely that the range of this habitat has changed substantially over the last 20 years as this would require creation of new water bodies in or adjacent to peat areas, or the loss of all examples within a 10km square. Apparent changes in range generally reflect newly surveyed sites.
5.2: Surface area	There is uncertainty regarding the exact area of H3160 in Wales but there is little doubt that very peaty lakes are rather scarce. Although deep blanket peat that might support dystrophic lakes is fairly widespread in Wales, there is no extensive peat pool landscape and candidate dystrophic lakes have been reasonably well surveyed. The total area of this habitat in Wales was revised upwards in 2019 (NRW 2019), following more extensive data review (Hatton-Ellis 2014) and clarification of the definition of humic lake types in Britain (FTT 2014). A reassessment of the status of Llyn Llech Owain (5ha) and survey of Llyn Coch Hwyad (9.5ha) (Goldsmith et al. 2014a, b) also results in them being included within the scope of this type. The list of dystrophic lakes included within the scope of this assessment is included in Hatton-Ellis, 2025 - Table 5.1.
5.4: Surface area; Method used	The text below is unchanged from NRW (2019). We have used survey data where possible to determine the location of dystrophic lakes. Where this was not available we have identified candidate dystrophic lakes >1ha in area using grid references from the UK Lakes inventory and comparing them with polygons containing blanket peat in the Cranfield University National Soils map. Only lakes with 100% blanket peat were included, as field data (Burgess et

	al. 2006) indicated that where other soil types were present the lake was often a different type. Due to time constraints it has not been possible to carry out an exhaustive analysis, and further ground truthing work is required. Dystrophic systems occur on blanket bogs (H7130) and other peatlands. However, without survey or monitoring data for individual sites, it can be difficult to distinguish dystrophic from oligotrophic standing waters (H3130). Many oligotrophic systems contain waters which are to some extent coloured, due to the presence of humic substances leached from the catchment area. Humic substances leach not only from peat, but from a variety of peaty soil types. In moorland areas, water bodies may be dystrophic, oligotrophic , or systems with mixed influences. It may also be difficult to predict where small water bodies will occur within peatlands/blanket mire. The two habitat types, H3160 and H3130 intergrade which makes assessing area difficult. Acidification has caused decreases in DOC concentrations that are now being reversed as lakes recover (Monteith et al. 2007). Consequently, some lakes previously considered H3130 may become peatier and be better considered as H3160. In Wales, an example of this might be Llyn Conwy (41ha), which would have a significant effect on the overall total.
5.5: Short-term trend; Period	Recommended period used for this assessment.
5.6: Short-term trend; Direction	There has been no known change in the area of this habitat since 2019. However, data to assess this are limited. There has been no change in the distribution pattern within range since the previous reporting round.
5.9: Long-term trend; Period	The standard period has been used.
5.11: Long-term trend; Magnitude	Unknown

5.12: Long-term trend; Method used	Dystrophic lakes are sensitive to acidification, resulting in reduced Colour in the water column (Evans et al. 2005) and hence misclassification as Oligotrophic (H3130). Given the widespread impact of acidification on Welsh uplands in the 20th Century and subsequent slow recovery, it is likely that the area of dystrophic lakes has increased since 1990.
5.14: Change and reason for change in surface area	Since 2013 further lakes have been surveyed, some of which fall within the dystrophic lakes category.
6.1: Condition of habitat	a) Area in good condition 0.19 km2 - 0.30 km2 (29%-46%). Best estimate = 0.30 km2 (46%). min - max km2 b) Area in not-good condition 0.20 km2 - 0.30 km2 (31%-46%) min - max km2 Best estimate = 0.20 km2 (31%). c) Area where condition is not known 0.15 km2 - 0.15 km2 (23%) min - max km2 Best estimate = 0.20 km2 (23%). See Hatton-Ellis, 2025 - Table 5.1 for a list of relevant lakes, their area and condition.
6.2: Condition of habitat; Method used	Many lakes of this habitat type are small and in comparatively remote locations. This makes it logistically more difficult to arrange sampling visits, due to the high

