Herefordshire Council

Supplement 1 to the agenda

Wye Catchment Nutrient Management Board

Wednesday 15 January 2025, 2.00 pm

Conference Room 1 - Herefordshire Council, Plough Lane Offices, Hereford, HR4 0LE

Contents

DRAFT – To be reviewed by SOG members

River Wye Statutory Officer Group

Decisions & actions

Date/Time: 18 December 2024, 14:30
Location: MS Teams

Attendees:
Gavin Bown, Cyfoeth Naturiol Cymru / NRW (GB) (chair)
Marc Lidderth, Environment Agency (ML)
Craig O'Connor, Monmouthshire County Council (COC)
Jennifer Grubb, Dŵr Cymru Welsh Water (JG)
Jenny Hodgkiss, EA, Notes
Liz Duberley, Herefordshire CC (LD)
Emma Johnson, Natural England (EJ)
Peter Morris, Powys County Council (PM)

Apologies: Ann Weedy, Natural Resources Wales; Clair Minett, Natural England; Nia Thomas, Bannau Brycheiniog; Nigel Brinn, Forest of Dean District Council; Matthew Perry, Powys County Council; Daniel Humphreys, Dŵr Cymru Welsh Water

Item No.	Item	Action Note/Agreement	Action by / date
1.	**Welcome, Introductions, apologies (GB)**	Welcomes and apologies	
2.	**Review of minutes and actions from 26 September 2024 (GB)**	Notes of last meeting: • All Actions from previous SOG meeting had been completed.	
3.	**Welsh Govt Funding – Latest situation (LD)**	Feedback has been received from SOG and necessary amendments have been made to ITT which has now been issued. Bids have been received and will be reviewed by LD, AW and PM. A moderation meeting will take place, followed by the awarding of the contract. An overview of a proposal of what to spend last year's £11k underspend on has been received from Farm Cymru. ACTION LD to share email with proposal on and ask Farm Cymru for further details on the proposal. Welsh Government funding spend needs to be completed by 30 April.	LD
4.	**Minister Hardy meeting (12 Dec) with invited Wye stakeholders and MPs (AW, EJ, GB, LD, ML)**	SOG members agreed that there was a positive reception at the meeting with a focus on delivery of the Wye catchment management plan. It is felt that there is a need for an evidence-led plan, with a contribution from Defra towards identified actions, a priority order for actions should be made. EJ highlighted other reviews ongoing in England and they're all pointing towards having less plans but more support for those we have. It was felt that Minister Hardy listened to the message. JG confirmed there had been follow up since the meeting from Ellie Chowns MP, she would like a visit focussing on phosphorus schemes in the Wye catchment. A Welsh Water site and North Herefordshire have	

Item No.	Item	Action Note/Agreement	Action by / date
		been identified as locations. HCC invited to collaborate on the visit.	
5.	**SOG ToR – Final comment / review & sign off (ML)**	• Wording changed to Bannau Brycheiniog National Park Authority • Additional point added – ToR to be reviewed on an annual basis • All other proposed amendments accepted	
6.	**SOG C&E with NMB – feedback from Wye NMB Chair (ML, EJ)**	The slide deck works well, including the level of detail, more detailed papers can be sent as attachments. Important that new members to the NMB should read the NMP and progress update as a starting point. A question arose as to whether there needs to be two plans, one for the DWPP and one for the NMP. SOG may want to do an annual update for them or send them updates on actions. Need to recognise resource capacity and focus on delivering progress/outcomes. ACTION ML to confirm governance and consultation arrangements for DWPP. ACTION all to consider by the next meeting what this means for the NMP. Potential for a special NMB in April 2025 to go through DWPP.	ML All
7.	**SOG Members – Updates**	Wording changed to Bannau Brycheiniog National Park Authority. Slides received from Dwr Cymru, EA, HCC and Powys. Verbal updates were provided from Bannau Brycheiniog, NRW, NE and Monmouthshire. Slides to follow from these organisations. See slides for information shared during this item. Other key points discussed: • The supplementary paper from the EA will be given to the NMB and has already been shared with Ellie Chowns MP. • ML confirmed that visit numbers are cumulative, and that Top 5 themes are created for non-compliance and good practice. • EA and NE officers regularly collaborate following farm visits. ACTION GB to contact Nigel Brinn to reiterate their invite to SOG • University of South Wales are doing some interesting research into anaerobic digestion and also farm slurries. ACTION all to finalise the slide pack ahead of 06 January 2025	GB All
8.	**AOB**	NE have been asked by the NMB why they don't have targets for nitrogen. To consider a target a review of the evidence and common standards guidance is needed. A paper can go as an attachment to the next NMB. ACTION EJ to share the paper to get views ahead of the next NMB. ACTION EJ/ML to produce a response to be sent to the next NMB as a supplementary paper.	All EJ / ML

DRAFT – To be reviewed by SOG members

Item No.	Item	Action Note/Agreement	Action by / date
9.	**Next Meeting date**	26th March 2025 (next Wye NMB meeting on 15 January 2025)	

River Wye Statutory Officers Group Meeting Slide Deck

Forest of Dean District Council

Dŵr Cymru Welsh Water

Herefordshire Council

Cyfoeth Naturiol Cymru Natural Resources Wales

Bannau Brycheiniog

monmouthshire sir fynwy

Powys

Environment Agency

Natural England

18 December 2024

River Wye SOG

Purpose
A collaboration of the statutorily responsible organisations operating within the catchment to restore the Conservation Status for the River Wye Special Area of Conservation.

The group as a whole does not have any formal powers or resources and as such cannot make any decisions collectively but it's members can on behalf of their individual organisations and Government. The purpose of this group is for members to reach agreement (subject to ratification within their own organisations as necessary) on how they will collectively use their powers and resources to improve the catchment condition. The SOG will share this via a revised Nutrient Management Plan.

Operating Principles

- Meetings will be held quarterly (monthly initially) in order to allow the SOG to task work resulting from its discussions. Ad-hoc meetings can be called if needed.
- Meetings will be held privately with updates and progress against the plan being shared publicly – this will be reviewed after 6 months.
- The group will work openly and collaboratively with the NMB, seeking and taking into account the NMBs views in its decision making and seeking collaboratively discussion.
- Individual officers will make decisions on behalf of their organisations in line with delegated powers for specified remits and spend.

River Wye SOG

Membership

Voluntary forum made up of officers from the bodies with relevant statutory responsibilities within the catchment.

- Bannau Brycheiniog Brecon Beacons National Park
- Cyfoeth Naturiol Cymru Natural Resources Wales
- Dwr Cymru Welsh Water
- Environment Agency
- Forest of Dean District Council
- Herefordshire Council
- Monmouthshire County Council
- Natural England
- Powys County Council

SOG - Meeting Headlines

Date of latest meeting: 18 December 2024

Headlines

1. ToR for SOG reviewed by the group and changes agreed.
2. Discussion held following meeting on the River Wye with Minister Hardy and Cabinet Secretary Irranca-Davies.
3. Updates provided on progress with plan development arrangements.

Date of next Meeting

26 March 2025

River Wye SOG Updates

Updates from:

- Dwr Cymru Welsh Water
- Environment Agency
- Herefordshire Council
- Natural England
- Powys County Council

Dŵr Cymru
Welsh Water

Asset Management Plan AMP 8 (2025 – 2030)

- Awaiting Final Determination from Ofwat on 19th December 2024. Our plans for AMP 8 will be shared once this detail is available.

Storm Overflow Map

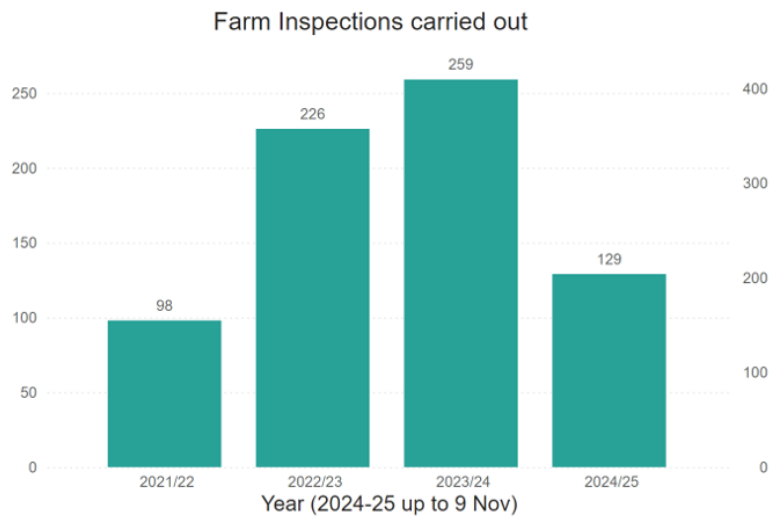
- As of 19th November, we have nearly 1500 assets reporting near-real time data and shared publicly. Additional sites will be added up until March 2025. The next batch will be added late January. Link can be found **here**.

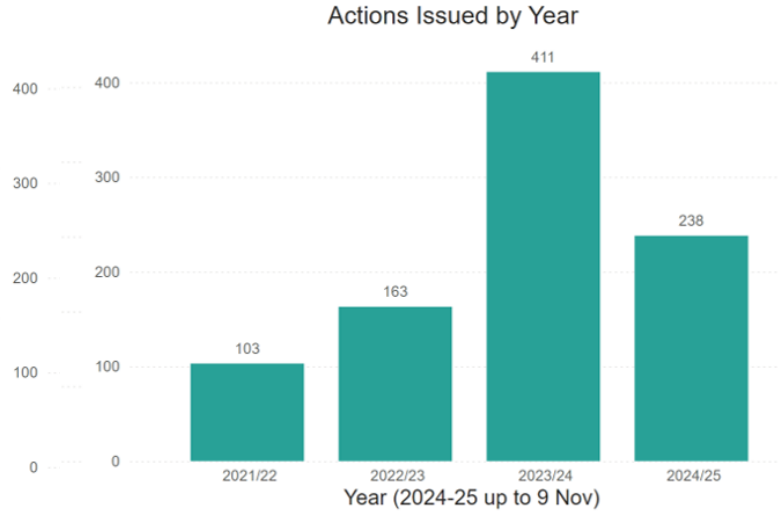
Citizen Science Fund

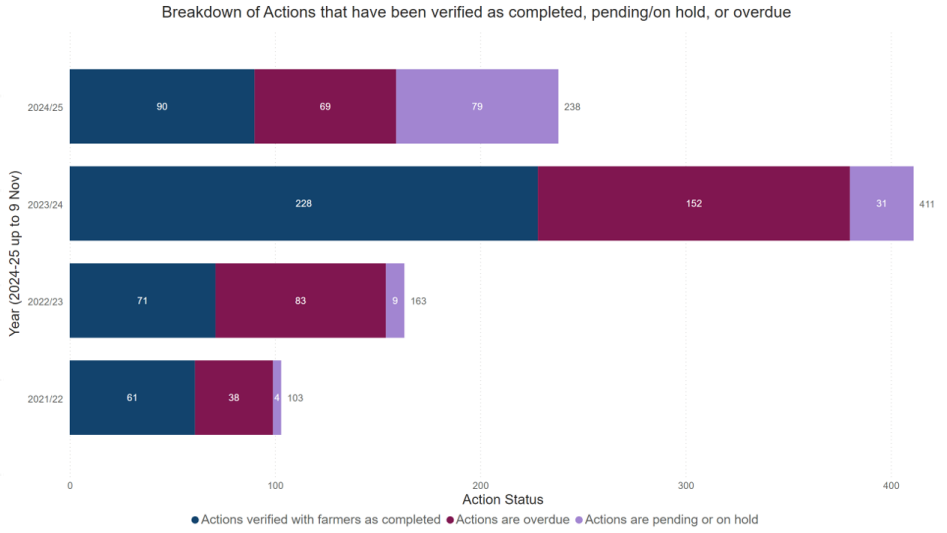
- Awarded 4 applicants with funding in 2024 to support and undertake citizen science work in the Wye catchment. A further 2 applicants have been successful in gaining funding for 2025.
- Applicants have included citizen science, wildlife trusts and farming groups.

Farm Inspection Data

- Data has been extracted from 9 November 2024 to show the work the Environment Agency has carried out in farm inspections work over the past 3.5 years.
- The data consists of the number of farm inspections carried out in the past three and a half financial years; the percentage increase in inspections over the previous year; the number of inspections which recorded at least one area of non-compliance; the number of actions issued to address these non-compliances; the count of complete and overdue actions and the top 5 actions issued for each year.
- The full document produced is attached separately to this Slide Deck







Future engagement – compliance

- ‘Grass roots’ compliance engagement work being carried out to complement Environment Agency inspections and enforcement work.
- Working with agri colleges to simulate farm inspections to help educate the next generation of farmers
- Visiting livestock markets to engage with harder to reach farmers to discuss inspection work
- Creating short videos, including one of ‘what to expect from an inspection’ to help educate and influence the farming sector and how to remain compliant.

Strategic Mitigation

- To date release 752 homes trading Phosphate Credits from Luston and Tarrington Wetlands. A further 450 houses offered Phosphate Credits.
- Seeking to progress a third wetland site and an upgrade to waste water system in a school to release further Phosphate Credits in 2025.
- We have been selected by PAS to participate in a pilot scheme to contribute to an evidence base on strategic mitigation schemes for MHCLG.

