Wensum Catchment Management Plan

Wensum Catchment Partnership, part of the Broadland Catchment Partnership

Contents

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Introduction: Wensum catchment

- The River Wensum is a low gradient chalk river located in Norfolk, England. The river, and a number of adjacent floodplain land parcels, are of national and international importance for wildlife, being designated a Site of Special Scientific Interest (SSSI) and as a Special Area of Conservation (SAC). As a chalk river the Wensum is also recognised as a priority habitat within the UK Biodiversity Action Plan (BAP).
- The River Wensum is a vital catchment for wider national and regional strategic plans – Diffuse Water Pollution Plans, WINEP Investment, Corridor Strategies, Nature Recovery Network pilot sites, SSSI / SAC Natural England projects, and chalk stream planning.
- The catchment faces a number of challenges, including phosphate and nitrate pollution, sediment run-off, sewage pollution, invasive species and other issues.
- The Wensum Catchment Partnership aim to improve the health and restoration of the Wensum catchment by bringing together national and regional organisational strategies and community engagement and citizen science to undertake extensive catchment monitoring of declining river health. In turn, this will inform catchment-scale prioritised and targeted restoration strategies.

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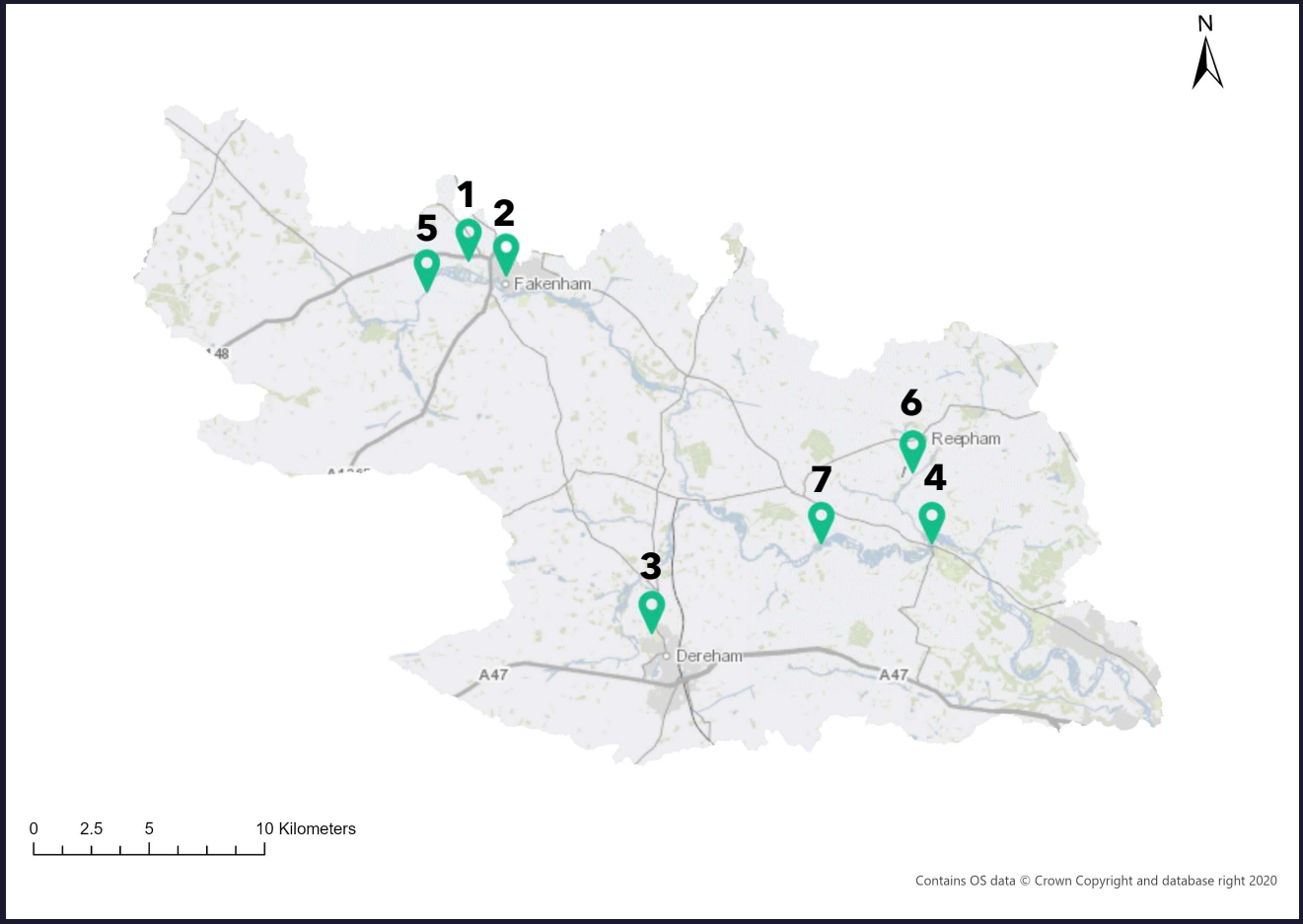
Catchment Map

