

Monmouthshire Council Local Flood Risk Management Strategy

Habitats Regulations Assessment

April 2026

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This report describes work commissioned by Monmouthshire County Council. The Client's representative for the contract was Ross Price of Monmouthshire County Council. Isabella Kelsey BSc of JBA Consulting carried out this work.

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Abbreviations

BTO	British Trust for Ornithology
FAP	Flood Action Plan
FCERM	Flood and Coastal Erosion Risk Management (R&D programme)
FRMP	Flood Risk Management Plan
FWMA	Floods and Water Management Act
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservation Committee
LDA	Land Drainage Act
LDP	Local Development Plan
LFRMS	Local Flood Risk Management Strategy
LLFA	Lead Local Flood Authority
LRF	Local Resilience Forum
MCC	Monmouthshire County Council
NFM	Natural Flood Management
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NRW	Natural Resources Wales
Ramsar	The intergovernmental Convention on Wetlands, signed in Ramsar, Iran, in 1971
RBD	River Basin District
RBMP	River Basin Management Plan
RMA	Risk Management Area
SAB	SuDS Approving Body
SAC	Special Area of Conservation, protected under the EU Habitats Directive
SEA	Strategic Environmental Assessment
SFCA	Strategic Flood Consequences Assessment
SFRA	Strategic Flood Risk Areas
SPA	Special Protection Area for birds, protected under the EU Habitats Directive
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
WeBS	Wetland Bird Survey
WFD	Water Framework Directive

Executive Summary

This report contributes to Monmouthshire County Council's (MCC) legal obligation under the Conservation of Habitats and Species Regulations 2017 (as amended) to carry out a Habitat Regulations Assessment (HRA) of its plans for effects on European Sites.

MCC has developed a Local Flood Risk Management Strategy (LFRMS) for its administrative area. As Lead Local Flood Authority (LLFA) under the Floods and Water Management Act 2010 they are responsible for the management of local flood risk, including from surface runoff, groundwater and flooding from ordinary watercourses (smaller rivers and streams).

Before a plan (or strategy) can be adopted, the 'competent authority' needs to demonstrate that the plan would have no significant effects on European Sites' integrity. An uncertain result is not acceptable and is treated as adverse until proven otherwise.

The first section of this report consists of the first step of the HRA process, which is to screen the LFRMS to determine whether the objectives, measures and associated actions identified in the Strategy could lead to a significant effect on European sites, either directly or indirectly, alone, or in combination with other relevant plans and projects.

European Sites consist of Special Areas of Conservation (SAC) designated for habitats and animal species, and Special Protection Areas (SPA) designated for bird species. Ramsar sites designated under the Ramsar Convention on Wetlands 1971 are also included following Government policy.

The LFRMS contains eight high level objectives and nineteen measures to manage flood risk in the county. A county wide Flood Action Plan has also been produced which includes individual plans and actions for each of nine identified Strategic Flood Risk Areas (SFRAs).

The Screening Assessment identified that there is the potential for likely significant effects arising from the implementation of two measures and a number of actions in the LFRMS on the following European Sites:

- Severn Estuary SAC, SPA and Ramsar
- River Wye SAC
- River Usk SAC

Therefore, an Appropriate Assessment was required to determine whether the LFRMS would result in significant adverse effects on the integrity of these European sites.

Given the high-level nature of the LFRMS, and the unknowns at this stage with regards to the exact locations, design and construction methodologies for any of the proposed flood risk management activities, impacts on the designated features of the European Sites will need to be further reviewed and assessed at the project level.

Monmouthshire County Council are required under the Conservation of Species and Habitats Regulations 2017 (as amended) to undertake HRA for any plans, strategies or projects that could have pathways for effects on European sites. Therefore, any projects

with such pathways that result from the LFRMS will require project stage HRA. This will identify potential effects on European sites alone and in combination at a project level, as more detail emerges.

Therefore, whilst there is still some uncertainty on the nature, scale and implementation of some of the measures and actions in the LFRMS, the requirement for project level HRA and the implementation of appropriate mitigation/avoidance measures, as identified in the Appropriate Assessment, will ensure that potential significant adverse effects on the integrity of all identified European sites are avoided.

It is therefore concluded that the LFRMS can be adopted with no adverse impact on the integrity of European Sites.

1 Introduction

1.1 Introduction

This report details the Screening and Appropriate Assessment Stages of the Habitats Regulations Assessment of the Local Flood Risk Management Strategy (LFRMS) that has been developed by Monmouthshire County Council. It is intended to identify, describe and assess the likely significant effects of implementing the strategy on European designated sites (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) and Ramsar sites within and around Monmouthshire.

1.1.1 The Local Flood Risk Management Strategy

The Flood and Water Management Act 2010 determined the need for flood risk to be managed within the framework of National Strategies for England and Wales and within Local Strategies for each Local Flood Authority Area.

This Local Strategy focuses on these local sources of flood risk within Monmouthshire but acknowledges and considers other sources of flood risk (including main rivers, sea, and sewers) and associated responsible RMAs.

The National Strategy sets out the legislative context to FCERM activities in Wales. In certain cases, Local Authorities are also required to produce Flood Risk Management Plans (FRMP), under the 2009 Flood Risk Regulations.

1.2 Habitats Regulations Assessment

1.2.1 Legislative Context

The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019), also known as the 'Habitats Regulations', provide legal protection to habitats and species of national importance. The regulations also secure an ecological network of protected sites, consisting of SACs and SPAs. Government guidance also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance [Ramsar Convention]) are given the same level of protection as SACs and SPAs.

Prior to the UK's withdrawal from the EU, SACs were designated and protected under domestic legislation transposed from European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive), and SPAs under European Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive). Together these sites formed a European-wide Natura 2000 network of protected sites.

Since 31 December 2020, SACs and SPAs within the UK no longer fall within the Natura 2000 network, and instead form a National Site Network. SPAs and SACs continue to be referred to collectively as 'European sites' within the context of the Habitats Regulations, reflecting their international importance for the conservation of biodiversity.

SACs and SPAs within the National Site Network are also still designated for habitats listed on Annex I and for species listed on Annex II of the Habitats Directive, and criteria listed under the Birds Directive, and it is these Annex I habitats, Annex II species and Birds Directive Criteria against which assessments under the Habitats Regulations are still made.

It is a requirement of Regulation 105 of the Habitats Regulations that where a plan is likely to have a significant effect on a European site, either alone or in-combination with other plans or projects, and where it is not directly connected with or necessary to the management of the site "the plan-making authority for that plan must, before the plan is given effect, make an appropriate assessment of the implications for the site in view of that site's conservation objectives".

Therefore, for all plans that are not wholly directly connected with, or necessary to, the conservation management of the site's qualifying features, a formal Screening for any Likely Significant Effects (either alone or in-combination with other plans or projects) on a European site is required. This Screening Assessment is based on available ecological information on the designated site(s), other plans, projects, and policies relevant to the area and details of the proposed development/policy.

If the Screening Assessment concludes that the plan is likely to have a significant effect on the conservation objectives of the site(s), or that such an effect cannot be ruled out (adopting a precautionary approach) an Appropriate Assessment must be carried out. An Appropriate Assessment involves an assessment of the potential effects of the plan on the conservation objectives of the site(s). If significant effects are identified, avoidance measures or mitigation to reduce impacts can be applied.

If it cannot be concluded that the plan will not adversely impact upon the integrity of the site(s), the development will not be able to proceed without further conditions and/or assessment. The plan will need to prove that all alternatives have been considered and that there are imperative reasons of overriding public interest (IROPI) that outweigh the potentially damaging impacts that the plan may have before it can proceed. In this case compensatory measures will be required.

Planning documents, such as the Monmouthshire LFRMS, are required to undergo HRA if there is the potential for significant impacts and they are not directly connected with or necessary to the management of a European site. As the Plan is not connected with or necessary to the management of SACs, SPAs or Ramsar sites, it is necessary to undertake a HRA of the Plan.

2 HRA Methodology

2.1 Introduction

It is accepted best-practice for the HRA of strategic planning documents to be run as an iterative process alongside the plan development, with the emerging policies, sites or options continually assessed for their possible effects on European sites and modified or abandoned (as necessary) to ensure that the subsequently adopted plan is not likely to result in significant effects on any European sites, either alone or 'in-combination' with other plans. This is undertaken in consultation with the relevant statutory nature conservation body and other appropriate consultees.

2.2 HRA Process

The HRA will follow a four-stage process, based on that detailed in the Department for Communities and Local Government (DCLG) guidance Planning for the Protection of European sites: Appropriate Assessment (2006) and subsequent Government Guidance on the Use of Habitats Regulations Assessment (2019). These stages are described in Table 2-1.

Other guidance documents have been used to help inform the methodology of this assessment, including:

- 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 (European Commission 2002)
- The Habitats Regulations Assessment Handbook (DTA Publications, 2023).
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Communities, 2018)
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (European Communities, 2007)
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Communities, 2018)
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (European Communities, 2007)
- The National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG)
- The Planning Inspectorate PINS Note 05/ 2018: Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman, v Coillte Torana (The Planning Inspectorate, 2018)
- UK Government Guidance on the use of Habitats Regulations Assessment (July 2019) [<https://www.gov.uk/guidance/appropriate-assessment>]

Table 2-1: The HRA Process (DTA Publications, 2023).

HRA Stage	Description
Stage 1: Screening	This process identifies the likely significant effects upon a European site of a project or plan, either alone or in-combination with other projects or plans and determines whether these impacts are likely to be significant. Following the ECJ judgement in the case of “people over wind” (Case C-323/17). Measures that are necessary to avoid or reduce impacts on the European site, even when considered standard environmental best-practice, can only be assessed at Stage 2. If no likely significant effect is determined, the project or plan can proceed. If a likely significant effect is identified, Stage 2 is commenced.
Stage 2: Appropriate Assessment	Stage 2 is subsequent to the identification of likely significant effects upon a European site in Stage 1. This assessment determines whether a project or plan would have an adverse impact on the integrity of a European site, either alone or in-combination with other projects or plans. This assessment is confined to the effects on the internationally important habitats and species for which the site is designated (i.e., the qualifying features of the site). Appropriate Assessments, in line with ECJ Case C-461/17 Holohan v An Bord Pleanála, must also consider impacts upon habitats and species within or outside of a site boundary if they support a qualifying feature and could impact upon the conservation objectives of the site. The appropriate assessment assesses the likely significant effects of a proposal on the integrity of the site and its conservation objectives and identifies ways to avoid or reduce (mitigate) any potential for an ‘adverse effect on the integrity of the site’. If no adverse impact on site integrity is determined, the project or plan can proceed. If an adverse impact is identified, Stage 3 is commenced.
Stage 3: Derogations	Where a plan or project has been found to have adverse impacts on the integrity of a European site it may be granted an exemption, known as a derogation. It must pass 3 legal tests for a derogation to be granted: 1. There are no feasible alternative solutions that would be less damaging or avoid damage to the site. 2. The proposal needs to be carried out for imperative reasons of overriding public interest. 3. The necessary compensatory measures can be secured. If feasible alternative solutions are identified, that result in there being no adverse impacts from the project or plan on European sites, the project or plan can proceed. If no feasible alternative solutions are identified, as a rule the project or plan should not proceed. However, in exceptional circumstances, if there is an 'imperative reason of overriding public interest' for the

HRA Stage	Description
	implementation of the project or plan, consideration can be given to proceeding in the absence of alternative solutions. In these cases, compensatory measures will have to be put in place to offset any negative impacts.

2.3 HRA Stage 1: Screening Methodology

The principles of 'screening' are applied to a plan or its components to allow the assessment stage to focus on those aspects that are most likely to have potentially significant or adverse effects on European sites, as well as shape the emerging strategy. Screening aims to determine whether the plan will have any 'likely significant effects' on any European site as a result of its implementation. It is intended to be a coarse filter for identifying effects (positive and negative) that may occur, to allow the assessment stage to focus on the most important aspects. A plan should be considered 'likely' to have an effect if it is not possible (on the basis of objective information) to exclude the likelihood that the plan could have significant effects on any European site, either alone or in-combination with other plans or projects; an effect will be 'significant' if it could undermine the site's conservation objectives.

Screening can be used to 'screen-out' European sites and plan components from further assessment, if it is possible to determine that significant effects are unlikely (e.g., if sites or qualifying features are clearly not vulnerable (exposed and/or sensitive) to the outcomes of a plan due to the absence of any reasonable impact pathways).

In order to undertake screening of the LFRMS, it is necessary to:

- Identify the European sites within and outside the plan area likely to be affected, reasons for their designation and their conservation objectives.
- Describe the plan/strategy and their aims and objectives and also those of other plans or projects that in-combination have the potential to impact upon the European sites.
- Identify the potential effects on the European sites.
- Assess the significance of these potential effects on the European sites.

2.3.1 The Precautionary Principle

If there is uncertainty, and it is not possible, based on the information available, to confidently determine no significant effects on a site then the precautionary principle will be applied, and the plan will be subject to an appropriate assessment (HRA Stage 2).

