Date: August 2024

Contract Ref: 2988

REPORT TO INFORM HABITATS REGULATIONS ASSESSMENT: APPROPRIATE ASSESSMENT (Stage 2)

WYESIDE PROJECT, 39 GREYFRIARS AVENUE, HEREFORD

for

MR STEPHEN TAYLOR

Focus Environmental Consultants

Unit 2

Ball Mill Top Business Park

Worcester

WR2 6PD

Email: quotes@focus-ecology.com

Tel. 01905 780700

CONTROL SHEET

Mr Stephen Taylor

Wyeside Project, 39 Greyfriars Avenue, Hereford HR4 0BE

Report to Inform Habitats Regulations Assessment: Appropriate Assessment (Stage 2)

	Name	Position
Author	JK	Associate Ecologist
Checked by	FF-D	Director

Contract No.	Revision No.	Date of Issue
2988	01	28 August 2024

Template Version: V4 (December 2023).

TABLE OF CONTENTS

1. SUMMARY & RECOMMENDATION

1.1 Overview

Focus Environmental Consultants was commissioned by Urban Vista ('the Agent') on behalf of Mr Stephen Taylor ('the Client') to compile a report to inform a Habitats Regulations Assessment – Appropriate Assessment (Stage 2) (a Shadow HRA (sHRA)), with regard to Natura 2000 site: River Wye/ Afon Gwy Special Area of Conservation (SAC). SAC EU code: UK0012642.

The Wyeside Project is located along the River Wye in Hereford, centred on Ordnance Survey grid reference SO 505 394 ('the Site'). Proposals are for the installation of a 15m x 7.5m pre-cast concrete stepped boat ramp ('the Proposed Development'). Additional works as part of the Proposed Development include construction/ diversion of a footpath to the west of Hereford Sea Cadets and construction of a Site access road and Site compound area to the north and west of Hereford Sea Cadets Headquarters building.

1.2 Habitats Regulations Assessment - Screening Opinion

The competent authority (Hereford Council) identified three likely significant effects on the River Wye SAC:

- '*Effects of construction – noise, dust, pollutants, machinery, direct and indirect effects in protected species, biosecurity*.'
- '*Effects of the physical development – impacts to bank and river substrate habitats, pollutant/contaminant leaching*.'
- '*Effects of additional/increased recreational use of the banks and surrounding area and the actual waters of the River Wye and potential biosecurity issues off increased use by managed and public boating activities and in-water usage*.'

Hereford Council proceeded to Stage 2 of the assessment (Appropriate Assessment). When appropriate mitigation was taken into consideration the following conclusion was made in the draft HRA:

'*Herefordshire Council, as a Competent Authority under the Habitat Regulations 2017, Part 6, section 63(5) concludes that there would be NO adverse effects on the integrity of the Special Area of Conservation; subject to appropriate mitigation being secured via the planning conditions listed above. Planning Permission can legally be granted***.'**

On consultation of the draft HRA, Natural England objected to the proposals on the grounds listed below. Please note only a summary of the objection is provided, please refer to Natural England, 2024 for full details.

- '***Habitat Restoration & Recreational Pressure.*** *Whilst the vast majority of the condition issues are caused by agricultural pollution, developments close or directly adjacent to the river and recreational pressure (from a wide range of activities including angling, canoeing, boating and dog walking) are already very high, particularly in this semi-urban location. This proposal should therefore be assessed against this baseline taking into account in-combination effects with other proposals and current activities. On that basis it Natural England's view that this proposal will significantly increase recreational pressure along a greater stretch of the River Wye.*'

- '***Impacts on notified species: Otters, White-clawed Crayfish and Freshwater Fish****. The current HRA does not consider the increased impacts of the proposal on each of the species the site is notified for. The HRA should assess the in-combination effects of the added recreational impact / pressure on this already heavily disturbed stretch of river.*'

This document has been compiled to inform an updated Habitats Regulations Assessment Appropriate Assessment to be undertaken by Hereford Council. Natural England will then be re-consulted.

1.2 In-combination Effects

The potential for in combination effects will only be considered for those components identified as unlikely to have a significant effect alone, but which could act in

combination with other plans and projects to produce a significant effect. This approach accords with recent guidance on HRA (Tyldesley & Chapman, 2013).

A planning application by Hereford District Angling Club, for the proposed construction of 28 fishing platforms, was submitted to Hereford Council in 2024. In light of this application submission along the banks of the River Wye, the Appropriate Assessment has been updated to include an '*in-combination*' test to address likely '*cumulative effects*' of the two adjacent projects operating simultaneously and consider whether any mitigation required and proposed as part of the Wyeside Project at the Site needs amending.

An existing boat ramp is present to the east of the Site, as part of the rowing club, which is a stretch of *c.*80m of artificial bankside habitat approximately 70m east of the proposed development.

The following impacts can lead to in-combination effects with other plans or projects:

- Changes in water quantity and quality (*e.g.* interruption of groundwater base flow, impacts from flood events, pollution (including air pollution) and / or non-toxic contamination such as nutrient enrichment.
- Physical disturbance (*e.g.* temporary/ permanent habitat removal, alteration of the riverbanks).
- Increased recreational pressure.

There is the potential for both the scheme itself and other plans and projects to result in significant effects on the River Wye SAC, as described above.

1.3 Habitats Regulations Assessment – Appropriate Assessment

This assessment determines that, with appropriate mitigation and protective measures, there will be no adverse effect on the integrity of the River Wye SAC, in view of its conservation objectives, (alone or in combination with other projects and plans). Therefore, Stage 3 – Assessment of alternative solutions is not recommended.

2. ASSESSMENT

2.1 Introduction

As detailed above, the International/ European Site taken forward to this Appropriate Assessment are:

- River Wye/ Afon Gwy Special Area of Conservation (SAC)

The proposed development includes installation of a 15m x 7.5m pre-cast concrete stepped boat ramp, supported by cantilevered steel concrete filled piles, to eliminate interface with the riverbed during construction and operation. There will be approximately fourteen reinforced concrete capped steel piles required to support the proposed ramp, as well as steel support beams below. The steel piles will be hydraulically vibrated into the embankment and concrete installed inside the steel casings following installation. A Davit Arm will be installed to the west of the proposed boat ramp and will be secured to the bank. Rip rap rock armour (or similar) will be placed both upstream and downstream to provide wave dissipation and scour protection. All machinery used as part of the riverbank and in-channel works will be situated on the existing footpath to the north of the proposed boat ramp.

Additional works as part of the proposed development include construction/ diversion of a footpath to the west of Hereford Sea Cadets Headquarters building and construction of a Site access road and site compound area to the north and west of Hereford Sea Cadets Headquarters building, approximately 30m north of the River Wye SAC.

Following installation, the boat ramp will be used during the Sea Cadet boating season, which is between April and October annually. No boating will be allowed outside of this period due to potential flooding of the River Wye. There is an existing wooden and steel floating launch platform which is currently used by the Sea Cadets. The proposed development will also be utilised by the local community, canoeists and other river users as a stop-off point free-of-charge.

This shadow Appropriate Assessment assesses the impacts on these habitats considered to have effects on the River Wye SAC and whether they may adversely affect the site's integrity in light of the Conservation Objectives, outlined below

2.1.1 Overview of the Conservation Objectives of the River Wye SAC

An overview of the River Wye SAC conservation objectives is set out below.

'*Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats and habitats of qualifying species*
- *The structure and function (including typical species) of qualifying natural habitats*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which qualifying natural habitats and habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site*.'

The River Wye SSSI is designated for its special interest of associated plant and animal communities, including key breeding areas for many national and internationally important species, as set out within the description for the River Wye SAC (Natural England, 1996).

2.1.2 Scope of Shadow Appropriate Assessment

The River Wye SAC Qualifying Features for which significant effects (whether 'alone' or 'in combination') are likely or cannot be ruled out and which are relevant to this shadow Appropriate Assessment are outlined in Table 1, below.

Table 1: Potential threats and impacts on qualifying features of the River Wye SAC.

