

Categorisation of NbS intervention types

July 2025

Categorisation of Nature Based Solutions (NbS) intervention types is one theme in the Standardisation workstream for the Ofwat Innovation Fund Mainstreaming Nature-based Solutions (MNbS) project. The categorised list is shown in the accompanying Excel spreadsheet with the filename ‘MNBS NBS Intervention Categories July 2025’. This note comprises Key points (describing the purpose, format, approach, status and intended use of the work) and a discussion on the Method used to develop the categorisation. We have adopted the IUCN (2016)¹ definition of NbS as follows:

Nature-based Solutions are actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

Key points

The purpose of the creation of a standard categorisation is to:

- Facilitate project development and implementation by avoiding mismatches of NbS categories as different actors come together to create larger schemes. This increase in efficiency will reduce project development costs, timelines and hence risks in setting up NbS related projects.
- To enable better data management throughout the planning and management NbS. If different organisations across government, the private sector, finance and river and land management use the same data frameworks then it will be easier to create interoperable digital methods for collaborative management, governance and finance of rivers and landscapes.

The format of the categorisation comprises:

- Five groups of NbS: Sustainable Drainage Systems (SuDS), Natural Flow Management (NFM), River Restoration, Coastal NbS, Treatment Wetlands.
- We have two tiers of intervention. There are 28 interventions at Tier 1 and 65 interventions at Tier 2. Each Tier 2 intervention is a subset of the corresponding Tier 1 intervention. For example, the Tier 2 intervention “Revegetation and habitat management” is a subset of the Tier 1 intervention “Upland peatland management” which is part of the NFM group.

¹ See <https://portals.iucn.org/congress/assembly/motions/print?langua>

- An additional tier of interventions to show correspondence with agricultural measures as categorised in Farmscoper (an industry-standard agricultural pollution decision support tool), where they overlap with the interventions above. We have also listed other non-NbS Farmscoper interventions for reference as another group, as described below.

The approach is informed by the following decisions:

- We take an inclusive approach to listing NbS and other similar interventions that are not NbS but are likely to be included in hybrid schemes (for example, permeable pavements in a wider SuDS scheme). In the spreadsheet these are shown in *grey font*.
- We focus on NbS as the deployment of nature to achieve additional benefits (e.g. water quality, flood management etc) rather than interventions for which the rationale is nature recovery itself. For example, we include rewilding under ‘Assisted natural regeneration’ in the NFM group as it assists with flow management, but do not include it in its own right with the objective of nature recovery.
- We propose adoption of the term Natural Flow Management, rather than Natural Flood Management, because these interventions may be implemented for primary benefits other than flood management, such as the improvement of water quality or the augmentation of low flows. By calling this group Natural Flow Management it will be easier for practitioners to convince funders, planners and project stakeholders of their applicability to other non-flood related problems. By retaining the acronym NFM we believe it will be easier for this change to take place organically as people transition from Natural Flood Management to Natural Flow Management.
- We will provide secondary classification of these NbS to show:
 - Benefits derived from the NbS in terms of a) water company service measures and the Common Value Framework used in the MnBS project and b) ecosystem services
 - Alignment with natural capital categorisation

Other secondary categorisations have been suggested (such as organising SuDS by scale). These are not being taken forward in this stage of the project, but could be considered later, following completion and endorsement of the categorisation proposed here.

- There are some cases of duplicate interventions across different groups e.g., swales, wetlands, farm management, etc. This reflects practice where they would be implemented through more than one discipline. We are happy to review this decision if a better, clearer method is proposed during the consultation phase.

- The grouping has been created in order to create manageable numbers at each level (five groups, 28 at Tier 1 and 65 at Tier 2).

The status of the work is that we are currently in a consultation phase. So far, this work has been created in consultation with the Standardisation workstream Task and Finish Group and other actors in the MNbS programme. It is now being taken forward for wider consultation with organisations with an interest in NbS implementation. Following consultation, we will hold a workshop for endorsement in autumn 2025.

The following topics are highlighted for discussion during the consultation:

- Is the granularity correct – should some of the Tier 2 (or Tier 3) items be promoted upwards to Tier 1 and 2? Or are there relocations that should be made by combining interventions?
- Are there interventions that should be added?
- Are the descriptions correct?

The Coastal NbS interventions have received less attention to date and have a dedicated consultation process that will converge with the overall endorsement of all interventions in the autumn.