River Restoration

- Held a Rivers Conference in November, on sustainable arable farming practices, with speakers including ReGen Ben, Phil Gorringe a tenant farmer with the Duchy of Cornwall, Mark Green Two Farmers crisps. Attendance from field of academic research, agronomy, food supply chain, regulatory and landowning sectors. Videos of speakers will be published shortly.
- The tender for the Welsh catchment baseline evidence to develop a catchment wide Nutrient Management Plan has been issued and we with NRW and Powys are currently reviewing bids.
- We have been supporting the Wye Catchment Partnership in developing a specification for the Wye Catchment Management Plan, now prepared and are currently seeking funding via the Cabinet Commission and with Ministers to commission this piece of work.

Natural England Update

Farm & land management advice

In the last quarter of 2024 the Wye Catchment Sensitive Farming Advisors (CSFA'S) have:

Carried out 30 1:1 farm visits, and have provided advice to a further 51 holdings through group events. These have resulted in 360 practices being recommended : 44% of these on Fertilizer and Manure management, 24% on soil management, 14% on Land use (i.e cropping systems and grassland restoration) and 16% on farm infrastructure (i.e. yard improvements.) All of these will reduce diffuse water pollution.

- Through various events spoken to 104 Wye farmers about how to get the best out of SFI for nature, which should increase uptake across the catchment.
- Funded and run 2 farmer events (75 farmers attending) with WUF and Herefordshire Meadows focusing on livestock/ upland farms discussing relevant actions and encouraging uptake of SFI especially in relation to the grassland actions from herbal leys to species rich grassland.
- Working to compliment WUF's work with a number of Arrow farmers using CS Higher Tier .
- 2 maize events run as a follow up to the Village Hall maize events earlier this year explaining the benefits to soils of under sowing maize.
- Spoken at DEFRA led SFI events at Worcester and Ludlow Markets and at the Herefordshire Farm Secretaries association.

Landscape Recovery

Providing advice to Ridge to River Project relating to farmstead management and habitat connectivity.
Ongoing support for the Wyescapes Landscape Recovery Project as they wait for decision from Defra for project expansion to 5,000ha.

LNRS Ongoing support with the development of the LNRS strategy, including targeted landowner engagement via CSF officers, support at initial farmer/ landowner engagement event and input to species longlisting. First draft of opportunity mapping has been published on Herefordshire Councils Website and engagement is underway, following an initial farmer landowner workshop.

Update on Nitrogen Target- see separate document

- Commissioned Feasibility Study “Enabling Nutrient Neutrality Development in Powys”
  - This covered:
    - Integrated Constructed Wetland, Upgrades to Private Treatment Works
    - Policy and regulations review
    - Delivery and funding options
  - Three workshops held
  - Draft Reports received – potential opportunity identified for upgrading Private Treatment Works.
- UK Government Funded Research into Nutrient Recycling in Powys NutriReValorise
- Collaborative working:
  - All-Wales SAC Rivers Planning Sub-Group
  - Nutrient Management Officers Meeting
  - Usk Catchment Partnership
- Powys Replacement LDP (2022-2037) – concluded Preferred Strategy consultation Oct 2024. Deposit Plan expected late 2025 will be subject to HRA / AA
- Powys River Special Areas of Conservation” webpage: River Special Areas of Conservation

River Wye Statutory Officers Group (SOG)

Purpose	A collaboration of the statutorily responsible organisations operating within the catchment to restore the Conservation Status for the River Wye Special Area of Conservation. The group as a whole does not have any formal powers or resources and as such cannot make any decisions collectively but it's members can on behalf of their individual organisations and Government. The purpose of this group is for members to reach agreement (subject to ratification within their own organisations as necessary) on how they will collectively use their powers and resources to improve the catchment condition. The SOG will share this via a revised Nutrient Management Plan.		
Membership	Voluntary forum made up of officers from the bodies with relevant statutory responsibilities within the catchment.		
	• Natural England • Natural Resources Wales • Environment Agency • Dwr Cymru Welsh Water	• Herefordshire Council • Powys County Council • Forest of Dean District Council	• Monmouthshire County Council • Bannau Brycheiniog National Park Authority
Operating principles	• Meetings will be held quarterly prior to the NMB meeting, in order to allow the SOG to task work resulting from its discussions. Extraordinary meetings can be called if needed. • Meetings will be held between officers from the above organisations only with updates and progress against the plan being shared publicly via NMB. • The group will work openly and collaboratively with the NMB, seeking and taking into account the NMBs views in its decision making and seeking collaboratively discussion. • Individual officers will make decisions on behalf of their organisations in line with delegated powers for specified remits and spend.		
Terms of reference	• The SOG will work together to review contributions across all bodies, working collaboratively to achieve the objectives and ensuring all members understand the issues and work together to resolve them. This does not mean the group will always agree and each individual body retains accountability for decisions relating to its remit. • The group may make recommendations or requests of the bodies that make up its membership, via the relevant SOG member. • The SOG will produce a publicly available Nutrient Management Plan setting out these actions. It will keep it under review proportionately annually and carry out a fuller review once every 4 years. • Members will be responsible for delivery of the actions their organisation commits to on the basis of the SOG's recommendations or requests. • The SOG will review performance and delivery of agreed actions as a whole and report on progress publicly. • The SOG will commission task and finish groups if required to help inform its formation of views and recommendations / requests. • Where actions are driven by a particular remit or have a particular consequence, no one area or sector has automatic priority. Each organisation remains responsible for decisions on and delivery of its own remit, but it is expected to do this in full understanding of the impact this has on others' ability to discharge their own remit. • The SOG will share its plan and progress with the NMB seeking advice / views in advance of changes and being open to questions / challenge on progress. It will also work collaboratively with NMB members on delivery where appropriate. • These Terms of Reference will be reviewed on an annual basis by the SOG.		

Natural England and Environment Agency timeline for consideration of Nitrogen Targets on the River Wye and Lugg SAC

Background

The Wye and Lugg SSSI (which underpins the Wye and Lugg SAC) has specific targets for Soluble Reactive Phosphorous, Dissolved Oxygen, Mean Biochemical Oxygen Demand (BOD), Total Ammonia, Suspended Solids, Diatoms, Water Flow and Siltation as well as targets around other features as detailed in the Monitoring Specification in Annex 1.

The river does not have a separate target for Nitrogen (N). This is in line with Common Standard Monitoring Guidance (CSMG) for rivers where Phosphorus is a mandatory attribute and therefore set as standard for all site designated for their river habitat. Whilst not mandatory or therefore currently standard practice, the river CSMG does indicate a target for N to be applied where there is site-specific evidence for N-mediated eutrophication that is not amenable to control by applying phosphorus targets in isolation.

The Nutrient Management Board (Oct 2024) has raised the question of whether there should be a separate N target, especially in light of research from Cardiff University indicating nitrates could be a contributing factor in algal blooms together with other factors such as low flows, increased temperature, and sunlight exposure.

Process & timeline

Evidence of need to N target

The first stage of considering adopting an N target would be to review the evidence on whether a target is required and would contribute to improving the condition of the river.

There is a current and ongoing condition assessment of the Wye and Lugg SSSI. This condition assessment will provide current and detailed information on the condition of the river. The analysis of this evidence will be used to determine if an N target is required.

In addition, Natural England continues to work closely with the Environment Agency in understanding the ongoing PhD algal research study from Cardiff University and what this means for the river.

The condition assessment will not be completed for both rivers until late in 2025.

Setting a target

If the above evidence led to the conclusion that a N target would be beneficial in improving the condition the next stage would be to determine what the target should be. This would have 2 parts:

- What type of N target e.g. Total Oxidised Nitrogen (TON), Total Nitrogen (TN), Total Inorganic Nitrogen (TIN), or Nitrate etc. The Environment Agency currently collect data for TON and Nitrate.
- What should the target be set at.

Given the limited application of N targets for rivers in England to date these questions and the local data would need consideration by specialists in Natural England and the Environment Agency. We would also want to agree any new target with Natural Resources Wales as this is a cross-border site.

Annex 1 *[Note: Annex 1 cannot be opened here; the document is included in supplement 1]*

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December 2024

Definitions of Favourable Condition for designated features of interest

These definitions relate to all designated features on the SSSI, whether designated as SSSI, SPA, SAC or Ramsar features.

Name of Site of Special Scientific Interest (SSSI)	
River Wye (Lower Wye) / Afon Gwy (Gwy Isaf)	
Names of designated international sites	
Special Area of Conservation (SAC)	River Wye (Lower Wye) / Afon Gwy (Gwy Isaf) Special Area for Conservation (SAC)
Special Protection Area (SPA)	N/A
Ramsar	N/A
Relationship between site designations	
Designated boundary is, to all intents and purposes, a one to one match, with only small areas of bank not covered by the SAC. All the water is in both SSSI and SAC. Paper maps define the distance from bank top that is designated and therefore what adjacent habitats are included in the notification. These objectives have been prepared to assess the interest features of only the English sections of the River Wye.	

Version control information	
Version	Consultation Draft
Prepared by	Daisy Burris, Luke Walters & Les McNamara
Date of this version	August 2022
Date of generic guidance on favourable condition used	CSM Guidance for Rivers – September 2016 CSM Guidance for Freshwater Fauna - October 2015 CSM Guidance for Invertebrates – March 2008 CSM Guidance for Mammals (Terrestrial) - 2004 CSM Guidance for Vascular Plants - 2004 CSM Guidance for Bryophytes and Lichens - 2005
Other notes/version history	Original version David Heaver 27th Oct 2006 Amended Dec 2008 by Poppy Baskeyfield Amended March 2009 by Elisabeth Dack Amended March 2011 by Helen Wake and Graham Walker Amended Feb 2012 by David Heaver, Elisabeth Dack, Helen Wake and Graham Walker Amended August 2022 by Luke Walters, Les McNamara and Daisy Burris

This Monitoring Specification uses the list of notified features previously published on Designated Sites Viewer which predates Natural England's 2023 review of SSSI Citations. Whilst Designated Sites Viewer was updated in May 2023 to reflect the confirmed list of notified features resulting from that review, further work is required to update this Monitoring Specification. Although not all the features listed in this Monitoring Specification are now considered notified features in their own right, they all remain as components of the notified features and hence still form part of the methodology for assessing condition of the notified features.

Definitions of Favourable Condition: notes for users

Definitions of Favourable Condition

The definitions comprise one or more condition definitions for the special interest features at this site. These are subject to periodic review and may be updated to reflect new information or knowledge. They will be used by Natural England to determine if a site is in a favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

Standards for favourable condition are defined with particular reference to the specific designated features listed in Table 1, and are based on a selected set of attributes for features which most effectively define favourable condition as set out in Tables 2, 2a and 3. When an SSSI's features meet these attributes, then they are said to be in 'favourable condition'.

Explanatory text for Tables 2 and 3

Tables 2, 2a and 3 set out the measures of condition which we will use to provide evidence to support our assessment of whether features are in favourable condition. They have been tailored by local staff to reflect the particular characteristics and site-specific circumstances of individual sites. Quality Assurance has ensured that such site-specific tailoring remains within a nationally consistent set of standards. The tables include an audit trail to provide a summary of the reasoning behind any site-specific targets etc. In some cases the requirements of features or designations may conflict; the detailed basis for any reconciliation of conflicts on this site may be recorded elsewhere.

Use under the Habitats Regulations

The Definitions of Favourable Condition (DFCs) are used to periodically measure and assess the condition of both notified SSSI features and designated European Site features.

Where SSSIs also form part of a European Site (such as a SAC or SPA), a separate document containing specific European Site Conservation Objectives will have been prepared. These objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations). They are for use when either the appropriate nature conservation body or a competent authority is required to make an 'appropriate assessment' of the likely effects of a proposed plan or project on the integrity of a European Site under the relevant parts of the respective legislation. The European Site Conservation Objectives are available from the Natural England Publications Catalogue.

The concepts of 'site integrity' and 'favourable condition' are similar and the assessment of a feature's condition will measure attributes that also represent aspects of a site's ecological integrity. However, the periodic determination of a feature's condition is separate from a judgement about the effect upon a site's overall integrity. This is because the DFCs do not represent a comprehensive or definitive list of all of the elements that might contribute to site integrity, merely those that are most appropriate to monitor in order to rapidly determine the present condition of a feature. The full range of factors that are components of a site's integrity, and which may need to be considered by an appropriate assessment, will be specified in the European Site Conservation Objectives. Some of the information contained within the DFCs may however contribute to such assessments.

