Appendix J: South West Local Measures

1.0 Introduction

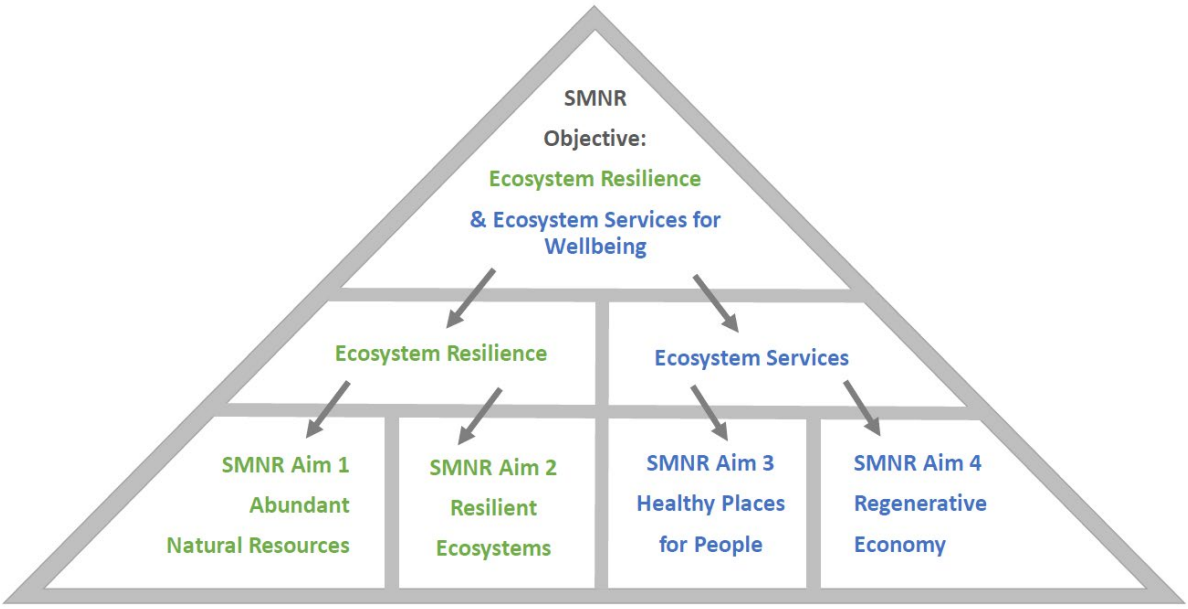
This document will consider the opportunities and constraints associated with the local measures for South West Wales. The aim of this is to:

- Consider beneficial and adverse impacts of the local measures to feed in to the main Environmental Report.
- Provide a stand-alone reference for local delivery that will identify constraints and opportunities for delivering multiple benefits, contributing to the Aims of SMNR and aligned with the Area Statement and Local Wellbeing Plan.

The Environment Act guidance set out 4 Aims for SMNR which contribute to meeting the SMNR objective set out in the Act. When Wales achieves the aims we will have achieved SMNR and met the objective set out in the Environment Act, and made the maximum contribution nature can make to the Wellbeing goals. The four aims are:

1. Stocks of natural resources are safeguarded and enhanced (Extent and condition of ecosystems)
2. Resilient ecosystems (Diversity, Connectivity, Adaptability of ecosystems)
3. Healthy places for people, protected from environmental risks
4. Contributing to a regenerative economy achieving sustainable levels of production and consumption.

Figure 1: Objective and Aims of SMNR



Local FRMP measures are proposed for the communities in South West Wales that are most at risk of flooding from main rivers and sea and need action to be taken to reduce risk. Lead Local Flood Authorities manage other sources of flood risk which should be considered when measures are implemented. Figure 2 and Table 1 shows the communities across South West Wales Place where action is needed to manage and reduce the risk of flooding. For further details refer to the FRMP for Wales: South West Place.