- The numbers in this map of the Wensum catchment, refer to the strategic catchment projects taking place across the Wensum by different partner organisations. Please refer to the corresponding project slides for each project's key details and information.



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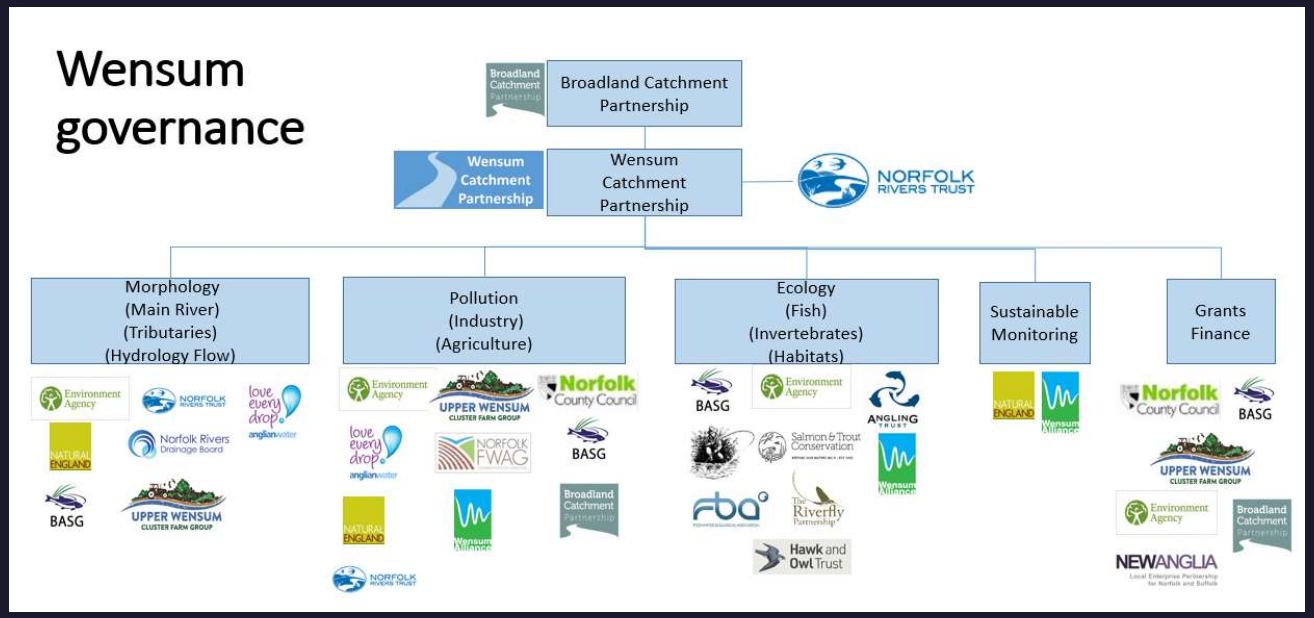
Catchment Partnership Governance

- The Wensum Catchment Partnership is part of the Broadland Catchment Partnership, supported by CaBA (Catchment Based Approach).[1] [2]
- The Wensum Steering Group meets quarterly with key organisations engaged and represented in the catchment (**Environment Agency, Norfolk Rivers Trust, Anglian Water, Upper Wensum Cluster Farm Group, Highways, Natural England, BASG, Angling Trust, Water Management Alliance, Hawk & Owl Trust**). This is not a definitive list, and please let us know if there is another organisational representative who would look to join the Wensum steering group.
- Wensum working groups meet more frequently to enable catchment partnership projects e.g. ecology fish studies, citizen science monitoring assessments, and more.