Table 1 Designated Interest Features

Broad Habitat type / Geological Site Type	Designated features	Description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1. Representative, rare, or unique example of a natural or near-natural wetland type	2. Vulnerable, endangered, or critically endangered species or threatened ecological communities	5. Regularly supports 20,000 or more waterbirds	6. Regularly supports 1% of the individuals in a population of one species / subspecies of waterbirds
Rivers and streams	Running water G2, River Type: I (Group A1i)	Naturally eutrophic lowland rivers with a high base flow but minimal gradients	*								
	Running water G2, River Type: II (Groups A2ii, A2iiI & C2i	Slow-flowing, naturally eutrophic lowland rivers, dominated by clays, with minimal gradients									
	Running water G2, River Type: VI (Group B3ii, B4iv)	Lowland base-rich, mesotrophic rivers in western and northern Britain, with a moderate to fast current with minimal gradients									
Rivers and streams	H3260 Water courses of plain to montane levels			*							

Broad Habitat type / Geological Site Type	Designated features	Description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
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	with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation										
Fenn, Marsh and Swamp	H7140 Transition mires and quaking bogs	Full extent of Quaking Bog habitat is in Wales		*							
Rivers and streams	Vascular plants assemblage		*								
Rivers and streams	Non-vascular plants Bryophytes		*								
Rivers and streams	Fish *S1103 Alosa fallax* *S1102 Alosa alosa* *S1095 Petromyzon marinus* *S1096 Lampetra planeri* *S1099 Lampetra fluviatilis* *S1106 Salmar salmo* *S1163 Cottus gobio*	 Twaite shad Allis shad Sea lamprey Brook lamprey River lamprey Atlantic salmon Bullhead	*	*							
Rivers and streams	Invertebrates		*	*							

Broad Habitat type / Geological Site Type	Designated features	Description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
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	S1092 *Austropotamobius pallipes*	White-clawed Crayfish									
Rivers and streams	Invertebrates Invertebrate assemblages: W111 shingle bank W114 stream & river margin W122 riparian sand	The invertebrate fauna (molluscs; beetles; mayflies; caddis flies; true flies and dragonflies) is characteristic of a large lowland river and is of special interest for species associated with riffles, river shingles and saltmarsh, river deadwood and bankside vegetation.	*								
Rivers and streams	Mammals *S1355 Lutra lutra*	Otter Populations	*	*							

Broad Habitat type / Geological Site Type	Designated features	Description of the feature for clarification	SSSI notified interest features	SAC qualifying interest features	SPA qualifying interest features dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1. Representative, rare, or unique example of a natural or near-natural wetland type	2. Vulnerable, endangered, or critically endangered species or threatened ecological communities	5. Regularly supports 20,000 or more waterbirds	6. Regularly supports 1% of the individuals in a population of one species / subspecies of waterbirds

NB. Features where asterisks are in brackets (*) indicate habitats which are not notified for specific habitat interest (under the relevant designation) but because they support notified species.

Audit Trail
Rationale for interpretation of the citation including any other information you have used and advice received from Designations Team/Specialists (any supporting information should be stored in the site file on RM8).
The designation includes all of the water to the river edge but the range beyond this is variable depending on land use and cover at time of designation and natural lateral movement of the channel over time. The most common is a 10m extension from the bank top that is in the designated area. However, for other stretches of the river the designated area is only to the bank top, whereas in others it extends much further and includes hydrologically linked habitats such as those listed in tables 2 and 3. Paper maps clarify the designation on a field by field basis. White-clawed crayfish has been highlighted as the most important invertebrate through the SAC designation process. Invertebrate assemblages are mentioned extensively in the SSSI designation documents. Fast flowing water invertebrate assemblages and saltmarsh, estuary and mudflat invertebrate assemblages are interest features and should be assessed using these favourable condition tables.

Other Notes (include here any features of local distinctiveness)
The following species are not designated features but considered **indicators of local distinctiveness.** These are referred to in the SSSI citation. These features should be maintained at current extent/levels and /or in current locations. **Grayling.** Listed under Annex Va within the Council Directive 92/43/EEC on the conservation of natural habitats of wild fauna and flora. This species is present on the main River Wye and within the hydrologically connected River Lugg SSSI. **Water Vole** (*Arvicola terrestris*). Found in the middle sections of the river. **Greater horseshoe** (*Rhinolophus ferrumequinum*) and **Daubenton's bat** (*Myotis daubentonii*). Utilise tree lined river riparian habitats for feeding and roosting. **Common meadow-rue** (*Thalictrum flavum*), **Meadow saxifrage** (*Saxifraga granulata*) and **Chives** (*Allium schoenoprasum*). All occur along the riverbanks with the latter species growing in deep crevices in river outcrops and bedrock. Additionally, a notable non-designated habitat below Brockweir is the upper mud banks of the river which are colonised by salt-marsh species such as sea aster (*Aster tripolium*), saltmarsh-grass (*Puccinellia spp*.) and sea-milkwort (*Glaux maritima*).

Table 1A Location of Reportable Features

The reportable features allocated in this table will determine the features allocated to each unit in CMSi and the features you report condition on following a condition assessment. This new tool will help you to identify reportable features. It joins together the notified and reportable feature lists. For each notified feature it will tell you what options you have for reportable features based on the Common Standards Monitoring (CSM) guidance used to write the FCT. **Please read the notes page in the spreadsheet before you use it**.

FEATURES ON UNITS:

View reportable features on units

You may find it easiest to cut and paste in the reportable feature table displayed in DS Views and then amend it so that you can identify the changes that need to be made to CMSi at the same time.

Reportable Feature	Designation (SSSI/SAC/SPA)	1	2	3	4	5	6	7
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	SSSI, SAC			*	*	*	*	*
S1095 Sea lamprey, Petromyzon marinus	SSSI, SAC	*	*	*	*	*	*	*
S1096 Brook lamprey, Lampetra planeri	SSSI, SAC			*	*	*	*	*
S1099 River lamprey, Lampetra fluviatilis	SSSI, SAC	*	*	*	*	*	*	*
S1102 Allis shad, Alosa alosa	SSSI, SAC	*	*	*	*	*	*	*

S1103 Twaite shad, Alosa fallax	SSSI, SAC	*	*	*	*	*	*	*
S1106 Atlantic salmon, Salmo salar	SSSI, SAC	*	*	*	*	*	*	*
S1163 Bullhead, Cottus gobio	SSSI, SAC	*	*	*	*	*	*	*
S1355 Otter, Lutra lutra	SSSI, SAC	*	*	*	*	*	*	*
Invert. assemblage W111 shingle bank	SSSI	?	*	*	*	*	*	*
Invert. assemblage W114 stream & river margin	SSSI	?	*	*	*	*	*	*
Invert. assemblage W122 riparian sand	SSSI	?	*	*	*	*	*	*
River supporting habitat	SSSI	*	*	*	*	*	*	*
Rivers and Streams	SSSI		*	*	*	*	*	*
H3260 Water courses of plain to montane levels with R. fluitantis	SAC		*	*	*	*	*	*
Vascular plant assemblage	SSSI	?	?	?	?	?	?	?
Bryophyte Assemblage	SSSI	?	?	?	?	?	?	?

Audit Trail
Rationale for location of reportable features
The designation includes all of the water to the river edge but the range beyond this is variable depending on land use and cover at time of designation. The most common is a 10m extension from the bank top that is in the designated area. However for other stretches of the river the designated area is only to the bank top, whereas in others it extends much further and includes hydrologically linked habitats such as those listed in tables 2 and 3. Paper maps clarify the designation on a field by field basis. This table has been populated with data from: - EA data ecology explorer https://environment.data.gov.uk/ecology/explorer/ - Jacobs (2015) The River Wye SSSI Restoration Technical Report https://www.therrc.co.uk/sites/default/files/files/Designated_Rivers/wyedrafttechnicalreport.pdf - Dyson C. (2008) Core Management Plan (including conservation objectives) for River Wye Special Area of Conservation, Version 1.2, Countryside Council for Wales/ Cyngor Cefn Gwlad Cymru https://naturalresources.wales/media/673364/River%20Wye%20SAC%20Core%20Management%20Plan%20approved.pdf - NE (2010) assessed there to be good riparian habitat and otter populations at capacity - (Natural England)(unpublished) River Wye Condition Assessment, October 2010 Further information is required to refine baseline information on the location of crayifish, invertebrate assemblages, vascular plant assemblage and bryophyte assemblage. Crayfish survey undertaken in 2013 recorded suitable habitat in units 3-7, however no crayfish in were recorded present. http://trim/HPEContentManager/?uri=7834111&t=record&lang=ln_english&mbd=false
Other Notes

Table 2 Habitat Extent Objectives

On this site favourable condition requires the maintenance of the extent of each habitat type (either designated habitat or habitat supporting designated species). Maintenance implies restoration if evidence from condition assessment suggests there has been a reduction in extent from the baselines specified below.

Habitat Feature	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Rivers and streams	SSSI area, including associated terrestrial habitats = 1159.6 ha in England (245.2ha in Wales). Total length is 157km.	Type I (A1i) Unit 1 = 115 ha Type VI (B4iv) at Unit 2 = 36 ha (English only) Type II (A2ii) at Units 3 & 4 = 449 ha Type II (C2i) at Units 5 & 6 = 272 ha Type VI (B4iv) at Unit 7 = 30 ha	The strong saline influence in unit 1 means that there will be a replacement of freshwater species, with more marine species the closer to the estuary one moves.

Audit Trail
Rationale for habitat extent attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
Tributary impacts – Although not designated in their own right the influence of the water quality and flow of the many tributaries has a high impact on the condition of the main river SSSI. Many different species are recorded in the SSSI and SAC designation documentation but for the purposes of a Condition Assessments of the river units it is the fact that a whole selection of the terrestrial and river habitats form part of the designation description not just the species present. The bank and riparian zone includes a number of semi natural habitats which are listed below: •Broad-leaved, mixed and yew woodland •Fen, marsh & swamp •Littoral sediments •Reedbeds – tall ruderals •Marginal and back channel habitats •Standing water – Eutrophic. Oxbow lakes Whilst not assessed in their own right the range and extent of these habitats should be maintained. Transition mire, ladder fen and quaking bog (upland) – This habitat is designated under the SAC but is only present in Wales. Therefore reference should be made to CCW Condition Assessments for Welsh River Wye. This must be confirmed by CCW as there has been no consultation on this matter at time of publication. Habitat extent data sources: - Original notification maps - River Wye SACO's - Jacobs (2015) The River Wye SSSI Restoration Technical Report https://www.therrc.co.uk/sites/default/files/files/Designated_Rivers/wyedrafttechnicalreport.pdf - Dyson C. (2008) Core Management Plan (including conservation objectives) for River Wye Special Area of Conservation, Version 1.2, Countryside Council for Wales/ Cyngor Cefn Gwlad Cymru https://naturalresources.wales/media/673364/River%20Wye%20SAC%20Core%20Management%20Plan%20approved.pdf
Rationale for site-specific targets (including any variations from generic guidance)

Other Notes
Running water G2, River Type: VI - **Group B3ii** - is not recorded in Habitat extent for any of the units, however is recorded in Table 1 as a designated feature of the site.

Table 2a Species Population Objectives

On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment suggests there has been a reduction in size of population or assemblage.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
Invertebrate assemblages: W111 shingle bank W114 stream & river margin W122 riparian sand	Rivers and streams	Record presence/absence supported by habitat quality and/or extent, as described in Annex 2 of this document. Wide characteristic diversity of invertebrates supported throughout river length and habitats including associated terrestrial habitats. Full extent of individual species not known. The full assemblage is the critical feature (refer to citation for full list).	See invertebrate tables in Annex 2 for list of locations and example species present. Sample area should be random but must also be completed within the same survey sites as the channel form and plant community. The assemblages should be assessed at least once every six years. Once the assemblage on a site have been identified, a baseline needs to be established against which to monitor the condition of the feature. The baseline will have two sets of species characteristics: 1) the ecological affinities of the species recorded (fidelity) and 2) the conservation status (species quality, eg RDB, notable or SAC qualifying species). The minimum requirement for CSM will be to find a similarly representative suite of species.	Site specific population targets, assemblage score & geographic range not currently available. Key macro-invertebrate orders to consider: Mollusca Crustacea Coleoptera Ephemeroptera Trichoptera Plecoptera Diptera Lepidoptera Rhizophagidae Odonata Presence of further notable species unmentioned in the citation is likely due to the wide characteristic diversity of invertebrate groups supported throughout river length and habitats including associated terrestrial habitats.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	Rivers and streams	Presence/absence	Units 3-7. White clawed crayfish individuals present.	
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	Rivers and streams	Alien/locally non-native species	Routine assessments and ad hoc investigations: Non-native crayfish should be absent. A decline in the presence of Bullhead and a reduction in lotic macro-invertebrate diversity may be associated with Signal Crayfish presence.	
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	Rivers and streams	Population abundance	Shallow water: Hand searching- a mean of at least 5 out of 100 refuges containing white-clawed crayfish within a unit of assessment Deep water: Trapping. At least 1 individual caught per trap on average	Site specific targets are not included. Generic guidance should be followed unless site-specific evidence suggests lower or higher WCC densities occur naturally. Crayfish densities may be lower than this on some units/rivers due to natural factors and it would be wrong to assume such lower densities necessarily constitute unfavourable condition.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
				Determination of unfavourable condition should only be made where low densities are known to be related to an impact of some kind, or where historical survey data suggest that higher densities should be present. Regular monitoring on different river types using the standard protocol will provide data on which targets can be produced in the future. Where higher WCC densities are found and this is not due to unnatural causes (for example presence of artificial refugia such as gabion blocks in channel as a result banks/structure reinforcements), a higher target may be set to prevent deterioration. Populations are highly susceptible to the additional stress of abstraction during the summer dry period. No reduction in wetted area should be permitted, which especially effects backwaters and shallow pools.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	Rivers and streams	Population structure	Hand searching- At least 20% of the population should be <25mm carapace length (CL), as evidence of recruitment. Approximately equal numbers of sexes in the adult population.	
S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes	Rivers and streams	Population health	Absence of Crayfish plague (Aphanomyces astaci) in the population Thelohaniasis (Porcelain Disease) should not affect >10% population. This disease rarely causes mass mortalities and may be present in a population at low levels without apparent harm. However, a prevalence exceeding 10% is of concern	
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Spatial extent	Juvenile Atlantic salmon should be present in all areas of the catchment to which they have natural access.	Does not include areas above naturally impassable barriers. Areas where access has been limited by artificial obstructions should be identified.
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Population density: juveniles	Population density should not differ significantly from that expected for the river type/reach under conditions of high physical and chemical quality.	Determine using quantitative, semi quanititive, and timed electrofishing data as appropriate. The EA FCS2 tool may aid in determining expected population densities.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
				Should also consider the population age structure. Comprehensive guidance on determining favourable condition in relation to adult and juvenile Salmon population parameters can be obtained in *Cowx, 2002.
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Population density: adult run size	Total run size at least matching an agreed reference level, including a seasonal pattern of migration characteristic of the river and maintenance of the multi-sea- winter component.	Determine using fish counters where available alongside rod catch data. Annual assessments of salmon stock and fishery status may prove useful in this assessment. These are published by Cefas, Environment Agency and Natural Resources Wales. Comprehensive guidance on determining favourable condition in relation to adult and juvenile Salmon population parameters can be obtained in *Cowx, 2002.
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Population stock size: site conservation limit (CL)	At a minimum the Wye should meet or exceed its CL in at least four years out of five. To meet this objective the average level of stock	The CL for each river is set at a stock size. Below this limit further reductions in spawner numbers are likely to result in significant reductions in the number of juvenile