Community name	Community name
Aberdulais	Llanelli
Ammanford	Llanybri
Black Pill	Neath
Briton Ferry	Pontardawe
Carmarthen	Port Talbot
Dafen	Resolven
Duffryn	Swansea
Glyn - neath	Tenby

Table 1: Communities across South West Wales Place where action is needed to manage and reduce the risk of flooding

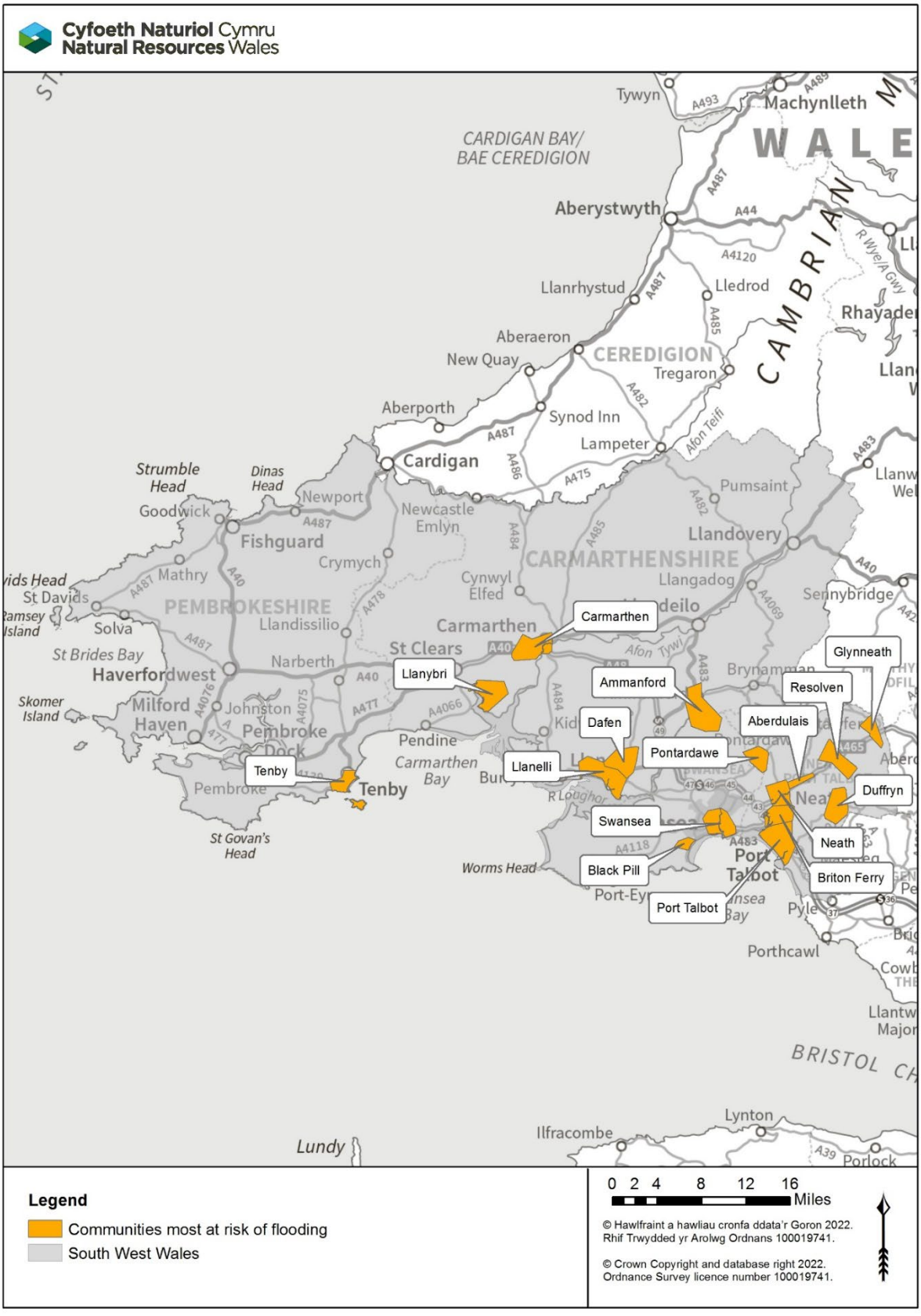


Figure 2 shows the communities across South West Wales Place where action is needed to manage and reduce the risk of flooding.