2.3.2 Consultation

Natural Resources Wales (NRW) was consulted on the LFRMS and associated environmental assessments, including the HRA screening. This report provides an update to the HRA following the consultation comments.

2.3.3 Mitigation, Avoidance and Protective Measures

Following the People over Wind & Sweetman v Coillte Teoranta Case C-323/17, the assessment does not consider protective, avoidance or mitigation measures for stage 1 Screening. These measures are carried forward and considered as part of the stage 2 Appropriate Assessment, if required.

2.4 HRA Stage 2: Appropriate Assessment Methodology

For those European sites screened into the HRA, it is necessary to undertake an Appropriate Assessment to explore the potential adverse effects on their integrity and develop measures to avoid these effects entirely, or if not possible, to mitigate the impacts sufficiently that effects on the European sites are rendered effectively insignificant.

The stages involved in the Appropriate Assessment are to:

- Explore the reasons for the European designation of the "screened in" European sites.
- Explore the environmental conditions required to maintain the integrity of the "scoped in" European sites and become familiar with the current trends in these environmental processes.
- Gain a full understanding of the Monmouthshire LFRMS and consider the objectives and actions within the context of the environmental processes – would they lead to an impact on any identified process?
- Decide whether the identified impact will lead to an adverse effect on the integrity of the European site.
- In reference to ECJ case C-462/17 (Nov 18) Holohan v An Bord Pleanala, the Appropriate Assessment needs to include all typical habitats and species present within and outside of the boundaries of the European site if they are necessary for the conservation of the habitats and species listed for the protected area.
- Identify other plans that might affect these European sites in combination with the Monmouthshire LFRMS and decide whether there are any adverse effects that might not result from the strategy in isolation but will do so in-combination.
- Develop measures to avoid the effect entirely, or if not possible, to mitigate the impact sufficiently such that its effect on the European site is rendered effectively insignificant.

In evaluating significance, JBA Consulting has relied on its professional judgement, which will be further reinforced through consultation with Natural Resources Wales.

3 Description of the Strategy

3.1 Locations

The Monmouthshire Local Flood Risk Management Strategy (LFRMS) explains how flooding from local sources will be managed across Monmouthshire. It sets out a number of flood risk management objectives and measures and includes a Flood Action Plan that details the actions required to meet the objectives and measures identified in the LFRMS.

Actions have been identified for nine Strategic Flood Risk Areas (SFRAs): Honddu, Monnow, Trothy, Wye, Olway, Usk, Mownton Brook, Nedern Brook & West Pill Reen, and Mill Reen (Figure 3-1).

The Monmouth SFRA covers approximately 76km² and contains a number of small villages and towns which are linked by the B4347 and the B4233 county roads, including Grosmont, Skenfrith, Rockfield and the western edge of Monmouth. Higher elevations are notably in the north, with typically open countryside and woodlands leading to lower elevations in the south at Monmouth.

A network of watercourses flow across the Monnow SFRA, which ultimately flow into the designated main River Monnow. At the western end of the catchment, the Honddu flows into the Monnow at the county boundary north of Pandy. In the north, the Tresenny Brook flows west to east where it converges with the River Monnow at Grosmont. Further south, the Norton Brook also flows west to east and meets the River Monnow at Skenfrith. Other notable ordinary watercourses are located in Rockfield and along Wonastow Road (the Wonastow Brook) and Watery Lane in Monmouth. The River Monnow flows along the eastern boundary of the SFRA, predominantly in a north to south direction, along the English and Welsh border. It flows into the River Wye to the south of Monmouth which continues southwards to the Severn Estuary at Chepstow.

Each SFRA has an associated Flood Action Plan (FAP), detailing local flood risk characteristics, historical flooding, and a programme of targeted actions.

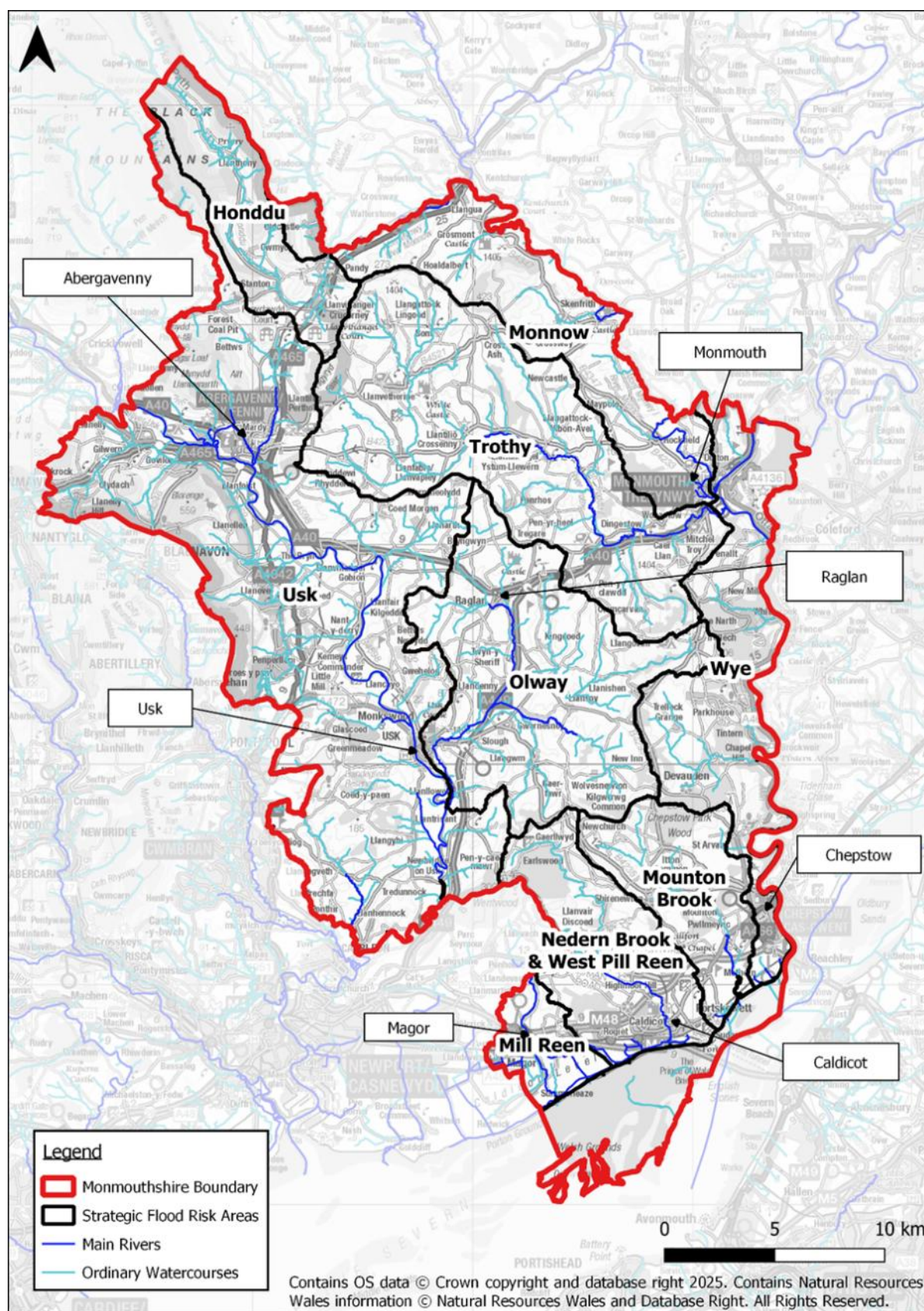


Figure 3-1: The strategic flood risk areas (SFRAs). Figure obtained from the LFRMS 2025

3.2 Strategic Objectives

The LFRMS sets out eight Local Strategy Objectives for Monmouthshire. These objectives focus on prevention, preparedness, protection, recovery, and long-term adaptation to climate change, while ensuring compliance with the Flood and Water Management Act (2010) and alignment with national strategies. Together, these elements form an integrated, catchment-based approach to flood risk management that balances engineered interventions with natural flood management and community resilience measures. The Monmouthshire local strategy objectives are outlined below.

Table 3-1: The Monmouthshire Local Strategy Objectives

Local Strategy Objectives	
1	Reduce the risk and impact of flooding to people and property.
2	Reduce disruption to critical infrastructure and essential services resulting from flooding.
3	Ensure a risk based and sustainable approach to investment and delivery of flood risk management activities.
4	Ensure flood resilience at environmentally significant and sensitive sites of national, regional and local importance is maintained and enhanced where possible.
5	Support the Water Framework Directive by preventing deterioration of watercourses and improve water quality.
6	Continue to improve understanding of flood risk and the impact of climate change within Monmouthshire
7	Raise awareness of flood risk amongst individuals and communities and support them to prepare for, respond to and recover from flood events
8	Work collaboratively with other Risk Management Authorities and organisations to effectively manage flood risk

3.3 Flood Measures

To deliver the objectives outlined in Table 3-1 above a range of measures are proposed. These are summarised in Table 3-2 below.

Table 3-2: Summary of Flood Measures

Theme	Ref	Measure
Development planning and adaptation	1	Sustainable & Strategic Development Planning
	2	Strategic Flood Consequence Assessment
	3	SuDS Approving Body
Flood forecasting, warning and response	4	Flood Awareness
	5	Flood Warning & Forecasting
	6	Emergency Response and Multi-Agency Plans
	7	Community Flood Plans
Land, cultural	8	Natural Flood Management & Nature Based Solutions

Theme	Ref	Measure
and environmental management	9	Environmental Enhancement & Habitat Creation
	10	Partnership Working
Asset management and maintenance	11	Flood and Drainage Asset Database
	12	Asset Management and Maintenance Plans
	13	Designation of Structures
Studies assessments and plans	14	Flood Investigations
	15	Flood Alleviation Schemes
	16	Strategic Flood Risk Area Management
	17	Flood Action Plan
Monitoring	18	Flood monitoring

3.4 Flood Action Plan

The Flood Action Plan sets out the local flood risk management actions required to meet the objectives and measures identified in the LFRMS. These actions include those that have already commenced, as well as new and future actions identified to help manage the risk of flooding from local sources.

Actions on a county wide scale have been included in the Monmouthshire Flood Action Plan. In addition, individual plans for each of the nine Strategic Flood Risk Areas (SFRAs) have been produced. The actions are detailed and assessed in Section 5.

4 European Sites

4.1 Introduction

As discussed in Section 1, European sites collectively form the National Site Network. The objectives of the National Site Network are to:

- a. maintain at, or where appropriate restore habitats and species listed in Annexes I and II of the Habitats Directive to a favourable conservation status in their natural range (so far as it lies in the United Kingdom's territory, and so far, as is proportionate).
- b. contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds listed in Annex I to the new Wild Birds Directive which naturally occur in the United Kingdom's territory and regularly occurring migratory species of birds not listed in that Annex which naturally occur in the United Kingdom's territory, and so securing compliance with the overarching aims of the Wild Birds Directive.

The National Site Network consists of:

- SACs - these are designated to protect those habitat types and species that are most in need of conservation (excluding birds).
- SPAs - these are designated to protect rare and vulnerable birds, and also regularly occurring migratory species.

Although not included in the legislation, as a matter of policy, Ramsar sites in England and Wales are protected in the same way as European sites, and therefore considered in the HRA process. The vast majority are also classified as SPAs and Sites of Special Scientific Interest (SSSIs). All SPAs and terrestrial SACs in England and Wales are also designated as SSSIs under the Wildlife and Countryside Act (1981) as amended.

For simplicity in this report, SACs, SPAs and Ramsar sites are collectively referred to as European sites.

4.2 European Sites in and Around Monmouthshire District

Best practice guidance suggests that sites occurring within a wider area of approximately 10km to 15km from the boundary of the area directly affected by a plan should be identified and assessed, in addition to those sites located within the plan area (Therivel, 2009). However, it is important to consider the possibility of impacts for any European site that might be affected, whatever its location, given the activities included in the plan and their range of influence. This may extend some distance from the area within the immediate influence of a plan.

There are nine SACs and one SPA located within Monmouth District. A further three SACs are located within the 10km and/or the 15km buffer surrounding Monmouthshire and have been deemed to be potentially within the influence of the Monmouthshire LFRMS. These sites are listed in Table 4-1 and shown in Figure 4-1.

Data on the European site qualifying features, their distribution, and their sensitivity to potential effects associated with the Monmouthshire LFRMS were obtained from various sources and reports, including the Joint Nature Conservation Committee (JNCC) and Natural Resources Wales and Natural England websites (citations, boundaries, management plans, site improvement plans etc). Detailed information on these sites, including their qualifying features and conservation objectives are provided in Table 4-2.

Table 4-1 European Designations in and around Monmouthshire District.

