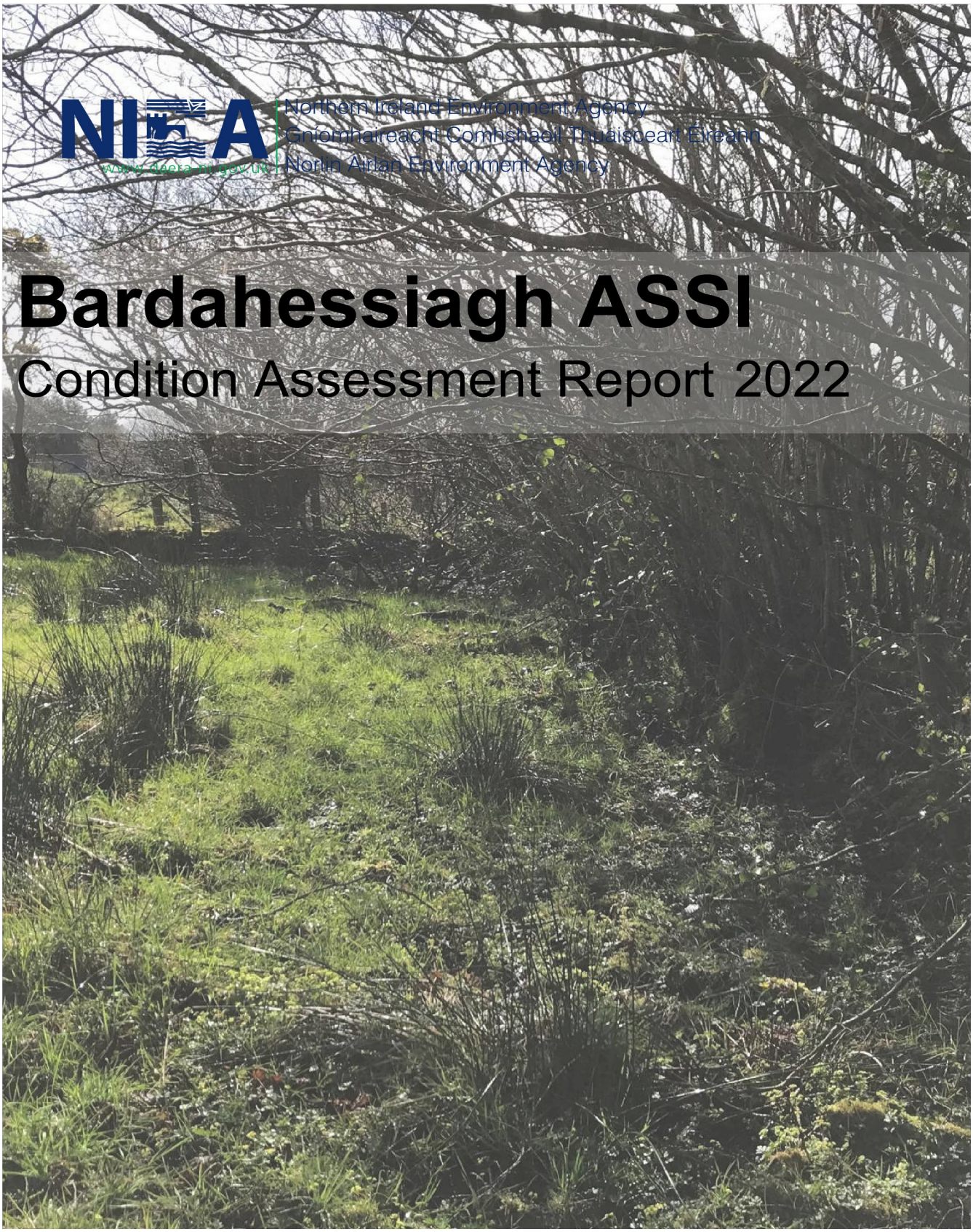

Northern Ireland Environment Agency
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Bardahessiagh ASSI

Condition Assessment Report 2022

***Sustainability** at the heart of a living, working, active landscape valued by everyone.*

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Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe

An Agency wi'in the Depairtment o
Fairmin, Environment an' Kintra Matthers

Bardahessiagh ASSI Condition Assessment Report 2022

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Please note, all external links in this report were correct at the time of completion.

Acknowledgements

The continued stewardship of the special lands within the ASSI, and access permission to undertake monitoring, is acknowledged by the Department. Many protected areas in Northern Ireland are owned and managed by private landowners and farmers and are not accessible to the public.

Summary

Using JNCC Common Standards Monitoring methodology, the Earth Science feature(s) of Bardahessiagh ASSI are currently defined as:

1. Ordovician stratigraphy – Favourable. There have been no changes to site use or management since designation.

Bardahessiagh ASSI retains its geological diversity and remains a special place.

