the weaver gowy catchment

Management Plan March 2019



Hosted by Groundwork CLM

Member Stakeholders working in a spirit of partnership to develop and deliver integrated multi benefit solutions which improve the health and resilience of our Catchment.

Introduction

The Government introduced the Catchment Based Approach (CaBA) as a way of managing the health of our waterways in a local collaborative way by bringing together a consortia of the right member partners who have the remit, expertise and knowledge to meet the objectives with will be outlined later in this document.

Our water environment is crucial to our quality of life. We need to protect and enhance rivers and groundwater as systems which means thinking about them source to estuary, and all the places in between. In other words, we need to plan and work in collaborative partnership at a catchments scale.

There are lots of great things about our catchment which we want to keep and that takes management, conservation and planning for extreme weather events including flooding and drought. And there are some things we want to make better. That takes change. That's what a Catchment Based Approach (CaBA) Plan is all about.

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The Weaver Gowy catchment is part of the North West River Basin District and is characterised by low-lying rolling countryside and beautiful plains. However, some parts are heavily industrialised.

The River Weaver flows through dairy farmed areas of Cheshire, through Nantwich and onto Winsford where it becomes impounded and navigable, joining the Manchester Ship Canal at Runcorn. The operational catchments are the Dane, Gowy, Lower and Upper Weaver.





The Gowy runs to the east of Chester and meets the Mersey Estuary near the oil refinery at Stanlow. This catchment is largely rural (dairy & beef farming) and includes core industrial locations with regulated and non-regulated water pollution issues in areas of industrial legacy. The area has numerous Sites of Biological Importance and Sites of Special Scientific Interest (SSSI). The Cheshire Meres and Mosses form part of the internationally important West Midlands Meres and Mosses, which include sites designated as SSSI, SAC and Ramsar. Otters have become established and the Lesser Silver Water Beetle, a protected species, is found in several parts of this catchment. The native White Clawed Crayfish is found in several watercourses in the catchment.

The catchment is popular with anglers as the Rivers Gowy and Weaver both support good coarse fish populations; this catchment also supports our largest eel populations. Rural land use and agriculture is a major feature of the Weaver Gowy catchment and agricultural and septic tank pollution are common problems.

Industry is concentrated around the lower catchment near Runcorn an area particularly known for its chemical industry and Ellesmere Port. The catchment is also known for its salt mines which supply salt for industrial use and for road gritting. In parts, the aquatic ecology suffers from current and past industrial discharges compounded by river modifications including weirs and locks that act as barriers to fish migration. The top three issues which need addressing under the Water Framework Directive in this catchment are pollution from rural areas, waste water and physical modifications.



River Weaver at Barons Quay, Northwich.

1.0 Our Vision and Objectives for the Weaver Gowy Catchment

'All water bodies of the Weaver Gowy catchment to be clean and healthy, supporting measurably diverse wildlife, valued by people and enabling sustainable economic growth.'

We've made great progress towards improving our water environment over the last few decades, but more needs to be achieved, especially if we are to deal with the pressures of a changing climate and growing population. Under the Water Framework Directive, the UK has to ensure that there is no deterioration in the quality of our waterbodies, and that all water bodies improve to reach good ecological status as soon as possible. Although this is challenging to achieve, it makes us look at a range of issues in water bodies and how they interact, and this can only be good for the long term health of our rivers.

Each River Catchment across England has its own vision, which outlines the main issues for the water environment and the actions that have been developed to tackle them. Key to achieving these ambitious plans is working in partnership across different organisations. By working together as the Weaver Gowy Catchment Partnership, hosted by Groundwork Cheshire Lancashire and Merseyside (GW CLM) we can improve river habitat, tackle pollution and work with communities, businesses and farmers to ensure that we're all taking our fair share of responsibility. Step by step we're making a real difference and this document outlines some of our current activities across the catchment and future plans for improving our water environment.

This Plan is about action. Action to improve our rivers, and action to raise awareness and educate people about the importance of rivers in line with the following 5 core Objectives:

1: Developing a Robust Evidence Base:

We will collectively decide where and what the issues are based on the evidence available. This will enable us to identify, prioritise and address the needs of the Catchment. We will all commit to making available to this Catchment Partnership data, maps and evidence which help us to identify and deliver on the following objectives.