Designation	Within Monmouthshire District	Within the 10km and/or 15km buffer to Monmouth District and deemed to be within the influence of the LFRMS
SAC	Severn Estuary Wye Valley Woodlands Wye Valley & Forest of Dean Bat Sites River Wye Cwm Clydach woodlands River Usk Sugar Loaf Woodlands Usk Bat Sites Coed y Cerrig	Severn Estuary Wye Valley & Forest of Dean Bat Sites River Wye River Usk Usk Bat Sites Llangorse Lake Aberbargoed Grasslands Avon Gorge Woodlands
SPA	Severn Estuary	Severn Estuary
Ramsar	Severn Estuary	Severn Estuary

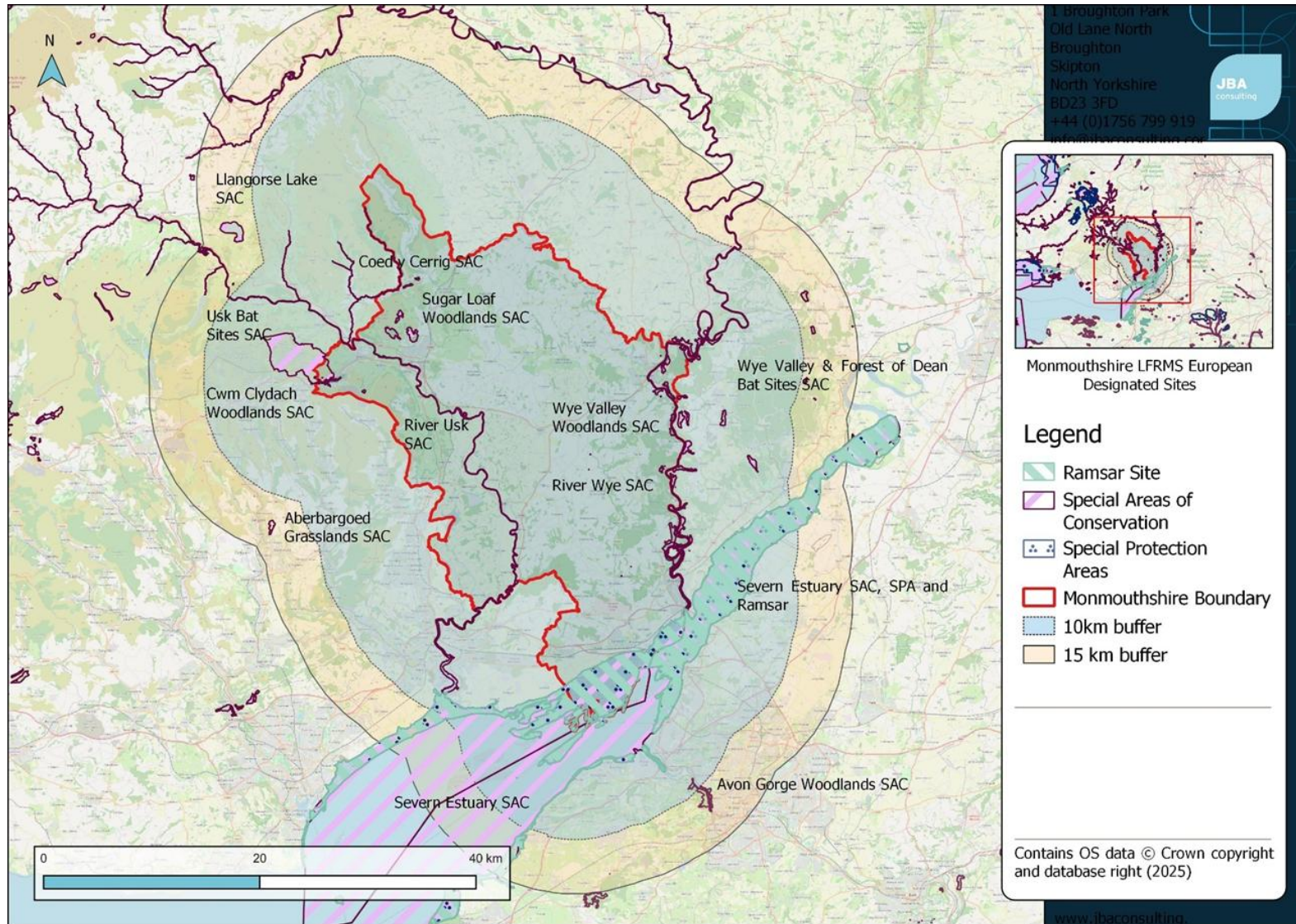


Figure 4-1: European Sites within a 10km and 15km boundary of the Monmouthshire LFRMS.

Table 4-2: Details of European Sites within and adjacent to Monmouthshire County. Information from JNCC and Natural Resources Wales/Natural England

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Severn Estuary SAC UK0013030	Estuarine and intertidal habitats Submerged marine habitats Anadromous fish	Annex I Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1110 Sandbanks which are slightly covered by sea water all the time 1170 Reefs Annex II Species 1095 Sea Lamprey <i>Petromyzon marinus</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i>	The site is vulnerable to: • Public access/disturbance • Physical modification • Impacts of development • Coastal squeeze • Change in land management • Changes in species distributions • Water pollution • Air pollution: impact of atmospheric nitrogen deposition • Marine consents and permits: minerals and waste • Fisheries: recreational marine and estuarine • Fisheries: commercial marine and estuarine • Invasive species • Marine litter • Marine pollution incidents

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Wye Valley Woodlands SAC UK0012727	Dry woodlands Mammals of wooded habitats	Annex I Habitats 9130 <i>Asperulo-Fagetum</i> beech forest 9180 <i>Tilio-Acerion</i> forests of slopes, screens and ravines 91J0 <i>Taxus baccata</i> woods of the British Isles Annex II Species 1303 Lesser Horseshoe bat <i>Rhinolophus hipposideros</i>	The site is vulnerable to: • Deer • Forestry and woodland management • Invasive species • Habitat connectivity • Species decline • Air pollution: impact of nitrogen deposition • Disease • Public access/disturbance
Wye Valley & Forest of Dean Bat Sites SAC UK0014794	Mammals of wooded habitats	Annex II Species: 1303 Lesser Horseshoe bat <i>Rhinolophus hipposideros</i> 1304 Greater Horseshoe bat <i>Rhinolophus ferrumequinum</i>	The site is vulnerable to: • Physical modification • Public access/disturbance Factors affecting the sites ecological character: • Habitat connectivity

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
River Wye SAC UK0012642	Riverine habitats and running water Bogs and wet habitats (sensitive to acidification) Anadromous fish Non-migratory fish and invertebrates of rivers Mammals of riverine habitats	Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation 7140 Transition mires and quaking bogs Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twait shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i>	The site is vulnerable to: • Water pollution • Physical modification • Invasive species • Hydrological changes • Forestry and woodland management • Fisheries: freshwater • Fisheries: fish stocking • Water abstraction • Public access/disturbance • Air pollution: impact of atmospheric nitrogen deposition • Inappropriate scrub control • Undergrazing • Transportation and service corridors

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Cwm Clydach Woodlands SAC UK0030127	Dry woodlands	Annex I Habitats: 9130 Beech <i>Asperulo-Fagetum</i> forests 9120 Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>)	Threats, pressures and activities with impacts on the site: F03 Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc. inside I01 Invasive non-native species inside and outside

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
River Usk SAC UK0013007	Riverine habitats and running water Anadromous fish Non-migratory fish and invertebrates of rivers Mammals of riverine habitats	Annex I habitat: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation Annex II species: 1095 Sea Lamprey <i>Petromyzon marinus</i> 1096 Brook Lamprey <i>Lampetra planeri</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1103 Twaite Shad <i>Alosa fallax</i> 1106 Atlantic Salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis shad <i>Alosa alosa</i>	Threats, pressures and activities with impacts on the site: I01 Invasive non-native species inside and outside A04 Grazing inside B07 Forestry activities not referred to above inside and outside H01 Pollution to surface waters (limnic & terrestrial, marine & brackish) inside and outside H05 Soil pollution and solid waste (excluding discharges) outside J02 Human induced changes in hydraulic conditions inside B02 Forest and Plantation management & use inside and outside J03 Other ecosystem modifications inside
Sugar Loaf Woodlands SAC UK0030072	Dry woodlands	Annex I habitats: 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	Threats, pressures and activities with impacts on the site: A04 Grazing B01 Forest planting on open ground B07 Forestry activities not referred to above H04 Air pollution, air-borne pollutants I02 Problematic native species I01 Invasive non-native species

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
			B02 Forest and Plantation management & use
Usk Bat Sites SAC UK0014784	Dry heathland habitats Bogs and wet habitats (sensitive to acidification) Upland Dry woodlands Mammals of wooded habitats	Annex I habitats: 4030 European dry heaths 7120 Degraded raised bogs still capable of natural regeneration 7130 Blanket bogs (* if active bog) 8210 Calcareous rocky slopes with chasmophytic vegetation 8310 Caves not open to the public 9180 Tilio-Acerion forests of slopes, screes and ravines Annex II species: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>	Threats, pressures and activities with impacts on the site: I02 Problematic native species I01 Invasive non-native species A04 Grazing J02 Human induced changes in hydraulic conditions E06 Other urbanisation, industrial and similar activities K04 Interspecific floral relations H04 Air pollution, air-borne pollutants

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Coed y Cerrig SAC UK0012766	Fens and wet habitats (not sensitive to acidification)	Annex I habitat: 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	The main threats and pressures to the integrity of the site are: • Inadequate woodland management • Inappropriate grazing levels • Inappropriate hydrological regime • Atmospheric pollution • Recreational pressure

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Severn Estuary SPA UK9015022	Birds of lowland freshwaters and their margins Birds of coastal habitats Birds of estuarine habitats	Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i> ; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i> ; Common shelduck (Non-breeding) A051 <i>Anas strepera</i> ; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i> ; Dunlin (Non-breeding) A162 <i>Tringa totanus</i> ; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i> ; Greater white-fronted goose (Non-breeding) Waterbird assemblage	The site is vulnerable to: • Public access/disturbance • Physical modification • Impacts of development • Coastal squeeze • Change in land management • Changes in species distributions • Water pollution • Air pollution: impact of atmospheric nitrogen deposition • Marine consents and permits: minerals and waste • Fisheries: recreational marine and estuarine • Fisheries: commercial marine and estuarine • Invasive species • Marine litter Marine pollution incidents

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
Severn Estuary Ramsar	Estuarine and intertidal habitats Submerged marine habitats Anadromous fish Birds of lowland freshwaters and their margins Birds of coastal habitats Birds of estuarine habitats	Ramsar criterion 1: Due to immense tidal range, this affects both the physical environment and biological communities including the Annex I features present. Ramsar criterion 3: Due to unusual estuarine communities, reduced diversity, and high productivity. Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Factors affecting the sites ecological character: • Dredging • Erosion Recreational/ tourism disturbance

European Site	Qualifying Feature (Broad Habitat/Species Groupings)	Qualifying Feature	Site Vulnerability
		Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common Redshank, Common Shelduck, Gadwall. Populations identified subsequent to designation: Ringed Plover (spring/autumn), Eurasian Teal (winter), Northern Pintail (winter), Lesser Black-backed Gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	
Llangorse Lake SAC UK0012985	Standing waters (not sensitive to acidification)	Annex I habitat: 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	The main threats and pressures to the integrity of the SAC are: • Water quality • Sedimentation • Non-native invasive species Loss of surrounding habitats

4.3 Conservation Objectives

There are a number of designated sites that cross the border between Wales and England and therefore the conservation objectives provided by both Natural Resources Wales and Natural England have been used in this assessment.

4.3.1 Natural Resources Wales Conservation Objectives

The conservation objectives set by Natural Resources Wales are detailed in the Core Management Plans for each of the designated sites. There is one conservation objective for each feature. Each conservation objective is a composite statement representing a site-specific description of what is considered to be the favourable conservation status of the feature and consists of a vision for the feature and a number of performance indicators.

For the Severn Estuary SAC, SPA and Ramsar the conservation objectives that cover the area in Wales are set out in the Severn Estuary SAC, SPA and Ramsar Site: Regulation 33 Advice from CCW and Natural England, June 2009.

Given the large number of sites and features being considered in this screening assessment, the conservation objectives have not been provided in this report but these have been reviewed and taken into account when completing the assessment.

4.3.2 Natural England Conservation Objectives

For the Severn Estuary SAC, River Wye SAC, Wye Valley and Forest of Dean Bat Sites SAC, Wye Valley Woodlands SAC and Avon Gorge Woodlands SAC the following Natural England conservation objectives apply for the areas in England:

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

For the Severn Estuary SPA the following Natural England conservation objectives apply to the area in England:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features

- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

4.4 Potential Hazards to European Sites

4.4.1 Introduction

Any strategy to manage flooding and the associated infrastructure upon which this strategy relies, can potentially have adverse impacts on the habitats and species for which European sites are designated. These impacts can be direct, such as habitat loss, fragmentation, or degradation, or indirect such as disturbance or pollution from construction, transportation etc.

This section identifies the potential hazards to European sites within and adjacent to Monmouthshire and then goes on to identify the types of hazards to which the qualifying features that are present within the sites are particularly sensitive.