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1. Condition Statement

The Earth Science interest features of Bardahessiagh ASSI and their condition status are summarised in Table 1 below. It is important to note that under the Common Standards Monitoring methodology, a site is classified as unfavourable if any primary attribute is failing. In many cases, these sites continue to represent excellent examples of Northern Ireland's best natural assets.

Table 1: Bardahessiagh ASSI Earth Science Interest Features summary results

ASSI Features	Reporting responsibility	Condition Assessment		
		2020-2026	2014-2020	2008-2014
Ordovician stratigraphy	Earth Science	Favourable 3 favourable attributes 0 unfavourable attributes	Not assessed	Favourable

*More detailed information on attribute breakdown is available in Section 7 and Appendix 1 of this report.

2. Background

The Department of Agriculture, Environment and Rural Affairs (hereafter referred to as the Department) in its role as the Statutory Nature Conservation Body, undertakes regular monitoring of the special assets, or features, contained within specially protected sites across Northern Ireland. These sites include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Areas of Special Scientific Interest (ASSIs). Further details can be found at Protected areas | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk).

This monitoring enables reporting on the status of the special features which are protected, enables objective feedback on current management measures and can inform any subsequent management intentions. Results can also contribute to the assessment of relevant policies in place, and also inform future policy development. In addition, the results inform the implementation of a range of obligations under both national and international policy and legislation. These include: the Convention on Biological Diversity (CBD), the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the Bern Convention, the Marine Strategy Framework Directive (MSFD), and the Water Framework Directive (WFD).

The monitoring undertaken is called Condition Assessment, as it is the condition of the special features that is being assessed. The approach is also known as Common Standards Monitoring, because the methodology aims to result in a *common standard* being reported across sites in NI and the rest of the UK. The Department aims to complete a rolling programme of ASSI Condition Assessment and reporting every six years.

The monitoring is focused, as outlined in the Joint Nature Conservation Committee (JNCC) guidance (JNCC, 2004a; b), primarily on the interest features for which the site has been notified or designated. They include habitat types, species and Earth Science features, as well as complex features such as habitat mosaics and species assemblages. Each interest feature must be identified, monitored, assessed and reported upon separately.

Monitoring and assessment of the condition of the interest features of individual sites enables relevant authorities, agencies and landowners to adapt management measures accordingly to ensure conservation objectives are achieved.

The Conservation Objectives for each site contain details of the attributes (measurable targets) for each interest feature within the site: the condition assessment determines the condition status of each interest feature when compared against relevant feature attributes.

The JNCC Statement on Common Standards Monitoring (JNCC, 2022) assesses interest features using one of the following four condition categories. These are all common standards:

- **Favourable**: Condition objectives are being met
- **Unfavourable**: Condition objectives are not being met
- **Partially destroyed**: The feature, habitat or processes essential to support it have been removed or irretrievably altered. A condition assessment should be carried out on the remaining, intact feature.
- **Destroyed**: The interest feature, its supporting habitat or processes, have been affected (completely or partially) to such an extent that there is no hope of recovery.

The JNCC has listed the following trend qualifiers which were previously considered part of the common standards as optional, which the Department may choose to use as required:

- **Favourable – maintained**: The conservation objectives which were met at the previous assessment are still being met.
- **Favourable – recovered**: The interest feature has gained favourable condition, having been previously recorded as unfavourable.
- **Favourable – declining**: All targets are being met, but identified pressures indicate that unfavourable condition will result if these pressures are left unaddressed.
- **Unfavourable – recovering:** The interest feature has begun to show, or is continuing to show, a trend towards favourable condition.
- **Unfavourable - no change**. The interest feature is unfavourable but neither declining nor recovering.

- **Unfavourable - declining**. The interest feature is declining as a consequence of damaging activity, but where recovery is possible, either spontaneously or if suitable management input is made.

3. ASSI Overview

Bardahessiagh ASSI is located approximately 3km east of Pomeroy and 10km west of Cookstown in Co. Tyrone. It contains solely geological (Earth Science) site selection features over an area of almost 10ha. Many protected areas in Northern Ireland are owned and managed by private landowners and farmers and are not accessible to the public.

Table 2: ASSI details

ASSI name	Bardahessiagh
ASSI code	098
Council Area (s)	Mid Ulster
Irish Grid Reference	H724 735
Landowner details	Private ownership
ASSI size	9.6ha
Date declared	07/12/1995

Further information on Bardahessiagh ASSI is available via:

- DAERA website
- NIEA map viewer

In addition, the entry for the site and/or features in the Earth Science Conservation Review is available via:

- Earth Science Conservation Review website

4. Location map



5. Feature descriptions

Ordovician stratigraphy

Bardahessiagh ASSI is of importance as it contains a highly fossiliferous sequence of Ordovician marine shelf or platform sediments some 450 million years old. Although poorly exposed, very diverse shelly faunas have been collected from here which are of considerable importance in understanding the geography of the world in Ordovician times.