2: Improving Water Quality:

In line with the priorities of the Water Framework Directive to prevent the deterioration of waterbodies, move them towards good ecological status and reduce point source and urban/rural diffuse pollution. Take action towards meeting EU Water Framework Directive by 2027 and other regulatory drivers, including the revised Bathing Water Directive.

3: Managing Water Quantity:

Protect the people and wildlife that depend on the river from the influences of climate change, both floods and droughts. As a Catchment Partnership we will integrate water quality, flood risk management and habitat creation when considering interventions.

4: Engaging with Business and Communities:

Manage the river from source to sea to maximise the benefits that it brings to our economy and communities. In connecting people with their natural environment we have a priority focus on education, improving health and wellbeing, supporting communities at risk from flooding and engaging local business to use and manage water in line with Environment Agency legislation.

5: Enhancing and promoting the Natural Aspects of the Catchment.

Protecting species, improving habitats and measurably diverse biodiversity, controlling the spread of Invasive Non Native Species (INNS) in ways that are able to be managed and sustained into the future.

VISION AND OBJECTIVES



1.1 Our Principles

- An agreed commitment from stakeholders to collectively consider the above objectives in conjunction with the Defra 25 Year Plan and Water Framework Directive when planning and carrying out physical work, activities and community engagement within the Weaver Gowy Catchment area.
- Identification of funding opportunities and a commitment for member stakeholders to develop consortia ratified bids which address their own business objectives and also support a sustainable win-win legacy for the Catchment Based Approach.
- A commitment that all member stakeholders provide relevant data, project updates and outputs been used, there is a requirement for members to provide KM enhanced figures.
- A commitment that all member stakeholders will ensure that non-commercial mapping data and local evidence are made available for the partnership to build a fit for purpose StoryMap that will be publically available and used as tool to prioritise action.
- share best practise and build resilient delivery models which cross boundaries.
- Timely sharing of knowledge, best practice and information between Weaver Gowy Catchment members to ensure that the partnership is well coordinated.
- Promotion of @WGowyRivers as the 'hub' for public engagement with news about the River Weaver, Gowy, Dane and associated waterways.
- Identification of organisations, business, communities that are not yet engaged in or aware of policy shapers to learn, understand and engage in shaping the future of our river corridors.
- Develop a programme of collaborative work amongst catchment partners that is informed by good local evidence and brings lasting sustainable benefits to the water environment.
- Maximise resources and where possible bring in additional funding (including match finance) towards the costs of delivery.

on projects which deliver on the partnership objectives. Where Environment Agency finance has

Partnership working with other River Catchment Hosts across the North West of England to

the Weaver Gowy Catchment Based Approach with the key aim of encouraging local people and

2.0 Data & Evidence to underpin a weight of evidence approach.

The key sources of evidence we will use to identify where we will work and what we will do are:

2.1 Nationally consistent evidence base

Catchment Based Approach (CaBA) data package: The 'CaBA Data & GIS User Guide' explains which layers are available, what they mean and how they can be used. They identify the spatial pattern of opportunities; issues, characteristics and the possible sources of the issues. This weight of evidence is constantly being improved by collecting datasets and working with local organisations in the catchment. This data coupled with local/national evidence, plans and strategies provide the weight of evidence required to deliver projects which will benefit the lives of people and wildlife living in this catchment.



2.2 Local Evidence

In addition to the national datasets available in the CaBA data package and via government open data initiatives, local data and evidence (including modelling) is important for helping to pinpoint issues, identify solutions and monitor outcomes in our catchment. For this reason the Partnership has developed a Weaver Gowy StoryMap. A publically available online tool, managed by Groundwork CLM which maps delivered and current projects, challenges, issues and opportunities on this catchment.



2.3 Links to other plans and strategies

A number of key organisations are prioritising where they will undertake actions to meet their particular aims and objectives. These actions can potentially impact on other aspects of the water environment. We will use the following resources to help the partnership focus delivery where it will bring the greatest benefit:

Defra 25 year Plan:

https://www.gov.uk/government/publications/25-year-environment-plan This environment plan sets out UK goals for improving the environment, within a generation, It details how the government will work with communities and businesses to do this over the next 25 years.