Potential Threat	Qualifying feature(s) affected	Risk to Conservation Objectives	Potential for in-combination effects
Water pollution	- Rivers with floating vegetation often dominated by water crowfoot - Sea lamprey - Brook Lamprey - River lamprey - Allis shad - Twaite shad - Atlantic salmon - Bullhead - White-clawed crayfish - Otter	- The construction phase associated with the installation of the proposed boat ramp and Davit Arm could cause pollution within the River Wye, as well as other changes in water quality, which could either directly affect the aquatic habitats and qualifying features present within the site or indirectly affect other areas of the River Wye SAC downstream which are vulnerable to this type of change (European Commission, 2019). Processes that may have an impact include (but are not limited to) hydraulic vibration of steel casing into the riverbank, removal of bankside vegetation, use of potentially harmful chemicals in and around the river channel, run-off from storage of chemicals and harmful substances within the proximity of the River Wye SAC. - The operational phase associated with the proposed development will increase use of the River Wye SAC by boat users, which may affect water quality and aquatic vegetation.	Yes
Physical modification of the River Wye SAC (bankside and in-channel modification)	- Rivers with floating vegetation often dominated by water crowfoot - Sea lamprey - Brook Lamprey - River lamprey - Allis shad	- Creation of artificial bank surface which may cause a partial obstruction to migratory fish. - Removal of bankside vegetation, reducing the natural habitat along the bankside (*c*. 0.012ha) and altering its function, including a reduction in potential foraging and sheltering habitats.	Yes

Potential Threat	Qualifying feature(s) affected	Risk to Conservation Objectives	Potential for in-combination effects
	- Twaite shad - Atlantic salmon - Bullhead - Otter	- Disturbance of migratory fish species during the construction phase of the proposed development. - Fish that may be present within or utilise the stretch of the River Wye directly affected by the proposed development could be subjected to indirect impacts during the construction phase, such as changes in water quality (*e.g.* pollution and/ or non-toxic contamination).	
Invasive species	- Rivers with floating vegetation often dominated by water crowfoot - Allis shad - Twaite shad - White-clawed crayfish	- Potential spread of invasive species, both faunal and floral. Risk of spreading Himalayan balsam and Japanese knotweed which is present on the riverbanks at / near to the proposed boat ramp location (JH Ecology, 2023) during construction and operation of the proposed development. - Potential biosecurity threats to white-clawed crayfish during the construction and operational stages of the proposed development. - The presence of signal crayfish, known to be present along the River Wye, may have serious effects on shad habitat and may predate heavily on shad juvenile if present at a high density (Natural England, 2022). The spread of crayfish plague to native, white-clawed crayfish through the construction and operation of the proposed boat ramp may contribute to the spread of signal crayfish along the River Wye. Potential physical displacement and spread of signal crayfish may occur through	Yes

Potential Threat	Qualifying feature(s) affected	Risk to Conservation Objectives	Potential for in-combination effects
		the construction phase of the proposed development.	
Hydrological changes	- Rivers with floating vegetation often dominated by water crowfoot - Sea lamprey - Brook Lamprey - River lamprey - Allis shad - Twaite shad - Atlantic salmon - Bullhead - White-clawed crayfish - Otter	- Artificial barrier within the water channel of the River Wye, occupying less than 10% of the river channel. Potential alterations to flow rates both upstream and downstream. - Potential reduction in flood storage capacity/ additional impermeable surface during flood events. - Reduction of sunlight reaching the riverbed through overhang of pre-cast steps, reducing available riverbed for aquatic plants such as water crowfoot.	Yes
Public access/ disturbance (relating to recreational activities)	- Rivers with floating vegetation often dominated by water crowfoot - Sea lamprey - Brook Lamprey - River lamprey - Allis shad - Twaite shad - Atlantic salmon	- Additional recreational use of the bankside and river channel by canoeists and boat users. - Potential increase in disturbance of the riverbed and bankside, as well as potential increase of biosecurity issues with boating equipment used across multiple sites.	Yes

Potential Threat	Qualifying feature(s) affected	Risk to Conservation Objectives	Potential for in-combination effects
	- Bullhead - White-clawed crayfish - Otter		

2.2 Current Condition of the European Site & the Qualifying Features of the River Wye SAC

The SIP (Natural England, 2014) for the River Wye/ Afon Gwy SAC sets out the issues threatening the condition of the river, which have been summarised below as appropriate for the proposed development.

Water pollution

'*Water quality is important for all SAC species and habitats, e.g. high water quality is vital to the breeding success of Salmon. Point sources of concern are relatively localised e.g. mining waste, raised metals concentrations and phosphates. Sedimentation and diffuse pollution are key issues in the catchment including upland acidification (affecting river pH values). Implementation of a Diffuse Water Pollution Plan and Nutrient Management Plan is necessary. Pesticides have been a concern historically e.g. pyrethroids, cypermethrin and metaldahydes. Current and future changes in cropping patterns across the catchment could cumulatively impact on the water quality, predominantly through diffuse pollution e.g. planting maize to feed biodigesters, siting of potato fields, irrigation needs, levels of poultry manure. The promotion of sustainable farming practice throughout the catchment is required to help address this.*'

The majority of the recommended mitigation actions in the SIP relate to agricultural and livestock pollution. However, given the usage of the proposed development, water pollution through the use of the River Wye SAC for boating activities has been taken into consideration within this shadow Approriate Assessment.

Physical modification

'*This is a relatively near natural river system and needs to be maintained as such. Small scale development has occurred throughout the river and is impacting on hydromorphology and character. Ongoing work to the riverbank eases public access but causes localised erosion issues. A series of weirs on the Lugg affect the natural hydromoprhology. River Restoration Plans have been prepared for the Wye and Lugg and these need to be implemented. Gravel input from the upper catchment is reduced due to the Elan Reservoirs, and low bankside tree cover may minimise the input of large woody debris necessary within a healthy river system*.'

Recommended mitigation actions in the SIP include:

- Implement the NE, EA and NRW River Restoration Plans.
- Consider opportunities for river accessibility. Investigate and pilot access designs, monitor erosion impacts and also education opportunities related to potential damage and construction methods.

Invasive species

'*Himalayan Balsam, Japanese Knotweed, Giant Hogweed and hybrids are present throughout the catchment and these require control. In addition a management strategy is required for Signal crayfish which are also present within the catchment and SAC. To prevent other invasive species, for example, killer/demon shrimps reaching the catchment, a biosecurity strategy is required*.'

Recommended mitigation actions in the SIP include:

- Implement best practice biosecurity measures and raise awareness amongst river users and land managers.
- Coordinate and implement an invasives species control programme for invasive terrestrial features.

Hydrological changes

'*Urban drainage and new development can affect the hydrology. Poor siting of infrastructure causes excessive (and silt laden) run-off. e.g. new windfarm or forestry track. Woody debris in the river system is of benefit to fish but is limited by lack of tree cover. Bankside grazing generally limits tree cover which, with other factors such as climate change, could lead to an associated water temperature increase over time. Cattle and sheep have free access to the river, throughout the year, in many places so extensification of grazing stock would be beneficial. The planting of tree belts and strategic use of appropriate fencing on vulnerable land will help improve runoff*.'

Recommended mitigation actions in the SIP include:

- Regenerate bankside trees by fencing out selected areas and encourage extensification of riparian areas including large areas of dense scrubby

vegetation suitable for otter breeding. As part of this consider: Phytophthora disease; the need to retain deadwood for protected species, and the implications for the veteran tree network.

- Undertake habitat creation and restoration works to mitigate and offset the loss of habitat and connectivity caused by hydrological change.

Public access / disturbance

'*The high usage of the river by canoeists and anglers has the potential to cause disturbance to SAC species and habitats as well as the supporting or dependant flora and fauna. Examples range from the cutting of water crowfoot Ranunculus beds for navigation, dogs disturbing otters and the disturbance of gravel bars and beds by canoeists*.'

Recommended mitigation actions in the SIP include:

- Assess the impact on SAC features of high user numbers on, and in proximity to the river. Identify measures required to mitigate any areas of concern including educating the public and companies regarding the sensitive use of the river.