	cost and health and safety issues associated with sampling these locations. This means that the available data for assessments are significantly worse than for other locations. Due to the virtual absence of plants in many examples of this lake types, macrophyte surveys are of little value in assessing status. Assessments of status therefore have exclusively used water quality data. Water quality parameters used have been Acid Neutralising Capacity (ANC), Chlorophyll-a, Total Nitrogen (TN), and Total Phosphorus (TP). TP data has been given less weight, as TP values do not correspond with evidence of ecological impact (as measured by chlorophyll).
6.5: Short-term trend of habitat area in good condition; Method used	There is some evidence from water quality data that this habitat may have improved somewhat since the 2019 cycle. However, the small size of the dataset means that confidence in this conclusion is low.
6.6: Typical species	Revised Common Standards Monitoring Guidance was published in 2015 (IAFG, 2015). No changes were made to the list of typical species for this habitat type.
6.7: Typical species; Method used	IAFG (2015) identified nine typical species: Drepanocladus spp; Eleogiton fluitans; Juncus bulbosus; Menyanthes trifoliata; Nymphaea alba; Potamogeton polygonifolius; Sparganium angustifolium; aquatic Sphagnum spp.; and Utricularia spp. Due to the highly variable nature of dystrophic lake communities, the target was set as no loss of characteristic (=typical) species.
7.1: Characterisation of pressures	Pressures: The most important pressures on this habitat are drainage of surrounding peatland habitats for forestry (PB19, PB23) or agriculture (PA22) (mostly unenclosed sheep grazing) and acidification caused by air pollution (PK03). On forested areas, drainage also acts to transport sediment and pollutants from forestry activities.

Both forestry and agricultural drainage ditches are predominantly long-standing. Some are re-excavated for maintenance purposes.

Acid deposition affected a wide range of acid sensitive habitats during the 20th Century, including dystrophic lakes. Although naturally acid, dystrophic lakes are also well-buffered by the weak humic acids causing their brown colour, and so support a much wider range of life than acidified lakes. Measures to reduce emissions from power stations, industry and to a lesser extent transport have all helped to reduce acid deposition to within the critical load over much of Wales and as a result dystrophic lakes are slowly recovering. Consequently, the impact from acidification mainly reflects legacy pressures.

Dystrophic lakes are often nitrogen limited so nitrogen deposition could potentially be having a eutrophication as well as an acidifying impact. The extent and nature of this is not clear and critical loads are not available, so this has not been included as a pressure at this time.

Threats:

Threats are largely the same as pressures.

Drains in the catchment (PB19, PB23, PA22) are expected to be an ongoing pressure in future. Forestry drainage impacts may reduce due to measures such as the UK Forest Standard, which is introducing better practice with regard to hydrological management compared with many older forest blocks.

Responsibility for land drainage consents was moved from the Environment Agency to Local Authorities in 2012, which created an increased risk of administrative errors. Since that time Local Authorities across Wales have faced increasingly challenging budgetary constraints. As a

	consequence, resources available for administration and enforcement of drainage consents are very low.
8.1: Status of measures	Although some small-scale measures have been taken in catchments of dystrophic lakes, a structured programme of ditch blocking and forest redesign in relevant catchments is needed. Measures to control acidification have been in place for about two decades, and recovery is slowly occurring.
8.2: Main purpose of the measures taken	Ditch blocking measures in the catchments of relevant lakes are required.
8.3: Location of the measures taken	Measures are required both inside and outside the SAC network.
8.5: List of main conservation measures	The principal actions required for dystrophic lakes are the restoration of blanket bogs in their catchments to stabilise water levels and reduce peat erosion. This mainly involves ditch blocking (MA13; MK03). Conservation management programmes for blanket bog (H7130) often include ditch blocking programmes, which if appropriately sited could also benefit dystrophic lakes. Future upland restoration projects in Wales should take greater account of dystrophic lakes when planning conservation measures. The improving quality seen in H3160 lakes is due to ongoing actions under the Convention on Long Range Transboundary Air Pollution (MC09, ME03, MF05), originally signed in the late 1970s, and also due to the decline in heavy industry in western Europe between 1960 and 2000 (MF05).
9.1:Future trends and prospects of parameters	9.1a Future prospects of - range. Overall stable Due to the small size and isolated locations of many dystrophic lakes and ponds, contractions in range are possible due to succession, draining of wetlands or eutrophication especially in lowland areas. These impacts are much less likely in upland areas. Overall the range is considered likely to be stable, but there