Catchment Data Explorer:

http://environment.data.gov.uk/catchment-planning/ The Environment Agency website enables people to explore and download information about the water environment. It supports and builds upon the data in the river basin management plans. It includes summary information about catchments and links to other useful sites. This is central to the CaBA planning process and we will use this site to help identify where the issues are and the likely causes.

Bathing Water Explorer:

https://environment.data.gov.uk/bwg/profiles/

Water quality at designated bathing water sites in England is assessed by the Environment Agency. From May to September, weekly assessments measure current water quality, and at a number of sites daily pollution risk forecasts are issued. Annual ratings classify each site as excellent, good, sufficient or poor based on measurements taken over a period of up to four years. Information about bathing water quality in other countries in the UK can be found here. We will use this site to identify whether runoff from the catchment influences bathing water guality and compliance with the Bathing Water Directive.

Catchment Flood Management Plan:

https://www.gov.uk/government/collections/catchment-flood-management-plans#north-westriver-basin-district

We will use this to check planned actions for reducing flood risk in this catchment in order to identify opportunities to create multi-benefit actions, and to identify opportunities to add flood risk benefits to other planned projects.

The Flood Hub:

https://thefloodhub.co.uk/

We will use this newly launched resource as an information source to stay up to date with coastal and flood information in the North West of England.

Countryside Stewardship Statements of Priorities:

https://www.gov.uk/government/collections/countryside-stewardship-statements-of-priorities We will use to clarify where Natural England has identified water quality or flooding as a priority issue for allocation of countryside stewardship grants.

Local Authority Spatial and also Strategic Flood Risk Assessment Plans (SFRA):

We will use these to identify where green and blue infrastructure measures could be targeted, and funded from infrastructure levy, to provide flood risk, water guality, biodiversity, recreational and tourism benefits. Local Neighbourhood Plans will also enable the partnership to identify areas of new development and the opportunities they might bring to embed CaBA integrated multi benefits into infrastructure development in line with our core objectives.

Water Company Asset Management Plan:

We will use this to understand where the priorities are for United Utilities and identify opportunities for partnership working.

There are many organisations looking to prioritise where they spend money and undertake actions to provide the best outcome for their priority objectives. The best way to make use of these different prioritisation tools and plans is to use them in combination to identify areas of the catchment, and possible projects, which will provide benefits to multiple partners, as this will provide a strong business case for future funding bids.



River Dane, Northwich.

3.0 Project Action Plan.

'The Weaver Gowy Catchment Partnership provides a forum to support joint working. The Action Plan draws together projects that have been developed by partners, some complementing wider initiatives in the catchment that together will help to improve the health of the water environment.

Rachel Argyros - Environment Agency

3.1 What we are currently doing in the catchment

Below are a small selection of live projects. A full list of projects and partners can be found in the Annex.

Project 1: Natural England. Catchment Sensitive Farming (CSF)

This is a national partnership between Defra, the Environment Agency and Natural England. It works with farmers and a range of other partners to improve water and air quality in high priority areas. CSF offers farmers free training, advice and support for grant applications. Local priorities in Cheshire are to:

- Reduce the loss of sediment, and associated soil-bound phosphate particles, through appropriate changes in land management and improved soil husbandry
- Improve the use of fertiliser, manure and slurry for increased nutrient use efficiency
- local waterbodies and for farmers to take action to reduce diffuse water pollution from agriculture (DWPA)
- Improve understanding of how farm infrastructure can be improved to reduce DWPA and use this to increase the effectiveness of Countryside Stewardship water grants in the catchment
- Encourage use of Countryside Stewardship resource protection options. Suitable options include appropriately located: buffer strips, low input grasslands, management of field corners, arable reversion and riparian management strips

There are currently three Catchment Sensitive Farming Officers (CSFO) based in Cheshire. The core objective of the programme is to Improve Water Quality in line with the Water Framework Objective. Phosphates Sediments, Surface water nitrates, Groundwater nitrates.

Weaver Gowy Catchment Coordinator.

Increase understanding of how farming practices contribute to increased nutrient levels in



Project 2: Cheshire Water Risk Reviews.

Delivered by Groundwork Cheshire Lancashire and Merseyside in partnership with the Environment Agency.