2.3 Assessment of Identified LSEs on the relevant Qualifying Features of the River Wye SAC

2.3.1 Water Pollution

Discharge of silt-laden waters and other particulate matter could occur during the construction phase of the proposed development, including surface run-off during pile installation and construction of the Davit Arm foundations. Impacts of silt-laden run off include potential nutrification and change of pH levels of the River Wye immediately adjacent and downstream of the proposed boat ramp, lower oxygen levels and potential suffocation of qualifying features of the SAC (migratory fish). Silt and sediment run-off from construction activities could result in accumulation in the gills of fish, causing smothering, as well as smothering of gravel beds and therefore a reduction in flora resulting in a loss of sheltering habitats. Discharge of silt-laden water and dust deposition, which can arise from dewatering excavations and exposed ground for example, can have damaging impacts on all life-stages of fish

(Kemp *et al*., 2011). Effects associated with particulates are known to be especially damaging for fish eggs and larvae/ fry (Robertson *et al*., 2006) and therefore have implications for spawning success for migratory fish species. Salmonid eggs (as well as lamprey eggs) require a well-oxygenated environment during the embryonic development stage. When deposited in the water, excess fine sediment can obstruct the circulation of oxygenated water, which reduces egg survival (Magee *et al*. 1996).

It is anticipated that adult and juvenile fish species will transit through and use the habitats adjacent to the Site. Potential sedimentation is likely to cause less of an impact on adult and juvenile fish species, as it is known that fish exhibit avoidance reactions and move away from adverse sediment conditions (Bash *et al*., 2001) and could therefore potentially move to avoid any unfavourable discharges of particulate matter (Robertson *et al*., 2006). Any effects of particulate matter on migratory adult and juvenile fish that may occur would therefore be expected to be short-term and temporary in nature.

An embargo period will be implemented, where no bankside works will be undertaken between 15 October and 15 June the following year inclusive, to avoid the most sensitive period for migratory fish. An Ecological Clerk of Works (ECoW) will supervise bankside vegetation removal works which will ensure precautionary measures are undertaken when other fish species are likely to be in the River Wye channel (in particular, salmonid species and European eel present in the channel during autumn). This will minimise silt-laden discharge arising from the construction phase of the proposed development.

Accidental spillage of chemicals and substances, and run-off may have sub-lethal to lethal effects on migratory fish species, dependent on the pollutant, extent of exposure, and the level of toxicity of chemicals (Hamilton *et al*., 2015). Fish eggs and larvae are particularly sensitive to all kinds of low-level environmental change and pollution (Westernhagen, 1988), whilst pollution may lead to behavioural effects in adult/ juvenile fish such as avoidance of affected areas and barriers to migration (Thorstad *et al*., 2008). This is particularly pertinent with the proposed installation of concrete-filled steel piles to support the pre-cast concrete steps.

A Dust Prevention Plan, Run-off Prevention Plan and Accidental Spill Prevention Plan will all be implemented prior to the commencement of construction activities, as set out within the Environmental Management Plan (EMP) (Barhale, 2024). This will prevent dust particles, silt-laden run-off and accidental spills from entering the River Wye channel. These prevention plans will also set out measures to avoid accidental damage to bankside habitats not subject to removal as part of the proposed development.

Although silt-laden discharge is considered unlikely as part of the proposed development, the Run-off Prevention Plan set out in the EMP will minimise the likelihood of silt-laden run-off entering the River Wye, implemented by the following measures:

- Spoil heaps and mounds of earth will be removed from the riverbank/ boat ramp area as soon as possible, to avoid sediment entering the water channel.
- Where spoil is required to be stockpiled, this will be situated within the Site compound and sealed to avoid accidental run off into the river following adverse weather conditions (*e.g.* prolonged / heavy rainfall).
- Any discarded materials will be stored in skips (or similar container) within the Site compound, rather than in piles on the ground.
- Machinery will be cleaned within the Site compound prior to commencement of works each day, to avoid accidental sediment run-off from machinery wheels and tracks.
- Removal of bankside vegetation will be undertaken in small sections as and when required, reducing the amount of bare earth present immediately adjacent to the water channel and thus avoiding excess sediment run-off.

The Accidental Spillage Prevention Plan will be put in place as part of the EMP with particular focus on the construction phase of the installation of steel cased concrete piles. This includes the following measures:

- Use of specialist machinery to infill the steel casings with concrete, to ensure concrete does not enter the watercourse or come into contact with the riverbank. The steel casings installed in the riverbank prior to infilling will act as a shutter, preventing discharge into the watercourse.

- Storage of concrete will be in the Site compound, in containers where possible.
- All machinery and associated fuel/ materials will be stored in the Site compound.
- Activities that can lead to soil contamination (*e.g.* refuelling and concrete mixing) will not be carried out within 10 metres of the bank top. These activities will be carried out within the designated Site compound area.
- Potential pollutants will be securely stored in appropriate containers.

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to water pollution of the River Wye SAC, on migratory fish species is considered to be **negligible** when the implementation of the mitigation measures set out above are taken into consideration. Alongside this, the proposed development does not involve agricultural or livestock pollution potential, as set out in the SIP for the SAC.

2.3.2 Physical Modification

The permanent physical modification of the bank of the River Wye SAC to facilitate the proposed boat ramp could give rise to an obstruction to migratory fish following installation of the pre-cast steps. Qualifying migratory fish species assumed present within this section of the River Wye SAC include sea lamprey, river lamprey, Atlantic salmon, allis shad and twaite shad, which all require an unobstructed river system to migrate upstream to spawn. True barriers to migratory fish movements include damns, weirs and culverts, which restrict large expanses of a river's width. However, the proposed boat ramp will extend into the river less than 10% of the river's width at an average river flow, therefore the obstruction caused by the proposed boat ramp is not considered to impede the migratory patterns of these qualifying species.

The loss of vegetation along the bank of the River Wye SAC to facilitate development will remove potential sheltering and foraging opportunities for all qualifying species within the River Wye and associated habitats. Refuges for parr are particularly important for avoidance of predators (CEFAS, 2024). The banks of the River Wye at the proposed boat ramp site are dominated by species-poor grassland

in poor condition, with little to no aquatic or marginal vegetation suitable for foraging and sheltering fish species (JH Ecology, 2023).

Approximately *c.*0.012ha of poor condition bankside habitat will be lost to the proposed development as part of the installation of the pre-cast boat ramp. This will reduce the amount of natural habitat along the River Wye SAC. In combination with other proposed and permitted developments along the bank of the River Wye, this has the potential to impact hydromorphology and character of the river.

The proposed development will cause the loss of a small amount of riverbed, through the overhang of the pre-cast steps into the river channel. Gravel on the riverbed is often used by spawning fish (including Atlantic salmon) to lay their eggs (CEFAS, 2024) and a loss of potential spawning grounds/ riverbed sheltering areas may cause local impacts on migratory fish populations.

White clawed crayfish are found in a wide variety of environments including canals, streams, rivers, lakes, reservoirs and water-filled quarries. When discussing habitat requirements in rivers only, white-clawed crayfish are typically found in watercourses of 0.75m to 1.25m deep, but the species may occur in very shallow streams (about 5cm of water) and in deeper, slow-flowing rivers (2.5m). They require cryptic habitats such as under rocks and boulders, submerged logs, amongst tree roots. Adult crayfish may burrow into suitable substrates particularly in the winter months.

The white-clawed crayfish habitat assessment undertaken by JH Ecology (JH Ecology, 2023) considered the length of the River Wye at this location to be unsuitable for this species. This was due to the lack of potential refuges along the riverbed (such as large stones/rocks, submerged logs and exposed mature tree roots). The fast-flowing water also significantly reduces the likelihood of white-clawed crayfish being present within the zone of influence of the proposals. Additionally, the proposals will result in no direct impact on the river channel. In the absence of suitable habitat for white-clawed crayfish and no physical damage to the riverbed, it can be determined with confidence that no direct or indirect impacts on white-clawed will result due to the proposals.

The proposed boat ramp will remove a small section of the bankside of the River Wye, reducing potential foraging and sheltering habitat for otters. Otters occupy large home ranges (10-20km) and are a highly mobile species, therefore the loss of a short section of poor condition habitat along the riverbank is unlikely to significantly affect this species.

The '*in-combination*' effects of the proposed fishing platforms along the same stretch of the River Wye, in absence of mitigation, reduce the amount of natural riverbank even further, with poor condition vegetated habitats in-between. The 'do-nothing' approach in this location will limit the beneficial habitat features required by the qualifying features of the River Wye SAC. In addition, if habitat management in this location is left unsecured, it is likely that invasive species will spread along the riverbanks, further reducing the suitability of the River Wye for qualifying features.