4.4.2 Hazards to Sites

The European sites within and adjacent to Monmouthshire district include rivers and estuaries, and woodlands within the river valley. Potential hazards to the qualifying features are identified in Table 4-3 and Table 4-4 below.

Table 4-3: Potential Hazards to the European Sites within and adjacent to the district.

Potential Hazard		Description
1	Change in water levels	Flooding, or altered water levels, may have adverse impacts on water dependent habitats and species. Additionally, changes to groundwater may adversely impact on these habitats.
2	Changes in hydrological regime	These are changes to existing hydrological processes (e.g. changes to flow rates) that may alter the present characteristics of the European sites.
3	Changes in water quality	Activities which may impact upon water quality, such as accidental pollution spills as a result of construction of flood defences that may adversely affect wetland and coastal habitats as well as species, such as Annex II species, Sea lamprey <i>Petromyzon marinus</i> and River Lamprey <i>Lampetra fluviatilis</i> .
4	Changes to surface water flooding	Activities which may result in a reduction or increase in the frequency and extent of surface water flooding which may affect riverine, floodplain and other habitats.
5	Competition from invasive non-native species	Flooding may cause introduction or spread of invasive non-native species, particularly plants, which could result in changes to community composition and even to the complete loss of native communities.

Potential Hazard		Description
6	Disturbance	Human activity (construction or other) can adversely impact on the qualifying features of the site directly (physical disturbance) or indirectly (visual or noise).
7	Habitat fragmentation	This is where flood events, or flood risk management measures such as defence construction, or alterations in coastal processes.
8	Habitat loss	This is a loss of habitat within the designated boundaries of a European site, for example as a result of defence construction.
9	Habitat/community simplification	Changes to environmental conditions that result in a reduction and fragmentation of habitats, reducing biodiversity.
10	Turbidity and siltation	Increases in turbidity within water environments can impact upon aquatic plants, fish and wildfowl due to sedimentation and reduction in penetrable light. This may arise from construction activities or changed flooding/hydrological regimes.
11	Pollution	Human activity (construction or other) can result in pollution of soils and or air. Pollution that typically affects habitat will include dust and particulate matter (PM), nitrogen oxides (NOx), ammonia (NH3) and sulphur dioxide (SO2).

4.4.3 Qualifying Features and Sensitivity to Hazards

Table 4-4 below, shows the qualifying features of the European sites within and adjacent to Monmouthshire LFRMS and identifies the hazards to which they are sensitive (see Table 4-4). It must be noted that during the assessment of the potential impacts of the Monmouthshire LFRMS on a European site, all of the potential hazards will be considered.

Table 4-4: Sensitivity of Qualifying Features to Potential Hazards

	Potential Hazards											
	Habitat loss	Habitat fragmentation	Changes in physical regime	Physical damage	Habitat/ community simplification	Disturbance (noise/ visual)	Competition from invasive non-native species	Changes in water levels or table	Changes in water quality	Changes to surface water flooding	Turbidity and siltation	Pollution
SAC/Ramsar Habitat Groups												
Estuarine and intertidal habitats	✓		✓	✓	✓		✓	✓	✓		✓	✓
Submerged marine habitats			✓						✓		✓	✓
Riverine habitats and running water	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Fens and wet habitats	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Bogs and wet habitats	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Dry woodland	✓			✓	✓		✓			✓		✓
Dry grassland	✓			✓	✓		✓			✓		✓
Dry heathland habitats	✓	✓		✓	✓		✓			✓		✓

	Potential Hazards											
	Habitat loss	Habitat fragmentation	Changes in physical regime	Physical damage	Habitat/ community simplification	Disturbance (noise/ visual)	Competition from invasive non-native species	Changes in water levels or table	Changes in water quality	Changes to surface water flooding	Turbidity and siltation	Pollution
Standing waters	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓
Upland	✓			✓			✓			✓		✓
SAC/Ramsar Species Groups												
Vascular plants, lower plants and invertebrates of wet habitats	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Anadromous fish	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-migratory fish and invertebrates of rivers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mammals of riverine habitats	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mammals of woodland habitats	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
SPA/Ramsar Bird Species Groups												
Birds of lowland freshwaters and their margins	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Birds of coastal habitats	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Birds of estuarine habitats	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

5 Other Relevant Plans and Projects that might act In-combination

As part of the HRA, in addition to considering the proposed LFRMS itself, other relevant Projects and Plans in the county that may impact upon European Sites in-combination with the LFRMS must also be considered. For this assessment, and in keeping with the high-level nature of the plan, only key relevant high-level plans that could potentially result in in-combination effects have been considered and are described below.

5.1 Monmouthshire's Local Development Plan 2011 - 2021 (adopted 2014)

The LDP sets out the Council's vision and objectives for the development and use of land in Monmouthshire, together with the policies and proposals to implement them over a 10-year period to 2021. The plan area excludes that part of the County contained within the Bannau Brycheiniog National Park.

The Council submitted the Replacement Local Development Plan and associated documents to the Welsh Government and Planning Environment Decisions Wales for examination, under section 64(1) of the Planning and Compulsory Purchase Act 2004 on 7th November 2025.

No adverse in-combination effects with the LFRMS are expected as proposed development, schemes and plans which are stated within the Development Plan documents will require assessment under the Habitat Regulations if they pose any risk to European Sites within or adjacent to the boundary. Therefore, any development facilitated by, or that becomes feasible as a result of measures within the LFRMS, will also be subject to the HRA process to ensure no adverse impacts arise.

5.2 Severn River Basin District Flood Risk Management Plan 2021 – 2027

The Severn River Basin District Flood Risk Management Plan (FRMP) for the period from 2021 to 2027 aims to manage significant flood-related issues in the Severn RBD. The plan covers an area of 21,000 km², spanning from uplands in Wales to lowland valleys and estuaries in England. It seeks to reduce flood risk from rivers, the sea, surface water, groundwater, sewers, canals and reservoirs. The FRMP has been prepared by a number of risk management authorities including the Environment Agency and Natural Resources Wales. It includes measures to protect people and property and address environmental pressures, such as reduced water flow/level, declining water quality and coastal squeeze.

It is to be noted that the FRMP only covers the English part of the RBD, except where hydrological linkages to nearby Welsh European sites may exist.

The HRA for the FRMP assessed the measures detailed within the FRMP. None of the measures were identified to result in likely significant effects on any European site.

5.3 Wales Flood Risk Management Plans 2023 – 2029

Flood risk management plans (FRMPs) set out how Natural Resources Wales will manage flood risk in key areas across Wales between 2023 and 2029.

The plans explain the priorities and actions that are proposed to manage the risk of flooding at a national and local level. They also consider measures needed to adapt and mitigate against climate change.

The HRA for the FRMP determined that the Plan was too high-level with insufficient detail available to predict the likelihood and significance of effects in a meaningful and robust way. Therefore, the HRA proposed a series of mitigation measures and approaches, which, along with an appropriately detailed HRA at a future stage of assessment, will ensure mitigation is implemented within the lower-tier plans, programmes and projects as a result of the FRMP to avoid impacts on European site integrity.

5.4 Welsh part of the Severn River Basin Management Plan 2021 - 2027

Natural Resources Wales has produced a Plan that relates to the Welsh part of the Severn RBD only.

River basin management plans (RBMPs) describe the challenges that threaten the water environment and how these challenges can be managed and funded. Rivers, lakes, canals, groundwaters, estuaries and coastal waters - including those in protected areas - all fall under these plans.

The Plan sets out the current state of the water environment, pressures affecting the water environment, environmental objectives for protecting and improving the waters, the programme of measures and actions needed to achieve the objectives and progress since the 2015 plan.

One of the objectives of the RBMP is to continue to work towards achieving the conservation objectives for water dependent European sites. Achieving good ecological status by 2027 will contribute towards meeting those objectives.

6 Screening Assessment

6.1 Introduction

The tables in the following section assess the objectives, measures and actions of the Monmouthshire LFRMS and identify whether they are likely to have significant effects on the integrity of the European Sites, either alone or in-combination with other plans and/or projects.

6.2 Assessment of likely significant effects

6.2.1 LFRMS Objectives

Table 6-1: Assessment of likely significant effects of the Monmouthshire LFRMS objectives

LFRMS Objective	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Objective 1: Reduce the risk and impact of flooding to people and property.	N/A	N/A	This action is a collation of flooding information and production of an emergency plan. This is a general statement for flooding procedures in areas locally vulnerable to flooding, thus leads to no impacts on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 2: Reduce disruption to critical infrastructure and essential services resulting from flooding.	N/A	N/A	This action is to ensure the roles and responsibilities of emergency plans/responses are clearly set out. This leads to no effect on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 3: Ensure a risk based and sustainable approach to investment and delivery of flood risk management activities	N/A	N/A	This is a general objective for the Monmouthshire LFRMS with no reference to location, type of work thus cannot impact any specific European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 4: Ensure flood resilience at environmentally significant and sensitive sites of national, regional and local importance is maintained and enhanced where possible.	N/A	N/A	This objective aims to protect sites designated for nature conservation from the harmful effects of flooding through maintaining and enhancing flood resilience. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

LFRMS Objective	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Objective 5: Support the Water Framework Directive by preventing deterioration of watercourses and improve water quality	N/A	N/A	This is a positive implementation of management to reduce risk of pollution and support the WFD. No adverse effects anticipated on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 6: Continue to improve understanding of flood risk and the impact of climate change within Monmouthshire	N/A	N/A	This is a general statement of policy to improve understanding of flood risk, with no reference to location, type of work or timeframe, so in itself cannot lead to any impacts on any European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 7: Raise awareness of flood risk amongst individuals and communities and support them to prepare for, respond to and recover from flood events	N/A	N/A	This action is a data collection, updating and mapping measure with no potential to impact on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Objective 8: Work collaboratively with other Risk Management Authorities and organisations to effectively manage flood risk	N/A	N/A	This is a general statement of policy with regards to collaborative working, with no reference to location, type of work or timeframe, so in itself cannot lead to any impacts on any European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

6.2.2 LFRMS Measures

Table 6-2: Assessment of likely significant effects of the Monmouthshire LFRMS measures