The project is delivering a series of interventions with local businesses located within pollution hot spots in the Weaver Gowy Catchment. Businesses are engaged based upon a risk based approach to target sites that were most likely to present a high risk of diffuse industrial pollution entering the water catchment.

Locations: Millbuck Way Industrial Estate Sandbach and Wharton Dovefields Industrial Estate Winsford.

The project includes:

- Scoping of high risk companies within hotspot locations identified by the Environment Agency.
- Engagement of companies to deliver a site based water pollution risk review.
- Provision of information and advice to support the business to address actual or potential risk, including signposting to further support and guidance.
- Delivery of follow up work with companies where additional support will generate enhanced outcomes from the project.

The project will contribute to deliver improved river water quality through tackling the sources of disperse industrial pollution. The project has successfully engaged 16 companies and is providing advice and information to reduce diffuse industrial pollution.





This project has been an excellent example of the CABA approach reaching into companies, in a non-threatening manner, facilitating joint agreement on action to reduce pollution risks to local water courses, educating business managers and owners whilst raising awareness of best practice and pollution legislation. The project has enabled identification of opportunities for improvement, whilst providing follow up support to drive forward improvements ensuring practical action is taken to reduce pollution risks.

Greville Kelly - Director Business, Groundwork CLM

Benefits

Improving Water Quantity, Quality, Engaging Businesses, Enhancing the Natural Environment and Robust Evidence Base.

Project 3: Love My River Northwich.

Delivered by Groundwork Cheshire Lancashire and Merseyside. in partnership with the Environment Agency.

The project engages local residents in supporting the improvement of the River Weaver, River Dane and its tributaries which run through Northwich within the Weaver Gowy catchment. The project aims to improve water quality of individual water bodies to bring the Ecological Status to Good by 2027.

The project includes:

- Delivery of the 'Yellow Fish' initiative in three principal areas of Northwich where residential neighbourhoods have separate sewage systems or defined surface water drainage connecting roadside gullies with watercourses. The project promotes the message of Only Rain Down the Drain in an attempt to reduce water pollution
- Delivery of Connect Right messages detailing the issues around domestic misconnections and inviting householders to check and report any suspected misconnections and seek advice/assistance from the project if needed to confirm the problem and make corrections.
- community facilities and three schools in Northwich which currently drain rainwater from roofs into combined sewage systems.
- Installation of 2 floating habitats along heavily engineered sections of the river including Yarwoods Arm and River Park.

Installation of Sustainable Urban Drainage (SUDs)/Rain Garden demonstration projects at two

- Delivery of Citizen Science and Walkover surveys programme involving LMR volunteers and school groups. Citizen Science water quality testing will focus on areas where Yellow Fish and Connect Right projects are active and where surface water drainage outfalls into watercourses.
- Delivery of ongoing INNS control along 1km section of River Dane, upstream of the confluence with the River Weaver, focusing on removal of Himalayan balsam prior to seeding to reduce seed bank locally year-on-year. The programme aims to reduce the density of Himalayan Balsam stands in each subsequent year, allowing native vegetation to re-establish and prevent erosion of banks during winter months when the ground would otherwise be bare of vegetation following annual die-back of Himalayan Balsam.

Benefits

Improving Water Quality, Addressing water quantity, engagement of local community, development a robust evidence base and enhancing the natural environment.





The Love My River Volunteer Day included members of the Environment Agency Team and Catchment Host Sara Clowes.



3.2 What flagship projects are we planning to do which are supported by the evidence?

Flagship project 1: Lower Dane Farmer Network (LDFN)

Cheshire West and Chester Council (Mersey Forest Team) in partnership with Reaseheath College. The LDFN is a new group established in the Lower Dane catchment, supported by the Countryside Stewardship Facilitation Fund (CSFF). The Mersey Forest and Reaseheath College are jointly supporting the group. The Lower Dane Farmer Network was created to bring together farmers, foresters, and other land managers in the catchment, to improve their land holdings at a landscape-scale. The purpose of the Group is to:

- Work together to promote sustainable, environmentally friendly and profitable farming in the Lower Dane Catchment area.
- Demonstrate that profitable farming can contribute to providing environmental benefits at a catchment-scale.
- Share and develop knowledge and expertise.
- 23 members, who manage a range of land including areas under existing agreements, as well as common land and land not currently covered by a scheme. Membership is free and the group will be supported by the CSFF until April 2021. Latest activity:
- Scoping opportunities for natural flood management •
- Installation of 3 woody leaky dams at Greenheyes Farm, Bostock
- Planning installation of seepage barriers at Warmingham ٠
- Assessing HS2 Phase 2b working draft Environmental Statement and disseminating to group
- Support for 'Slow the Flow' (Local Levy) bid for Group members
- Soils testing in preparation for the soil management and nutrient planning workshop in 2019.