[1] https://catchmentbasedapproach.org/
[2] https://broadlandcatchmentpartnership.org.uk/

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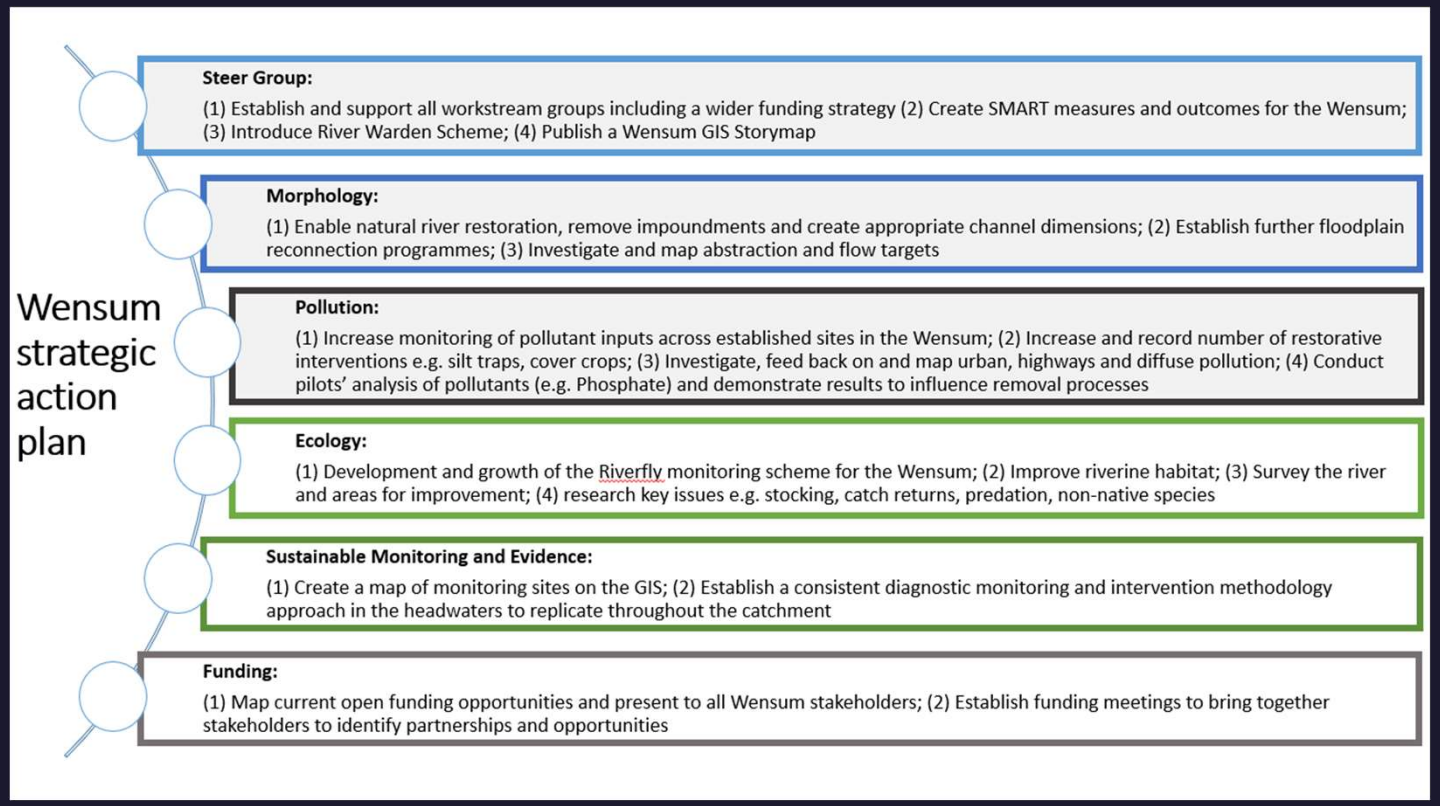
Catchment Partnership Strategic Action Plan 2020-2021



