**Site of Special Scientific interest condition monitoring at Semerwater SSSI 2023**

1. **Purpose**

This brief provides the information required to undertake Site of Special Scientific Interest condition monitoring at Semerwater SSSI, in the Yorkshire Dales National Park. The SSSI is owned/managed by a variety of different stakeholders.

1. **Introduction to SSSI monitoring**

Natural England systematically monitors the notified species, habitats, geological or geomorphological features of Sites of Special Scientific Interest (SSSIs) to provide the evidence that enables us to advise land managers, partner organisations and other stakeholders, helping us to keep sites in favourable condition and restore those in unfavourable condition.

The methods used in this contract follow JNCC’s published Common Standards Monitoring (CSM) methodology. ([Available here](https://jncc.gov.uk/our-work/common-standards-monitoring/)). CSM provides a relatively simple assessment of the condition of the features for which a SSSI has been notified. For each feature, a small number of quantifiable and measurable attributes (referred to as variables in the software to be used for this contract) have been chosen that describe its condition, and targets are set for each. Habitat attributes may include extent, floristic composition (often restricted to positive and/or negative indicator species), vegetation structure, and physical characteristics. Species attributes may include population size, species distribution, and habitat factors. Geological feature attributes include, for example, visibility and extent. CSM will usually be based on a field survey involving a structured walk across the site (such as a W shape walk) but may utilise other information, such as aerial images or bird counts.

Considered together, the attribute data provide a reasonably robust idea of the condition of the feature. Favourable condition is defined at a national level by setting broad targets which describe the desired state of each feature’s attributes. These are tailored for individual sites to reflect geographical variation and local distinctiveness. The data collected through CSM are used to assign a feature to one of a small number of standard conditions –the state of the feature at a particular point in time:

* Favourable – the objectives for that feature are being met
* Unfavourable… - the state of the feature is currently unsatisfactory
  + …recovering - but it is moving towards the desired state
  + …declining - moving away from the desired state
  + …no change - neither improving nor declining
* Destroyed (partially or completely) – the feature is no longer present and there is no prospect of being able to restore it.

SSSIs are subdivided into units, usually based on the boundary of a particular feature or on ownership. Most CSM is carried out on a unit basis although we are progressing to whole feature monitoring, which will form part of the assessment for this contract.

1. **Scope of the project**

This project is to carry out elements of CSM of SSSI units at Semerwater. The contract is mainly for the collection of information through field survey, though some data (e.g. on water quality) could be gathered from existing data sources. Some features require their extent to be measured, and this may require reference to recent aerial imagery. The contract will *not* include making the assessment of condition. However, the data gathered must be sufficient to allow the assessor an overview of the site and to judge condition of the feature.

SSSI units have been selected for this contract which:

* Mostly have not been assessed since 2016
* Contain features which need to be monitored in the spring to early summer period (before hay-cut which should be assumed to be 1st July)
* Are not being assessed this year by Natural England staff or through other contracts

The contractor will use the Natural England Site Survey (NESS) app as the primary means of recording information collected in the field, which syncs directly with our protected sites database.

1. **Sites, features and variables to be monitored**

A table of relevant units and features is provided in Annex 1. Further site information is available on our Designated Sites website [Site Search (naturalengland.org.uk)](https://designatedsites.naturalengland.org.uk/SiteSearch.aspx). Detailed maps of SSSI locations and unit boundaries can be found from there, or directly via [Magic Map Application (defra.gov.uk)](https://magic.defra.gov.uk/MagicMap.aspx).

Consider the terrain, topography and location of the site when producing cost estimates. Please also consider as necessary the Travel and Subsistence costs. Please also consider the size of the site when producing costs, with an estimate that each stop should take an experienced surveyor approximately 10 minutes to complete.

The variables to be surveyed for each feature are listed in Annex 2. Note that the features are habitats, with the exception of the lake itself, where presence/absence of crayfish should be noted and an invertebrate survey is also needed (if possible).

Natural England will supply the successful contractor with a monitoring specification for the site. These specifications add site specific detail to complement that provided in the generic attributes and targets listed on the JNCC guidance pages as Conservation Objectives.

The area around Semerwater also supports breeding birds with many species of ground-nesting bird that are particularly sensitive to disturbance. This would need to be taken into account in any monitoring, with the need to pull out if ground nesting birds were discovered. Dogs must not be taken on site. The grassland habitats may be cut for hay in early July. This may be weather dependent, so it is safest to assume 1st July is the cut-off for monitoring purposes. This is noted in Annex 1.