CSFF 040007 ower Dane & Tributaries

1. Flood Risk Managemen

2. Woodland Creation and Managemen

3. Water Quality Improvement: Reducing nitrates, phosphates, sediment and pesticides ses and the Sandbach Flashes SSS

4. Biodiversity: Focusing upon wetlands and wet grassland management for lapwing and curlew and improving the biodiversity value of riparian areas

5. Landscape and the Historic Environment: Particularly hedgerows and hedgerow

The Lower Dane and Northwich tributaries are complex landscapes where we propos a proactive approach addressing: flood risk alleviation, water quality recovery and hydro morphological restoration through nature based solution are considered key objectives. Over 500 properties are at significant (1%) river flood risk in Northwich, 25 in Winsford, 25 - 50 in Crewe and around 50 at sewer flood risk in Middlewich. Alongside the decline in water quality from nutrient enrichment, hydro morphological impacts from HS2 (EU WFD) will require offset. Members agree that their land is crucial in tackling

The Weaver Gowy Catchment Action Plan sets out the measures to restore the river system, attempting to balance economy and the needs of people with the landscape and biodiversity. Key objectives to consider include: woodland creation and water attenuation along and around watercourses and increasing opportunities for priority habitat wet woodland for declining priority willow tit and swamp lookout spider. Fundamentally, these types of measures will address multiple objectives and yield multiple benefits. We have members in the right area of the catchment to deliver these priorities and have identified other farmers we'd like to approach as the project



Benefits

Improving Water Quality, Quantity, Engaging Business and Enhancing the Natural Environment, Developing a Robust Evidence Base.

Flagship project 2: Upper Dane Slowing the Flow Project 2018-2020

Cheshire Wildlife Trust in partnership with the Environment Agency.

Natural Flood Management (NFM) is increasingly being seen as an effective method of delivering multiple benefits across the landscape including alleviation of downstream flood risk. Working in conjunction with the Dane Headwater CSFF group this project will deliver a number of NFM activities in the area of the upper River Dane catchment in the Cheshire Peak District.

i) Installation of a suite of NFM interventions:

We will adopt a holistic, hands-on approach to undertaking NFM interventions in the catchment, including: clough woodland planting, installation of in-channel attenuation features grip blocking, floodplain attenuation features, and riparian buffering riparian buffering. & engineered log jams. Working along a single reach each year, the scope of the interventions will typically be:

- A minimum of 24 in-channel attenuation features (installed in groups of 3)
- 2 hectares of clough woodland creation (including deer exclusion costs)
- 800m of sympathetic riparian buffers created

ii) Monitoring and evaluation of NFM interventions;

As part of the project we will partner with Lancaster University to monitor and evaluate the NFM interventions. Lancaster University is running a large-scale NERC funded NFM evaluation project, including experimental catchment. A low cost remote monitoring system has been devised as part of that project. This measures flow upstream and downstream of interventions to evaluate its impact. Cheshire Wildlife Trust is a partner in the project and has access to academic support.





Taking advice from Lancaster University we will install one of these monitoring systems as part of our community funded project. Data collected will be analysed by Lancaster University. The data will therefore contribute to national research on the impact of NRM interventions. The NERC project has only recently started and there maybe other opportunities for evaluation of our schemes within that project. We will also carry out aquatic invertebrate surveys along the reaches to assess the impact of interventions on aquatic ecology.

iii) Engaging local communities

This project will seek to engage communities downstream with our work in the following ways:

- 1 x annual community site visit. This will comprise of a guided walk through the project area to observe the work on the ground. These events are intended as a way of engaging both local residents and those living downstream in Congleton.
- 30 volunteers engaged over the course of the project (10 annually.) Volunteer opportunities will comprise of both assisting with the installation of NFM interventions and assisting with monitoring.