The *'in-combination'* effects of existing artificial bankside infrastructure (the existing boat ramp to the east of the Site) include the further reduction of habitat with no ecological value. In the absence of mitigation, this increase of artificial bankside habitat reduces the suitability (sheltering and foraging habitat) and connectivity of the riverbank for qualifying features of the River Wye SAC, including migratory fish and otter.

Habitat management mitigation is proposed as part of the proposed development, to include bankside vegetation planting, to mitigate the loss of *c.*0.012ha of natural bankside habitat. The current vegetation structure and habitat within the Site is considered sub-optimal for the qualifying features of the River Wye SAC, including fish species, otter and white-clawed crayfish. The existing bankside structure is prone to erosion and the current habitat is dominated by species poor grassland and invasive species (Himalayan balsam). The increased tree and vegetation planting will provide stabilisation of the riverbank through the growth of roots, as well as providing sheltering and foraging opportunities, which are currently lacking for qualifying species in this location. The increase of tree cover along the riverbanks also aligns with the SIP objectives and will eventually, with an implemented habitat management plan, contribute to the deadwood required for a healthy river system. This will also ensure ecological connectivity is maintained through suitable

vegetative habitats along this stretch of the river. Monitoring of created habitat will be undertaken as part of the proposed development to ensure success of the mitigation measures.

Installation of gravel bed trays either side of the rip rap structures (or similar) will provide additional potential sheltering habitat for qualifying features of the River Wye SAC. It is considered unlikely these will be used as spawning areas given the level of disturbance around this section of the River Wye (existing boat users and public access). However, these provide additional habitat and sheltering opportunities for migratory fish species. Floating ecosystem modules (Biomatrix, 2024) installed within the River Wye channel will provide sheltering and foraging opportunities for fish species within the river, which will be particularly important for fry and parr and provide potential foraging opportunities for species such as allis and twaite shad, where present (Maitland and Hatton-Ellis, 2003).

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to physical modification, on qualifying features of the SAC is considered to be **negligible** when the implementation of the mitigation measures set out above in taken into consideration.

Disturbance of qualifying species, in particular fish species present in the river channel, may occur during the construction phase of the proposed development. Cyprinid and non-cyprinid migratory fish species assumed present in the channel of the River Wye migrate between October and July, dependent on species. A soft start approach will be implemented during in channel works to allow any fish within the river channel to disperse prior to in-channel and bankside works, including steel pile drilling and installation of the pre-cast steps.

As part of the proposed development, an embargo period will be implemented to avoid construction activities within the channel at sensitive times for migratory fish species within the River Wye SAC. This embargo will be between 15 October and 15June the following year inclusive, and no bankside works will be undertaken during this time.

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to disturbance of migratory fish species of the SAC is considered to be **negligible** when the implementation of the mitigation measures set out above are taken into consideration.

2.3.3 Hydrological Changes

A potential change to the flow rate and pattern of the River Wye both upstream and downstream of the proposed boat ramp may cause potential impacts for migratory fish. The proposed boat ramp occupies less than 10% of the channel width and therefore it is considered unlikely that the change of flow will be significant. However, a change of flow surrounding the proposed boat ramp may cause additional erosion to the riverbanks both upstream and downstream, changing the morphology of the bank and vegetation present.

A loss of flood storage capacity or a change in bank substrate may cause potential increased flood risks. The proposed boat ramp sits within Flood Zone 3, an area with high probability of flooding. There are no excavations or nearby fish refuge areas where fish may become trapped after a flooding event and therefore a fish rescue mitigation strategy is not required.

No aquatic vegetation was present within the channel of the river or along the margins of the channel during the Phase 1 habitat survey undertaken by JH Ecology in 2022. It is considered unlikely that a reduction in riverbed capacity for aquatic plants will therefore impact the local surrounds of the Site.

Mitigation measures for hydrological changes set out as part of the proposed development include:

- Placement of rip rap (or similar) upstream and downstream of boat ramp to ensure the banks either side of the Proposed Development are protected during various water levels and flow rates.
- Management and maintenance of erosion controls will be undertaken to ensure no scour or vertical incisions are created around the proposed boat ramp.

- Creation of floating ecosystem modules to increase in-channel vegetation.
- Planting of native bankside vegetation (in particular trees) to increase flood storage capacity and reduce flow rates at times of high water.

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to disturbance of migratory fish species of the SAC is considered to be negligible with the implementation of the mitigation measures set out above.

2.3.4 Invasive Species

Invasive floral species can often dominate and outcompete native species-rich habitats, which provide shelter and foraging opportunities for qualifying species in the River Wye SAC. Woody debris from bankside trees is often used by Atlantic salmon for shelter and as spawning grounds (Environment Agency, 2024), which arise from the presence of bankside trees, which will be outcompeted by invasive species. Himalayan balsam was recorded on the banks of the River Wye during 2022 (JH Ecology, 2023), including within the proposed boat ramp site. Himalayan balsam is a fast-growing invasive annual plant, which can leave riverbanks bare and exposed when it dies back in winter, thus increasing erosion and contributing to water pollution (Herefordshire Wildlife Trust, 2020).

Signal crayfish are known to be present along the River Wye (Herefordshire Wildlife Trust, 2020) and carry a fungal disease which is fatal to native, white-clawed crayfish, a qualifying feature of the River Wye SAC. The construction and operational phase of the proposed boat ramp may cause the spread of fungal disease along the river, on machinery, boating equipment and through footfall.

Signal crayfish may also predate heavily on allis and twaite shad juveniles (qualifying features of the River Wye SAC). The spread of crayfish plague may contribute to the further decline of native, white-clawed crayfish within the River Wye, as well as physical displacement of signal crayfish within the River Wye at the proposed boat ramp site, which may in turn cause impacts on qualifying features of the River Wye SAC. However, the displacement and introduction of signal crayfish into the River Wye at the proposed boat ramp site is considered unlikely.

Mitigation measures as part of the proposed development include the implementation of an Invasive Non-Native Species Management Plan (INNS MP), which will include measures such as:

- Removal of Himalayan balsam and Japanese knotweed (where present within 7m of the development footprint) will be undertaken prior to commencement of works, with methods outlined in the INNS MP and the following general biosecurity measures followed throughout construction.
- Abiding by specific control measures (*e.g*. signage) designed to prevent access to affected areas.
- Avoiding contact with invasive species to reduce the risks of accidental seed dispersal and plant matter adhering to clothing and equipment.
- Checking equipment and machinery for any organisms and debris of invasive species.
- If required to enter the watercourse, clean and wash all equipment, clothing and footwear thoroughly with a suitable cleaning agent (*e.g*. FAM 30 Animal Disinfectant). Any organisms or debris found will be left where they were found.
- After entering the watercourse / waterbody, equipment and clothing must be thoroughly dried before being used elsewhere, as some animal pathogens survive in moist conditions.
- Reference to the 'Check, Clean, Dry' campaign (GB Non-native Species Secretariat, 2017).

Monitoring of the riverbank at the Site will be implemented, through a habitat management plan, to ensure there is no spread of invasive non-native species and a reduction in invasive non-native species at this location. Native vegetation planting (as set out in Section 2.3.2) will help to establish a natural bankside vegetation structure and with ongoing invasive non-native species management, will increase the suitability of the riverbank at the Site for qualifying features of the River Wye SAC.

In-combination with other proposed and permitted developments, a collective INNS MP along the stretch of the River Wye SAC will reduce the number of invasive non-native species along the river, increasing overall the suitability of the available

vegetative habitats for the qualifying features of the River Wye SAC. The increase in more suitable vegetation along the River Wye at this location will avoid fragmentation impacts for species such as otter.

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to the spread of invasive non-native species of the SAC is considered to be **negligible** when the implementation of the mitigation measures set out above are taken into consideration.

2.3.5 Public Access & Disturbance

The purpose of the proposed boat ramp is to primarily allow sea cadets access to the River Wye easily from the Sea Cadet Headquarters (HQ) directly opposite the proposed development. The Client also foresees that the proposed boat ramp will be used *ad-hoc* by members of the public. A slight increase of human disturbance will result within this section of the River Wye, as well as the wider upstream and downstream reaches of the river. Sea Cadet activity will be limited to between April and October and is expected to be between 20 and 40 launches on average weekly, generally between April and September (Vaga Marine Services, 2024). This is expected to be an increase of approximately 4-5 groups per year from the existing baseline. The proposed development will also provide a stop-off point, free of charge, which will not increase the disturbance or usage of the river.