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Project 1: Upper Wensum Headwaters restoration – Sculthorpe Moor Community Nature Reserve

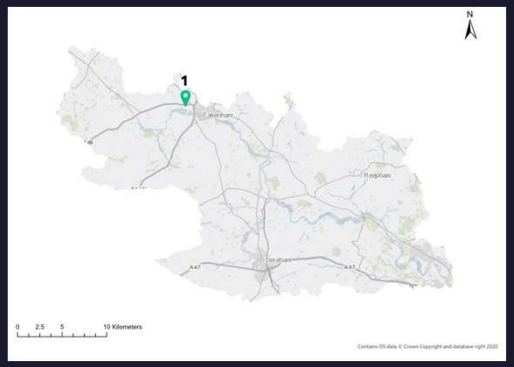
The Hawk & Owl Trust own Sculthorpe Moor Community Nature Reserve, located in the floodplain on the northern side of two bends in the Wensum, upstream of Fakenham. The reserve is managed by an active group of volunteers under the guidance of the Warden, who have created a range of wetland habitats from open fen (1), wet grassland to alluvial forest (2), out of former alder and poplar plantations.

A Lottery-funded project and public appeal 3 years ago enabled the purchase of adjacent land formerly managed under agreement and the construction of boardwalk access along the Wensum (3) to new wetlands and river backwaters.

A new DEFRA/Lottery grant under the 'Green Recovery' call, in partnership with Raynham Estates, will achieve two further objectives –

The first will divert flood peaks onto Hempton Moor through a new weir, revitalising an existing reedbed and wet meadows with new lakes and channels, holding water until the flood peak has passed and returning it to the river before Night Common.

The second will enclose 57 acres of alluvial woodland and fen on the Nature Reserve and introduce a beaver family. A tributary of the Wensum which had been straightened (4) will be diverted through the enclosure woodland in anastomosing channels to seek to restore the character of original floodplain forest which no longer exists in lowland England. We shall seek to accelerate the rewilding of the area that the beavers will achieve by replanting of original tree species such as oak, black poplar, holly.



Funding details

Total Lottery funding is £249,500 for the two components.

Additional work, such as tree clearance, will be carried out by Reserve Volunteers

Monitoring of biodiversity before and after will be carried out by the Trust's Citizen Scientists

Benefits and impacts

1) Increasing physical diversity of river and floodplain, leading to increased biodiversity
2) Recreation of alluvial forest and 'stage zero' headwater stream characteristics

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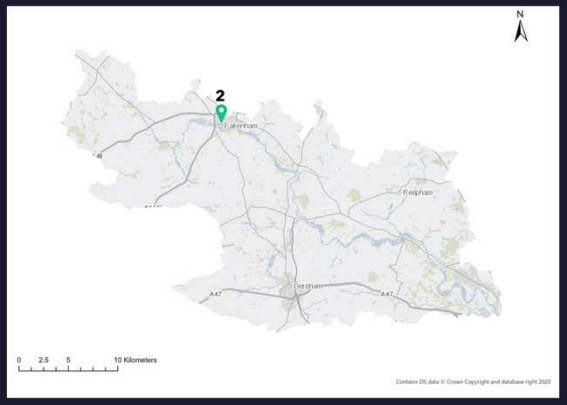
Project 2: Upper Wensum Cluster Farm Group

The Upper Wensum Cluster Farm Group, also known as the 'Wensum Farmers', covers over 10,000ha and includes 27 farmers. The group's overarching priorities are biodiversity enhancement and water quality improvement. This is achieved through a range of projects including water testing, development of more sustainable farming practices (e.g. cover crops, min-till), pond and hedge restoration and aligned countryside stewardship agreements.