	is fairly low confidence in this assessment due to the lack of resilience in the range. 9.1b Future prospects of - area. Overall stable There is no reason to expect a significant reduction in area of this habitat. 9.1c Future prospects of - structure and function. Overall stable There are ongoing problems with structure and function for many examples of this habitat, and technical and operational obstacles to restoring them. Climate change is also a significant risk to the structure and function of all lake habitats, as warmer temperatures promote increased biological activity, resulting in greater risk of deoxygenation. On the other hand, restoration of H3160 could be linked to ditch blocking programmes to restore H7130.
10.1: Range	Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the current Range surface area is approximately equal to the Favourable Reference Range.
10.2: Area	Area is assessed as favourable because:(i) the short-term trend direction in Area is stable; (ii) the current Area is approximately equal to the Favourable Reference Area; and iii) there has been no significant change in distribution pattern within range.
10.3: Specific structure and functions	Conclusion on Structure and function reached because: i) habitat condition data indicates that more than 25% of the habitat is in unfavourable (not good) condition; ii) short-term trend in area of habitat in good condition is increasing; and iii) expert opinion determines that there are no significant issues for this habitat.
10.4: Future prospects	Conclusion on Future prospects reached because although the Future prospects for Range and Area covered by

	habitat are good, the Future prospects for Structure and function are poor.
10.5: Overall assessment of Conservation Status	Overall assessment of Conservation Status is Unfavourable-inadequate because two of the conclusions (Structure and Function and Future Prospects) are Unfavourable-inadequate.
10.6: Overall trend in Conservation Status	The overall trend is improving because two of the short-term trends are stable (range and area) and one is increasing (area of habitat in good condition).
11.1: Surface area of the habitat type inside the pSCIs, SCIs and SACs network	This revised area has been calculated based on Hatton-Ellis (2014) and subsequent survey data.
11.4: Short-term trend of habitat area within the network; Direction	There is no evidence for a change in area for any of the SAC lakes (Burgess et al. 2006; Burgess et al. 2013). Welsh SAC examples are natural lakes without modifications to their outflow that could affect area.
11.5: Short-term trend of habitat area within the network; Method used	There is no evidence that the area of habitat within SACs has changed.
11.6: Short-term trend of habitat area in good condition within the network; Direction	Recovery from acidification is resulting in an improvement in the condition of these water bodies within the protected site network.
11.7: Short-term trend of habitat area in good condition within the network; Method used	The amount of data are limited, as most of these sites are remote and therefore difficult and costly to sample.
5.13: Favourable Reference Area (FRA)	The UK-level FRV for surface area was developed by JNCC using an audit trail based on the year the FRV was first established and any changes made in subsequent reporting rounds. The audit may draw from any combination of the 2007, 2013, or 2019 Habitats Directive reports and reflects the full rationale used for the 2019 Article 17 reporting. Following expert review, a Wales-level FRV was derived based on habitat extent and trend

	evidence specific to Wales, rather than adopting the UK-level value. The revised FRV has been set for Wales as the FRA is considered to be approximately equal to the favourable reference area.
4.10: Favourable Reference Range (FRR)	The UK-level FRV for range was developed by JNCC using an audit trail based on the year the FRV was first established and any changes made in subsequent reporting rounds. The audit may draw from any combination of the 2007, 2013, or 2019 Habitats Directive reports and reflects the full rationale used for the 2019 Article 17 reporting. This FRV was reviewed by Welsh experts and considered appropriate for use in Wales based on current distribution and trends.