The construction of a davit arm to the west of the Site to facilitate emergency services will potentially increase river use annually, although this is increase will not be significant from the baseline use of the river.

Disturbance of gravel beds within the River Wye may cause issues for spawning fish which rely on gravelly substrate to lay their eggs and the fry which may stay within the river substrate until matured or until migration back to sea (Čihař, 1998).

Biosecurity issues arise from in river users, such as the spread of disease and the spread of invasive species. This applies to both the bankside invasive non-native species and crayfish plague carried by signal crayfish.

The rise in footfall from the proposed footpath realignment has the potential to increase erosion along the banks of the River Wye, as well as an increase in '*desire lines*' to access the river.

In-combination with the proposed fishing platforms adjacent to the proposed development, in absence of mitigation, an increased level of disturbance could be expected, through increased footfall to the area, increased human activity in the river channel and on qualifying features of the River Wye SAC.

Mitigation measures set out as part of the proposed development include:

- The operational activity of the proposed development will be limited to between April and October, as is currently implemented by river users at this location. This avoids the majority of the migratory fish period of the River Wye (typically between October and May inclusive). A reduction in capacity of operational activities during June will also reduce the impact on migratory fish species. This will also reduce the disturbance of gravel beds (where present) for spawning fish.
- In-combination, the proposed development will operate at different times of the year to the proposed fishing platforms, which will avoid an increase of human activity at any one time.
- During operation, the proposed development will only be used between 6am and 11pm, avoiding the most sensitive nocturnal period. No artificial lighting is to be used as part of the proposed development.
- Construction of the footpath has the potential to increase footfall to the area. However, through the construction of a stable allocated footpath, this will discourage the public to access the river via the riverbank. An increase in created wooded bankside habitat, along with educational signage, will also discourage access points along the natural banks, reducing eroded points along the bank.
- Reference to the 'Check, Clean, Dry' campaign (GB Non-native Species Secretariat, 2017) will be made on educational signage and all boat ramp users will be educated on biosecurity measures prior to use.

- Use of the davit arm will reduce the contact of boats and boat users with the riverbank and water edges, while allowing quicker boat deployment and therefore potentially a reduction in vibration and noise as part of use. The davit arm will also be available to emergency services, reducing boat launch times from 30 minutes to 5 minutes (Vaga Marine Services, 2024) and reducing unnecessary disturbance to the river channel and water margins.
- Educational signage to include important information on the River Wye SAC will help to encourage sustainable and responsible usage of the river by both recreational river users and the general public (*e.g*. dog walkers). No lighting will be included within the Site design, to avoid artificial illumination of this stretch of the river affecting qualifying features such as commuting otter and white-clawed crayfish. The lack of lighting will also discourage the general public from using the footpath and boat ramp outside the hours set out above.
- An increase of native tree and shrub cover at the Site either side of the proposed development will further discourage use of the riverbank for recreational purposes, whilst increasing sheltering opportunities for species such as otter.

The impact of the development proposals either alone or in combination with any other plans or projects, with regards to public access/ disturbance of the SAC is considered to be **negligible** when the implementation of the mitigation measures set out above are taken into consideration.

Table 2: Appropriate Assessment Conclusion.

Risk to Conservation Objectives (in absence of mitigation measures)	Risk Analysis in view of proposed mitigation measures	Conclusion	Residual Effects
Water pollution from silt-laden run-off, dust and accidental spillages.	Implementation of prevention plans will ensure the water quality of the river is maintained in this location. No agricultural or livestock pollution (considered to affect the water quality of the SAC) will enter the river as part of the proposed development. Therefore, no significant effect on the fish assemblage or other qualifying features of the River Wye SAC is predicted, as impacts are considered to be effectively *de minimus.*	'No adverse effect' on site integrity is predicted as a result of the proposed development, either alone or in combination with any other plans or projects.	No
Physical modification of the riverbanks of the River Wye SAC.	There will be a loss of *c.*0.012ha of bankside habitat and an increase in condition of *c.*0.01ha of bankside habitat with the creation of native bankside trees and shrubs. The inclusion of erosion control measures, management and maintenance of natural habitat features will ensure the riverbank maintains ecological connectivity and increases suitable habitats for qualifying features such as migratory fish, otter and white-clawed crayfish. Therefore, no significant effect on the qualifying features of the River Wye SAC is predicted, as impacts are considered to be effectively *de minimus.*	'No adverse effect' on site integrity is predicted as a result of the proposed development, either alone or in combination with any other plans or projects.	No

Risk to Conservation Objectives (in absence of mitigation measures)	Risk Analysis in view of proposed mitigation measures	Conclusion	Residual Effects
Hydrological changes through the construction of artificial structures in the river channel.	Regenerating bankside trees through the planting of native tree and shrub vegetation, in line with the SIP objectives, will offset the loss of habitat and connectivity caused by hydrological change. Inclusion of erosion features, additional in-channel vegetation features along with management and maintenance plans will minimise the potential hydrological changes associated with the proposed development. Therefore, no significant effect on the qualifying features of the River Wye SAC is predicted, as impacts are considered to be effectively *de minimus.*	'No adverse effect' on site integrity is predicted as a result of the proposed development, either alone or in combination with any other plans or projects.	No
Spread of invasive species as part of the construction and operational phase. Spread of invasive plant species (Himalayan balsam) through the 'do-nothing' approach.	An INNS MS as part of the proposed development to ensure the spread of invasive non-native species does not occur through the construction or operational phase. An eradication scheme for invasive non-native species at the Site, to allow for the creation of native bankside vegetation in this location. Biosecurity measures in places to inform the general	'No adverse effect' on site integrity is predicted as a result of the proposed development, either alone or in combination with any other plans or projects.	No

Risk to Conservation Objectives (in absence of mitigation measures)	Risk Analysis in view of proposed mitigation measures	Conclusion	Residual Effects
	public and all river users of invasive non-native species, including signal crayfish and Himalayan balsam. Reference to Check, Clean, Dry' campaign (GB Non-native Species Secretariat, 2017) throughout the operational phase to ensure compliance. Therefore, no significant effect on the qualifying features of the River Wye SAC is predicted, as impacts are considered to be effectively *de minimus.*		
Public access and disturbance increase through the construction of a free of charge boat ramp and a slight increase in boat users along this stretch of the River Wye. Potential disturbance of gravel beds and aquatic vegetation (where present).	The increase in public education about the importance of the River Wye SAC as a conservation area. Information on the sensitive features of the River Wye to encourage best practice river use and riverside use. The creation of native vegetation along the riverbank will discourage access to the river bank where not desired. Therefore, no significant effect on the qualifying features of the River Wye SAC is predicted, as impacts are considered to be effectively *de minimus.*	'No adverse effect' on site integrity is predicted as a result of the proposed development, either alone or in combination with any other plans or projects.	No

3. ANNEXES

3.1 Plans

3.2 Habitats Regulations Assessment

3.3 Report Objectives

3.4 Methods

3.5 References & Bibliography

3.6 Legislation

3.1 Plans

3.1.1 Location Plan

3.1.1 Site Location Plan

Legend

Site Boundary

River Wye SAC (& SSSI)

Client:	Mr Stephen Taylor
Site:	Wyeside Project
Title:	Site Location Plan
Contract:	2988
Issue Date:	28 August 2024

Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

3.2 Consultation Responses

3.2.1 Natural England Consultation Response 4 July 2024

Date: 04 July 2024
Our ref: 477004
Your ref: 233442

Ollie.Jones@herefordshire.gov.uk

BY EMAIL ONLY

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dear Ollie

Planning consultation: 233442 - HRA & Appropriate Assessment - Proposed boat ramp, siting of crane & associated hardstanding and footpath. 39 Greyfriars Avenue, Hereford HR4 0BE
Location: 39 Greyfriars Avenue, Hereford HR4 0BE

Thank you for your consultation on the above dated 23 May 2024 which was received by Natural England on 23 May 2024

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

SUMMARY OF NATURAL ENGLAND'S ADVICE

OBJECTION

Natural England objects to this proposal. As submitted we consider it will:

- have an adverse effect on the integrity of the River Wye Special Area of Conservation https://designatedsites.naturalengland.org.uk/
- damage or destroy the interest features for which The River Wye Site of Special Scientific Interest has been notified.