The River Wensum is the spine of the Wensum Farmers group and there has been growing interest and concern over water amongst the farmers. The group's advisor – Lizzie Emmett was particularly concerned with the lack of data on the water quality. A water testing device was purchased and Lizzie has been working on catchment testing - taking into account the health of key tributaries and main river, and individual farm testing focusing on land drains and ditches. This has resulted in invaluable data on where the high risk areas are within the catchment and what key implementations, such as cover crops, work on farm.



Upper Wensum Cluster Farm Group

Funding details

- The group is uniquely fully self-funded by the farmers. A yearly membership funds the employment of their advisor and fuels the water quality and biodiversity projects. Select biodiversity funding opportunities and countryside stewardship are also used to complement group work.

Benefits and impacts

- 27 farmers working to reduce farm derived nutrient losses and boost biodiversity over 10,000ha of the catchment has a huge impact. Knowledge sharing between the farmers and the constant driving to improve, reduce and enhance creates real, on the ground change.

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Project 3: Wendling Beck Exemplar Partnership

The Wendling Beck Exemplar Project (WBEP) is a landscape scale, nature restoration project covering almost 2000 acres North of Dereham. It brings together 4 farmers, Norfolk Wildlife Trust and Norfolk County Council as landowners and is supported by The Nature Conservancy, Norfolk Rivers Trust, Norfolk FWAG and Anglian Water as strategic partners.

WBEP optimises the distinctiveness, condition and productivity of a farmed Norfolk landscape in terms of biodiversity and natural capital. It is a collaboration between all catchment operators delivering river restoration, habitat creation, ecological enhancement and investment in ecosystem services within the Wendling Beck catchment. It links three SSSI's and strategic corridors of wildlife.

Dillington Carr SSSI – Central Project Zone

The project will use a habitat bank framework to help deliver long-term finance and governance. A partnership with Norfolk County Council will see Gressenhall Farm and Workhouse Museum become the public gateway to the project, bringing additionality to the existing visitor experience and extending the education program to tell the story of climate change, the journey to net-zero and the future of farming and conservation in Norfolk. It is an opportunity to share the story of ecosystem restoration and biodiversity enhancement within a working project.

WBEP is strategically linked into many wider initiatives. It is an Environment Agency NEIRF project, a Natural England Biodiversity Net Gain credit scheme pilot, a strategic Nature Recovery Project and also an ELM test & trial. It will provide public access and circular routes for walking & cycling. It has partnership with the University of East Anglia for monitoring, measurement and carbon quantification along with the John Innes Centre (JIC) to create a disease resistant Ash and Elm nursery.

Benefits and impacts

Public access, health and wellbeing and 70,000+ visitors via the Gressenhall Museum, creation of education facilities and strategic UEA partnership

Link 3 SSSIs and wildlife corridors, 5.6km of Wendling Beck restored and aquifer recharging strategy for 112,000 cubic metres annually

215,000 litres N, 1,500 litres toxic chemicals, 30 tonnes of potassium and phosphate per year removed

4 farms to become net zero within 10 years, carbon removed from current production system + carbon sequestered by soils, woodland and scrub habitat.

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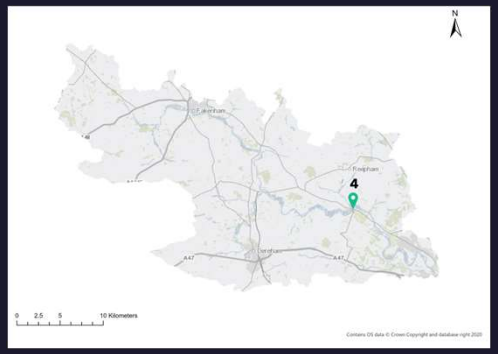
Project 4: Citizen science monitoring

Citizen Science is being recognised as an increasingly vital source of information and support for understanding and restoring the health of our river catchments. For the River Wensum, and wider nationally, training and working with our communities is a key step to monitoring and understanding where and how our river health is declining. This Riverfly training is the first part of a wider initiative in the Wensum to engage citizens to work alongside organisations to better monitor and restore the full catchment of our River Wensum.