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
			typically needs to be 40% above the CL. The CL is set as an egg deposition target. The Conservation Limit for the Wye is - 38.57×10^6.	fish produced in the next generation. The Management Target for the Wye is - 49.31×10^6. The Wye has not achieved its MT in the last fifteen years and likely has not done so since 1997. The egg deposition target may not be adequately precautionary as it is based on the available spawning habitat and the assumption that everything is pristine and optimum. This may not consider adequately pollution, siltation, acid rain, FEB pressure, etc, and therefore may require revision if evidence indicates that the target is not sufficiently precautionary and is set too low.
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Stocking/transfers of Atlantic salmon	There should be no stocking of Atlantic salmon unless agreed to be in the best interests of the population.	
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	Stocking/transfers of other species	Where stocking of other species is permitted, this should be limited to	

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
			densities unlikely to cause predation pressure and competitive interactions.	
S1106 Salmar salmo (Atlantic salmon)	Rivers and streams	No non-native species likely to cause impairment of Atlantic Salmon populations	Various sources including ad hoc observations, specific site investigations and data collected by the environment agencies.	Refer to the WFD list of alien/locally absent species (but not to be used exclusively)
S1103 Alosa fallax (Twaite shad) *S1102 Alosa alosa* (Allis shad)	Rivers and streams	Spatial extent	Shad should be present in naturally suitable habitat in all units. Kick sampling- Distribution indicated by presence of shad eggs reflecting near natural conditions.	Kick sampling should be used. Historic records and expert judgement (where barriers to migration have since been removed) should be used to select monitoring sites. Genetic analysis of a sub-set of collected shad eggs should be conducted. CSM guidance to be followed. Absence of shad and shad eggs (if survey effort allows) in suitable spawning reaches throughout the wider catchment due to factors such as barriers should be noted. Monthly mean and minimum flow data from in river gauges should be assessed for may to June (and possible into July if evidence of late

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
				spawning) from the Environment Agency or Natural Resource Wales. An assessment should be made as to whether the flow conditions could affect the spawning districation due to impassability of barriers. Where disharges are made from reservoirs to the Rivers between April – July, and are considered to cause potential issues for migration (e.g. due to lower river temperatures) an assessment should be conducted including records of discharge amounts and frequency. General habitat utilisation may also be evidenced though other means including seine netting, electrofishing, fish counters, hydroacoustic counters, video equipment, reliable visual observation, and presence of spent carcasses.
S1103 Alosa fallax (Twaite shad) *S1102 Alosa alosa*	Rivers and streams	Population Density	Adult run size: should reflect natural conditions. Fish counters, hydroacoustic counters and video	Where technological limitations prevent an accurate record of individual numbers of shad utilisng/migrating through a river

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
(Allis shad)			equipment should be used to determine this. There should be evidence of spawning activity. This could be documented through visual observation by anglers and/or analysis of spent carcasses. Juvenille populations density should not differ significantly from those expected under near natural conditions and should be determined via seine netting (in the lower river between July and October).	system, the number of shoals should be noted instead.
S1095 Petromyzon marinus (Sea lamprey) *S1096 Lampetra planeri* (Brook lamprey) *S1099 Lampetra fluviatilis* (River lamprey)	Rivers and streams	Spatial extent	*Petromyzon marinus* (Sea lamprey): distribution should reflect that anticipated under near-natural conditions Lampetra sp: i) distribution should reflect that anticipated under near-natural conditions ii) As a minimum, Lampetra should be present in not less than 50% of all sampling sites surveyed	Larval lamprey should be sampled using targeted electrofishing surveys in accordance with JNCC (2015) guidelines. Surveys would be best timed to overlap with the metamorphsis of larval lamprey (July-September) to aid in species identification. No numerical target is given for *Petromyzon* due to uncertainties around their habitat preferences.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
			with suitable habitat present within the natural range. iii) Where Lampetra have been found in the past they should be present in 90% of sampling sites if suitable habitat remains.	Greater densities have been found in deeper water but monitoring techniques that offer robust quantitative assessment of *Petromyzon* abundance within these habitats are still under development.
S1095 Petromyzon marinus (Sea lamprey) *S1096 Lampetra planeri* (Brook lamprey) *S1099 Lampetra fluviatilis* (River lamprey)	Rivers and streams	Population densiry: Annual run size	Annual run size of Petromyzon and Lampetra fluviatilis should reflect that expected under near-natural conditions. Methods of assessment for determing Run size include the following: DIDSON Direct observation of spawning sites Trapping using fyke nets or specifically designed traps	Due to river and sea lamprey not expressing complete fidelity to their natal river, monitoring should be carried out over several years to determine the degree of natural variation in annual run size before an assessment of compliance is undertaken. A combination of direct observation of spawning sites, trapping, use of DIDSON technology, or review of CPUE data for catch returns may help in these assessments.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
S1095 Petromyzon marinus (Sea lamprey) *S1096 Lampetra planeri* (Brook lamprey) *S1099 Lampetra fluviatilis* (River lamprey)	Rivers and streams	Larval lamprey density (Lampetra sp. only)	Overall assessment unit: should have a mean of >5 lamprey per m^2 of suitable habitat.	Determine using targeted electofishing. As their larvae are generally found in low numbers in habitat in water of wadeable depth, this target does not apply to *Petromyzon*.
S1095 Petromyzon marinus (Sea lamprey) *S1096 Lampetra planeri* (Brook lamprey) *S1099 Lampetra fluviatilis* (River lamprey)	Rivers and streams	Age structure (Lampetra sp. only)	There should be evidence of recent recruitment in each assessment unit. For individual sites where 20-50 larvae are caught, at least two distinct size classes should be present. If more than 50 larvae are caught, at least 3 distinct size classes should be present.	The full range of size classes of larvae, from 0+ to metamorphosis should be present at a catchment scale (this can include 6 year classes), however it's recognised sampling error may make this difficult to discern unless large samples are taken. For individual sites where less than 20 larvae are caught, do not assess compliance with this target.
S1163 Cottus gobio (Bullhead)	Rivers and streams	Spatial extent	Should be present in naturally suitable habitat throughout the designated site	Routinely collected EA/NRW survey data available to determine distribution on 'primary watercourses'.
S1163 Cottus gobio (Bullhead)	Rivers and streams	Population density	There should be no reduction in densities from known levels for individual survey stretches.	May be more difficult to determine using EA survey data where bullhead were not the target

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
			In any case,there should be no less than 0.5 per m^2 in lowland sections of the River Wye protected site (source altitude greater than or equal to 100m), and no less than 0.2 per m^2 in upland areas (source atltitude >100m) of the protected site. These values also apply to non-notified River Wye tributaries where longevity of bullhead populations is deemed necessary for the resilience of populations located within the protected site itself.	species due to effort allocated to seeking out bullhead specifically and this species often being assigned to an abundance catagoy rather than counted.
S1163 Cottus gobio (Bullhead)	Rivers and streams	Recruitment	Evidence of recent recruitment in all assessment units.	Bullhead reproduction success can be recorded by a Length-Frequency Analysis of young of year fish. A ratio of 3 or 4 Young of Year fish to 1 Adult should be recorded in units 5, 6 and 7. If using routine EA fish survey data for assessment this will require liasion in advance of surveys to ensure all necessary data is collected.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
S1355 Otter, Lutra lutra	Rivers and streams	Spatial extent and density	Presence recorded throughout units 2-7 of the SSSI and the wider functionally linked catchment. Population size at least maintained or increasing. No reduced food or habitat availability. No increase in anthropogenic factors damaging to otter populations (i.e. reduction in water availability, increase in toxins entering the water environment, fatalities due to road incidents etc.) Bankside vegetation retained – assess through adjacent habitats and vegetation composition Population size and distribution should be determined using a mix of: • Regular walkover surveys (once every 5-6 years will suffice once good quality data is available on	Local records centres, Universities, and organisations such as the Environment Agency and Natural Resources Wales can provide data useful in reviewing species condition. For example, otter habitat and prey availability information is available through River Habitat Survey and fish survey data collected by the EA and NRW, whereas data on bioaculumation of toxins in otters is available from Cardiff University.

Species Feature (species or assemblage)	List supporting Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, broad habitat or more specific)	Comments
			distribution and abundance, check LRR SAC monitoring scheme data) • Use of eDNA data • Reports of direct sightings, presence of signs (spraint, hairs etc.), presence of holts. • Data gathered on otter fatalities and likely causes	
Vascular plant assemblage	Rivers and streams	Needs completing		Refer to CSMG for vascular plants
Bryophyte assemblage	Rivers and streams	Needs completing		Refer to CSMG for Bryophytes

Audit Trail
Rationale for species population attributes (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).
Site specific targets based on baseline populations, extent & assemblage scores need to be included. Published available baseline data requires reviewing. Species population objectives will be subject to evaluation and review when resourcing allows and / or when additional survey data becomes available. For determining fish populations - population losses appear anecdotally to be large and should be recorded for a revised base line survey. Units 5,6 and 7 provide the majority of all spawning and nursery habitats. Population targets for stock size based on Conservation Limits (CL) added September 2022. The CL is the lowest desirable spawning stock level based on salmon eggs deposited, and is a tailored value specifically for the River Wye & set by EA / NRW. (August 2022 update).
Rationale for site-specific targets (including any variations from generic guidance)
Other Notes
Populations of all notified species listed above could be negatively affected by a change in habitat integrity (hydrological, chemical, physical and biological). For each species compliance with the water quality, flow & habitat structure including sediment targets as set out in Table 3 for Rivers and Streams should be assessed in conjunction with the species population objectives when determining favourable condition for each of the notified species. There should be no unnaturally high levels of siltation as assessed by CSM guidance for Rivers or species specific targets if available and appropriate. Alien and locally non-native species likely to cause impairment of the notified species population should not be present. Effective screening should be in place on all abstractions / discharges to prevent entrainment of each notified species.

Table 3 Site Specific Habitat/Geological Condition Objectives *[insert a separate Table 3 for each broad habitat]*

To maintain the freshwater and species on the River Wye SSSI /SAC in favourable condition. Favourable condition is defined in terms of the following site-specific standards.

Details of any geographical variation or limitations to where the favourable condition standards apply.
Standards apply across the entire SSSI.

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
Rivers and streams	Habitat functioning Water Quality (General assessments)	EA standard monitoring protocols Use AMP/ WFD information and CSF data	**Organic pollution targets** **<u>Units 2, 3, 4, 5, 6, and 7 only:</u>** Dissolved oxygen – 85% saturation (10 percentile) Mean BOD – 1.5 mg/l Total Ammonia (NH3-N) -0.25 mg/l (90 percentile. . **<u>All units:</u>** High ecological status for WFD reportable physico-chemical quality elements. Un-ionised ammonia <0.021 mg/l (95-percentile)	Where possible, assessment of compliance should be completed using available EA WQ monitoring data. There may be instances where routine EA monitoring is deemed insufficient to determine WQ status (due to for example monitoring site distribution, number, and the regularity of data collection). In these instances further data collection may be required and/or the use of modelled data/independent hydrological investigations. WQ compliance with favourable condition targets should be assessed using 3 years worth of data. The un-ionised form of ammonia is highly toxic to freshwater fauna. This target is the same as the EQS used by the EA.	Yes

<table>
<tr><th>Interest Feature</th><th>Attribute term in guidance</th><th>Measure</th><th>Site-specific Targets</th><th>Comments</th><th>Use for Condition Assessment ?</th></tr>
<tr><td></td><td></td><td></td><td>No drop in WFD class from existing situation (both overall and for individual elements within waterbodies).</td><td></td><td></td></tr>
<tr><td>Rivers and streams</td><td>Habitat functioning

Water Quality</td><td>EA monitoring</td><td>Soluble Reactive Phosphorus

<table>
<tr><th>Site ID</th><th>Unit</th><th>Site Name</th><th>OP Target (µg/L)</th></tr>
<tr><td>50021</td><td>7</td><td>R WYE AT WHITNEY TOLL BRIDGE</td><td>21</td></tr>
<tr><td>RSN0695</td><td>6</td><td>RIVER WYE - CROWE FARM</td><td>23</td></tr>
<tr><td>50183</td><td>6</td><td>R.WYE AT BREDWARDINE BRIDGE</td><td>23</td></tr>
<tr><td>50022</td><td>5</td><td>R WYE AT BRIDGE SOLLARS BRIDGE</td><td>24</td></tr>
<tr><td>50023</td><td>4</td><td>R WYE AT VICTORIA BRIDGE</td><td>26</td></tr>
<tr><td>50024</td><td>4</td><td>R WYE AT CARROTS POOL</td><td>26</td></tr>
<tr><td>50807</td><td>4</td><td>HOLME LACY BRIDGE</td><td>30</td></tr>
<tr><td>50026</td><td>4</td><td>R.WYE AT HOARWITHY BRIDGE</td><td>33</td></tr>
<tr><td>50810</td><td>4</td><td>HOLE-IN-THE-WALL FOOTBRIDGE</td><td>33</td></tr>
<tr><td>50027</td><td>4</td><td>R.WYE AT WILTON BRIDGE.</td><td>34</td></tr>
<tr><td>50028</td><td>3</td><td>R.WYE 800M D/S KERNE BRIDGE, GOODRICH</td><td>35</td></tr>
<tr><td>50029</td><td>3</td><td>R.WYE,HUNTSHAM BR.SYMONDS YAT</td><td>36</td></tr>
<tr><td>H0000072</td><td>2</td><td>R WYE AT REDBROOK RAILWAY BRIDGE</td><td>39</td></tr>
</table></td><td>Compliance with favourable condition targets should be assessed using 3 years worth of data.