1.1 Approach

The FRMP is presented as National Measures which are grouped under FRM activities that are undertaken across Wales. These activities are:

WA1 - Management of flood risk assets

WA2 - Reservoir management and regulation

WA3 - Flood forecasting and issuing warnings

WA4 - Hydrometry and telemetry, hydrology and geomorphology

WA5 - Community engagement and resilience

WA6 - Understanding and analysing flood risk

WA7 - Flood risk advice, permitting, compliance and enforcement

WA8 - Responding to flood incidents

WA9 - Strategic planning and oversight of investment

The national measures that sit under each of these activities have all been scoped into the assessment. The assessment has been undertaken at an activity level and is presented in Appendix D.

The six Place Sections of the FRMP each set out a number of measures for specific communities across Wales. These amount to approximately 269 local measures across Wales. The local measures have been considered in the national scale assessment under the relevant activity (identified in Table 2). For example, the local measure to “Improve existing flood warning service” was assessed under WA3 which demonstrated significant beneficial effects or neutral effects across all receptors. Consideration at a local level would not alter these assessments.

This appendix considers all the local measures in South West Wales Place and maps the local measures to the national assessment. Further consideration has been given to local measures where they propose to:

- Undertake initial assessment and feasibility work for reducing flood risk, or
- Design and construction of flood risk asset improvement

Whilst these measures have been assessed under WA1 in the national assessment, the spatial alignment has allowed us to further consider constraints and opportunities in these places. These measures could result in physical interventions in these locations to manage flood risk and so they present an opportunity to integrate planning and delivery across different parts of NRW and to inform project level environmental assessment that will be undertaken as each of these measures progress.

Certain local measures are already undergoing project level environmental assessment and where this is the case, it has been identified.

2.0 Scoping the Local Measures Assessment

Table 2 lists all the local measures that are proposed for the management of flood risk in South West Wales Place. We have identified how each measure links to and is considered in the national impact assessment and highlighted which measures we are considering further in this document to identify local constraints and opportunities that align with the Area Statement and Well Being Plan.

Table 2: Local FRMP measures for South West Wales

Ref	Location	Source	Measure name	Measure type	Timescale	Scope in to the local assessment
SW1	Aberdulais	River	Build hydraulic model	Review	Short Term	National (WA4)
SW2	Aberdulais	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Short Term	No (project level environmental assessment underway)
SW3	Aberdulais	River	Improve existing flood forecasting model	Preparedness	Short Term	National (WA3)
SW4	Ammanford	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Short Term	No (project level environmental assessment underway)
SW5	Ammanford	River	Improve existing flood warning service	Preparedness	Short Term	National (WA3)
SW6	Briton Ferry	Sea	Maintain existing defences and inspection regime	Protection	Long Term	National (WA1)
SW7	Carmarthen	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Short Term	Yes (WA1)
SW8	Dafen	River	Design and construction of flood alleviation scheme	Protection	Short Term	Yes (WA1)

Ref	Location	Source	Measure name	Measure type	Timescale	Scope in to the local assessment
SW9	Dafen	River	Investigate feasibility for new flood warning Service	Preparedness	Medium Term	National (WA3)
SW10	Glyn-Neath	River	Update existing hydraulic model	Review	Medium Term	National (WA4)
SW11	Glyn-Neath	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Medium Term	Yes (WA1)
SW12	Laugharne Lower Marsh	Sea	Consider future management options and undertake coastal adaptation planning	Review	Medium Term	Yes (WA1)
SW13	Llanelli	Sea	Maintain existing defences and inspection regime	Protection	Long Term	National (WA1)
SW14	Llanelli	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Short Term	Yes (WA1)
SW15	Mwche	Sea	Consider future management options and undertake coastal adaptation planning	Review	Medium Term	Yes (WA1)
SW16	Neath	River	Consider and integrate nature-based solutions including natural flood management in NRW flood risk schemes and activities	Prevention	Medium Term	Yes (WA1)
SW17	Pontardawe	River/Sea	Update existing hydraulic model	Review	Medium Term	National (WA4)
SW18	Pontardawe	River/Sea	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Medium Term	Yes (WA1)
SW19	Port Talbot	River	Maintain existing defences and inspection regime	Protection	Long Term	National (WA1)
SW20	Resolven	River	Update existing hydraulic model	Review	Medium Term	National (WA4)
SW21	Resolven	River	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Medium Term	Yes (WA1)
SW22	Swansea	River/Sea	Update existing hydraulic model	Review	Short Term	National (WA4)