Benefits

Improving water quality in line with WFD, Managing water quantity, Connecting Communities and Delivering a Robust Evidence Base.

Flagship project 3: University of Liverpool

The aim of this project is to contribute to discussions about the development of a Natural Capital Strategy in the Weaver-Gowy Catchment partnership area. The project involves Postgraduate Masters Students in University of Liverpool's Department of Geography and Planning, has two key objectives:

- 1) To undertake research to identify issues and opportunities relating to natural capital in the Weaver Valley.
- To illustrate what a Natural Capital Strategy for the Weaver-Gowy Catchment partnership area, planning to 2040.

The project has been developed in partnership with the university and Groundwork, to support the Weaver-Gowy Partnership in their response to the HS2 development by developing a Natural capital strategy for their area. The work in part is linked in part to the challenges presented by HS2 Phase Two, which is running through the Weaver-Gowy Catchment. The project is not tied directly to the environmental impacts of HS2, but is inspired by calls from various partners in the catchment and beyond who are calling for a much broader series of mitigation measures and environmental enhancement, if phase 2 is to go ahead.



Leveraging this as a potential window of opportunity, this two-stage project seeks to bring together the work being done by various stakeholders and develop visions, objectives, and a series of projects to develop and enhance natural capital in the following corridors:

- 1) Delamere to Lostock Green,
- 2) Frodsham to Northwich,
- 3) Northwich to Middlewich,
- 4) Middlewich to Sandbach, and
- 5) Rostherne Mere and Knutsford area.

Recognising that there is a great deal of activity already happening through the Weaver Gowy Partnership and as part of planning for HS2, the students are using their expertise in spatial and strategic planning to work together in creating an integrated Natural Capital spatial plan. The project is in two stages and brings together the work that has already been done, as well as the students' own investigations, to identify opportunities to offset potential negative impacts and create a vision for how to enhance environmental and socio-economic value in the region. A full list of projects (Excel spreadsheet action plan) is included in the Annex.



Liverpool University Master Students site tour of River Weaver

Benefits

Improving Water Quality, Quantity, Engaging Business and Enhancing the Natural Environment, Developing a Robust Evidence Base.

Flagship project 4: Sustainable Catchment Management Project

United Utilities have recently received full approval for our Water Environment Grant (WEG) bid relating to the proposed "Upper Weaver SCaMP – Sustainable Catchment Management Project" which is due to run from February 2019 – March 2021. To deliver this project United Utilities will be working in partnership with Mersey Rivers Trust and Severn Rivers Trust to identify and deliver farm interventions to improve water quality and move towards WFD compliance in the Upper Weaver catchment. The focus areas for this project will are listed below and also highlighted on supporting plan:

- Ash Brook
- Bickley Brook
- Duckhow
- Birchall Brook
- Checkley Brook
- Englesea Brook
- Valley Brook



United Utilities Asset Management Plan 7 (AMP) Waste Water Programme

The Environment Agency's AMP7 (2020-2025) Water Industry National Environment Programme (WINEP) lists WFD water quality drivers at 24 United Utilities wastewater treatment works (WwTWs) in the Weaver/Gowy catchments, with proposed improvements forecast to deliver a quantitative benefit of 233km of river length improved. Improvement works to meet EA proposed water quality improvements have been included within United Utilities PR19 Business Plan. At the time of writing United Utilities' Business Plan submission is being determined by Ofwat. Further clarifications and detailed information on United Utilities AMP7 Water Quality investment in the Weaver Gowy, including proposed solution development, following Ofwat determination will be provided to the Weaver-Gowy CaBA group at appropriate times during Ofwat determination. An indicative summary of WwTWs which have been highlighted as requiring improvement works in AMP7, their receiving watercourses and water quality drivers are highlighted below.

In delivering proposed Weaver-Gowy AMP7 WFD requirements United Utilities will, wherever possible, look to take a catchment based approach to ensure proposed interventions are developed and targeted in the right areas to deliver greatest benefit for our customers and the environment. United Utilities AMP7 wastewater quality programme will also allow for opportunities to work in collaboration with the Weaver-Gowy catchment partnership group to identify complimentary focus areas to assist the CaBA partnership in the delivery of identified focus areas of; robust evidence base, improving water quality in line with WFD and enhancing Natural Capital, managing water quantity (flooding), connecting communities and encouraging Business to take action in management of water quality and quantity risks.