Compliance with these targets is mandatory as an annual mean and March-September
growing season mean and a whole year mean.

Targets apply throughout the site, not just at sparsely distributed monitoring sites.

Where modelling has been undertaken, the river should comply with the targets at all points along its length.</td><td>Yes</td></tr>
<tr><td>Rivers and streams</td><td>Habitat functioning

Water Quality</td><td>EA monitoring</td><td>Suspended solids

No unnaturally high loads.
Unit 1 – n/a</td><td>Whilst the EC Freshwater Fish Directive target for SS is 25 mg/l (annual mean), a target of no more</td><td>Yes</td></tr>
</table>

<table>
<tr><th>Interest Feature</th><th>Attribute term in guidance</th><th>Measure</th><th>Site-specific Targets</th><th>Comments</th><th>Use for Condition Assessment ?</th></tr>
<tr><td></td><td></td><td></td><td>Unit 2, 3, 4, 5, 6, 7 – less than 10mg/l, annual mean</td><td>than 10mg/l is suitable for most river reaches.</td><td></td></tr>
<tr><td>Rivers and streams</td><td>Diatoms</td><td>EA monitoring</td><td>The target using the Trophic Diatom Index Ecological Quality Ratio should be a normalised EQR of ≥ 0.8, equivalent to high ecological status (WFD-UKTAG, 2014a).

This target should be used as an adjunct to nutrient targets outlined above.</td><td>Any sample failing to comply with the relevant biological target within the 3-year period at any sampling site in the assessment unit should be regarded as non-compliant.</td><td>Yes</td></tr>
<tr><td>Rivers and streams</td><td>Habitat functioning Water flow</td><td>Data on gauged and naturalised flows

Flow accretion methods

Field observations</td><td>The natural flow regime of the river should be protected. Daily flows should be close to what would be expected in the absence of abstractions and discharges (the naturalised flow).

There should be no obvious problems with water availability within the assessment unit.

Springs in aquifer-fed sections of river should be maintained

Maximum (%) reduction from daily naturalised flow targets for the River Wye in England are as follows:
<table><tr><th>SSSI Units</th><th><Qn95 (Low Flows)</th><th>Qn50-95 (Low-moderate flows)</th><th>Qn10-50 (Moderate-High flows</th><th>>Qn10 (High flows)</th></tr><tr><td>1</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td>2-7 (up to Rhydspence</td><td>5 - 10</td><td>10</td><td>15</td><td>15</td></tr></table></td><td>River flow affects a range of habitat factors of critical importance to characteristic flora and fauna, including current velocity, water depth, wetted area, substrate quality, dissolved oxygen levels and water temperature. The maintenance of both flushing flows and seasonal base flows, based on natural hydrological processes, is vital.

Naturalised flow is defined as the flow in the absence of abstractions and discharges. Any relaxation of generic targets on regulated SSSI rivers should relate to the desirability and ecological sustainability of regulating structures.

The availability and reliability of data is patchy – long-term gauged data</td><td>Yes</td></tr>
</table>

<table>
<tr><th>Interest Feature</th><th>Attribute term in guidance</th><th>Measure</th><th>Site-specific Targets</th><th>Comments</th><th>Use for Condition Assessment ?</th></tr>
<tr>
<td></td>
<td></td>
<td></td>
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<table>
<tr><td>HD ERF (High Environmental Weighting score)</td><td></td><td></td><td></td><td></td></tr>
<tr><td>7 (above Rhydspence) HD ERF (Very High Environmental Weighting score)</td><td>1 - 5</td><td>10</td><td>10</td><td>10</td></tr>
</table>
Ecological flow criteria already laid down for the river should also be complied with. A comprehensive table of flow criteria relevant to the English River Wye is provided below. In any case, the most protective target of those available should be applied.
<table>
<tr><th></th><th></th><th colspan="4">Allowable % deviation from naturalised flow</th></tr>
<tr><th>Location/Reach</th><th>Flow Standard</th><th><Qn95</th><th>Qn50-95</th><th>Qn10-50</th><th>>Qn10</th></tr>
<tr><td rowspan="4">Wye d/s Hay on Wye (to Severn Estuary)</td><td>CSMG Table 3 (Large River)</td><td>15</td><td>20</td><td>20</td><td>20</td></tr>
<tr><td>HD ERF (High Environmental Weighting score)</td><td>10</td><td>10</td><td>15</td><td>15</td></tr>
<tr><td>RIVPDF199 - "Interim progress goal"</td><td>10</td><td>10</td><td>15</td><td>15</td></tr>
<tr><td>CSMG Table 2 (High Ecological Status) / Jan 2019 NE Wye Conservation Objectives</td><td>5</td><td>10</td><td>10</td><td>10</td></tr>
<tr><td rowspan="3">Lugg sub-catchment</td><td>CSMG Table 3 (River)</td><td>10</td><td>15</td><td>20</td><td>10</td></tr>
<tr><td>HD ERF (High Environmental Weighting score)</td><td>10</td><td>10</td><td>15</td><td>15</td></tr>
<tr><td>RIVPDF199 - "Interim progress goal"</td><td>10</td><td>10</td><td>15</td><td>10</td></tr>
</table>
</td>
<td>can be used until adequate naturalised data become available, although the impact of abstractions on historical flow records should be considered.

Headwater sections are particularly vulnerable to abstraction, and downstream migration of perennial heads, other than in drought conditions, is a sign of unfavourable condition.

Deviations from generic targets are permitted, if robust local hydroecological data are available that indicate a different target would be appropriate to protect characteristic communities of the river habitat.</td>
<td></td>
</tr>
</table>

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
			CSMG Table 2 (High Ecological Status) / Jan 2019 NE Wye Conservation Objectives: 5 | 10 | 10 | 10 Finally, there should be no obvious problems with water availability within any monitoring unit between gauging stations.		
Rivers and streams	Habitat structure Substrate	Field observations Fluvial Audit of catchment should be considered	**Siltation** No excessive siltation (bed laden sediments). Channels should contain characteristic levels of fine sediment for the river type. Elevated levels of fines (particles <0.83 mm) can interfer with egg survival (Lamprey spp.) Unit 1 – estuarine influence Unit 2 – <20% in top 10 cms of mid-channel gravels Unit 3, 4, 5, 6, 7 -stable, clean gravel/pebble dominated (approximately 70%) substrate without an armoured layer and with <10% fines in the top 30cm. Larger stones on a hard substrate providing clear spaces between the stream bed and the underside of pebbles / cobbles are	Siltation levels vary naturally, depending upon the reach type and hydrodynamic regime. Most sites should have a variety of channel substrates. Localised accumulations of silt on the inside of bends or in back channels do not necessarily indicate a problem. However, widespread siltation of riverine sediments, caused by high particulate loads / reduced scour within the channel (due to artificial channel modifications) is a major threat. Many characteristic species of fish, invertebrates and even plants are susceptible to siltation at some stage in their life-cycle. Mechanisms of impact can relate to reduced interstitial spaces in coarse substrates, reduce water flow-	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
			important for Bullhead. Elevated levels of fines can interfere with egg and fry survival. Salmon require clean gravels Unnaturally high levels of siltation can be indicated by: (a) 'silting' highlighted in section P of the RHS form ('Overall characteristics – major impacts') OR (b) one-third or more of the total number of RHS spot-checks in the assessment unit have silt (SI) as the predominant channel substrate	through the substrate leading to poor quality of interstitial waters, and reduced sediment surface 'roughness' that eliminates refugia for animals with epibenthic habitats and prevents plant seeds and fragments from lodging in the substrate and taking root. For river types characterised by extensive Ranunculus beds, there should be a predominance of 'clean' gravels, pebbles and cobbles, with relatively low cover by silt-dominated substrates. Maximum fines content should not be too great to prevent establishment of new plants. Fines are defined as particles <0.83mm. Sources of silt include run-off from agricultural land, sewage and industrial discharges. A fluvial audit is recommended where specific problems have been identified, e.g. where there is a perceived risk of damage occurring or where species characteristic of the habitat are already believed to be in decline. Fluvial audit is not a monitoring tool but can deliver an understanding of geomorphological problems	

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
				unattainable by any other method, and help to discriminate between problems of sediment delivery and problems of channel structure.	
Rivers and streams	Habitat structure Channel and banks	Assess river morphology using RHS In addition, for planform use map data, aerial survey data, historical records and local knowledge.	**Channel planform** Channel form should be generally characteristic of river type, with predominantly unmodified planform and profile. ≤ 5% of the assessment unit should be artificial, re-aligned or constrained. For planform the target is a score for the assessment unit of at least 3. For naturalness of the profile using transect data the target is a score for the assessment unit of 4 or 5 (see Appendix 6 of the monitoring protocol). No RHS site to have any of the eight categories of bank profile modification (Section I in RHS 2003 form) recorded as 'extensive'. Area of Lamprey nursery habitat should be present: Defined as open-structured, aerated, silty and sandy substrates, between 2 and 40cm depth, typically	The river should support all of the habitat features necessary for characteristic flora and fauna to thrive, in characteristic proportions. Widening or deepening of channels, and extensive artificial reinforcement of banks, are indicators of unfavourable condition. Headwater sections are particularly vulnerable to re-profiling. Operations that widen, deepen and/or straighten the channel reduce variations in habitat. New operations that would have this impact are not acceptable within an SAC, whilst restoration may be needed in some reaches. Frequent 2m deep pools are essential for Salmon and Shad	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
			overlain by less than 0.5 m of water. Slack-water channel margins are particularly important, whilst silt accumulations behind weirs can also be valuable in impounded sections. Presence of dead wood in river in all units is vital. Bullhead has particular associations.		
Rivers and streams	Habitat structure Channel and banks	Habitat Modification Score (as derived from RHS) obtained from the Environment Agency.	**Habitat Modification Score** ≥65% or more of condition monitoring sites should fall within the semi-natural HMS class 1, with the remainder predominantly unmodified (class 2). No (or minimal) deterioration from the last monitoring cycle.	Watercourses with a high degree of naturalness will be governed by dynamic processes which result in a variety of physical habitat features, including a range of substrate types, variations in flow, channel width and depth, in-channel and side-channel sedimentation features, erosion features and both in-channel and bankside vegetation cover. The Habitat Modification Score (HMS) enables an assessment to be made based on the nature of modifications to a river and their estimated persistence.	Yes
Rivers and streams	Habitat structure Channel and banks	**Bank vegetation** Phase I habitat	**Bank and riparian zone vegetation** Bank and riparian zone vegetation structure should be near-natural.	The monitoring protocol is used to assess bank and riparian zone naturalness and incorporates a modification due to negative indicator species. Alien and	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		survey, carried out at 10 RHS transect locations. **Riparian zone** RHS transect data	For bank vegetation the target is a mean SERCON score for the assessment unit of 4 or 5. For riparian zone vegetation the target is a mean score for the assessment unit of 4 or 5. Particular issues with alien species on the banks in units 5, 6 and 7 All units have vegetation supporting breeding Otter. Bank side tree cover is vital to many notified species. It provides micro-gradients in temperature giving more flexibility for fish habitat provision. The habitat is in hydrological continuity with the river (where appropriate). It supports semi-natural vegetation. Management of the linked habitat does not contribute to the unfavourable condition of the River Units	introduced species must therefore be assessed as part of this methodology. Targets may need to be adjusted to account for unmodifiable problems with vegetation. The bank and riparian zone includes a number of semi natural habitats which are listed below: • Broad-leaved, mixed and yew woodland • Fen, marsh & swamp • Littoral sediments • Vascular plant assemblage - Higher and Lower Plants (including ranunculus beds) • Reedbeds – tall ruderals • Marginal and back channel habitats • Standing water – Eutrophic. • Oxbow lakes Whilst not assessed in their own right the range and extent of these habitats should be maintained.	
Rivers and streams	Habitat structure Channel and banks	River Habitat Survey Data. At least 5 RHS sites	**Large Woody Debris** Within each assessment unit: EITHER 75% or more RHS sites have large woody debris 'Present'	Dead woody material that falls into streams ('woody debris') plays an important role in increasing habitat diversity, providing shelter for fish, supplying a food source for aquatic	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		should be examined for this target – if fewer than 5 sites are available, assessment units should be amalgamated.	OR 10% or more of RHS sites have large woody debris 'Extensive'	invertebrates, and for slowing the passage of nutrients downstream. Large woody debris, as defined in RHS as, 'whole trees or large trunks and branches swept downstream and lodged in the channel or on the banks', is a key feature of healthy rivers. As indicated in the River Habitat Survey form (Section J – 'Extent of trees and associated features'), the term 'present' refers to woody debris abundance >0-33% of bank length and the term 'extensive', woody debris abundance >33% of bank length.	
Rivers and streams	Habitat structure Channel and banks	Use expert judgement.	**In-channel structures** Throughout the assessment unit: if present, structures should have no effect (or minor effect) on migration, on sediment transport, and habitat structure. Assessments should include the upstream 'ponding' effects that artificial structures have on flow patterns and habitat structure. No artificial barriers significantly impairing characteristic migratory species from essential life-cycle movements.	Artificial in-channel structures such as weirs, dams, sluices, fords, groynes and culverts may constitute barriers to the free movement of water, sediment and aquatic organisms, and may affect river-bed structure and hydrology downstream. Although structure impacts are wider ranging than fish migration alone, artificial barriers are probably the single most important factor in the decline of shad in Europe. Impassable obstacles between	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
			Salmon - No artificial barriers significantly preventing adults from reaching existing and historical spawning grounds, and smolts from reaching the sea. All Units Lamprey spp - No artificial barriers significantly impairing adults from reaching existing and historical spawning grounds. Only Brook Lamprey are likely to be able to pass some barriers Bullhead - Vertical drops of >18-20 + cm are limiting. Debris dams and woody debris should be retained where characteristic of the river/reach. Shad - No artificial barriers significantly impairing adults from reaching existing and historical	suitable spawning areas and the sea can eliminate breeding populations of shad. Existing passes are often not effective for shad, and any new provisions need to take their requirements into account. Data sources available when determining presence and impacts of in-channel structures may include: • Local/management personnel/expert assessment • Hydromorphological and walk-over surveys • River Habitat Survey (RHS) • Air photos Fisheries personnel • Special surveys assessing structures • River Obstructions (EA dataset) Rapid assessment methodology to assess obstacles to fish migration (SNIFFER project WFD 111)	
Rivers and streams	Plant community Species composition and abundance	EA monitoring data	LEAFPACS tool should give a result of high ecological status for the assessment unit.	In-channel vegetation of SSSI/SAC rivers should be dominated by characteristic species. LEAFPACS method, with 3-5 sections per assessment unit	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
				surveyed depending on its size. More variable assessment units may require more surveys.	
Rivers and streams	Plant community Weed cutting	Field observations during macrophyte survey.	A sufficient proportion of all aquatic macrophytes should be allowed to reproduce in suitable habitat, unaffected by river management practices which may be carried out to improve navigation or fishing. 25% of the total habitat / macrophyte population should be left uncut for the full duration of the growing season. Weed cutting should be limited to no more than 50% of the channel width to support Bullhead and Salmon population. A pattern of cutting creating a mosaic of bare substrate and beds of submerged plants. Plant reproduction must be present in all Units but more dominant in units 5, 6, and 7	Flowering outside the normal period and weed cutting or other activities that do not leave patches of plants to flower and set seed are indicators of unfavourable condition.	Yes
Rivers and streams	Criteria invertebrate habitats: Wetland River Edges	Areas of bare mud immediately adjacent to water	Sample area should be random but must also be completed within the same survey sites as the channel form and plant community Of the following list of habitats and example species:	See invertebrates tables at Annex 2 for more extensive detail of the habitats and preferred and negative features and combinations.	Yes