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Measure 1: Sustainable & Strategic Development Planning	Working with the Local Planning Authorities (LPA) (MCC and Bannau Brycheiniog) to develop suitable planning policies to ensure new developments take adequate account of flood risk from local sources.	N/A	N/A	This measure is related to policy making and planning with regards to flood risk, thus leads to no impacts on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 2: Strategic Flood Consequence Assessment (SFCA)	Development of an updated Strategic Flood Consequences Assessment (SFCA) to inform future Local Development Plans.	N/A	N/A	This measure is to update an assessment with regards to the sources and consequences of flooding. This leads to no effect on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 3: SuDS Approving Body (SAB)	Schedule 3 of the Flood and Water Management Act 2010 was enacted in Wales in 2019 and places statutory duties on MCC as the SuDS Approving Body (SAB). The SAB will ensure that drainage proposals for all new developments of over 100m ² of construction area are designed and built in accordance with the statutory National Standards for Sustainable Drainage published by Welsh Ministers.	N/A	N/A	This measure is in relation to drainage proposals and standards. This leads to no effect on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 4: Flood Awareness	Continue to raise awareness of flood risk with local communities and those most at risk to reduce and mitigate the consequences of flooding from all sources. This will include the sharing of information from Natural Resources Wales and Welsh Government, such as details about flood maps, the Flood Line service, flood alerts and warnings and the National Strategy.	N/A	N/A	This measure is in relation to raising flood awareness and sharing information. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Measure 5: Flood Forecasting & Warning	MCC is a Category 1 responder under the Civil Contingencies Act (2004) and has a duty to 'warn, inform and advise the public in the event of an emergency'. MCC will continue to make arrangements to receive and disseminate information across relevant service areas, the general public and elected members, information relating to severe weather forecasts and warnings from the Met Office, Flood Guidance Statements from the Flood Forecasting Centre and flood warnings from Natural Resources Wales. External communication of relative information will typically be provided through MCC's website and social media channels.	N/A	N/A	This measure is in relation to providing flood warnings. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 6: Emergency Response and Multi-Agency Plans	MCC supports the response planning structure as adopted by the Gwent Local Resilience Forum (Gwent LRF) and ensures roles and responsibilities as agreed in joint plans are reflected in local authority emergency plans. To meet its obligations MCC has established a series of response arrangements to deal with flooding issues and wider incident response and recovery.	N/A	N/A	This measure is in relation to emergency response to flooding. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 7: Community Flood Plans	Support local communities in the development and upkeep of community flood plans, including individual flood plans for properties most at risk.	N/A	N/A	This measure is in relation to supporting community flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 8: Natural Flood Management & Nature Based Solutions	Continue to promote NFM as a tool to reduce flood risk and to consider such interventions at the appraisal stage of all flood alleviation schemes. Where	N/A	N/A	This measure is in relation to the promotion and consideration of NFM, with no reference to location, type of work or timeframe, so in itself cannot lead	No in-combination assessment required; zero effect alone or in-combination.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	appropriate, we will also continue to work with partners and landowners to identify and seek resources to deliver NFM and nature-based solutions to reduce risk to our most vulnerable communities. This work will also consider how such measures can support the reduction of agricultural runoff and the resulting nutrient and sediment loading that can affect water quality and drainage capacity.			to any impacts on any European Sites. No effect at all.	No effect at all.
Measure 9: Environmental Enhancement & Habitat Creation	Environmental enhancements schemes are typically linked to development sites or are publicly funded grants to improve existing, predominantly urban areas. MCC will promote improvements in surface water management in all publicly funded schemes to ensure surface water is effectively managed in accordance with relative legislation and best practice and ensure there is no increase in flood risk. Such measures will also promote environmental betterment through the enhancement of biodiversity and habitats, improving air and water quality and mitigating the impacts of climate change. This measure will also seek delivery of Net Benefit for Biodiversity in new developments and LLFA promoted flood alleviation schemes as well as the promotion of new green infrastructure.	N/A	N/A	This is a measure to support and promote environmental enhancements in development and urban areas. No adverse effects anticipated on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 10: Partnership working	MCC will continue to work collaboratively with partners and other RMA's with a shared goal of reducing flood risk to our communities. This work can cover flood investigations, scheme appraisals and development,	N/A	N/A	This measure is in relation to collaborative working with partners. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	community engagement, awareness raising and sharing of knowledge and best practice.				
Measure 11: Flood and Drainage Asset Database	In accordance with Section 21 of the FWMA 2010, MCC will continue to develop and maintain a register of structures or features, which in the opinion of the Authority, are likely to have a significant effect on flood risk in Monmouthshire. Information will be recorded about each of the structures and features including ownership and the state of repair.	N/A	N/A	This measure is in relation to the maintenance of an asset database. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 12: Asset Management and Maintenance Plans	MCC will use information recorded within its asset database to review its current asset management practices and develop robust management plans on a catchment scale. This will include scheduling cyclic inspection and maintenance programmes for significant assets that can affect flood risk.	SAC Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculus fluitantis and Callitriche-Batrachion vegetation SAC Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding)	Severn Estuary SAC, Ramsar and SPA River Wye SAC River Usk SAC	Asset management and maintenance activities on watercourses within the county could result in adverse impacts upon the river habitats and species of the Severn Estuary, River Wye and River Usk designated sites. Depending on the location and timing of works these activities could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Measure 13: Designation of Structures	As a Lead Local Flood Authority, under the FWMA 2010, MCC is a “designating authority” with permissive powers to designate a structure or natural or man-made feature of the environment, if its location or structure affects flood risk or a coastal erosion risk. Designation ensures a person may not alter, remove or replace the structure without the consent	N/A	N/A	This measure is in relation to the designation of structures important for flood risk. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	of MCC. If unconsented works are undertaken enforcement powers under the Act are available.				
Measure 14: Flood Investigations	Under Section 19 of the Flood and Water Management Act 2010 Monmouthshire County Council (MCC) has a duty as Lead Local Flood Authority to investigate flooding within its area, insofar as it considers it necessary or appropriate. The results of the investigation must be published and will include which risk management authorities had relevant flood risk management functions and whether they have exercised those functions appropriately in response to the flood.	N/A	N/A	This measure is in relation to the investigation of flooding. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 15: Flood Alleviation Schemes	In order to reduce the risk of flooding and enhance resilience within our communities, MCC will maintain and develop a prioritised long-term programme of capital flood alleviation schemes. These schemes can include investment for new defences, replacement/refurbishment of existing defences and structures, property flood resilience measures, natural flood management as well as a combination of these and other interventions.	SAC Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation SAC Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>;	Severn Estuary SAC, Ramsar and SPA River Wye SAC River Usk SAC	Flood alleviation schemes within the county could result in adverse impacts upon the river habitats and species of the Severn Estuary, River Wye and River Usk designated sites. Depending on the location and timing of works these activities could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Measure 16: Strategic Flood Risk Area Management	Flood risk across Monmouthshire will be assessed on a catchment basis using identified Strategic Flood Risk Areas (SFRA). MCC will assess and manage flood risk on a catchment scale	N/A	N/A	This measure is in relation to how flood risk will be assessed and managed. This will not result in adverse effects on European sites.	No in-combination assessment required; zero effect alone or in-combination.

LFRMS Measure	Summary	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	focusing on the nine SFRA's, further breaking these areas down to sub-catchment level to improve understanding of how water flows through the catchments, local sources of flood risk, key assets and critical infrastructure. In turn, this will allow for improved strategic planning, targeting of interventions, community engagement and cross-border/multiagency working.			No effect at all.	No effect at all.
Measure 17: Flood Action Plan	Under the Flood Risk Regulations 2009, LLFA's are responsible for producing Flood Risk Management Plans for flood risk areas identified in the Preliminary Flood Risk Assessment. First published in 2016, MCC has updated their Flood Risk Management Plan into a new Flood Action Plan which is appended to this Strategy.	N/A	N/A	This measure is in relation to the production of a Flood Action Plan. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Measure 18: Flood Monitoring	Through the use of internal and external telemetry systems, flood events can be monitored in real time. MCC currently have 7 remote CCTV cameras and 1 river level telemetry system monitoring critical trash screens and culverts which are prone to blockage in high risk areas. Following advances in technology a review of the current monitoring stations will be undertaken and an assessment made to identify possible improvements and/or expansion of the network.	N/A	N/A	This measure is in relation to telemetry and flood monitoring equipment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

6.2.3 Monmouthshire Flood Action Plan

Table 6-3: Assessment of likely significant effects of the Monmouthshire county wide flood actions

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Mon 1	Investigate and record flooding incidents from all sources appropriately, including producing and publishing Section 19 Flood Reports where appropriate, and use this information to inform future investigations and LLFA consultations.	N/A	N/A	This action is a collation of flooding information and production of an emergency plan. This is a general statement for flooding procedures in areas locally vulnerable to flooding, thus leads to no impacts on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 2	Review MCC's flood investigation and reporting procedures and provide appropriate training to staff involved in flood incident investigation and reporting functions.	N/A	N/A	This action is to ensure the review of MCC's flood investigation and reporting procedures. This leads to no effect on the European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 3	Work with communities at risk of flooding from ordinary watercourses, groundwater and surface water runoff, to promote awareness and resilience, including property flood resilience measures.	N/A	N/A	This is an action for the promotion of awareness and resilience thus cannot impact any specific European Sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 4	Maintain a long-term capital pipeline of flood alleviation schemes in areas which have experienced significant incidents or at high risk.	SAC Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation SAC Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra</i>	Severn Estuary SAC, Ramsar and SPA River Wye SAC River Usk SAC	Flood alleviation schemes within the county could result in adverse impacts upon the river habitats and species of the Severn Estuary, River Wye and River Usk designated sites. Depending on the location and timing of works these activities could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		<i>fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation:			

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Mon 5	Develop an effective way of ranking priority flood alleviation schemes to ensure funding is directed to areas most at risk.	N/A	N/A	This action is in relation to funding and priority ranking. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 6	Cooperate with NRW as the RMA for main river flooding in regard to the development and delivery of flood schemes on main rivers.	N/A	N/A	This action is in relation to cooperation and working with NRW. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 7	Work with Risk Management Authorities, land managers and the community to identify opportunities to incorporate natural flood management within Monmouthshire.	N/A	N/A	This is an action to work with others to identify NFM opportunities. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 8	In accordance with Section 21 FWMA, maintain the register of structures or features which, in the opinion of MCC as the LLFA, are likely to have a significant effect on a flood risk in Monmouthshire.	N/A	N/A	This is an action related to maintaining a register of flood risk structures. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 9	Review MCC's Culverting Policy to ensure alignment with best practice.	N/A	N/A	This is an action to review a policy. This will not result in adverse effects on European	No in-combination assessment required; zero effect alone or in-combination.

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
				sites. No effect at all.	No effect at all.
Mon 10	Improve and maintain MCC's network of CCTV monitoring stations on critical culverts.	N/A	N/A	This is an action in relation to monitoring stations. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 11	Establish responsibility for the management of flood risk from key watercourses, flood assets and drainage infrastructure where ownership is unclear and record on the Highways and Flood Management asset database.	N/A	N/A	This is an action in relation to ownership. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 12	Identify, map and risk assess all significant ponds and small reservoirs within Monmouthshire, to inform future inspections, maintenance and flood risk management.	N/A	N/A	This action is in relation to data collection, updating and mapping with no potential to impact on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 13	Develop and maintain the pro-active routine Land Drainage Inspection schedule and undertake inspections as required.	N/A	N/A	This is an action in relation to inspections. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 14	Review existing inspection and maintenance practices of MCC highway drainage infrastructure to ensure areas at high flood risk are considered appropriately.	N/A	N/A	This is an action in relation to highway drainage infrastructure. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 15	Identify priority locations for more intensive ongoing maintenance and condition monitoring activities within the MCC Highways drainage network.	SAC Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation SAC Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i>	Severn Estuary SAC, Ramsar and SPA River Wye SAC River Usk SAC	More intensive maintenance of the highways drainage network within the county could result in adverse impacts upon the river habitats and species of the Severn Estuary, River Wye and River Usk designated sites. Depending on the location and timing of works these activities could also result in disturbance to the bird species designated as	In-combination effects will be assessed at the Appropriate Assessment stage.

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one		part of the Severn Estuary SPA and Ramsar. Likely significant effect	

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Mon 16	Provide efficient responses to flooding incidents and emergency recovery following a flood incident.	N/A	N/A	This is an action in relation to flood response. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 17	Provide support to communities looking to establish local flood groups and community flood plans to improve local resilience to flooding, with support from other Risk Management Authorities as required.	N/A	N/A	This is an action in relation to supporting local flood groups. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 18	In coordination with other Risk Management Authorities and related organisations, develop a programme of community engagement events in areas most at risk from flooding in Monmouthshire, to raise awareness and provide appropriate advice and guidance to residents and businesses alike.	N/A	N/A	This is an action in relation to community engagement. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 19	Review MCC's current sandbagging arrangements and update the current Sandbag Policy, covering how sandbags are procured and deployed by all	N/A	N/A	This is an action in relation to sandbags. This will not result in adverse effects on European sites.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	relevant Council departments.			No effect at all.	
Mon 20	Undertake a review and update the LFRMS Action Plan, including the Actions associated with the nine Strategic Flood Risk Areas, every three years or as required.	N/A	N/A	This is an action to review and update the LFRMS Action Plan. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 21	Maintain and develop MCC's Corporate Flood Response Arrangements plan and procedures	N/A	N/A	This is an action in relation to Flood Response plan and procedures. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 22	Review and maintain the Flood Risk Management and Emergency Planning web pages on MCC's website, to ensure information on flood risk is up to date and clearly accessible.	N/A	N/A	This is an action in relation to flood risk information. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 23	Review and update MCC's flood risk advisory leaflets and information in respect of measures to take before, during and after a flood event and publish on MCC's Flood Risk Management webpages.	N/A	N/A	This is an action in relation to flood risk information. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 24	Review MCC's communication practices during severe weather events and establish a Communication Strategy that will ensure MCC delivers clear, consistent and coordinated communication on flood risk; prior to, during and after such events.	N/A	N/A	This is an action in relation to communication. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 25	Maintain existing Site Specific Flood Response Arrangements Plans for high risk areas and develop new plans as required.	N/A	N/A	This is an action in relation to Flood Response Plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 26	Undertake an assessment of flood risk to caravan parks across Monmouthshire and liaise with owners to ensure suitable plans	N/A	N/A	This is an action in relation to flood risk assessment of caravan parks. This will not result in adverse effects on European	No in-combination assessment required; zero effect alone or in-combination.

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	are in place.			sites. No effect at all.	No effect at all.
Mon 27	Work with Welsh Government and other Risk Management Authorities to support the implementation of the recommendations of the 'Sustainable Drainage Systems (SuDS) Schedule 3 Post Implementation Review May 2023'.	N/A	N/A	This is an action to work with others to implement SuDS. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 28	Develop a guidance document for the production of Drainage Statements which will be required for future planning applications subject to the requirement of SAB approval.	N/A	N/A	This is an action to develop guidance. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 29	Undertake an annual review of the SAB Pre-Application process to ensure appropriate fees are set and that the service meets the needs of Applicants.	N/A	N/A	This is an action to review existing processes. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 30	Support other MCC departments to introduce opportunities for sustainable drainage systems within their own schemes or maintenance works.	N/A	N/A	This is an action to support others. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 31	Review MCC's Ordinary Watercourse Consenting procedure and update the 'Application Form Guidance Notes' document to align with best practice.	N/A	N/A	This is an action to review existing procedures. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 32	Establish an Enforcement Policy encompassing all of MCC's statutory functions and permissive powers under the LDA, including the powers afforded by the Land Drainage Act and Schedule 3 of the FWMA.	N/A	N/A	This is an action in relation to enforcement policy. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 33	Consider formal adoption of the 'Land Drainage (Wales) Byelaws'	N/A	N/A	This is an action in relation to Byelaws. This will not result in	No in-combination assessment required; zero effect alone or in-

Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	to provide MCC as Land Drainage Authority additional powers to manage local flood risk.			adverse effects on European sites. No effect at all.	combination. No effect at all.
Mon 34	Develop mobile digital capability to enable use of digital tablets and mobile phones to record inspections, investigations and maintenance works, which can then be uploaded directly into the Highways and Flood Management asset database.	N/A	N/A	This is an action in relation to digital capability. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 35	Consider the need for a policy for the designation of structures significant to flood risk under Section 1 of the FWMA.	N/A	N/A	This is an action relating to policy. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 36	Undertake a review of coastal erosion and flood risk and record details of coastal flood assets including standard of protection, crest levels, ownership, maintenance responsibility etc. on the Highways and Flood Management asset database.	N/A	N/A	This is an action relating to review of existing data. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Mon 37	Work with the Severn Estuary Coastal Group in the development and implementation of the Shoreline Management Plan.	N/A	N/A	This is an action to work with others to develop and implement a separate Plan that will require its own HRA. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.