Ref	Location	Source	Measure name	Measure type	Timescale	Scope in to the local assessment
SW23	Swansea	River/Sea	Undertake initial assessment and feasibility work for reducing flood risk	Protection	Short Term	Yes (WA1)
SW24	Tenby	River/Sea	Design and construction of flood risk asset improvements	Protection	Medium Term	No (project level environmental assessment underway)
SW25	South West Wales Place	River/Sea	Work with RMAs where we have a joint interest, to plan and undertake activities that reduce the risk of flooding to communities	Prevention/Protection/Preparedness/Review	Short Term	National (WA1)

3.0 Key environmental constraints and opportunities

The FRMP Scoping Report provides a full overview of the environmental baseline at a national level, and the Environmental Report summarises the baseline and key issues relevant to the FRMP. This section will not repeat this information. A greater level of detail and background into South West Wales Place can be found in the Area Statement:

Natural Resources Wales / South West Wales Area Statement

Natural Resources Wales / Introduction to Wales' Marine Area Statement

We have worked with South West Wales People and Places team to identify particular opportunities and constraints in each of the communities scoped in to this assessment. The aim is to inform and encourage cross functional planning of delivery projects and to inform project level environmental assessment. We have focussed on spatially specific key environmental receptors, this supplements the fuller description of the environmental baseline as documented in the Scoping Report and Environmental Report. In undertaking this exercise other place based information that applies throughout South West Wales, that is of relevance for FRM activities was gathered and is set out under the four aims of SMNR. This information is not exhaustive and is meant as a prompt to encourage early and integrated planning.

Ref	Location	Resilient Ecosystems (Aim 2)	Healthy Places WFD Status / Heavily Modified Waterbody (Aim 2)	Health & wellbeing, recreation, access (Aim 3)	Fisheries projects / River restoration /Opportunity catchment (Aim 4)
SW7	Carmarthen (Johnstown)	River Tywi SAC & SSSI Carmarthen Bay and Estuaries SAC	No HMWB GB110060029320 Tawelon – headwaters to tidal limit Overall moderate GB531006013400 Tywi & Taf & Gwendraeth – Three rivers estuary Overall moderate	Wales Coast Path Public footpath/access	4 Rivers for LIFE
SW8	Dafen		HMWB GB641008180000 Dafen -Headwaters to tidal limit Overall moderate	Public footpath/access	
SW11	Glyn-Neath	Coedydd Nedd a Mellte SAC Cwm Gwerelych and Nant Llyn Fach Streams SSSI Geological Conservation Review Sites	No HMWB GB110058032430 Neath Conf -Nedd Fachan and Melte to TL (Tawe to Cadoxton) Overall moderate	Dismantled railway/Public footpath/access	
SW12	Laugharne Lower Marsh	Carmarthen Bay and Estuaries SAC, Carmarthen Bay SPA, Carmarthen Bay Dunes SAC, Bristol Channel Approaches SAC			

Ref	Location	Resilient Ecosystems (Aim 2)	Healthy Places WFD Status / Heavily Modified Waterbody (Aim 2)	Health & wellbeing, recreation, access (Aim 3)	Fisheries projects / River restoration /Opportunity catchment (Aim 4)
SW13	Llanelli (Pwll)	Carmarthen Bay and Estuaries SAC, Burry Inlet SPA and Ramsar Burry Inlet and Loughor estuary SSSI Pwll Lagoon SSSI	No HMWB GB641008180000 Burry Inlet Outer (Coastal WB) Overall moderate	Wales Coast Path Footpath/access	
SW15	Mwche	Carmarthen Bay and Estuaries SAC		Wales Coast Path Footpath/access	
SW16	Neath (NFM)		No HMWB GB110058032360 Dulais – headwaters to conf with Neath Overall good	Public footpath/access	
SW18	Pontardawe	Cwm Du Glen and Glanrhyd Plantation LNR	No HMWB GB110059032180 Upper Clydach-headwaters to Tawe Overall Good GB110059032180 Tawe – conf with Twrch to tidal limit Overall moderate	Public footpath/access	