<table>
<tr><th>Interest Feature</th><th>Attribute term in guidance</th><th>Measure</th><th>Site-specific Targets</th><th>Comments</th><th>Use for Condition Assessment ?</th></tr>
<tr><td></td><td></td><td>Full range of layers of emergents

Floating leaved macrophyte cover in appropriate river types

Aquatic macrophytes with abundant flowers and flowery areas

Individual bushes and small areas of scrub/trees, including overhanging trees</td><td>• 3+ different surfaces in at least 20% of SRSs
• Single surface present in no more than 50% of SRSs • Marginal bare muds and wet stones should be present in 10% of SRSs
<table>
<tr><td>Water</td><td>Marginal bare muds and wet stones</td><td>Medium layer veg</td><td>Taller graminoid layer</td></tr>
<tr><td>Algal mats water weeds</td><td>Thin algal mats</td><td>Mentha, rorippa spp, veronica Beccabu ngae, Alisma spp</td><td>Phragmit es, Juncus, Phalaris Spargani um, etc</td></tr>
</table></td><td>Showing priority surfaces only here. Others are relevant – see annex 2 table</td><td></td></tr>
<tr><td>Rivers and streams</td><td>Criteria invertebrate habitats:</td><td>Gravel, shingle and cobles undisturbed</td><td>Sample area should be random but must also be completed within the same survey sites as the channel form and plant community</td><td>See invertebrates tables within Annex 2 of this document for more extensive detail of the habitats and</td><td>Yes</td></tr>
</table>

<table>
<tr><th>Interest Feature</th><th>Attribute term in guidance</th><th>Measure</th><th>Site-specific Targets</th><th>Comments</th><th>Use for Condition Assessment ?</th></tr>
<tr><td></td><td>Wetlands: vegetated shingle/ exposed riverine sediments</td><td>Flowery areas

Sandbanks and shoals

Sand martin colonies

Silt banks in backwaters

Areas of sparse veg typical of riparian shoals

Accumulations of plant litter, twigs, branches and trunks</td><td><table><tr><td>1. Bare shingle cobbles, muds, sands or silt</td><td>2. Sparse vegetation cover</td></tr><tr><td>Possibly algal film</td><td>Anagallis tenella, papaver spp, etc</td></tr></table>
Of the following list of habitats and example species:

• Surface 1 should be present in 70% of SRSs
• Surface 2 should be preent in 30% of SRSs
For All surfaces:
• A single surface in no more than 70% of SRSs
• 2 different surfaces present in at least 20% of SRSs</td><td>preferred and negative features and combinations.

Showing priority surfaces only here. Others are relevant – see annex 2 tables.</td><td></td></tr>
<tr><td>Rivers and streams</td><td>Criteria invertebrate habitats:

Coast: Saltmarsh (upper saltmarsh)</td><td>Upper standline litter of dead graminoid and woody material</td><td><table><tr><td>Bare sand, silt or mud</td><td>Sparse low halophytic veg</td><td>Taller halophytic/ bracksih tolerant veg</td><td>Taller gaminoid swards</td></tr><tr><td>Unicellular algae or very incomplete</td><td>Salicornia Cochlearia</td><td>Atriplex, Suaeda, Artmisia, Aster,</td><td></td></tr></table></td><td>See invertebrates tables at Annex 2 for more extensive detail of the habitats and preferred and negative features and combinations.</td><td>Yes</td></tr>
</table>

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		Pools at shore level Natural transition from lower through to upper saltmarsh to other habitats Flat hard sand/silt Flowery areas Freshwater creeks	filaminticious algal film | Halimione, Plantago Sample area should be random but must also be completed within the same survey sites as the channel form and plant community. It is vital that assessment areas in unit 1 are low enough downstream to capture these habitats locations Of the following list of habitats and example species: • Surface 1 must be present in at least 20% of SRSs For All surfaces: • Single surface present in no more than 50% of SRSs • 2+ different surfaces present in at least 20% of SRSs	Showing priority surfaces only here. Others are relevant – see annex 2 table	
Rivers and streams	General macroinvertebrate assemblages	EA invertebrate monitoring data:	WHPT tool should give a result of high ecological status for the assessment unit (NTAXA and ASPT outputs) when comparing observed:expected invertebrate data using the River invertebrate classification tool (RICT).	EA colleagues are better placed to analyse and report RICT outputs for routine EA invertebrate monitoring sites, therefore liaison is essential.	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		Overall RICT WHPT NTAXA, ASPT, and PSI scores. Individual species presence/absence data May also conduct assemblage specific surveys	PSI (Proportion of Sediment-sensitive Invertebrates) should be formally adopted under the WFD, the target for the assessment unit should be high ecological status. Until formally adopted, the mean EQI for the assessment unit should be 0.9 or more.	Key macro-invertebrate taxa to consider are listed below. These have been selected due to there scarcity, sensitivity and as flag-ships for key habitats, such as submerged wood. Taxa are as follows: • Normandia nitens, • Macronychus quadritubercul atus • Potamanthus luteus, • Setodes punctatus, • Gomphus vulgatissimus, • Platycnemis pennipes Pearl mussel, the most intolerant, is effectively extinct in the main stem and has not been adopted. LIFE scores (Lotic invertebrate flow evaluation) may also be useful to review when determining whether flows are impacting on invertebrate communities as a whole, however this is dependant on whether WQ or other factors impact result interpretation.	
Rivers and streams	Negative indicators Habitat disturbance	Examples =	Sample area should be random but must also be completed within the same survey	See invertebrates tables in Annex 2 of this document for more extensive	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
	- invertebrate interest	Excessive stock access Large poached river margins and siltation of river Invasive species – impatiens glandulifera fallopian spp Extensive marginal scrub leading to shading of macrophytes Removal of timber from in river or banks	sites as the channel form and plant community.	detail of the habitats and preferred and negative features and combinations. Showing priority surfaces only here. Others are relevant – see annex 2 table	
Rivers and streams	Negative indicators Native species (plants)	Survey the macrophytes of representative stretches	Targets should be set to register high or increasing cover as unfavourable. i) **For blanketweed, epiphytic or other algae, Potamogeton**	Taxa typically associated with enrichment are considered negative indicators of favourable condition. The species will vary depending on the River Community Type. Species	Yes

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		at intervals of ca. 5 km, using the method of Holmes (1983) and a standard check-list of macrophyte species.	**pectinatus or Zannichellia palustris** • Cover values over 25% should be considered unfavourable, and should trigger further investigation. • Cover values should not increase significantly from an established baseline **ii) For taxa with STRs as follows** **River types I, II, III – STR 1 or 2** **River types V, VI, VII – STR 1-3** • Cover values over 25% should be considered unfavourable, but should trigger further investigation. Cover values should not increase significantly from an established baseline.	that are characteristic of enrichment, or have atypically low Species Trophic Ranks (STRs) in the Mean Trophic Rank (MTR) system (Holmes et al., 1999) and that are recorded as dominant (3), are used as indicators. In using MTR, each species is allocated a score dependent on its tolerance to eutrophication; this system cannot be used to assess acidification. Expert judgement will be important in assessing the ecological significance of cover values of these species.	
Rivers and streams	Negative indicators Alien/introduced species (plants and animals)	For aquatic and marginal macrophytes the presence of alien species should be noted during the macrophyte	No high-impact alien species established (i.e. self-sustaining populations). Standard checklists of species are based on those used for WFD assessments. Note: Presence of noxious weeds does not alone suggest unfavourable condition. A site will be assessed as unfavourable when there is good evidence that any non-	The main alien aquatic macrophyte species: • giant hogweed (Heracleum mantegazzianum) • Himalayan (Indian) balsam (Impatiens glandulifera) • Japanese knotweed (Fallopia japponica)	Yes