Mon 38	Give consideration to the impacts of flooding on the PROW network and potential mitigation measures at the most strategic locations.	SAC Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation SAC Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla</i>	Severn Estuary SAC, Ramsar and SPA River Wye SAC River Usk SAC	Measures to mitigate the impacts of flooding on the PROW network could result in adverse impacts upon the river habitats and species of the Severn Estuary, River Wye and River Usk designated sites. Depending on the location and timing of measures these activities could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.
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Reference	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		<i>anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			

6.2.4 Honduu SFRA Flood Action Plan

Table 6-4: Assessment of likely significant effects of actions in the Honduu SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Honddu 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect alone or in-combination. No effect at all.
Honddu 2	Pandy Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Honddu 3	Cwmyoy Consider culvert replacement/improvements options at the C1.4/C1.6 Junction near Perth y Crwn Farm.	N/A	N/A	The culvert is not located close to or within the catchment of any of the European Sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Honddu 4	Llanthony Consider culvert replacement/improvement options on the R1 near New House Farm.	N/A	N/A	The culvert is not located close to or within the catchment of any of the European Sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Honddu 5	Natural Flood Management Develop and implement previously identified Natural Flood Management options across the Afon Honddu, Pandy catchments and discuss with landowners.	N/A	N/A	The Afon Honduu and Pandy catchments do not contain and are not connected to any European Sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.2.5 Monnow SFRA Flood Action Plan

Table 6-5: Assessment of likely significant effects of actions in the Monnow SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Monnow 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 2	Rockfield Road/Watery Lane Junction, Monmouth - Property Flood Resilience Scheme Installation of PFR measures at properties identified as being at risk of flooding from local sources.	N/A	N/A	This action is in relation to property flood resilience measures. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 3	Skenfrith Flood Alleviation Scheme Work closely with Natural Resources Wales to support their Business Case development and identify opportunities to reduce local flood risk.	N/A	N/A	This action is to work with NRW to support development of a scheme. It does not specifically propose a scheme. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 4	Road Closures Consider requirement for signage and/or physical barriers to close local roads during significant flooding, including the B4347 at Rockfield Church.	N/A	N/A	This action is in relation to road closures during flooding. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 5	Grosmont Review flood risk at Poorscript Gardens and identify options to mitigate flood risk from local sources.	N/A	N/A	This action is to review and identify flood risk options. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 6	Natural Flood Management Develop previously identified Natural Flood Management options across the Norton Brook, Skenfrith catchment and discuss with landowners.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i>	River Wye SAC Severn Estuary SAC and Ramsar	The Norton Brook, Skenrith catchment is located more than 10km upstream of the River Wye SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Wye SAC, and the fish species of the downstream Severn Estuary SAC and	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		Ramsar, which may be present within the catchment. Likely significant effect	
Monnow 7	Natural Flood Management Develop and implement previously identified Natural Flood Management scheme at Kingswood, Monmouth and discuss with landowners.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey	River Wye SAC Severn Estuary SAC and Ramsar	The location of this NFM scheme is upstream of the River Wye SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		<i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Monnow 8	Natural Flood Management Work with partners, including Natural Resources Wales, Network Rail and the Wye and Usk Foundation to identify and deliver NFM, nature-based solutions and land management change to reduce flood risk in the Monnow catchment.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Wye SAC Severn Estuary SAC and Ramsar	The River Monnow catchment is upstream of the River Wye SAC. The implementation of NFM options, nature-based solutions and land management change, could have potential impacts upon the designated species of the SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Monnow 9	Forge Road, Osbaston Support Natural Resources Wales in reviewing options to reduce flood risk to properties from the River Monnow.	N/A	N/A	This action is to support NRW in reviewing flood risk options. It does not specifically propose any works. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Monnow 10	Rockfield Village Support Natural Resources Wales in reviewing options to reduce flood risk to properties from the River Monnow.	N/A	N/A	This action is to support NRW in reviewing flood risk options. It does not specifically propose any works. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.2.6 Trothy SFRA Flood Action Plan

Table 6-6: Assessment of likely significant effects of actions in the Trothy SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Trothy 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Trothy 2	Mitchel Troy Undertake an assessment of culvert capacities and flood risk from local sources including at Parc Pentre and along the Garthy Brook.	N/A	N/A	This action is to assess culvert capacities. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Trothy 3	Mitchel Troy Investigate surface water flooding issues along Common Road, Mitchel Troy and consider potential mitigation options.	N/A	N/A	This action is to investigate surface water flooding and consider potential mitigation options. It does not specifically propose any works. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Trothy 4	Natural Flood Management Develop and implement previously identified Natural Flood Management schemes at Llantilio Crossenny, Dingestow and Mitchel Troy and discuss with landowners. Review potential for additional NFM measures at these locations.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea	River Wye SAC Severn Estuary SAC and Ramsar	The locations of these NFM schemes are upstream of the River Wye SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Wye SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			

6.2.7 Wye SFRA Flood Action Plan

Table 6-7: Assessment of likely significant effects of actions in the Wye SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Wye 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 2	Redbrook Road, Monmouth Consider options to reduce flood risk to properties and prevention of water flowing through the old railway embankment.	N/A	N/A	This is an action to look at options for reducing flood risk to properties. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 3	Tudor Road, Wyesham Construction of cut off ditch to prevent overland runoff affecting properties.	N/A	N/A	Although Tudor Road is approximately 650m from the River Wye SAC, given the small-scale and remote nature of this work no impacts are anticipated. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 4	Wye Bridge, Monmouth Consider viability over the provision and installation of a CCTV camera to remotely monitor debris accumulation levels on the Wye Bridge, Monmouth.	N/A	N/A	This action is related to CCTV monitoring. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 5	Llandogo Identify and implement options to reduce flood risk from blockages of the culvert inlet opposite the Sloop Inn.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i>	River Wye SAC Severn Estuary SAC and Ramsar	The culvert is located approximately 200m upstream of the River Wye SAC. Works to reduce flood risk from blockages of the culvert could have potential impacts upon the designated species of the River Wye SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Wye 6	Tintern Property Flood Resilience Working with other Risk Management Authorities, review viability of property flood resilience scheme for properties at risk from all sources of flooding.	N/A	N/A	This action is in relation to property flood resilience. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 7	Angidy Valley Catchment Study Undertake a detailed assessment of flood risk and potential mitigation options.	N/A	N/A	This action relates to flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 8	Tintern River Gauge Consider viability of installing a river level gauge at Tintern to monitor tidal levels to aid road closure forecasting.	N/A	N/A	This action is in relation to installation of a river gauge. Given the localised and small scale impact of this no adverse effects on European sites are anticipated. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 9	Tintern Community Flood Plan Support the local community in developing a community flood plan.	N/A	N/A	This action is to develop a flood plan. It will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Wye 10	Tintern	Annex II Species:	River Wye SAC	The locations of the potential works	In-combination effects will be

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	Undertake a detailed survey of the Catbrook and consider potential works to reduce flood risk along Trellech Road, the A466 and properties at and adjacent to Fryers Row.	1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	Severn Estuary SAC and Ramsar	are upstream of the River Wye SAC. Works to reduce flood risk could have potential impacts upon the designated species of the River Wye SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present in the wider catchment. Likely significant effect	assessed at the Appropriate Assessment stage.
Wye 11	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the Limekiln Brook, Tintern and discuss with landowners.	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i>	River Wye SAC Severn Estuary SAC and Ramsar	The locations of these NFM options are upstream of the River Wye SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Wye SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar which may be present within the catchment.	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		Likely significant effect	

6.2.8 Olway SFRA Flood Action Plan

Table 6-8: Assessment of likely significant effects of actions in the Olway SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Olway 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Olway 2	Old Monmouth Road, Raglan Review culvert capacity and consider options to improve conveyance of the unnamed watercourse crossing the C28.9.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad <i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Usk SAC Severn Estuary SAC and Ramsar	The culvert is located more than 10km upstream of the River Usk SAC. Options to improve culvert capacity and increase conveyance could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Olway 3	Chepstow Road, Usk Catchment Assessment Undertake a catchment assessment and record details of all surface water and land drainage features discharging into the Olway Brook at Chepstow Road, Usk on the Highways and Flood Management Asset Database.	N/A	N/A	This action is in relation to data collection and recording. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Olway 4	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the Barton Brook, Raglan and discuss with landowners.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad <i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Usk SAC Severn Estuary SAC and Ramsar	The Barton Brook catchment is located upstream of the River Usk SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Olway 5	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the Pill Brook east of Llangwm and discuss with landowners.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Usk SAC Severn Estuary SAC and Ramsar	The catchment is located upstream of the River Usk SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.
Olway 6	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the Pontyrhydian Brook east of Raglan and discuss with landowners.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i>	River Usk SAC Severn Estuary SAC and Ramsar	The catchment is located upstream of the River Usk SAC. The implementation of NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment.	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Luta lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		Likely significant effect	

6.2.9 Usk SFRA Flood Action Plan

Table 6-9: Assessment of likely significant effects of actions in the Usk SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Usk 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 2	Woodside, Llanbadoc, Usk Flood Alleviation Scheme Undertake detailed design and produce a Full Business Case for the preferred option identified in the completed Outline Business Case for managing flood risk from local sources.	Annex I habitat: 3260 Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachion</i> vegetation Annex II species: 1102 Allis shad <i>Alosa alosa</i> 1103 Twaite Shad <i>Alosa fallax</i> 1092 White-clawed Crayfish <i>Austropotamobius pallipes</i> 1163 Bullhead <i>Cottus gobio</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1096 Brook Lamprey <i>Lampetra planeri</i> 1355 Otter <i>Lutra lutra</i> 1095 Sea Lamprey <i>Petromyzon marinus</i> 1106 Atlantic Salmon <i>Salmo salar</i>	River Usk SAC Severn Estuary SAC and Ramsar	This flood alleviation scheme is located immediately adjacent to the River Usk SAC. The construction of the scheme could result in adverse impacts upon the river habitats and species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar. Likely significant effect.	In-combination effects will be assessed at the Appropriate Assessment stage.
Usk 3	Woodside, Llanbadoc, Usk Flood Alleviation Scheme Construction of the preferred option following completion of the Full Business Case and Detailed Design.	Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad			

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		<i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Usk 4	Usk Town Bridge Undertake a structural assessment of Usk Town Bridge parapet wall opposite Woodside Cottages.	N/A	N/A	This action is in relation to a structural assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 5	Abergavenny Flood Risk Area Undertake an assessment of flood risk within the Flood Risk Area by Natural Resources Wales Preliminary Flood Risk Assessment.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 6	Llanwenarth Community Flood Plan Support the local community in developing a community and/or individual flood plans.	N/A	N/A	This action is in relation to support with flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 7	Abergavenny Culverted Watercourses Investigate culverted watercourses through Abergavenny town, to identify and record location, construction detail, structural condition, ownership and maintenance responsibility and record on the Highways and Flood Management Asset Database.	N/A	N/A	This is action is in relation to investigative works and asset recording. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 8	Monmouthshire and Brecon Canal Consider undertaking an assessment of overtopping and breach risk from the Monmouthshire and Brecon Canal.	N/A	N/A	This action is in relation to assessment work. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 9	Road Closures Consider requirement for signage	N/A	N/A	This action is in relation to road signage and closures. This will not	No in-combination assessment required; zero