Ref	Location	Resilient Ecosystems (Aim 2)	Healthy Places WFD Status / Heavily Modified Waterbody (Aim 2)	Health & wellbeing, recreation, access (Aim 3)	Fisheries projects / River restoration /Opportunity catchment (Aim 4)
SW21	Resolven		No HMWB GB110058032430 Neath confluence Nedd Fachan to Melte TL Overall moderate GB110058026380 Clydach Brook-HW to confluence River Neath Overall good	Public footpaths/access	
SW23	Swansea	Crymlyn Bog SAC/SSSI and Blackpill Swansea SSSI and Crymlyn Burrows SAC	HMWB GB541005900900 Tawe Estuary below barrage inc Docks Overall moderate HMWB GB541005900901 Tawe-Beaufort Weir to Barrage (Transitional) Overall Moderate HMWB GB641008260000 Swansea Bay (Coastal) Overall moderate	Wales Coast Path Public footpath /access	

Aim 1: Stocks of natural resources are safeguarded and enhanced

Tackling overexploitation to ensure that natural resources are safeguarded, and where possible enhanced, to meet the needs of current and future generations and to contribute to ecosystem resilience. Non-renewable natural resources (such as, aggregates, fossil fuels) are used in a sustainable manner and, where depletion is unavoidable, substitutes are put in place to meet future needs.

The **National Peatland Action Programme** is a 5 year plan (2020-2025) of peatland restoration in Wales. Welsh peatlands need urgent action to reverse habitat loss and their poor condition. They support a variety of habitats and species, and have an important role in:

- capturing and storing carbon
- regulating greenhouse gases
- maintaining biodiversity
- regulating water

The programme will have direct and indirect benefit for FRM in terms of mitigating and adapting to climate change. Where local FRMP measures are delivered downstream of NPAP projects opportunities could be identified to work together to align delivery and maximise benefits.

The Wales Environmental Information Portal contains the new peat map showing the locations of all Peatlands in Wales. This is being developed further to detail what restoration has happened and where. The portal also includes a layer for opportunities for bog restoration for FRM.

To determine any opportunities project managers should contact the NPAP team: **npap@naturalresourceswales.gov.uk**.

Aim 2: Ecosystems are resilient to expected and unforeseen change

Building ecosystem resilience to safeguard and enhance supporting ecosystem services and tackling the impacts of habitat change, climate change, pollution, invasive alien species and other identified pressures resulting in Wales having resilient ecosystems

There are numerous **nationally protected sites** across South West Wales. NSN Sites include River Tywi SAC, Cleddau Rivers SAC, Carmarthen Bay and Estuaries SAC, and much of the coastline is designated (eg Pembrokeshire Marine SAC and West Wales Marine SAC). When local measures are implemented, project level environmental assessment and Habitats Regulations

Assessment will consider implications for sites such as those listed in Table 3, as well as considering whether projects can restore or improve any features.

The third cycle **River Basin Management Plan** (RBMP) established ten **Opportunity Catchments** across Wales. Opportunity Catchments (OpC) have been agreed as the delivery mechanism for the third cycle River Basin Management Plans (RBMP) (2021-27). The focus of OpC is to maximise multiple benefits for waterbodies, health and well-being, delivered through partnership working. OpC are a delivery mechanism to integrate RBMP with other work streams and to deliver the Natural Resources Policy priorities, such as delivery through nature-based solutions. Area Statements provide an important local steer having identified the local challenges and opportunities for each area. The Cleddau Rivers, the Teifi and the Tawe catchments are OpC in South West Place.