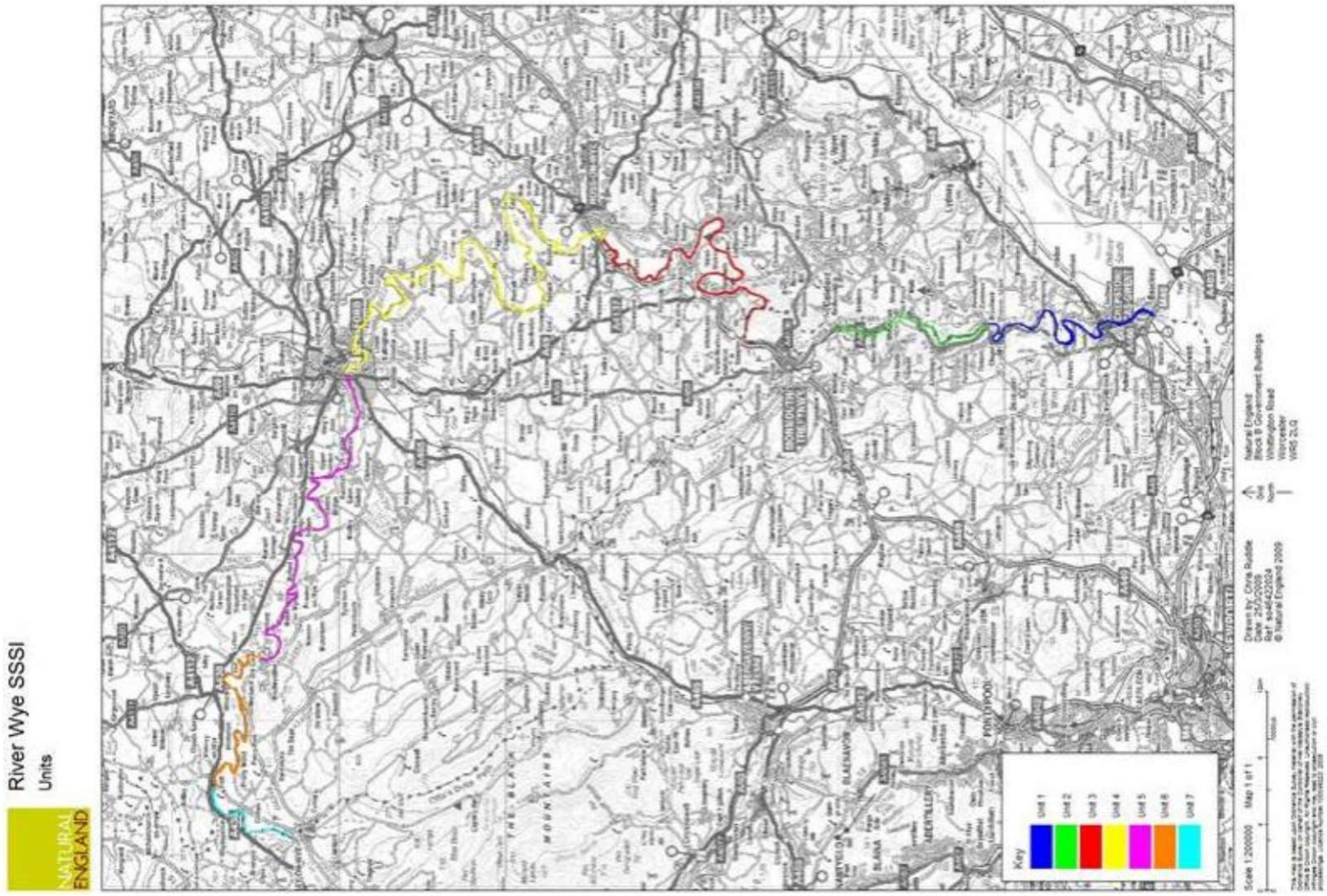
Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
		survey and the scoring system for naturalness applied. For other organisms contact external organisations (e.g. EA, SEPA, Wye and Usk Foundation, EHS, fisheries trusts) for local reports on alien or introduced species.	native species or locally absent species is causing an impact on site integrity.	Non-native species constitute a major threat to many river systems. For example, species such as signal crayfish have been responsible for much of the decline of native crayfish through competition, habitat damage and the introduction of crayfish plague. The SERCON scoring system for naturalness of aquatic and marginal macrophytes is used to assess alien plant species. Expert judgement will be needed to determine whether there is sufficient evidence to generate an unfavourable condition assessment. For example, for signal crayfish, presence alone would constitute unfavourable condition. Other species, such as barbel, can be tolerated at low levels; higher levels would constitute unfavourable condition. Giant Hogweed, Japanese Knotweed and Himalayan Balsam are all known to be present on the River Wye. Efforts to eradicate these species are ongoing.	

Interest Feature	Attribute term in guidance	Measure	Site-specific Targets	Comments	Use for Condition Assessment ?
Rivers and streams	Negative indicators Fish introductions	Assessment of stocking consents in relation to guidance on acceptable stocking levels within catchment. Liaison with fisheries officer	Fish introductions should not interfere with the ability of the river to support self-sustaining populations of characteristic species. When considering fish stocking consents awareness should be made that stocking may also introduce INNS and pathogens.	Many characteristic species can be affected by fish introductions, through increased predation, competition or genetic introgression, or through disease transfer. The presence of artificially high densities of other fish creates unacceptably high levels of predatory and competitive pressure on juvenile salmon.	Yes

Audit Trail
Rationale for limiting standards to specified parts of the site
Confirmation of data sources required through consultation with EA. Species and habitat extent recorded against particular units through knowledge of previous surveys and local data. Revised base line survey required to be able to update this information.
Rationale for site-specific targets
CSMG for rivers (2016) has been used to determine generic site targets. Macrophyte targets updated to 2016 CSMG standards. Site specific phosphate targets have been determined in co-ordination with the EA – River Wye Updated Phopshate Targets 2022 (August 2022 update) & flow targets have also been determined in co-ordination with the EA. River Habitat Survey (RHS) Protocol - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1093961/RHS-manual-2003_2022-reprint-LIT-1758.pdf Holmes (1983) Typing British rivers according to their flora. Focus on Nature Conservation No 4. Nature Conservancy Council, Peterborough. HES target for all WFD phys-chem parameters added to the water quality assessment (August 2022 update). Specific units chosen for species based on known population locations from designation years. Habitats cover whole length of river. Site specific tailoring (prior to Sep 2022) which has not been referenced in the audit trail is highlighted in pink. The use of this target, for the purpose of condition assessment, should be consulted with the relevant national specialist to ensure that it is appropriate. Unit 1 EA sampling stops at Bigsweir which lies above Brockweir, so this unit lies in an unsampled zone. However, having strong saline influence it is not amenable to the parameters used in the rest of this table. As such, it is difficult to see how a condition assessment can be made unless it is viewed as part of the Severn Estuary. At least one assessment unit (500m stretch) should be recorded low down in Unit 1 if treating this unit in with the River. Through the targeting of agri-environment schemes and use of Catchment Sensitive Farming Delivery initiative for the Wye and Lugg catchments silt ingress from farming can be minimised. Floodplain management is key to favourable condition. Targets relating to the naturalness of channel form and channel and bank vegetation are carried out using River Habitat Survey data and associated data interpretation using scoring procedures laid down in a stand-alone computer package called SERCON (System for Evaluating River Conservation value)
Rationale for selection of measures of condition (features and attributes for use in condition assessment) (The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).

Atrributes selected are mandatory requirements derived from CSMG for rivers (2016).
Other Notes

Annex 1



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Map of River Wye SSSI/SAC showing SSSI Units (1-7) in differing colours.

Annex 2 Preferred Surface & Features Tables- Invertebrates

3 pages copied from CSM – invertebrates guidance annexes (Feb 08). These show the full combination of habitats, not just the priorities, that should be reviewed during condition assessment.

1. Wetlands: River edges
2. Wetlands: Vegetated Shingle/ Exposed Riverine Sediments
3. Coast: Saltmarsh (the Upper Saltmarsh)

Habitat Type	Surface 0	Surface 1	Surface 2	Surface 3	Surface 4	Surface 5	Surface 6
Wetlands: River Edges	**Water**	**marginal bare muds, wet stones**	**Medium layer**	**Taller graminoid layer**	young scrub	extensive mature scrub, & trees - (emphasis on edges of unit)	
typical species	Algal mats, water weeds	Thin algal mats	*Mentha, Rorippa spp, Veronica beccabungae, Alisma spp*	*Phragmites, Juncus, Phalaris Sparganium, etc*	*Salix spp, Alnus*	as surface 5 + tree species	
Targets		present in 10% of linear SRSs			present in <20% of linear SRSs	present in <20% of linear SRSs (except where shade dependent fauna is notified feature)	
	single surface present in no more than 50% of SRSs						
	3+ different surfaces present in at least 20% of SRSs						
Preferred Features							
small areas of bare mud immediately adjacent to water		full range of layers of emergents		floating leaved macrophyte cover in appropriate river types		individual bushes and small areas of scrub or marginal trees, including overhanging trees	
aquatic macrophytes with abundant flowers							
flowery areas, including those on other habitats (verges, farmland, banks, ruderal areas etc) including 'unwelcome' weeds such as ragwort and thistles							
Negative Factors							
excessive stock access leading to loss of macrophytes and large poached river margins and siltation of river		extensive marginal scrub cover leading to shading of macrophytes					
invasive species: - Impatiens glandulifera, Fallopia species							

Habitat Type	Surface 0	Surface 1	Surface 2	Surface 3	Surface 4	Surface 5	Surface 6
Wetlands: Vegetated Shingle/ Exposed Riverine Sediments	water surface at margin	**bare shingle cobbles, muds sand or silt**	**Sparse vegetation cover**	longer swards with some bare substrate	Closed tall herb layer	young / medium scrub	
typical species	possibly algal film	possibly algal film	*Anagallis tenella, Papaver spp, Tripleurospermum maritimum, Potentilla anserina Polygonum maculosa, Barbarea vulgaris*	*Urtica dioica, Petasites hybridus*	*Phalaris arundinacea, Oenanthe spp, Heracleum*	Salix, Alder	
Targets		present in 70% of SRSs	present in 30% of SRSs		present in <20% of SRSs	present in <10% of SRSs	
	single surface present in no more than 70% of SRSs						
	2 different surfaces present in at least 20% of SRSs						

Preferred Features			
gravel, shingle & cobbles undisturbed by livestock, vehicles or other trampling	sand banks and shoals	silt banks in backwaters and other still areas	areas of sparse vegetation typical of riparian shoals
small riparian cliffs or micro-cliffs, especially in sandy or clay deposits or south facing	sand martin colonies	accumulations of plant litter, twigs and larger timber, including tree branches and trunks	
flowery areas, including those on surrounding habitats (farmland, grassland, verges, ruderal etc) including 'unwelcome' weeds such as ragwort and thistles			
Negative Factors			
siltation of river resulting in silt deposition amongst gravel, shingle, cobbles etc	stock access and trampling	vehicle access	gravel or shingle extraction
interference with natural flow dynamics of river leading to high river levels in summer or low levels and flows in winter	removal of timber in water	removal of flood litter	excess shading from trees and scrub
invasive species: - *Impatiens glandulifera*, sallow scrub on shoals, trees and scrub			

Habitat Type	Surface 0	Surface 1	Surface 2	Surface 3	Surface 4	Surface 5	Surface 6
Coast: Saltmarsh (the upper saltmarsh)	Brackish water in creeks and pools	**Bare sand, silt or mud**	**Sparse low halophytic vegetation**	**Taller halophytic / brackish tolerant vegetation**	**Taller graminoid swards**	scrub	
typical species	Algal community, some green seaweeds	unicellular algae or very incomplete filamentous algal film	*Salicornia, Cochlearia*	*Atriplex, Suaeda, Artimisia, Aster, Halimione, Plantago,*	*Phragmites, Scirpus, Juncus*	*Salix spp*	
Targets		present in at least 20% of SRSs				present in <5% of SRSs	
	single surface present in no more than 50% of SRSs						
	2+ different surfaces present in at least 20% of SRSs						
Preferred Features							
upper strandline litter of both dead graminoid and woody material		natural transition from lower saltmarsh, through upper saltmarsh to other habitat (eg freshmarsh, dunes (including slacks), wet grassland etc		high structural heterogeneity resulting from long history of no grazing		presence of flowering saltmarsh forbs - notable Aster	
pools at various shore levels, including high shore hypersaline pools		flat hard sand/silt at upper edge of creeks and estuaries		vertical erosion clifflets high on the shore, especially (though not exclusively) if sandy		freshwater creeks in the upper shore	
flowery areas, including those on other habitats (verges, sea banks, ruderal areas etc) including 'unwelcome' weeds such as ragwort and thistles							
Negative Factors							
truncated succession through loss of upper saltmarsh, sea bank or concrete or gabion sea defences		loss of forbs and heterogeneity through grazing		over-dominance by grasses resulting from past grazing		introduction of grazing to naturally long - ungrazed saltmarsh	

Key to shading of preferred surfaces

= preferred surface

creating a better place
for people and wildlife

Environment Agency

Wye Management Catchment Inspection Data – data extracted 9 November

This document details:

- the number of farm inspections carried out in the past three financial years
- the percentage increase in inspections over the previous year
- the number of inspections which recorded at least one area of non-compliance
- the number of actions issued to address these non-compliances
- the count of complete and overdue actions
- the top 5 actions issued for each year

The following provides more information when we talk about pending, On hold and Overdue actions.

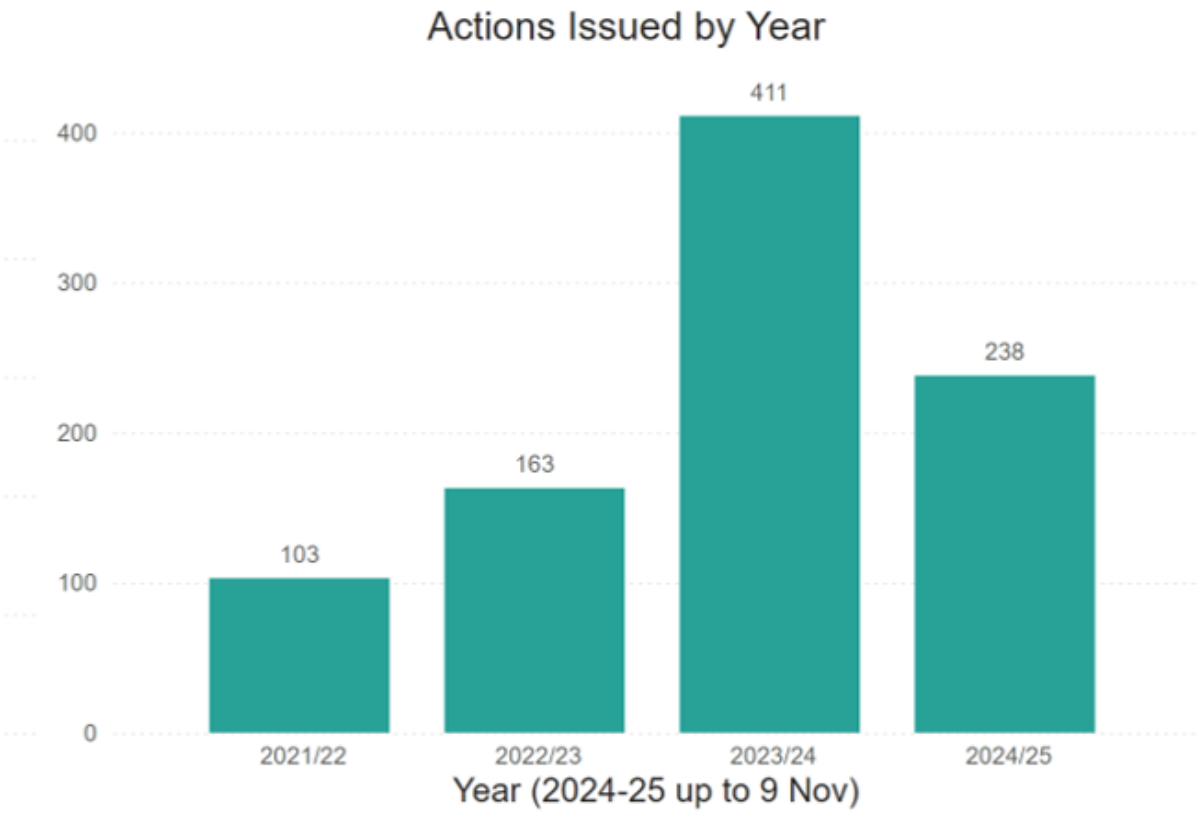
Pending actions are ones which haven't been confirmed as completed but where the deadline hasn't been reached yet.