The Wensum Catchment Partnership aim to complete a Feasibility Assessment for 80+ monitoring sites to be identified across the full Wensum catchment. Alongside this, communities and citizen scientists are to be engaged through volunteer initiatives to collect important data about water quality, ecology, water availability, etc., to inform and add to existing institutional monitoring of the Catchment. This in turn will inform improved restoration strategies which are prioritised and targeted by catchment partners based on accurate and real-time data about declining catchment river health.

Norfolk Rivers Trust are the Lead Delivery Partner for this work, supported by the Wensum Catchment Partnership and key catchment partners.



Funding

£10,000 Water for Tomorrow EU Project – Citizen Science Monitoring Feasibility Assessment (status - obtained)

£5,000 Equipment and Training budget – Broadland Catchment Partnership and Water Co-Governance EU Project (status – obtained)

£72,000 Full-time partnership officer to coordinate monitoring and partnership (status – applying for).

Citizens training in Riverfly invertebrate monitoring to increase Upper Wensum headwaters monitoring

Benefits & Impacts

- Feasibility study to inform prioritised 80+ monitoring sites
- Monitoring sites to inform improved catchment-scale restoration strategies

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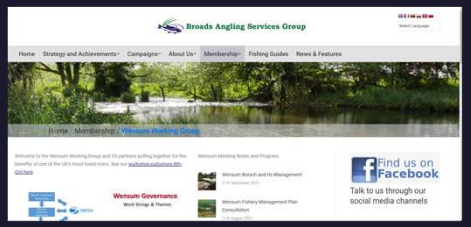
Project 5: Ecology working group

The Wensum Ecology Working Group is made up of members of BASG and AT, volunteer individuals and ecologists and academics. The purpose of the group is to investigate ecological health of the Wensum and its inhabitants: invertebrates, macrophytes, and others.



The group has it's own section within the BASG website: https://basg.online/membership/wensum-working-group/

Wensum Riverfly Accreditation

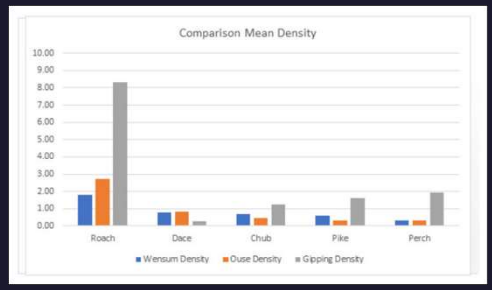
Identification and building of sampling sites in progress

Funding details

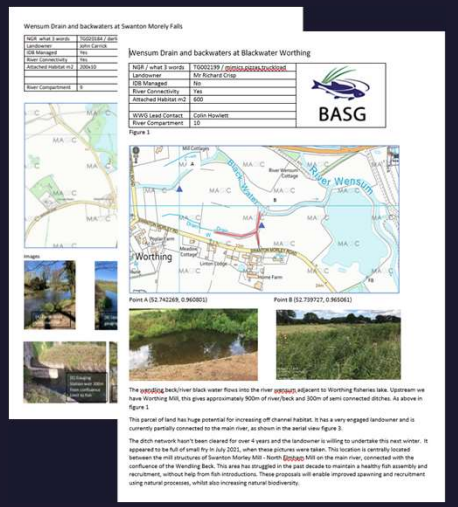
Seed funding from NACA dissolution

BASG Donations

Postcode Lottery Grant



Comparative fish stock analysis
Baseline fish desensitises



Wensum fishery habitat enhancement plans

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Project 6: Farm and Land Advice