Natural England's further advice on designated sites/landscapes and advice on other natural environment issues is set out below.

European site - River Wye SAC

The application site is within the catchment of the River Wye Special Area of Conservation (SAC) which is a European designated site (also commonly referred to as Natura 2000 sites), and therefore has the potential to affect its interest features. European sites are afforded protection under the Conservation of Habitats and Species Regulations 2017, as amended (the 'Habitats Regulations'). The SAC is notified at a national level as the River Wye Site of Special Scientific Interest. (See here for information on the European Site Conservation Objectives for River Wye SAC.)

Natural England notes that your authority, as competent authority, has undertaken an appropriate assessment of the proposal in accordance with regulation 63 of the Conservation of Species and Habitats Regulations 2017 (as amended). Natural England is a statutory consultee on the appropriate assessment stage of the Habitats Regulations Assessment process, and a competent authority should have regard to Natural England's advice.

Natural England notes that your appropriate assessment concludes that your authority is able to ascertain that the proposal will not result in adverse effects on the integrity of any of the sites in question alone. However an in-combination assessment does not appear to have been carried out.

Having considered your assessment, and the measures proposed to mitigate for any adverse effects, Natural England's advice is that your assessment is not sufficiently rigorous or robust to justify this conclusion and therefore it is not possible to ascertain that the proposal will not result in adverse effects on the integrity of the sites in question. We advise that your authority should not grant planning permission at this stage.

Please note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 28I (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow a further period of 21 days before the operation can commence.

Natural England Objects to this proposal on the following grounds:

Whilst the urban nature and the inherent recreational demands on this section of the River Wye are noted, a balance is required that also recognises the requirements of this section of the SAC as a protected site in unfavourable declining condition with a restore objective. The "creeping cumulative loss of habitat" in terms of multiple and increasing footprints has reached a tipping point in terms of the restore objective and the HRA should assess the proposal in this context.

We advise that additional work on the Habitats Regulation Assessment is therefore required to enable it to be sufficiently rigorous and robust. Natural England should be re-consulted once additional work has been undertaken and the appropriate assessment has been revised taking into account the following considerations.

This proposal is not a replacement and will significantly expand the existing boat ramp structure, including the addition of a crane, introducing a new 15m stretch of artificial bank in very close proximity to the rowing clubs existing large, concrete boat launch. The combination of these two structures will result in a notable stretch of artificial bank being of almost no ecological value.

- **Habitat Restoration and Recreational Pressure**

The River Wye SAC has a restore objective, further alteration to the banks of the river could prevent the restoration of both bankside and in channel habitat. The condition status of the River Wye SSSI was also downgraded to 'unfavourable declining' in 2023.

Whilst the vast majority of the condition issues are caused by agricultural pollution, developments close or directly adjacent to the river and recreational pressure (from a wide range of activities including angling, canoeing, boating and dog walking) are already very high, particularly in this semi-urban location. This proposal should therefore be assessed against this baseline taking into account in-combination effects with other proposals and current activities. On that basis it Natural England's view that this proposal will significantly increase recreational pressure along a greater stretch of the River Wye.

The HRA's proposed mitigation is that the banks are already damaged/disturbed therefore the works can be justified. Natural England does not agree. There is bank scour/erosion in this location and the boat launch could cause changes to the water currents, but this has not been assessed in the HRA. The proposed rock gabions will provide little benefit to the designated features of the River

Wye, they can result in vertical channel incision and result in the deflection of scour to further points downstream in the river. If the proposal is to also use them in an area where scour is currently taking place it is likely that regular maintenance would be required. The addition of rock and rip rap to rivers is not in keeping with the naturalness of the river.

- **Impacts on notified species: Otters, White-Clawed Crayfish and Freshwater Fish**

The current HRA does not consider the increased impacts of the proposal on each of the species the site is notified for. The HRA should assess the in-combination effects of the added recreational impact / pressure on this already heavily disturbed stretch of river. In addition if the proposed timing of 6am to 11pm are an extension of current use then the impact of this on notified species also needs to be considered.

Otter, a notified species of the River Wye SAC, use the river and riparian habitat. Otters are a European protected species under the Conservation of Habitats and Species Regulations 2017. Potential impacts affecting otters could occur as a result of riparian habitat loss or degradation, disturbance to resting and feeding sites in or near water bodies. The proposed running times from 6am to 11pm will coincide with the period where otter are active and impact cannot be ruled out here, white-clawed crayfish are also generally more active at night time.

No information relating to the scale and type of boats proposed to use the ramp and river are provided or use of a crane to lift the boats in and out of the water with regards to the impacts of the physical presence of the boats and noise to the features of the site.

The HRA assessment does not assess the impacts of this proposal on freshwater fish with regards to the loss of suitable habitat and shelter as a result of the increase in the developed area of the existing bankside habitat.

The HRA does not include an in combination assessment.

Other advice

Natural England's advice on this planning application is limited to the Habitats Regulations Assessment. The Local Authority should satisfy itself that there are no other impacts on the natural environment, and reconsult Natural England if necessary.

Further general advice on consideration of protected species and other natural environment issues is provided at Annex A.

Should the proposal change, please consult us again.

For any further consultations on your plan, please contact: consultations@naturalengland.org.uk.

Yours sincerely

Sally McLaughlin

Sally McLaughlin
Lead Adviser

Paul Horswill
Senior Adviser

Land use planning – West Midlands Area Team

Planning for a Better Environment – West Midlands Team.

3.3 Habitats Regulations Assessment

3.3.1 Identification & Characterisation of European Sites

Table 3: Summary of European Sites and Site Characterisation

European Site	Site Characterisation
River Wye / Afon Gwy SAC SAC EU Code: UK0012642	**Qualifying Features:** <u>Annex I habitats that are a primary reason for selection of this site:</u> 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. <u>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</u> 7140 Transition mires and quaking bogs. <u>Annex II species that are a primary reason for selection of this site:</u> 1092 White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*. 1095 Sea lamprey *Petromyzon marinus* 1096 Brook lamprey *Lampetra planeri* 1099 River lamprey *Lampetra fluviatilis* 1103 Twaite shad *Alosa fallax* 1106 Atlantic salmon *Salmo salar* 1163 Bullhead *Cottus gobio* 1355 Otter *Lutra lutra* <u>Annex II species present as a qualifying feature, but not a primary reason for site selection:</u> 1102 Allis shad *Alosa alosa*
	Conservation Objectives: Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site. **NOTE:** This SAC crosses the border between England and Wales. Some features may only occur in one Country. The above Conservation Objectives are provided by Natural England. The author has selected these Conservation Objectives as the proposed development is within England, rather than Wales. The advice of Natural Resources Wales should therefore be sought separately, if

	required.
	Condition Status: River Wye / Afon Gwy (taken from Natural England's Designated Sites View): Favourable: 0% Unfavourable – recovering: 0% Unfavourable – no change: 0% (0ha) **Unfavourable – declining: 100% (905.48ha)** Partially destroyed: 0% (0ha) Destroyed: 0% (0ha) Not Recorded: 0% (0ha) Last assessment date: 29/05/2023 Comment: *Natural England is seeking to undertake a full condition assessment of all monitored features for both the River Wye SSSI and River Lugg SSSI in 2024. In the interim, the Area Team has reviewed a number of features using Common Standard Monitoring Guidance (CSMG) to review the current condition status through data and evidence from the Environment Agency. As per CSMG if one feature is classed as unfavourable, unfavourable no change or unfavourable declining, the whole unit of the river is classed as such, irrespective of other interest features. This interim assessment focused on Water Quality, Atlantic Salmon, Macrophytes and White Clawed Crayfish as indicators and components of the SSSIs notified features. This assessment has shown some declines in Macrophytes, Salmon and White-Clawed Crayfish for the Wye and declines in Salmon, Water Quality and White Clawed Crayfish for the Lugg. Whilst there is some uncertainty on the cause of the declines, and some of the causes may be beyond the catchment, we cannot be assured that all necessary management is currently in place, despite the significant efforts of many stakeholders, to deem the site to be recovering. The condition of all units across both SSSIs has therefore been updated to unfavourable declining.*
	Key Environmental Conditions: Water courses of plain to montane levels with *the Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation for which this is considered to be one of the best areas in the United Kingdom. Transition mires and quaking bogs for which the area is considered to support a significant presence. *Petromyzon marinus* for which this is considered to be one of the best areas in the United Kingdom. *Lampetra fluviatilis* for which this is considered to be one of the best areas in the United Kingdom. *Lampetra planeri* for which this is considered to be one of the best areas in the United Kingdom.