The intended use of this work is as follows:

- The list will inform national planning and data management
- Organisations (such as water resource regional planning groups or local government) may select to use the list at different levels of granularity. They may choose to adopt the Tier 1 list or the full Tier 2 list or a hybrid between the two. with general use of Tier 1 with a number of interventions broken down to Tier 2 where the Tier 2 lists are particularly relevant. For example, an organisation in an upland area may want to use the Tier 1 list with additional granularity of Tier 2 for upland peatland management interventions.
- The list could inform numerous types of project which specify a selection of NbS for inclusion in the project.

Method

To create this categorisation of NbS types:

1. We reviewed the documents listed in Table 1 starting with the CIRIA Natural Flood Management (NFM) and Sustainable Drainage Systems (SuDS) manuals as the most comprehensive industry-standard documents available. We then used the other documents listed to supplement the categorisation.
2. For Coastal NbS interventions, we used the “Working with Natural Processes - Evidence Directory”.

3. We split out ‘SuDS infiltration systems’ into individual interventions based on the Susdrain SuDS components categorisation.
4. The categorisation of treatment wetlands has been informed by the WWT report “Wetlands for Water Quality - A routemap”.
5. We compared our categorisation with several existing examples of NbS categorisations including the Farmscoper tool and ELMS, as well as NbS categorisation systems developed by organisations including Water Resources South East and United Utilities in order to assess how this works alongside categorisations created for practical planning exercises.
6. We updated the categorisation following publication of Working with Natural Processes (Defra, Environment Agency, Natural Resources Wales 2025) and Multiple Benefits of Nature-based Solutions (Environment Agency 2025).
7. We have modified the categorisation following review by a range of NbS specialists and are now presented for wider review.

Table 1 1: Reference documents for NbS categorisation

Title	Link	Date accessed
The Natural Flood Management Manual (C802)	https://www.ciria.org/ItemDetail?iProductCode=C802F&Category=FREEPUBS&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91	03-Jul-24
The SuDS Manual (C753)	https://www.ciria.org/ItemDetail?iProductCode=C753F&Category=FREEPUBS&WebsiteKey=3f18c87a-d62b-4eca-8ef4-9b09309c1c91	18-Jun-24
ENCA Services Databook 3.1 (updated May 2024)	ENCA_May_2024_Services_Databook_3.1_Final.xlsm (live.com)	23-Jul-24
Susdrain SuDS components	https://www.susdrain.org/delivering-suds/using-suds/suds-components/suds-components.html	21-Aug-24
Working with Natural Processes - Evidence Directory (2025)	https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/working-with-natural-processes-to-reduce-flood-risk-2024#contents	9-May-25
Working with Natural Processes - Evidence Directory (2021)	https://assets.publishing.service.gov.uk/media/6036c5468fa8f5480a5386e9/Working_with_natural_processes_evidence_directory.pdf	18-Jun-24
WWT Wetlands for Water Quality - A routemap	https://www.wwt.org.uk/uploads/documents/2023-07-31/wwt-water-quality-route-map.pdf	04-Jul-24
Coastal Nature-Based Solutions: A Quick Scoping Review - FD2738	https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/coastal-nature-based-solutions-a-quick-scoping-review	16-Jul-24
An Inventory of Mitigation Methods and Guide to their Effects on Diffuse Water Pollution, Greenhouse Gas Emissions and Ammonia Emissions from Agriculture (Farmscoper methods),	https://repository.rothamsted.ac.uk/download/942687eab7ec4b83751c7e241d62f0fa8472d72adcd25a149bb891b7c30d55d0/1595300/MitigationMethods-UserGuideDecember2011FINAL.pdf	04-Jul-24
Multiple benefits of nature-based solutions – evidence and matrices	https://www.gov.uk/government/publications/multiple-benefits-of-nature-based-solutions-an-evidence-synthesis	16-May-25
Farmscoper Extension (Defra Project SCF010)	https://randd.defra.gov.uk/ProjectDetails?ProjectId=18702	19-May-25
Nature-based solutions for coastal management	https://naturalresources.wales/flooding/managing-flood-risk/nature-based-solutions-for-coastal-management/?lang=en	19-May-25

Title	Link	Date accessed
River Restoration Centre (RRC) Manual of River Restoration Techniques	https://www.therrc.co.uk/manual-river-restoration-techniques	18-Jul-25

We would welcome feedback on this draft categorisation. Please send comments to Kieran.Murnane@mottmac.com