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	and/or physical barriers to close local roads during significant flooding, including the R64/R41 Llanarth junction, B4598 at Usk and Llanfihangel Gobion and the R110 Newbridge on Usk.			result in adverse effects on European sites. No effect at all.	effect in-combination. No effect at all.
Usk 10	Nant lagoon, Llanwenarth Assess options to reduce flood risk from the Nant lagoon upstream of the A40 crossing.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad <i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Usk SAC Severn Estuary SAC and Ramsar	The Nant Lagoon is located upstream of the River Usk SAC. Options to reduce flood risk and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.
Usk 11	Llanfair Kilgeddin Review previously identified options to reduce flood risk from local sources and consider viability of implementing a flood scheme.	Annex I habitat: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation Annex II species:	River Usk SAC Severn Estuary SAC and Ramsar	Llanfair Kilgeddin is located adjacent to the River Usk SAC. The construction of the scheme could result in adverse impacts upon the river habitats and species of the River Usk SAC, and the fish species of the downstream Severn	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1102 Allis shad <i>Alosa alosa</i> 1103 Twaite Shad <i>Alosa fallax</i> 1092 White-clawed Crayfish <i>Austropotamobius pallipes</i> 1163 Bullhead <i>Cottus gobio</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1096 Brook Lamprey <i>Lampetra planeri</i> 1355 Otter <i>Lutra lutra</i> 1095 Sea Lamprey <i>Petromyzon marinus</i> 1106 Atlantic Salmon <i>Salmo salar</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		Estuary SAC and Ramsar. Likely significant effect.	
Usk 12	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the unnamed ordinary watercourse that runs along the western edge of Llanfair Kilgeddin.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i>	River Usk SAC Severn Estuary SAC and Ramsar	The watercourse is located upstream of the River Usk SAC. NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Usk 13	Natural Flood Management Develop previously identified Natural Flood Management options across the Cibi Brook, Abergavenny catchment and discuss with landowners.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla</i>	River Usk SAC Severn Estuary SAC and Ramsar	The Cibi Brook catchment is located upstream of the River Usk SAC. NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		<i>anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Usk 14	Natural Flood Management Develop previously identified Natural Flood Management options across the River Gavenny, Abergavenny catchment and discuss with landowners.	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad <i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> . Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	River Usk SAC Severn Estuary SAC and Ramsar	The River Gavenny catchment is located upstream of the River Usk SAC. NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the downstream Severn Estuary SAC and Ramsar, which may be present within the catchment. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.
Usk 15	Natural Flood Management Develop previously identified Natural Flood Management options across the catchment of the unnamed ordinary watercourse upstream and to the west of	Annex II species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra</i>	River Usk SAC Severn Estuary SAC and Ramsar	The watercourse is located upstream of the River Usk SAC. NFM options and associated construction works could have potential impacts upon the designated species of the River Usk SAC, and the fish species of the	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
	Llanbadoc.	<i>fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i> 1102 Allis Shad <i>Alosa alosa</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		downstream Severn Estuary SAC and Ramsar which may be present within the catchment. Likely significant effect	
Usk 16	Abergavenny Support the local community affected by flooding from the Cibi Brook during Storm Claudia in Nov 2025, to raise awareness about flood risk and develop a community flood plan.	N/A	N/A	This action is in relation to supporting the local community to raise flood risk awareness and develop a flood plan. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Usk 17	Little Mill Identify and review options to reduce known flood risk from local sources and consider promoting the development of community and individual flood plans.	N/A	N/A	This action is in relation to reviewing flood risk options and promoting flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.2.10 Mounton Brook SFRA Flood Action Plan

Table 6-10: Assessment of likely significant effects of actions in the Mounton Brook SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Mounton Brook 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mounton Brook 2	Mounton Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mounton Brook 3	Mathern Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mounton Brook 4	Mynydd Bach to Coppice Mawr Identify and review options to reduce known flood risk from local sources. Assess culvert capacity and consider culvert replacement/improvement options at Coppice Mawr and the B4235.	SAC Annex II Species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i> , Sea Trout <i>Salmo trutta</i> , Sea Lamprey <i>Petromyzon marinus</i> , River Lamprey <i>Lampetra fluviatilis</i> , Allis Shad <i>Alosa alosa</i> , Twaite Shad <i>Alosa fallax</i> , and Eel <i>Anguilla anguilla</i> .	Severn Estuary SAC and Ramsar	Mounton Brook is located upstream of the Severn Estuary SAC and Ramsar. Culvert replacement/improvement works could result in adverse impacts upon the designated fish species of the Severn Estuary SAC and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Mounton Brook 5	Natural Flood Management Identify potential Natural Flood Management options across the catchment which have potential to reduce flood risk to property and key infrastructure.	N/A	N/A	This action is to identify NFM options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mounton Brook 6	Natural Flood Management Work with NRW and landowners to identify opportunities to minimise impact of forestry operations on surface water runoff.	N/A	N/A	This action is to work with others in relation to minimising forestry impacts on surface water runoff. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mounton Brook 7	Mynydd Bach / Itton Community Flood Plan Support the local community in developing a community and/or individual flood plans.	N/A	N/A	This action is in relation to supporting the local community to develop flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.2.11 Nedern Brook & West Pill Reen SFRA Flood Action Plan

Table 6-11: Assessment of likely significant effects of actions in the Nedern Brook & West Pill Reen SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Nedern Brook & West Pill Reen 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Nedern Brook & West Pill Reen 2	Caldicot Community Flood Plan Support the local community in developing a community flood plan.	N/A	N/A	This action is in relation to support with flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Nedern Brook & West Pill Reen 3	Caldicot Country Park Develop and implement a Catchment Management Plan for the reach of the Nedern Brook running through the Caldicot Castle Country Park to ensure flood risk is suitably considered in the management practices of the watercourse.	SAC Annex II Species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage	Severn Estuary SAC, SPA and Ramsar	The Caldicot Castle Country Park and Nedern Brook are upstream of the River Severn. Activities to manage the watercourse could result in adverse impacts upon the designated fish species of the Severn Estuary SAC and Ramsar. Depending on the nature, location and timing of proposed management, these practices could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Nedern Brook & West Pill Reen 4	Caldicot Work with other Risk Management Authorities in the consideration and mitigation of flood risk at Castle Lea, Castle Lodge Crescent and Castle Lodge Close.	SAC Annex II Species: 1095 Sea lamprey <i>Petromyzon marinus</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> SPA: Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl)	Severn Estuary SAC, SPA and Ramsar	Castle Lea, Castle Lodge Crescent and Castle Lodge Close are adjacent to the Nedern Brook which is upstream of the River Severn. Measures to mitigate flood risk in this area could result in adverse impacts upon the designated fish species of the Severn Estuary SAC and Ramsar if in-channel works are proposed. Depending on the nature, location and timing of any works to mitigate flood risk. Such works could also result in disturbance to the bird species designated as part of the Severn Estuary SPA and Ramsar. Likely significant effect	In-combination effects will be assessed at the Appropriate Assessment stage.

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
		Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common redshank, Common shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian teal (winter), Northern pintail (winter), Lesser black-backed gull (breeding). Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.			
Nedern Brook & West Pill Reen 5	Portskewett Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Nedern Brook & West Pill Reen 6	Rogiet Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.2.12 Mill Reen SFRA Flood Action Plan

Table 6-12: Assessment of likely significant effects of actions in the Mill Reen SFRA Flood Action Plan

SFRA Ref.	Action	Potential Qualifying Feature Affected	Designated Sites Which include Qualifying Feature Affected	Potential Effect on European Sites	Likelihood of Significant In-Combination Effect
Mill Reen 1	Flood Risk Assessment Undertake a catchment wide assessment of flood risk to identify properties, businesses and infrastructure at greatest risk of flooding from local sources and consider potential mitigation options.	N/A	N/A	This action is to undertake a flood risk assessment. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mill Reen 2	Magor Community Flood Plan Support the local community in developing a community flood plan.	N/A	N/A	This action is in relation to support with flood plans. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mill Reen 3	Magor Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.
Mill Reen 4	Undy Identify and review options to reduce known flood risk from local sources.	N/A	N/A	This action is to identify and review options to reduce flood risk. It does not propose any specific works. This will not result in adverse effects on European sites. No effect at all.	No in-combination assessment required; zero effect in-combination. No effect at all.

6.3 Summary of the assessment of likely significant effects

6.3.1 LFRMS Objectives

Due to the general and high-level nature of the objectives, none have been screened in for likely significant effects on any European Sites.

6.3.2 LFRMS Measures and Actions

Two measures have been screened in due to the potential for likely significant effects upon qualifying features of the Severn Estuary SAC, Ramsar and SPA, River Wye SAC and the River Usk SAC.

These measures are:

- Measure 12: Asset Management and Maintenance Plans
- Measure 15: Flood Alleviation Plans

A number of actions have also been screened in due to the potential for likely significant effects upon qualifying features of the above sites. These actions mostly relate to the development and implementation of flood risk management options including works to culverts (increase capacity and remove blockages), and flood alleviation schemes, including several natural flood management options.

The table below summarises the LFRMS measures and actions that have been assessed as having the potential for likely significant effects and the European Sites and the qualifying features that they could impact.

No other European Sites or qualifying features have been screened in for potential likely significant effects due to distance and/or lack of impact pathways.

Table 6-13: Summary of Likely Significant Effects of the LFRMS Measures and Actions

European Site	Qualifying Features	Measures & Actions that could result in Likely Significant Effects
Severn Estuary SAC	Annex II Species 1095 Sea Lamprey <i>Petromyzon marinus</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i>	Measures 12 and 15 MON 4, 15 and 28 Monnow 6, 7 and 8 Trothy 3 Wye 5, 10 and 11 Olway 2, 4, 5 and 6 Usk 2, 3, 11, 12, 13, 14, 15, 16 Mounton Brook 4 Nedern Brook & West Pill Reen 3 and 4

European Site	Qualifying Features	Measures & Actions that could result in Likely Significant Effects
Severn Estuary SPA	Article 4 of Directive (2009/147/EC) A037 <i>Cygnus columbianus bewickii</i>; Bewick's swan (Non-breeding) A048 <i>Tadorna tadorna</i>; Common shelduck (Non-breeding) A051 <i>Anas strepera</i>; Gadwall (Non-breeding) A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) A162 <i>Tringa totanus</i>; Common redshank (Non-breeding) A394 <i>Anser albifrons albifrons</i>; Greater white-fronted goose (Non-breeding) Waterbird assemblage	Measures 12 and 15 MON 4, 15 and 38 Nedern Brook & West Pill Reen 3 and 4
Severn Estuary Ramsar	Ramsar criterion 4: Important for the run of migratory fish between sea and river via estuary. Species include Salmon <i>Salmo salar</i>, Sea Trout <i>Salmo trutta</i>, Sea Lamprey <i>Petromyzon marinus</i>, River Lamprey <i>Lampetra fluviatilis</i>, Allis Shad <i>Alosa alosa</i>, Twaite Shad <i>Alosa fallax</i>, and Eel <i>Anguilla anguilla</i>. Ramsar criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.	Measures 12 and 15 MON 4, 15 and 38 Monnow 6, 7 and 8 Trothy 3 Wye 5, 10 and 11 Olway 2, 4, 5 and 6 Usk 2, 3, 11, 12, 13, 14, 15, 16 Mounton Brook 4 Nedern Brook & West Pill Reen 3 and 4

European Site	Qualifying Features	Measures & Actions that could result in Likely Significant Effects
	Ramsar criterion 5: Supports an assemblage of international importance – (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl) Ramsar criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation: Tundra/Bewick's Swan, Greater /European White-fronted Goose, Dunlin, Common Redshank, Common Shelduck, Gadwall. Populations identified subsequent to designation: Ringed plover (spring/autumn), Eurasian Teal (winter), Northern Pintail (winter), Lesser Black-backed Gull (breeding).	Measures 12 and 15 MON 4, 15 and 38 Nedern Brook & West Pill Reen 3 and 4
River Wye SAC	Annex I Habitats: 3260 Water courses of plain to montane levels with the Ranunculus fluitantis and Callitriche-Batrachion vegetation	Measures 12 and 15 MON 4, 15 and 38

European Site	Qualifying Features	Measures & Actions that could result in Likely Significant Effects
	Annex II Species: 1092 White-clawed (or Atlantic stream) Crayfish <i>Austropotamobius pallipes</i> 1095 Sea lamprey <i>Petromyzon marinus</i> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1103 Twaite shad <i>Alosa fallax</i> 1106 Atlantic salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1102 Allis Shad <i>Alosa alosa</i> 1355 Otter <i>Lutra lutra</i>	Measures 12 and 15 MON 4, 15 and 38 Monnow 6, 7 and 8 Trothy 3 Wye 5, 10 and 11
River Usk SAC	Annex I habitat: 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	Measures 12 and 15 MON 4, 15 and 38 Usk 12
	Annex II species: 1095 Sea Lamprey <i>Petromyzon marinus</i> 1096 Brook Lamprey <i>Lampetra planeri</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1103 Twaite Shad <i>Alosa fallax</i> 1106 Atlantic Salmon <i>Salmo salar</i> 1163 Bullhead <i>Cottus gobio</i> 1102 Allis shad <i>Alosa alosa</i> 1355 Otter <i>Lutra lutra</i>	Measures 12 and 15 MON 4, 15 and 38 Olway 2, 4, 5 and 6 Usk 2, 3, 11, 12, 13, 14, 15, 16

7 Appropriate Assessment

7.1 Introduction

An Appropriate Assessment is a decision by the Competent Authority as to whether the proposed plan or project can be determined as not having an adverse effect on the integrity of any European sites, whereby the integrity can be considered as the structure and the functioning of features for which the site is designated. The Competent Authority in this case is Monmouthshire County Council.