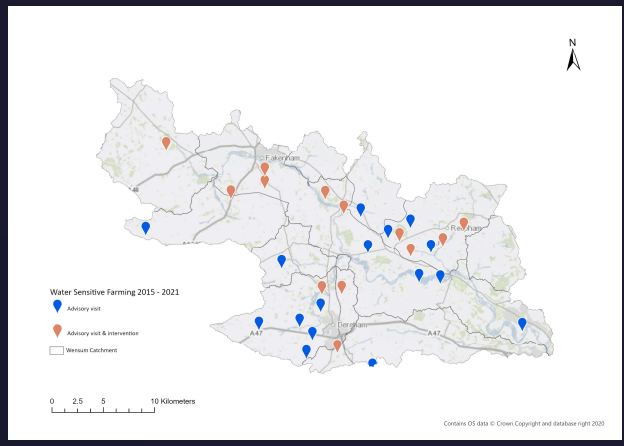
Lead Delivery Partner: Norfolk Rivers Trust

Operating at a catchment scale (mainly in the Broadland Rivers and Cam and Ely Ouse catchments), our farm advisors develop bespoke and flexible soil and water solutions that are tailored to individual needs.

Water Sensitive Farming (WSF) is an initiative that provides independent farm support and advice. The aim is to deliver practical on-farm measures that improve the quality and resilience of the surrounding water environment.

Water Sensitive Farming has been delivered across the Wensum catchment (2015-2021 as 2012-2015 delivery was just in the Nar catchment) - Total of 31 farms visited, and 14 individual sites have had water quality and quantity, as well as soil health mitigation work e.g. land use improvements and water interventions.

Farm and land advice is delivered by multiple organisations throughout the catchment, Natural England work with many landowners providing farm advice.



Funding details

WSF was established with funding by the Coca-Cola and WWF Freshwater Partnership in 2012, and is now also supported and funded by Tesco and the Courtauld 2030 Initiative (as well as match funding from the Environment Agency).

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Project 7: Biodiversity and Habitat projects

Lead Delivery Partner: Norfolk Rivers Trust

Himalayan Balsam removal (see right top picture):

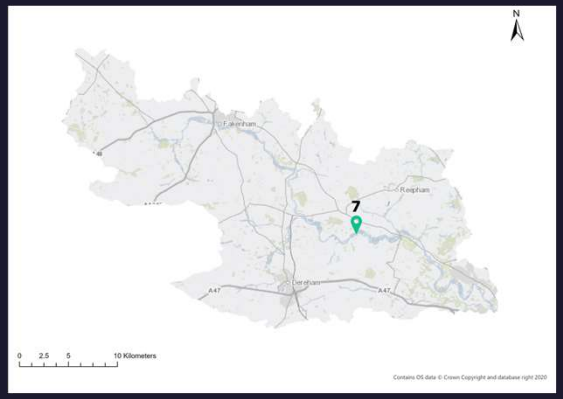
Norfolk Rivers Trust and the Norfolk Non-Native Species Initiative (NNNSI) have joined forces to reduce, and where possible, eliminate Himalayan balsam from the Wensum catchment, as part of a 5-year project funded by Anglian Water.

Botanica project – meadow creation and restoration

NRT will be working closely with local partners and private and public landowners to support the delivery of on-ground work, with the main focus being on farmland, wildlife conservation sites and publicly accessible land. This is to ensure that the best sites are selected to provide as much benefit to nature and local communities as possible.

Crayfish surveys (see right bottom picture)

The white-clawed crayfish is the UK's only native freshwater crayfish, but its numbers are declining due to habitat loss, pollution and competition from invasive species such as the North American signal crayfish. So researchers are mapping out the populations of both species to help inform conservation efforts. Jack Greenhalgh, a PhD student from the University of Bristol, is working with the Norfolk Rivers Trust and a team of volunteers who have been sifting through riverbanks with pond nets in search of crayfish.



- Funding details and benefits TBC

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Project 8: Unlocking Water Quality

The Wensum was one of many waterbodies subjected to a legal challenge back in 2015 from both AT & WWF, this resulted in the production of a DWPP in 2019.

The Diffused Water Pollution Plan was DEFRA's response that plans were in place to reduce pollution as part of the UK's WFD delivery objectives.

Since the DWPP much analysis has been undertaking in attempting to define actual point sources of pollution.

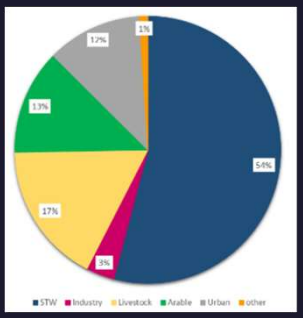
Anglian Water in particular want to see better apportionment before securing any new investment., pointing to fair share investment.