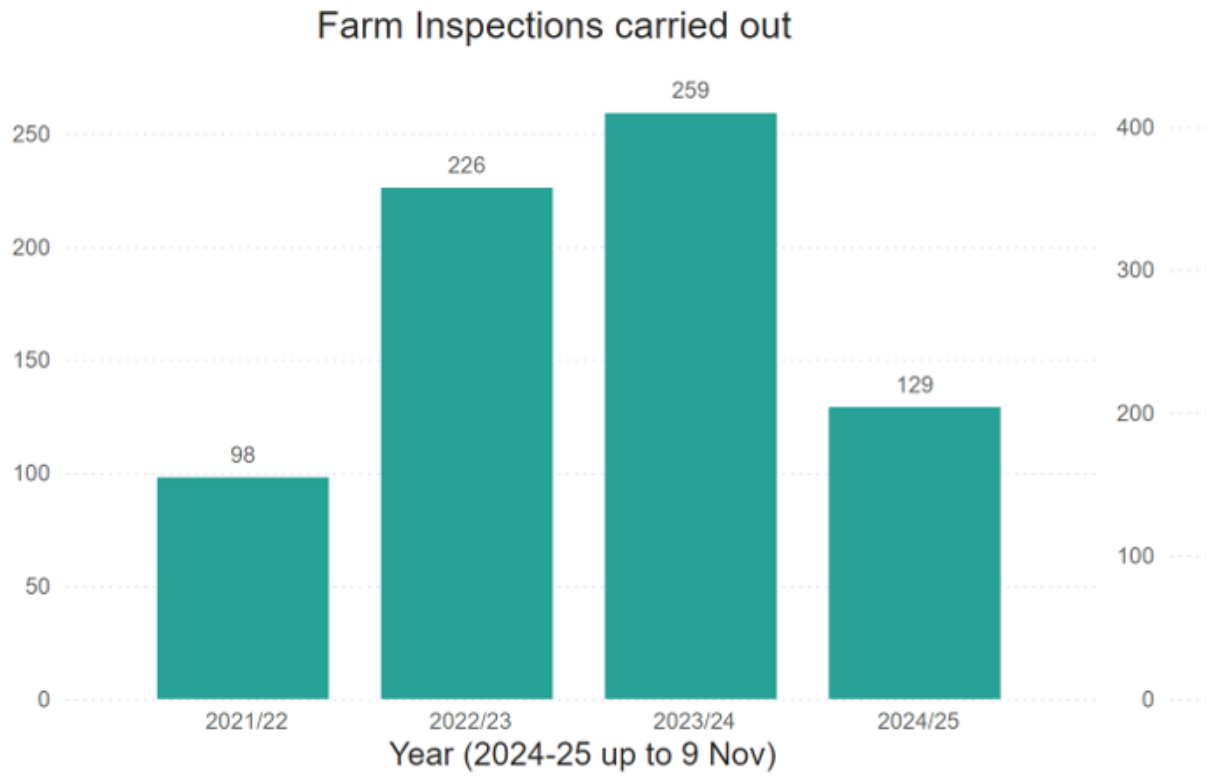
On hold actions may be an action that the farmer has been referred to Catchment Sensitive Farming for a grant and they need to wait for that process to be completed and funding made available in order to implement the changes necessary to comply. It could be that there are mitigating personal circumstances which mean the farmer is unable to fully comply with the action and is working through the action with an officer (for example a nutrient management plan (NMP) may go back and forth between officer and farmer or consultant multiple times to get it right. A farmer may be in the process of working on the document (therefore partially completed the action) but not to the satisfaction of the officer. This sort of action can result in multiple revisions of a document before ultimately being signed off as a completed action.

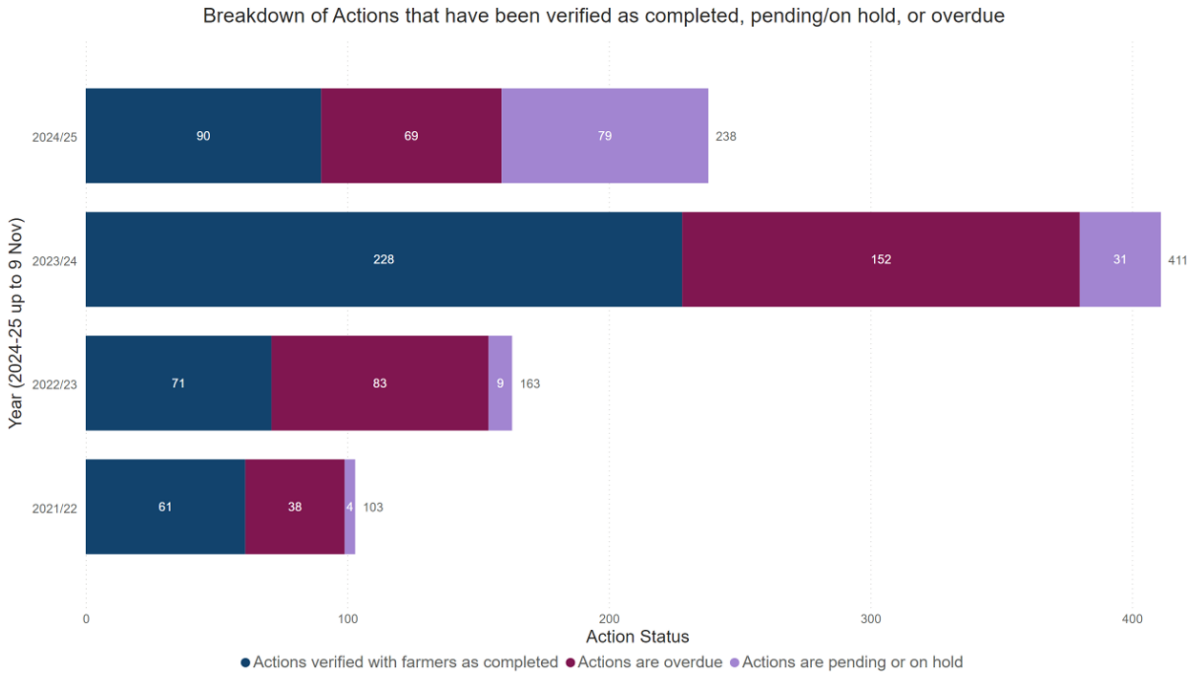
Overdue actions – We don’t mark an action complete until all elements are compliant. For example, a farmer may have done a huge amount of work on a NMP but may still not be at a point we would sign it off, and so this will be marked as overdue. Similarly, if there is an action for soil testing, a farmer may have completed most of their field tests (highest risk fields), but until all fields have been confirmed as having tests complete, the action remains open and, in some cases, overdue.

It must also be noted that some actions, such as improvements to slurry stores or silage clamps, can be major changes to infrastructure and take time to plan, source funding for and implement.

Our enforcement action in the catchment has involved the issuing of site warnings or warning letters, which year on year has generally increased.


Actions Issued by Year
411
400
300
238
200
163
103
100
0
2021/22
2022/23
2023/24
2024/25
Year (2024-25 up to 9 Nov)


Farm Inspections carried out
259
250
226
400
200
300
150
129
200
100
98
100
50
0
0
2021/22
2022/23
2023/24
2024/25
Year (2024-25 up to 9 Nov)



Inspection figures for financial year 2024-25 (to 9 November):

- 129 farm inspections carried out
- 73 recorded at least one area of non-compliance
- 245 actions have been issued to farmers to address non-compliances
- 97 actions have been verified with farmers as complete
- 69 actions are overdue
- 79 actions are pending or on hold
- 34 warnings issued to farmers / land managers

The top 5 actions issued for 2024-25 are:

1. Nutrient management plan
2. Soil testing
3. Manure storage
4. Oil storage
5. Other

No percentage increase is presented for the current financial year.

Inspection figures for financial year 2023-24:

- 259 farm inspections carried out
- This is a 14.6% increase in inspections compared to the previous year.
- 149 recorded at least one area of non-compliance
- 411 actions have been issued to farmers to address non-compliances
- 228 actions have been verified with farmers as complete
- 152 actions are overdue
- 31 actions are pending or on hold
- 19 warnings issued to farmers / land managers

The top 5 actions issued for 2023-24 are:

1. Soil testing
2. Nutrient management plan
3. Clean/dirty water separation
4. Oil storage
5. Manure storage

Inspection figures for financial year 2022-23:

- 226 farm inspections carried out
- This is a 130.6% increase in inspections compared to the previous year.
- 78 recorded at least one area of non-compliance
- 163 actions have been issued to farmers to address non-compliances
- 71 actions have been verified with farmers as complete
- 83 actions are overdue
- 9 actions are pending or on hold
- 4 warnings issued to farmers / land managers

The top 5 actions issued for 2022-23 are:

1. Soil testing
2. Nutrient management plan
3. Clean/dirty water separation
4. Manure storage
5. Livestock management

Inspection figures for financial year 2021-22:

- 98 farm inspections carried out
- This is an 716.7% increase in inspections compared to the previous year.
- 40 recorded at least one area of non-compliance
- 103 actions have been issued to farmers to address non-compliances
- 61 actions have been verified with farmers as complete
- 38 actions are overdue
- 4 actions are pending or on hold
- 8 warnings and notices issued to farmers / land managers

The top 5 actions issued for 2021-22 are:

1. Clean/dirty water separation
2. Slurry store
3. Silage clamp
4. Nutrient management plan
5. Oil storage

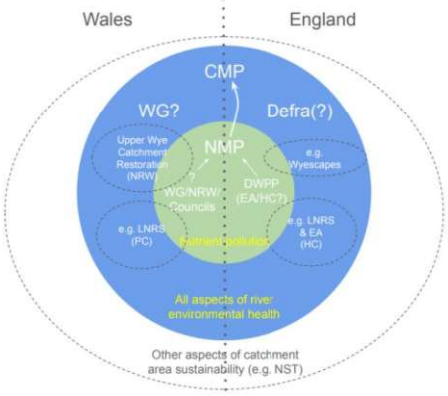
Herefordshire Council

Proposal to amalgamate secretariat of Wye Catchment Partnership and Nutrient Management Board

Background

As outlined in its recently reviewed terms of reference, the Wye Catchment Partnership's vision is to restore the Wye and Lugg SSSIs and Special Area of Conservation (SAC) to a favourable conservation status for its designated features. The Partnership is committed to developing a Catchment Management Plan (CMP) and coordinating its delivery with a broad range of partners. The Partnerships particular strength lies in its membership, which spans across the border and includes key sectors such as regulation, farming, landownership, and conservation. The Partnership's commitment to use of best available evidence, collaboration, transparency, and a catchment-wide ecosystem approach to river restoration makes it a cause deserving of support.

The purpose of the Nutrient Management Board, initially established to create a strategic plan to mitigate development impacts within the catchment, has evolved due to legislative change and there is now a consensus that its primary focus is to reduce nutrient levels by developing and delivering a catchment wide action plan currently underway . As a result, the Board's role is now more closely aligned with the objectives of the Wye Catchment Partnership than ever before.



Proposal

Given this alignment of goals and the need for operational efficiencies to secure the longevity of the Partnership, Herefordshire Council is offering to host the secretariat for the Wye Catchment Partnership alongside that of the Nutrient Management Board for which it has now delivered for a number of years. The purpose of this proposal is to offer a streamlined approach to managing administrative functions, maximising collaboration, and reducing operating costs.

In Practice:

- Hosting both the Partnership and the Nutrient Management Board at Council offices, with flexibility to rotate locations if desired.
- Coordinating the choreography, timing and agendas of Partnership and Board meetings, with the option to host wider partnership (steering/Statutory Officers Group) meetings on the same day.
- Providing full administrative support, including:
    - Sending meeting invites and follow-ups.
    - Drafting agendas and minutes for review by the Chairs.

Benefits:

- **Operational Efficiencies:** Streamlined meeting coordination, reducing time and resource requirements.
- **Maximised Collaboration:** Ensures ongoing collaboration and representation from all relevant sectors in both bodies.
- **Timely Discussions:** Facilitates continuous and efficient discussion of key issues.
- **Cost Reduction:** Decreases overall operating costs by consolidating administrative functions.

This approach will ensure that both the Wye Catchment Partnership and the Nutrient Management Board can continue to effectively work towards their shared objectives, while also improving efficiency and reducing costs.