Table 3 identifies the Water Framework Directive (WFD) status of relevant waterbodies in South West Wales. Some of these are classified as **Heavily Modified Waterbodies** (HMWB). Some waterbodies might be classified as a HMWB as a result of their function as a flood risk asset. These might provide valuable social and economic benefits which it is vitally important to protect, so they have been designated as such under Article 4.3 of the WFD. There can still be opportunities to deliver mitigation measures in HMWB to help achieve Good Ecological Potential. Where FRMP measures are delivered in a HMWB, must seek opportunities to **deliver mitigation measures** identified for the HMWB.

Mitigation measures can include:

- Remove obsolete structure
- Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution
- Preserve/restore habitats
- In-channel morphological diversity
- Re-opening existing culverts
- Alter culvert channel bed
- Flood bunds (earth banks, in place of floodwalls)
- Set bank embankments
- Floodplain connectivity
- Structures or other mechanisms in place and managed to enable fish to access waters upstream and downstream of the impounding works.
- Management of the risk of fish entrainment in intakes for hydropower turbines or water resource purposes (or pumping stations) where there is downstream fish migration.
- Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone

- Operational and structural changes to locks, sluices, weirs, beach control, etc
- Selective vegetation control regime
- Appropriate vegetation control technique
- Appropriate timing (vegetation control)
- Appropriate techniques (invasive species)
- Retain marginal aquatic and riparian habitats (channel alteration)
- Sediment management strategies
- Appropriate channel maintenance strategies and techniques - minimise disturbance to channel bed and margins
- Appropriate channel maintenance strategies and techniques - e.g. remove woody debris only upstream of, or within, areas of urban flood risk. Can also include the use of gravel traps and maintaining sediment within the river system
- Appropriate water level management strategies, including timing and volume of water moved
- Appropriate techniques to align and attenuate flow to limit detrimental effects of these features (drainage)
- Educate landowners on sensitive management practices (urbanisation)

When projects are progressed there should be early discussion with the People and Places team to identify possible mitigation measures specific to each site. Through early consideration in the options appraisal there may be opportunities to include within the project design and business case.

All projects being undertaken in the fluvial, estuarine or coastal environment must undergo WFD compliance assessment under OGN 72.

The **River Restoration Programme** (RRP) identifies options that look to address physical modifications by naturalising watercourses and improving the resilience of habitats and biodiversity, as well as potentially reducing the local risk of flooding and improving water quality. NRW will work with partners and these gains will contribute towards the watercourses achieving their objectives under the WFD Regulations 2017.

The priority catchments for river restoration are shown in Figure 3. The blue polygons show the communities where FRMP local measures propose to undertake initial assessment and feasibility work for reducing flood risk, or design and construction of flood risk asset improvement. In some communities there is correlation with the RRP priority catchments, showing opportunities for FRM projects to deliver multiple benefits by working with the RRP. Conversely, some RRP activities include measures to slow and store water, including riparian habitat management and creation of offline storage areas which can help reduce flooding, improve water quality and increase biodiversity, delivering multiple benefits.

The River Tywi and Cleddau Rivers are also part of the 4 Rivers for LIFE programme. This is a £9m programme of work to bring four Welsh rivers into good condition. This includes the Usk (in South East & Mid), the Teifi (in Mid) and the Cleddau and Tywi (in South West). The programme is aiming to improve 500km of river. The work includes:

- Improve river habitats and conditions for migratory fish – most notably Atlantic salmon, sea and river lamprey, bullhead and shad. Otters and freshwater pearl mussels are set to benefit too;
- Re-profile sections of canalised rivers so that they meander once again – great news for wildlife. But also for people, as slowing the flow can reduce flood risk downstream;
- Work with farmers to protect river corridors and reduce sediments and nutrients from entering rivers. This will have the added benefit of safeguarding important drinking water supplies.

Where FRM projects, for example in Carmarthen, overlap with planned river restoration work, opportunities to deliver the project in an integrated manner to deliver multiple benefits should be explored.