In order to facilitate a catchment based approach, to support ongoing operation of catchments and to deliver WFD catchment needs (including particular challenges around nutrient loading), United Utilities have proposed the development of a Catchment Hub within the Cheshire region with a focus on the Weaver catchment where opportunities to test sustainable catchment scale collaboration facilitating deliver AMP7 water quality requirements and to provide greater ecosystems resilience will be developed.

4.0 M	lonitoring	and Eva	aluatior
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Catchment Management has to adapt as we improve our understanding because we cannot predict with certainty what the impact of our changing environment and the delivery of projects in this plan will be. Each individual Weaver Gowy member organisation reports to funders who have financed their specific programmes of work. Given that this catchment takes a stakeholder led approach to delivery, monitoring and evaluation is not held centrally by the Catchment Host organisation however we have nurtured a spirit of partnership to share non-commercially sensitive data where appropriate.

5.0 Work In Progress

This plan is work in progress and will grow and adapt as we deliver projects to improve the catchment and as new threats, like climate change, emerge. The greater the collaboration between CaBA partners the more sustainable this plan will become and the greater the benefits to the catchment and the people and wildlife that live there.

			WFD Operational	EA WINEP Proposed Water
WwTW Name	Name of Waterbody	Waterbody ID	Catchment	Quality Driver
Audicy WwTW	Valley Brook (Source to Englesea Brook)	GB112068074630	Weaver Upper	Ammonia, BOD/DO, Phosphorus
Betley WwTW	Wistaston Brook	GB112068055280	Weaver Upper	Phosphorus
Buerton South WwTW	Audiem Brook	GB112068055190	Weaver Upper	Ammonia, Phosphorus
Bulkeley WwTW	Weaver (Source to Marbury Brook)	GB112068055300	Weaver Upper	Phosphorus
Bunbury WwTW	Gowy and tribs (Source to Milton Brook)	GB112068060280	Gowy	Phosphorus
Cotebrook WwTW	Darley Brook	GB112068060450	Weaver Lower	Phosphorus
Duddon WwTW	Milton Brook	GB112068060290	Gowy	Phosphorus
Gawsworth WwTW	Snape Brook	GB112068060360	Weaver Lower	Phosphorus
Helsby WwTW	Peckmill Brook, Hoolpool Gutter at Ince Marshes.	GB112068060330	Gowy	Ammonia, BOD/DO, Phosphorus
Kingsley WwTW	Crowton Brook	GB112068060550	Weaver Lower	Ammonia, Phosphorus
Little Budworth North WwTW	Ash Brook (Source to Darley Brook)	GB112068060440	Weaver Lower	Phosphorus
Little Budworth South WwTW	Ash Brook (Source to Darley Brook)	GB112068060440	Weaver Lower	Phosphorus
Madeley WwTW	Lea	GB112068055200	Weaver Upper	Phosphorus
Marton North WwTW	Bogart Brook	GB112068060540	Weaver Lower	Phosphorus
Nether Peover WwTW	Peover Eye	GB112068060390	Weaver Lower	Storm storage
Runcom WwTW	Manchester Ship Canal	GE531206908100H	Weaver Lower	Storm storage
Rushton WwTW	Wettenhal Brook	GB112068055440	Weaver Upper	Phosphorus
Tarporley WwTW	Wettenhall Brook	GB112068055440	Weaver Upper	Phosphorus
Tarvin WwTW	Milton Brook	GB112068060290	Gowy	Phosphorus
Utkinton WwTW	Milton Brook	GB112068060290	Gowy	Phosphorus
Waverton WwTW	Gowy and tribs (Source to Milton Brook)	GB112068060280	Gowy	Phosphorus
Waverton WwTW	Gowy and tribs (Source to Milton Brook)	GB112069060290	Gowy	Phosphorus
Whitegate WwTW	Bogart Brook	GB112068060540	Weaver Lower	Phosphorus
Wrenbury WwTW	Weaver (Marbury Brook to Barnett Brook)	GB112068055470	Weaver Upper	Phosphorus

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6.0 Partnerships

The Weaver Gowy Catchment Partnership is hosted by Groundwork Cheshire, Lancashire and Merseyside and consists of local authorities including Cheshire East and Cheshire West and Chester together with the Environment Agency, Cheshire Wildlife Trust, the National Farmers Union, United Utilities PLC, the University of Liverpool, Northwich BID, Mersey Forest and other local community support groups and volunteers.