6. Common Standards Monitoring Methodology

The condition of the Earth Science features of Bardahessiagh ASSI have been assessed following the Common Standards Monitoring (CSM) guidance for Earth Science Sites (JNCC, 2004b). Earth Science features and sites used fixed point photography for Condition Assessment. The scale of images will depend on site size, type, scale of features and how the features are expressed.

The attributes to be measured (or estimated) in the field deal with presence, extent, access to and visibility of the site selection features and evidence that hydrological, hydrogeological or other processes are operating without impacts or modifications.

Site specific methodology

The Earth Science features of Bardahessiagh ASSI fall into the Finite - buried Earth Science classification category (Evans et al., 2023).

The key localities in Bardahessiagh ASSI must be visited. These are identified in the citation, the Earth Science Conservation Review report, and any previous Condition Assessments.

Photos are taken that capture or demonstrate the current state of the site and the position of the photos is recorded on handheld GPS. Any other relevant information and/or observations on the features or site are also recorded in a field notebook.

The baseline Condition Assessment records points where photos were previously taken. These should be returned to where possible, though not all photos must be retaken for each Condition Assessment visit provided no discernible change is detected. Provided the key areas are visited in the field and observations recorded, a representative number of photos can be taken that enable an illustration of feature condition within the ASSI.

The assessment was undertaken by the NIEA Earth Science and Heritage officer on 06/04/2022. The condition assessment of the Earth Science feature(s) was undertaken by recording a number of key feature attributes at a series of points (fixed points) in the site. Not all points where photos are taken or observations made are used for Condition Assessment in favour of more representative photos.

A total of 2 points were visited, with 2 used for Condition Assessment in 2022 (Map 2). Photos were taken at these locations covering the Ordovician stratigraphy (Finite – buried) Earth Science features of the site.

7. Results

ASSI feature – Ordovician stratigraphy

At Bardahessiagh ASSI, 2 Condition Assessment locations were assessed against 3 attributes (two Primary and one Secondary attribute) in 2022 (Map 2).

The detailed condition assessment attributes are displayed in the Annex Tables where they are measured against set condition assessment targets.

Table 3: Summary table of all attributes assessed against set criteria

2 Primary Attributes assessed		**2** Favourable
		0 Unfavourable
1 Secondary Attributes assessed		**1** Favourable
		0 Unfavourable

Bardahessiagh ASSI failed on **0** primary attributes and the Earth Science features are therefore assessed as **favourable.**

8. Discussion

Ordovician stratigraphy

The Ordovician stratigraphy feature of Bardahessiagh ASSI is in **favourable, maintained** condition. The extent of the site and therefore extent of the feature remains as at designation, as does land management.

Furthermore, there were no negative impacts observed from land management or use during the time of the visit.

9. Feature Recommendations

As no significant negative impacts, either direct or developing, were observed during the site visit there are no specific recommendations for the Earth Science features of Bardahessiagh ASSI following this Condition Assessment. Site management in place during the Condition Assessment field visit would appear to be compatible with conservation of Bardahessiagh ASSI's Earth Science feature.

It would be desirable to create a permanent exposure within the site, however access to the buried feature would still be possible through temporary excavation if required.

10. References

- Evans, D., Brown, E., Larwood, J., Prosser, C., Silva, B., Townley, H., Wetherall, A., (2023). Geoconservation: Principles and Practice
- JNCC (2022). A Statement on Common Standards for Monitoring Protected Sites (2022) (version 2.1) (jncc.gov.uk).
- JNCC (2004a). Common Standards Monitoring - Introduction to the Guidance Manual (jncc.gov.uk)
- JNCC (2004b). Common Standards Monitoring Guidance for Earth Science Sites (jncc.gov.uk)

11. Appendix 1 – Annex tables

Table 4: Ordovician stratigraphy
(* = primary attribute. One failure among primary attribute = unfavourable condition)

Attribute	Target	Method of Assessment	Monitoring Results 2022	Assessment	Monitoring Results 2010
* Extent of site	Maintain the extent of the site as at time of designation.	Field observation	Extent of site is at time of designation.	**Favourable**	There has been no disturbance of surface layers in the site.
*Extent of feature	Maintain the extent of the feature as at time of designation.	Field observation	Extent of site is at time of designation.	**Favourable**	The buried interest of the site remains as at the time of designation.
Accessibility	Maintain the current access – site currently has the potential for reexposure of the geological series.	Field observation	Site remains fully accessible with potential for reexposure.	**Favourable**	