The principal objective of Appropriate Assessment is to ensure that the objectives, measures and actions as identified in the Monmouthshire LFRMS will not result in any adverse effects on European sites. Where the potential for significant effects has been identified, the nature and likely scale of effects on the integrity of the individual European sites are reported. Where potentially significant effects have been identified, mitigation and avoidance measures are suggested, which, if implemented, would remove the potential for adverse effects on site integrity.

7.2 Screening Conclusion

The HRA Stage 1 Screening Assessment, which precedes this chapter, identified that there is the potential for likely significant effects arising from the implementation of the LFRMS on the following European Sites:

- Severn Estuary SAC, SPA and Ramsar
- River Wye SAC
- River Usk SAC

Therefore, an Appropriate Assessment is required to determine whether the LFRMS (alone and in-combination with other plans or projects) would result in significant adverse effects on the integrity of these European sites.

7.3 Assessment of Effects on Site Integrity

This section details the Appropriate Assessment of the potential effects of the LFRMS on the integrity of the identified European sites.

As the European sites being assessed have similar qualifying features, the assessment of impacts has been undertaken for the qualifying habitats and species, with reference to which European sites the assessment applies to.

7.3.1 Fish

European Sites: Severn Estuary SAC and Ramsar, River Wye SAC and River Usk SAC

The Sea Lamprey, River Lamprey and Twaite Shad populations of the Severn depend on habitat in the adjacent River Usk SAC, River Wye SAC and River Severn. The habitats in these rivers, including spawning and nursery areas, are essential for the fulfilment of the

species' lifecycle (Maitland, 2003). The Severn is also important for a number of other migratory fish species including Salmon, Sea Trout, Allis Shad and Eel and also supports an important assemblage of marine, estuarine and freshwater fish species.

The Rivers Wye and Usk also support important populations of Brook Lamprey, Atlantic Salmon, Bullhead and Allis Shad.

Within the LFRMS there are several actions (as identified in Section 6) that involve flood risk management activities within watercourses that are upstream of these European Sites. The wider measures 12 and 15 and actions MON 4, 15 and 38 could also impact watercourses throughout the county. There is therefore potential for the following effects upon fish:

- Loss of/ damage to habitat – potential that flood risk management activities could remove or damage suitable habitats for designated fish species.
- Disturbance – underwater noise and vibration causing disruption to migration patterns.
- Water quality – accidental pollution incidents, sediment laden runoff.
- Biological disturbance – introduction of non-native invasive species.

7.3.2 Birds

European Sites: Severn Estuary SPA and Ramsar

The Severn Estuary SPA and Ramsar supports important populations of migratory wintering and passage birds. The key habitats for these bird populations are the intertidal mudflats and sandflats, saltmarshes, hard substrate habitats (rocky shores), coastal grazing marsh, improved grassland and open standing waters. Some species will also use areas of land outside the boundaries of the SPA and Ramsar Site.

Within the LFRMS there are two actions that propose works within close proximity to the River Severn SPA and Ramsar. These are Nedern Brook & West Pill Reen 3 and 4. These actions are in relation to flood risk management and mitigation in the vicinity of Caldicot Country Park. The wider measures 12 and 15 and actions MON 4, 15 and 38 could also impact important feeding and roosting habitats throughout the county. There is therefore the potential for the following effects upon wintering and passage birds:

- Disturbance – noise and visual disturbance from machinery and workforce impacting roosting and feeding sites.
- Water quality – accidental pollution incidents, sediment laden runoff could reduce prey availability.

7.3.3 Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation

European Sites: River Wye SAC and River Usk SAC

The River Wye is a large river representative of sub-type 2. It has a geologically mixed catchment, including shales and sandstones, and there is a clear transition between the

upland reaches, with characteristic bryophyte-dominated vegetation, and the lower reaches, with extensive *Ranunculus* beds. There is a varied Water-crowfoot *Ranunculus* Sect. *Batrachium* flora; Stream Water-crowfoot *R. penicillatus* ssp. *pseudofluitans* is abundant, with other *Ranunculus* species – including the uncommon River Water-crowfoot *R. fluitans* – found locally. Other species characteristic of sub-type 2 include Flowering-rush *Butomus umbellatus*, Lesser Water-parsnip *Berula erecta* and Curled Pondweed *Potamogeton crispus*. There is an exceptional range of aquatic flora in the catchment including River Jelly-lichen *Collema dichotum*. The river channel is largely unmodified and includes some excellent gorges, as well as significant areas of associated woodland (JNCC [River Wye/ Afon Gwy - Special Areas of Conservation](#)).

This feature is not identified as one of the primary reasons for designation of the River Usk SAC; its distribution being apparently limited by the availability of suitable hydromorphological conditions. Important stands have been identified in the lower reaches of the main river below Abergavenny down to the tidal limit, and in the upper reaches of a headwater stream, the Afon Senni. These reaches may represent a sub-type of the feature where large submerged and floating leaved flowering plants, in particular *Ranunculus*, are dominant. Habitat suitability studies suggest that the natural range of the feature may be more widespread within the SAC. More widespread sub-types may consist of communities dominated by aquatic bryophytes (NRW, 2022).

Within the LFRMS there are no measures or actions that specifically propose works to these watercourses. However, there are several actions (as identified in Section 6) that involve flood risk management activities within watercourses that are upstream of these European Sites. The wider measures 12 and 15 and actions MON 4, 15 and 38 could also impact watercourses throughout the county. There is therefore potential for the following effects on the Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation:

- Loss of/ damage to habitat – potential that flood risk management activities could remove or damage aquatic plant communities and/or habitats that could support them.
- Changes to hydromorphological conditions - Water-crowfoot vegetation thrives in relatively stable, moderate flows.
- Water quality – accidental pollution incidents, sediment laden runoff.
- Biological disturbance – introduction of non-native invasive species.

7.3.4 White-clawed Crayfish

European Sites: River Wye SAC

The River Wye system is the best site known in Wales for White-clawed Crayfish. The tributaries are the main haven for the species, particularly at the confluences of the main river and the Edw, Dulas Brook, Sgithwen and Clettwr Brook (JNCC [River Wye/ Afon Gwy - Special Areas of Conservation](#)).

Within the LFRMS there are several actions (as identified in Section 6) that involve flood risk management activities within watercourses that are tributaries of the River Wye SAC. The wider measures 12 and 15 and actions MON 4, 15 and 38 could also impact watercourses throughout the county. There is therefore potential for the following effects upon White-clawed Crayfish:

- Loss of/ damage to habitat – potential that flood risk management activities could remove or damage suitable habitats for White-clawed Crayfish.
- Physical damage – in-channel and bank works have the potential to result in harm to White-clawed Crayfish.
- Water quality – accidental pollution incidents, sediment laden runoff.
- Biological disturbance – introduction of non-native crayfish and crayfish plague.

7.3.5 Otter

European Sites: River Wye SAC and River Usk SAC

The River Wye holds the densest and most well-established Otter population in Wales, representative of Otters occurring in lowland freshwater habitats in the borders of Wales. The river has bank-side vegetation cover, abundant food supply, clean water and undisturbed areas of dense scrub suitable for breeding, making it particularly favourable as Otter habitat. The population remained even during the lowest point of the UK decline, confirming that the site is particularly favourable for this species and the population likely to be highly stable (JNCC [River Wye/ Afon Gwy - Special Areas of Conservation](#)).

The River Usk is an important site for Otter in Wales. They are believed to be using most parts of the main river, from Newport upstream, and in recent years signs of Otters have increased. In 1991 an expansion upstream of known Otter ranges was recorded on several tributaries, including the Honddu, Senni and Crai. The upper Usk may have acted as a 'refuge' during the decline of the 1950s and had subsequently acted as a 'source' population for recolonisation of south-east Wales (JNCC [River Usk/ Afon Wysg - Special Areas of Conservation](#)).

Within the LFRMS there are no measures or actions that specifically propose works to these watercourses. However, there are several actions (as identified in Section 6) that involve flood risk management activities within watercourses that are upstream of these European Sites. The wider measures 12 and 15 and actions MON 4, 15 and 38 could also impact watercourses throughout the county. There is therefore potential for the following effects on Otter:

- Loss of/ damage to habitat – potential that flood risk management activities could remove or damage suitable habitats for Otter.
- Disturbance – noise and visual disturbance from machinery and workforce impacting breeding sites and foraging and commuting Otter.
- Water quality – accidental pollution incidents, sediment laden runoff could reduce prey availability.

7.4 Avoidance and Mitigation Measures

Given the high-level nature of the LFRMS, and the unknowns at this stage with regards to the exact locations, design and construction methodologies for any of the proposed flood risk management activities, impacts on the designated features of the European Sites will need to be further reviewed and assessed at the project level.

Monmouthshire County Council are required under the Conservation of Species and Habitats Regulations 2017 (as amended) to undertake HRA for any plans, strategies or projects that could have pathways for effects on European sites. Therefore, any projects with such pathways that result from the LFRMS will require project stage HRA. This will identify potential effects on European sites alone and in combination at a project level, as more detail emerges.

Avoidance and mitigation measures relevant to the potential effects discussed in Section 7.3 are provided below. These are not intended to be comprehensive, and it is likely that there will be other effects and therefore other mitigation that will be required which it is not possible to identify at plan level because the nature, timing, duration, scale or location is not yet known. However, these must be implemented at project stage unless the project stage HRA assesses they are not required, and demonstrate that adverse effects can be avoided.

7.4.1 General measures

- Undertake ecological surveys early in project appraisal to determine presence or absence of species and identify important habitats.
- Undertake hydromorphological assessment to determine impact of works to watercourses on riparian and in-channel habitat.
- Minimise the footprint of any works to reduce impacts on habitats and avoid designated and sensitive habitats where possible.
- Several of the LFRMS actions include the development of natural flood management options. Designs should seek to restore natural processes and river restoration opportunities.
- Adherence to relevant pollution prevention guidance and implementation of appropriate silt management during any construction works.
- Adherence to biosecurity measures to prevent the spread of INNS and crayfish plague.
- Detail all mitigation measures in a Construction Environmental Management Plan.
- Appoint an Environmental and/or Ecological Clerk of Works to monitor and enforce the mitigation measures.

7.4.2 Fish

- Time works to avoid sensitive period for fish (e.g. restrict works to between 1st November and 31st May to avoid impacts to migratory fish).

- Carry out a fish rescue and use of appropriately screened pumps when undertaking de-watering.

7.4.3 Birds

- Undertake an assessment to identify the locations of high tide roosts of wintering waders and waterfowl using British Trust for Ornithology (BTO) Wetland Bird Survey (WeBS) data.
- Works in areas that could disturb designated wintering waders and wildfowl of the Severn Estuary SPA and Ramsar to be undertaken between April and August where possible. If works must take place in September to March these to not be undertaken 2 hours before and after high tide.

7.4.4 White-clawed Crayfish

- Crayfish rescue to be undertaken by a suitably licensed person where there is a risk of physical damage to crayfish.

7.4.5 Otter

- Avoid night-time working and use of lighting to avoid impacts to commuting and foraging Otter.
- Ensure any excavations or pipes are covered to prevent trapping or harm to animals.

8 Summary and Conclusion

The most likely effects of the Monmouthshire LFRMS on European Sites are related to the implementation of FRM measures and actions including works to culverts (increase capacity and remove blockages), and flood alleviation schemes, including several natural flood management options.

The HRA Stage 1 Screening Assessment identified that there is the potential for likely significant effects arising from the implementation of two measures and a number of actions in the LFRMS on the following European Sites:

- Severn Estuary SAC, SPA and Ramsar
- River Wye SAC
- River Usk SAC

Therefore, an Appropriate Assessment was required to determine whether the LFRMS would result in significant adverse effects on the integrity of these European sites.

Given the high-level nature of the LFRMS, and the unknowns at this stage with regards to the exact locations, design and construction methodologies for any of the proposed flood risk management activities, impacts on the designated features of the European Sites will need to be further reviewed and assessed at the project level.

Monmouthshire County Council are required under the Conservation of Species and Habitats Regulations 2017 (as amended) to undertake HRA for any plans, strategies or projects that could have pathways for effects on European sites. Therefore, any projects with such pathways that result from the LFRMS will require project stage HRA. This will identify potential effects on European sites alone and in combination at a project level, as more detail emerges.

Therefore, whilst there is still some uncertainty on the nature, scale and implementation of some of the measures and actions in the LFRMS, the requirement for project level HRA and the implementation of appropriate mitigation/avoidance measures, as detailed in Section 7.4, will ensure that potential significant adverse effects on the integrity of all identified European sites are avoided.

It is therefore concluded that the LFRMS can be adopted with no adverse impact on the integrity of European Sites.

References

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