	Alosa alosa for which the area is considered to support a significant presence. *Alosa fallax* for which this is considered to be one of the best areas in the United Kingdom. *Salmo salar* for which this is considered to be one of the best areas in the United Kingdom. *Cottus gobio* for which this is considered to be one of the best areas in the United Kingdom. *Lutra lutra* for which this is considered to be one of the best areas in the United Kingdom. *Austropotamobius pallipes* for which this is considered to be one of the best areas in the United Kingdom.
	Vulnerabilities: The most important impacts and activities with high effect on the site: Negative Impacts: H02: Pollution to groundwater (point sources and diffuse sources) J02: Human induced changes in hydraulic conditions. J03: Other ecosystem modifications. I01: Invasive non-native species. B02: Forest and plantation management and uses.

Documents that have been reviewed for additional information on this site and to help inform the Stage 2 – Appropriate Assessment include:

- Herefordshire Local Plan Core Strategy 2011 – 2031
- River Wye SAC Nutrient Management Plan
- National Planning Policy Framework
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Hereford Sea Cadets – Boat Ramp Proposal Renders (Barhale, 06/02/2024)
- Site Profile – Boat Ramp (Barhale, 26/01/2024)
- Boat Ramp Plan and Details (Barhale, 26/01/2024)
- General Arrangement – Site Plan (Barhale, 06/02/2024)
- Location Plan (Barhale, 06/02/2024)
- Natural England Consultation Response (08/12/2023)
- Planning Statement (Urban Vista Planning, 08/11/2023)
- Environment Agency Consultation Response (fluvial flood risk comments, 14/12/2023)
- Construction Phase Plan (Barhale, 08/2023)

- Environmental Management Plan (Barhale, 26/10/2023)
- Boat Ramp and Riverbed Interface Details (Barhale, 26/01/2024)

3.3.2 Other Project & Plans

Table 4 below outlines the organisations have been contacted for details on other plans and projects which have the potential for adverse effects, in combination with the proposed development, on identified Natura 2000 site.

Table 4: Organisations contacted for details of other plans and policies which may impact on the identified Natura 2000 site.

Organisation	**Response (as of 28.08.2024)**
Natural England	04 July 2024: Natural England objected to the proposal.
Hereford Council Planning Portal	Planning applications within the proximity of the Proposed Development.
Natural England	Email correspondence dated 12 August 2024.

3.4 Report Objectives

The objectives of this document are:

1. To determine whether, in view of an international site's conservation objectives, the development proposals (either alone or in combination with other projects and plans) would have an adverse effect (or risk of this) on the integrity of River Wye SAC with respect to the site(s) conservation objectives; and
2. To identify and assess the suitability of appropriate measures to mitigate impacts and ensure no adverse impact on site integrity.

3.5 Methods

The Habitats Regulations Assessment process prescribed in Article 6(3) and (4) of the Habitats Directive can be summarised into four stages.

- Stage One: Screening.
- Stage Two: Appropriate assessment.
- Stage Three: Assessment of alternative solutions.
- Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain.

This report is written to inform the second stage (Appropriate Assessment).

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*"

(Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Article 6 (3)).

This report follows guidance produced by the European Commission (2001) ('*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC'*), with regard to the method of undertaking Habitats Regulations Assessment, including Stage 2: Appropriate Assessment.

For the purposes of this report, the definitions employed follow guidance from the European Commission (2018) "*Managing Natura 2000 sites The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*".

Further context and definitions:

Integrity of a site: "*The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified*". (Office of the Deputy Prime Minister, 2005).

Affect on Conservation Objectives:

The potential impact of a project or plan on Conservation Objectives can be considered in a number of ways, as below:

Does the project or plan have the potential to:

- Cause delays in progress towards achieving the conservation objectives of the site?
- Interrupt progress towards achieving the conservation objectives of the site?
- Disrupt those factors that help to maintain the favourable conditions of the site?
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?

(Taken and adapted from European Commission (2001)).

Mitigation vs Compensation:

European Court of Justice: Briels (2014).

'*The 'adverse effect on integrity' test can 'take account of the protective measures forming part of the project aimed at avoiding or reducing any direct adverse effects for the site in order to avoid any adverse effect on integrity*' (Paragraph 28).

'*However, protective measures provided for in a project which are aimed at compensating for the negative effects of the project on a Natura 2000 site cannot be taken into account in the assessment of the implications of the project provided for in Article 6 (3)'* (Paragraph 29).

Court of Appeal *Smyth v Secretary of State for Communities and Local Government* (2015) EWCA Civ 174.

'*preventive safeguarding measures'* are relevant to assessing the adverse effect on integrity (AEOI) test.

'off-setting measures, where the competent authority is asked to allow harm to a protected site to occur, on the basis that this harm will be counter-balanced and offset by other measures to enhance the environment elsewhere or in other ways' are not relevant to the adverse effect on integrity test.

3.6 References & Bibliography

Atkins, Natural England and Environment Agency (2014). *River Wye SAC Nutrient Management Plan Evidence base and options appraisal*. Atkins, Epsom, UK.

Barhale (2023). *Environmental Management Plan (EMP).* Barhale Ltd, Walsall, UK (unpublished).

Bash, J., C.H. Berman, and S. Bolton. (2001). *Effects of turbidity and suspended solids on salmonids.* Center for Streamside Studies, University of Washington, Seattle, WA, November 2001. 72 pp.

Biomatrix Water (2024). *Floating Ecosystems*. Available at: https://www.biomatrixwater.com/floating-ecosystems/

Briels (2014). Briels v Minister van Infrastructuur en Milieu C-521/12 http://curia.europa.eu/juris/document/document.jsf;jsessionid=A32930F5870D4A6678F4B59CFCEC6DC3?text=&docid=152343&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=3687213

CEFAS (2024). *Salmon Life Cycle*. Available at: https://www.cefas.co.uk/iys/salmon-life-cycle/

Chanin, P (2003). *Monitoring the otter* Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough, UK.

CIEEM (2017). *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester, UK.

Čihař, J. (1998). *Freshwater Fish*. Octopus Books. Pp.183. Prague.

Environment Agency (2023). *Consultation document: proposed boat ramp, siting of crane and associated hardstanding and footpath. 39 Greyfriars Avenue Hereford Herefordshire HR4 0BE*. Unpublished.

Environment Agency (2024). *Fish in the Wye*. Available at: https://engageenvironmentagency.uk.engagementhq.com/fish

European Commission (2001). *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitat Directive 92/43/EEC.* Office for Official Publications of the European Communities, Luxembourg.

European Commission (2018). *"Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC".* Office for Official Publications of the European Communities, Luxembourg. https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_6_nov_2018_en.pdf

GB Non-Native Species Secretariat (2017). *Check Clean Dry*. Available at: https://www.nonnativespecies.org/what-can-i-do/check-clean-dry/

Hereford Council (2011). *Herefordshire Local Plan Core Strategy 2011-2031*. Hereford Council, Hereford, UK.

Herefordshire Wildlife Trust (2020). *What's wrong with the Wye?* Available at: https://www.herefordshirewt.org/blog/wye

Her Majesty's Stationary Office (2017). *The Conservation of Habitats and Species Regulations*. Her Majesty's Stationary Office, London, UK.

Institute of Environmental Assessment (1995). *Guidelines for Baseline Ecological Assessment*. E & FN Spon, London, UK.

JH Ecology (2023). *Ecological Impact Assessment. Wyeside Project, River Wye, Hereford.* JH Ecology Ltd, Somerset, UK (unpublished).

Kemp, P., Sear, D., Collins, A., Naden, P. and Jones, I. (2011). *The impacts of fine sediment on riverine fish*. Hydrol. Process., 25: 1800-1821. Wiley Online.