 

1. **Data submission via the NESS app and via site-by-site summaries**

Contractors will download the NESS app onto iPads (which will be supplied by Natural England). The app is IoS only; an Android version is unavailable. To help contractors to price the resources needed to gain a working knowledge of NESS sufficient to use it to submit data collected in the field, Natural England’s relevant guidance document is provided in Annex 3, including a link to online videos. Please note, this app is in the process of updating with some key changes so this guidance is likely to change slightly. The survey forms relevant for each unit will be preloaded by Natural England and data will be submitted via the app.



Contractors will appoint a Lead Surveyor who will be responsible for checking and summarising the data following the surveys. The data will need to be Quality Assurance checked at this stage and then again using a specific database CMSi (Conservation Management System), which will involve a short training session. This QA must follow the Criteria set out in the Monitoring specification.

Short written site summary reports will be required as a supplement to data submitted through NESS. For each SSSI, the supplementary report will include:

* + a map indicating the sampling points along the structured walk and feature boundaries
  + species lists should be noted if not included in the NESS survey
  + a comment about each attribute assessed, where observations are required between sample stops or form part of the structured walk of the attribute
  + perceived existing or anticipated pressures affecting the condition of the features

The supplementary report could also include:

* + observations on the management of the units surveyed
  + additional species information
  + annotated images of the features monitored
  + photographs

Some of the habitats at Semerwater are in a state of flux, because of changes in hydrology over recent years. It is particularly interesting to note where habitats have changed/are changing in extent or composition.

1. **Progress reporting**

The Lead Surveyor, or project manager should submit a weekly report detailing progress with surveys, data entry on NESS, data check on CMSi, and the summary reports. The format of this should be a simple table format and agreed with NE before work commences. They should also flag up any issues or queries in a timely manner.

1. **Training and learning/preparation**

The consultant will need to factor in time for all staff involved in the contract to acquire knowledge of these items:

* Familiarization with JNCC CSM methodology [Common Standards Monitoring - Introduction to the Guidance Manual (jncc.gov.uk)](https://data.jncc.gov.uk/data/f6fef832-93f0-4733-bf1d-535d28e5007e/CSM-Introduction-2004.pdf) (section 18 details Field methodology, structured walks)
* Habitat specific guidance [Common Standards Monitoring guidance | JNCC - Adviser to Government on Nature Conservation](https://jncc.gov.uk/our-work/common-standards-monitoring-guidance/) – within these documents, focus on attributes/targets and field procedures/methodology, Conservation Objectives for the specific habitat
* Before visiting any site, allow enough time for staff to understand the survey methodology which may be a site specific adaptation of the JNCC conservation objectives. This is to be provided by NE.
* NESS App – All training materials will either be delivered with an online training session lead by NE, online videos, or a combination of both. Time using the training programme to familiarize with whole process. Minimum of an hour per person.
* CMSi database (Conservation Management System) – for the staff undertaking the QA. Video available plus up to an hour session led by Natural England.
* H&S – prepare costings based on terrain and access of individual sites.
* Contacting NE staff prior to visits who will provide access information etc if required.

1. **Risk Assessments (including Covid-19)**

Natural England will provide hazard maps for the SSSI to the successful consultants. Please consider the terrain, topography and location of the site when producing cost estimates.

Natural England will also provide contact numbers for NE staff who should be contacted prior to survey by the consultants. This is a requirement for Health and Safety reasons. Unless indicated in the Risk Assessment, there should be no reason for surveyors to be accompanied by NE staff. However, for sensitive sites, there might be a request from NE staff to accompany surveyors or deliver a site briefing before work commences.

The successful consultant will provide Natural England with a risk assessment relevant to the work being undertaken prior to any field survey. This will include a detailed coronavirus specific risk assessment. The successful contractor will provide a guarantee that all staff will follow any current government guidance on working outdoors ([Working safely during coronavirus (Covid-19)).](https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/construction-and-other-outdoor-work)

**The risk assessment must also include details of how the collected data will be safely stored, protected from loss or theft and uploaded to the NE system.**

1. **Staff resources**

To ensure field surveys are undertaken by suitably experienced people, the consultants will provide information on these surveyors comprising a brief summary of their qualifications, skills and past experience of undertaking similar survey work and will agree with Natural England the surveyors undertaking field surveys prior to any work being undertaken. Surveyors undertaking field surveys must have proven experience of the necessary ecological skills to monitor the relevant habitat and identify the likely species encountered. Experience of SSSI/CSM surveying is preferable. A knowledge of habitat management techniques is also desirable.

Use of iPads is required, and mobile tech is desirable in order to make the field work and transfer of data as efficient as possible. NB. It may not be possible to get a mobile signal on site.

The contractor will be responsible for ensuring that any staff involved with gathering evidence under the project receive appropriate training to report the evidence using NESS. Please ensure that time for this training is factored in.