Figure 3: Opportunity catchments and priority catchments for river restoration in South West Wales

Some of the communities at risk in South West Place are coastal. The Marine Area Statement acknowledges that there are many locations around Wales which we must continue to defend in the future. This gives us many opportunities to consider using nature-based solutions for our coastal defences. In the options appraisal and design of local measures there must be consideration of **coastal adaptation** in line with SMP policy and where we are investing in a coastal defence, nature-based solutions must be considered and implemented where appropriate. The Area Statement supports the implementation of SMP policies, for example where policies move from hold the line to managed realignment in 2025.

Where coastal defences must be maintained because of existing infrastructure and communities, nature based solutions must be considered. For instance, beach replenishment or saltmarsh development are natural coastal defences. Saltmarshes also offer the multiple benefit of being efficient carbon stores. Green-grey infrastructure solutions such as the use of ecological enhancement features can help to support improvements in biodiversity of coastal structures. **OGN 185 "Guidance to support the use of ecological enhancement features on coastal defence structures and assets"** should be considered for all coastal and estuarine projects.

Aim 3: Wales has healthy places for people, protected from environmental risks

Environmental regulation protects people from risks, such as air, water and noise pollution, flooding etc. Regulating and cultural ecosystem services are managed to increase wellbeing resulting in the provision of a healthy environment for all.

Fundamentally, the FRMP local measures aim to manage flood risk in the communities considered at greatest risk. Many factors have an influence on our health and well-being, such as genetics, the environment, the society in which we live and work, income, behaviour patterns, and access to services. These significant and sustainable factors relate to what are known as the "Wider determinants of health", and should be considered as part of the commitment to the well-being of future generation and tackling inequalities. **The FRMP will contribute to Aim 3 by seeking to reduce the risk of flooding in these communities and consequently increasing well-being**.

Key to our understanding of populations and human health is the levels of deprivation experienced by local communities which can be explored through the Welsh Index of Multiple Deprivation: WIMD - Home Page (gov.wales)

Public Service Boards are responsible for producing **Well-being Assessments** and **Well-being Plans** that allow local organisations, including NRW, to work together to improve the well-being of people who live in their area. The plans prioritise what the PSB will focus on. In 2022 PSB's undertook / are undertaking an assessment of local well-being. The new draft Local Wellbeing Plans are due for public consultation in summer 2022, with an aim of publishing in 2023. PSBs relevant for South West Wales are:

Carmarthenshire Well-being Plan

Pembrokeshire Well-being Plan

Swansea Well-being Plan

Bridgend PSB Well-being Plan

Neath Port talbot Well-being Plan

There are opportunities for local FRMP measures to contribute to local well-being plan objectives. For example: Objective 3 of Swansea PSB Well-being Plan is to work with nature to improve health, enhance biodiversity and reduce our carbon footprint. One of the steps to be taken to achieve this include development and implementation of green infrastructure strategy. FRM assets along the rivers and coast can provide opportunities for access and recreation. Projects can seek to deliver access improvements and working with partners to link to existing footpaths and trails.

This is just one example. Each project level environmental assessment will consider the relevant Well-being Plan and identify opportunities to contribute.

The **Active Travel Act Guidance** has been produced by Welsh Government and is aimed at encouraging and facilitating walking and cycling. By encouraging such activities there can be direct benefits to health and well-being aswell as providing alternatives to car travel. Achieving modal shift by displacing private car journeys with walking and cycling and public transport is at the heart of Llwybr Newydd, the Wales Transport Strategy. FRM projects should also seek to deliver opportunities such as designing in multi-user paths onto flood embankments.

Each Local Authority has an Active Travel Plan and the relevant ones for South West Wales can be found here:

Carmarthenshire

Pembrokeshire

Swansea

Bridgend

Neath Port Talbot

At the early stages of a project we must check if there are plans for an active travel route in the area that could be accommodated or enabled by any flood risk engineering works.

There are numerous **designated landscapes** across South West Wales, including Pembrokeshire Coast National Park, Brecon Beacons National Park, Gower **Area of Outstanding Natural Beauty** (AONB) and the western part of the Valleys Regional Park. The Valleys Regional Park champions the iconic landscape and people of the South Wales Valleys, working with partners to maximise the environment and social benefits for local communities and future generations.