Annexes for Catchment Management Plan

Annex 1.1 Weaver Gowy Action Plan

Annex 2.1 National Data and Evidence Resources

CaBA Data Package User Guide v4.0

https://catchmentbasedapproach.org/wp-content/uploads/2018/11/DataUserGuide_V4.pdf

GIS Training

http://theriverstrust.maps.arcgis.com/

This includes introductory ArcGIS Online training resources and links to the Ecospatial Desktop GIS training site, with online training modules tailored for CaBA partnerships (request a login from info@ catchmentbasedapproach.org). These training resources can help you get the most from the CaBA Data package, organise and manage data collected by your partnership, and share interactive maps with your partners and the public.

Annex 2.2 Local Evidence tools and resources

Weaver Gowy StoryMap Evidence Sharing Platform / Local Evidence Inventory https://groundwork.maps.arcgis.com/apps/MapSeries/index.html?appid=a875b7b92bcb-4ca28e24552edccb7d4f

Riverfly Partnership survey methodology, training and data management: http://www.riverflies.org/

Freshwater Watch water quality survey toolkit, training and data management: https://freshwaterwatch.thewaterhub.org/

From Feb/March 2017, FreshwaterWatch CaBA groups will have the ability to brand their own landing page and display maps with just their own group results.

Modular River Survey:

http://modularriversurvey.org/ Toolkit, training and data management for river habitat survey

River Obstacles app and data management for fish migration barrier assessment: https://www.river-obstacles.org.uk/

MyScimap: https://my.scimap.org.uk A free online version of the sediment risk mapping tool.

Farmscoper:

http://www.adas.uk/Service/farmscoper Decision support tool for agricultural pollution management planning

Susdrain:

https://www.susdrain.org/delivering-suds/using-suds/suds-principles/suds-principals.html

Surface water is a valuable resource and this should be reflected in that way it's managed. It is important, where appropriate and particularly on larger developments that an interdisciplinary team (planners, engineers, landscape architects) should work together from the outset. SuDS are very flexible and there are a number of ways that they can applied to provide great drainage that are both value for money and inspirational. This website provides a simple overview of why and how SuDS can be delivered.

Annex 2.3 Priority Places Resources

Environment Agency data sharing platforms

https://environment.data.gov.uk/

This site gives access to the Catchment Data Explorer; Bathing Water Explorer, Flood Data APIs and Water Quality Archive (OpenWIMS).

http://environment.data.gov.uk/ds

This is the partner data catalogue, where EA's partner organisations can register for an account to access more detailed datasets, which are not publicly available elsewhere. These include detailed Ordnance Survey mapping (including 1:25k, VectorMap Local and Mastermap), LIDAR, Aerial photography, and Flood Risk datasets.

Spatial Data Catalogue

http://environment.data.gov.uk/ds/catalogue

This is the public Spatial Data Catalogue (replacing Geostore), where you can download a wide range of environmental data from EA and other government partners. You can also find web service URLs, which enable you to view the data in GIS software live via the internet, meaning you don't need to download and store large datasets.

Other data sharing platforms:

Ecosystem Services Visualisation:

http://bit.ly/ESVisManual

A guidance manual for identifying priority areas in catchments, where interventions to improve the water environment are likely to provide multiple benefits to a range of partner organisations and local communities.

Ecosystems Assessor:

http://ecosystemsknowledge.net/resources/tools/tool-assessor

A summary of spatial prioritisation tools which can help to target actions based on the benefits of natural capital and ecosystem services.

Annex 3.1 List of projects

A list of projects to deliver improved flood management are identified in the Flood management reports,

https://www.gov.uk/government/collections/flood-risk-management-plans-frmps-2015-to-2021

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The Weaver Gowy Catchment Partnership is hosted by Groundwork Cheshire, Lancashire and Merseyside.

Please contact the Weaver Gowy Catchment Host via email in the first instance sara.clowes@groundwork.org.uk