Magee, J.P., McMahon, T.E. and Thurow, R.F. (1996). *Partial variation in spawning habitat of cutthroat trout in a sediment- rich stream basin.* Trans. Am. Fish. Soc. 125: 768-779

Maitland, PS. and Hatton-Ellis TW. (2003). *Ecology of the Allis and Twaite Shad*. Conserving Natura 2000 Rivers Ecology Series No. 3. English Nature, Peterborough.

Ministry of Housing, Communities & Local Government (2019). *Appropriate Assessment. Guidance on the use of Habitat Regulations Assessment.* https://www.gov.uk/guidance/appropriate-assessment

Nature Conservancy Council (1989 and updates**)**. *Guidelines for selection of biological SSSIs.* Nature Conservancy Council, Peterborough, UK.

Natural England and Natural Resources Wales (2014). *Site Improvement Plan: River Wye*. NE & NRW, UK.

Natural England (2015). *River Restoration Theme Plan*. Natural England, UK.

Natural England (2018). *European Site Conservation Objectives for River Wye/ Afon Gwy Special Area of Conservation Site Code: UK0012642*. Natural England, Crewe, Cheshire, UK.

Natural England (2022). *European Site Conservation Objectives: Supplementary advice on conserving and restoring site features*. Natural England, Crewe, Cheshire, UK.

Natural England (2024). *Planning consultation: 233442 - HRA & Appropriate Assessment - Proposed boat ramp, siting of crane & associated hardstanding and footpath. 39 Greyfriars Avenue, Hereford HR4 0BE. Location: 39 Greyfriars Avenue, Hereford HR4 0BE. Correspondence reference 233442, dated 04 July 2024.* Natural England, Crewe, Cheshire, UK (unpublished).

Office of the Deputy Prime Minister (2005). *Circular 06/2005: Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system*. Her Majesty's Stationary Office, London, UK.

Office of the Deputy Prime Minister (2023). *National Planning Policy Framework (NPPF)*. Her Majesty's Stationary Office, London, UK.

Peay., S (2002). *Guidance on Habitat for White-clawed Crayfish and its Restoration*. English Nature and Environment Agency Technical Report W1-067/TR.

Reuther C, Dolch D, Green R, Jahrl J, Jefferies D, Krekemeyer A, Kucerova M, Madsen AB, Romanowski J, Roche K, Ruiz-Olmo J,Teubner J & Trinidae A (2000). Surveying and monitoring distribution and population trends of the European otter (*Lutra lutra*). *Habitat* 12, 1–148.

Robertson, M & Scruton, D. & Gregory, R. & Clarke, K. (2006). *Effect of suspended sediment on freshwater fish and fish habitat*. Canadian Technical Report Fisheries Aquatic Science. 2644. Research Gate.

Smyth v Secretary of State for Communities and Local Government (2015) EWCA Civ 174. http://www.hwa.uk.com/site/wp-content/uploads/2017/12/CD32.pdf

Thorstad, E.B., Økland, F., Aarestrup, K. *et al.* (2008). *Factors affecting the within-river spawning migration of Atlantic salmon, with emphasis on human impacts*. Rev Fish Biol Fisheries 18, 345–371. Springer Nature.

Tyldesley, D & Chapman, C. (2013). *The Habitats Regulations Assessment Handbook.* DTA Publications Limited, UK.

Urban Vista Planning (2023). *Planning Statement: River Wye Infrastructure*. Urban Vista Planning, UK (unpublished).

Vaga Marine Services (2024). *Boat Ramp Usage*. Email received 16th August 2024.

Westernhagen, H. (1998). *4 Sublethal Effects of Pollutants on Fish Eggs and Larvae.* Fish Physiology, Academic Press, Volume 11, Part A, Pages 253-346. Science Direct.

3.7 Legislation

3.7.1 The Conservation of Habitats and Species Regulations 2017 (as amended)

http://www.legislation.gov.uk/uksi/2010/490/contents/made

These regulations, referred hereafter as “the Habitats Regulations”, represent the primary method by which Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) is transposed for England and Wales and their territorial seas. The Habitats Directive, in conjunction with the Birds Directive (Council Directive 2009/147/EEC) forms the basis for implementation of Europe’s nature conservation policy through both habitat and species level protection. The Habitats Directive requires the designation of strictly protected European sites known as Special Areas of Conservation (SACs). Together with the Special Protection Areas (SPAs) established by the Birds Directive, these collectively form the Natura 2000 Network of protected sites. The Habitats Directive also requires the strict protection of animals and plants of Community Interest listed under Annex IV. Habitat types requiring strict protection as SACs are listed under Annex I. The conservation of animals and plants listed under Annex II requires the designation of SACs.

The Habitats Regulations require that public bodies must exercise their nature conservation responsibilities to ensure compliance with the Habitats Directive. These regulations also require the conservation of natural habitats and habitats of species through the selection, designation and notification of marine and terrestrial ‘European Sites’ to be afforded protection under the Habitats Directive. The habitats and species of European Importance are listed under Annexes I and II of the Habitats Directive. The regulations also contain provision for the appropriate management of these European Sites including the control of damaging operations, special nature conservation orders and restoration orders, for example.

Article 6 of the Directive concerns the protection of NATURA 2000 sites. Specifically, Member States are required to establish necessary conservation measures, as well as take appropriate steps to avoid deterioration of habitats for which the sites are designated. The Directive requires that plans or projects that are not directly connected with or necessary to the management of a NATURA 2000 site, and which are likely to give rise to significant impacts, are subject to an ‘appropriate assessment’ of their implications for the site in light of its conservation objectives. Such a plan or project can only be permitted where the responsible authority can be satisfied that it will not have an adverse effect on the integrity of the NATURA 2000 site in question.

4. QUALIFICATIONS & EXPERIENCE

Focus Environmental Consultants® has the expertise to provide sure-fire environmental solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist environmental reports and advice to support planning applications. Our comprehensive services include Preliminary Ecological Appraisals (PEA), Ecological Impact Assessment (EcIA), Habitat Regulations Assessment (HRA) and fulfilling protected species surveys, licensing and mitigation requirements. Focus Environmental Consultants is a CIEEM Registered Practice, with all ecological staff being members of this professional body. Our flexible approach, range of skills and broad project experience from major infrastructure contracts to small private developments allows us to adapt to your individual requirements. As well as offering a full suite of ecological services, Focus Environmental Consultants can provide expert arboricultural advice and reports and is building an enviable reputation for innovative habitat creation and management solutions. Focus Environmental Consultants is situated in Worcestershire, providing a convenient and central UK location.

Jennifer Kearney BSc (Hons) MSc ACIEEM
Jennifer is an Associate Ecologist with over nine years' professional experience in ecological consultancy. She holds a BSc (Hons) degree in Wildlife Conservation from the University of Wolverhampton and MSc in Ecology and the Natural Environment from the University of Bristol. Jennifer is experienced in undertaking Preliminary Ecological Appraisals (PEA), Ecological Impact Assessments (EcIA), Habitat Regulations Assessments (HRA) and completing Biodiversity Net Gain (BNG) and UK Habitat Classification condition assessments. She is a skilled botanical surveyor (FISC 4) and is experienced in undertaking a range of surveys for protected species including great crested newt, bat, hazel dormice, reptiles and badgers. Jennifer holds Natural England survey licences for great crested newts, bats (Class 2) and hazel dormice. She is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

This report has been checked for quality and content by:

Fern Fellowes-Day BSc (Hons) MSc MCIEEM MRSB
Fern has over twenty years of professional experience in the ecological consultancy field. She holds BSc (Hons) in Zoology from the University of Wales, Aberystwyth and MSc in Habitat Creation and Management from Staffordshire University. Fern has considerable experience in conducting Preliminary Ecological Appraisals, Ecological Impact Assessments (EcIA) and Habitat Regulations Assessments (HRA). Fern's particular expertise is with protected species surveys. As a Registered User of the CL35 Badger Class Licence she has extensive knowledge in dealing with the badgers, with practical experience in artificial sett design and creation and has held numerous Natural England licences to close or disturb badger setts. In addition, Fern holds survey licences for great crested newts, bats and white-clawed crayfish. Fern has held Natural England Mitigation (development) licences for great crested newts (including being a Registered Consultant for the new great crested newt Low Impact Class Licence (LICL)) and Conservation licences for white-clawed crayfish. She is particularly experienced in dealing with newt issues affecting the quarrying, mineral extraction and landfill industry.