Back

12. 2 – Maps

Map 1 – Bardahessiagh ASSI Location

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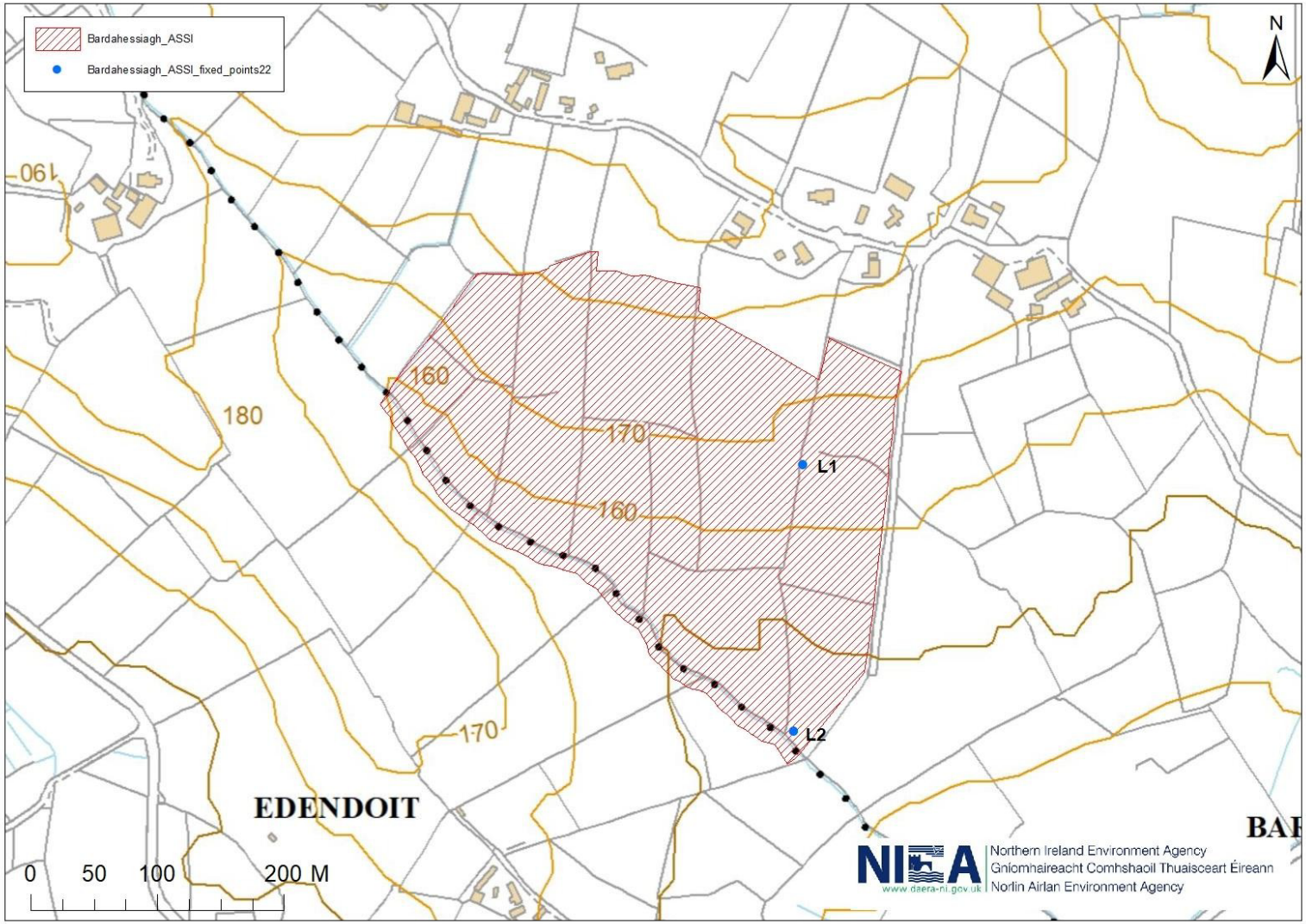
Map 2 – Bardahessiagh ASSI fixed point photo locations 2022.



13. 3 – Photographs.



L1, photo 1. Typical example of land management in the site, looking south west.



L1, photo 2. Typical example of land management in the site, looking south east.



L2, photo 1. View along north bank of stream section, looking west.



L2, photo 2. View along north bank of stream section, looking east.

14. 4 – Survey dates

Table 5. Survey dates and plots monitored

Survey date	Survey Staff	Team days		
			Total	Feature types
06/04/2022	MD	0.25	2	Ordovician stratigraphy
			2	

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