The South West also contains numerous **Special Landscape Areas** (SLA). This is a non-statutory designation applied by the local planning authority to define areas of high landscape importance within their administrative boundary. Areas of high landscape importance may be designated for their intrinsic physical, environmental, visual, cultural and historical value in the contemporary landscape. Landscapes designated as a SLA may be unique, exceptional or distinctive to the local authority area.

Any projects located within these areas must be designed sensitively with their surroundings and in discussion with the relevant authorities to ensure the landscape is safeguarded and enhanced where possible.

There are also **Registered Historic Landscapes** in South West Wales. There are multiple **Scheduled Ancient Monuments, Historic Parks and Gardens and listed buildings** in the communities at flood risk. There is also potential for **buried archaeology** which needs consideration in the delivery of projects. At initial assessment stage of projects it is standard practice to seek screening advice from Glamorgan Gwent Archaeological Trust (GGAT) or Dyfed Archaeological Trust (DAT), under the Memorandum of Understanding between NRW, Cadw and the Welsh Archaeological Trusts. GGAT or DAT will scrutinise the Historic Environment Register and provide advice on the sensitivity of the study area for cultural heritage. This is done very early to ensure the project can be appraised and designed to avoid impact on the historic environment and seek opportunities to enhance cultural heritage.

Aim 4: Contributing to a regenerative economy, achieving sustainable levels of production and consumption

Reducing the environmental impact of production and consumption and our environmental footprint in Wales and beyond, meeting the Wellbeing Goals of delivering a prosperous and globally responsible country. Our aim is for Wales to use no more than its fair share of global resources in order for our economy to operate within the regenerative capacity of the Earth's ecosystems and make a positive contribution to global wellbeing.

Welsh Government has an aspiration to create 43,000 hectares of new woodland by 2030 (and 180,000ha by 2050) to help Wales meet its carbon emission reduction targets. Woodlands provide many benefits to society, including slowing the flow of water and consequently moderating flood events. On the other hand, forest management practices such as cultivation, drainage, road construction and harvesting can have the opposite effect if not appropriately managed. The UK Forestry Standard (UKFS) recognises the potential of forestry to affect downstream flooding and includes a set of requirements and guidelines to ensure that forests, forestry management and woodland creation make a positive contribution. A new UKFS Practice Guide on designing and managing woodlands and forests to reduce flood risk is due for publication in 2022/23. FRM capital projects, by their nature, often result in the removal of trees to make space for access and/or construction. The project environmental assessment will seek to minimise such loss and to mitigate, where necessary, by planting trees. There might also be opportunities to further enhance the environment and contribute to Welsh Government's ambition for **woodland creation** through capital project delivery, particularly if they are in locations that might reduce run-off. FRM projects, by their nature are often in urban environments and securing land for tree planting is often high risk and high cost. Delivering tree planting and woodland creation more strategically through NRW's **Woodland Creation Programme**, as well as **Welsh Government's National Forest programme** and the Sustainable Farming Scheme in due course, could provide benefits for both FRM and Wales as a whole. For further opportunities at a project level, contact NRW's woodland creation hub: **WoodlandCreation.Hub@cyfoethnaturiolcymru.gov.uk**

Forest Resource Plans (FRPs) are 30year plans that set out the framework for management of the WGWE. They detail what work will be carried out and when. These programmes of work are developed to meet the forest objectives, which are created based on policy guidance and Area Statements. They are refined through coupe plans and detailed site plans for operational delivery. Following the 2020 floods NRW's Land Estate Management Review found that forests influence water in a mostly positive way, evidence suggests that they do not have a significant modifying effect during major flood events, regardless of management practice. However, in some smaller catchments where forestry is the dominant land use, woodland can have a positive effect during less extreme conditions. Work we can carry out on our land to hold and delay the release of water could contribute positively to flood management downstream, especially when combined with other catchment wide actions and when considering the future implications of climate change. The FRMP identifies those communities at greatest flood risk across Wales and linking with the relevant Forest Resource Plan at a strategic or local scale could encourage integrated planning and delivery of wider benefits, in line with the recommendations of the review.