We want to unlock this issue and prove that any modelling is specificity correctly evidenced to insure that specific national models are appropriate and defined so the principle of polluter pay's can be addressed.

Evidence from both citizen science, independent academic study, industry and statutory authorities will be brought together in a one truth case study project, informing national governance groups to set future policy and strategic planning.

- STW Inputs have greatest confidence as they are based on monitoring data
- Apportionment between other sectors is modelled based on range of inputs e.g. land use, climate
- Apportionment between arable and livestock has been raised as an issue
- Septic tank data uncertain and increasingly old

A specific task group will oversee this project during 2022. It will inform NGO campaign's with factual case study material.



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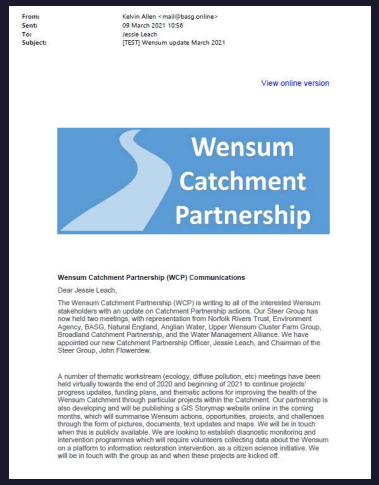
Communications and the Wensum Storymap

- The Wensum Catchment Partnership have developed a few communications channels:

  - A quarterly communications email newsletter update goes out to 80+ interested members of the public in the Wensum catchment.



From: Kelvin Allen <mail@basg.online>
Sent: 09 March 2021 10:56
To: Jessie Leach
Subject: [TEST] Wensum update March 2021

View online version

Wensum Catchment Partnership

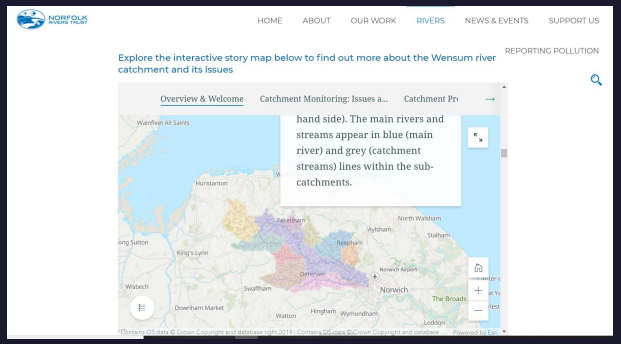
Wensum Catchment Partnership (WCP) Communications

Dear Jessie Leach,

The Wensum Catchment Partnership (WCP) is writing to all of the interested Wensum stakeholders with an update on Catchment Partnership actions. Our Steer Group has now held two meetings, with representation from Norfolk Rivers Trust, Environment Agency, BASG, Natural England, Anglian Water, Upper Wensum Cluster Farm Group, Broadland Catchment Partnership, and the Water Management Alliance. We have appointed our new Catchment Partnership Officer, Jessie Leach, and Chairman of the Steer Group, John Flowerdew.

A number of thematic workstream (ecology, diffuse pollution, etc) meetings have been held virtually towards the end of 2020 and beginning of 2021 to continue projects' progress updates, funding plans, and thematic actions for improving the health of the Wensum Catchment through particular projects within the Catchment. Our partnership is also developing and will be publishing a GIS Storymap website online in the coming months, which will summarise Wensum actions, opportunities, projects, and challenges through the form of pictures, documents, text updates and maps. We will be in touch when this is publicly available. We are looking to establish diagnostic monitoring and intervention programmes which will require volunteers collecting data about the Wensum on a platform to information restoration intervention, as a citizen science initiative. We will be in touch with the group as and when these projects are kicked off.

  - The Norfolk Rivers Trust website's Wensum page hosts the Catchment Partnership GIS Storymap – publicly available information on the Wensum catchment.



NORFOLK RIVERS TRUST
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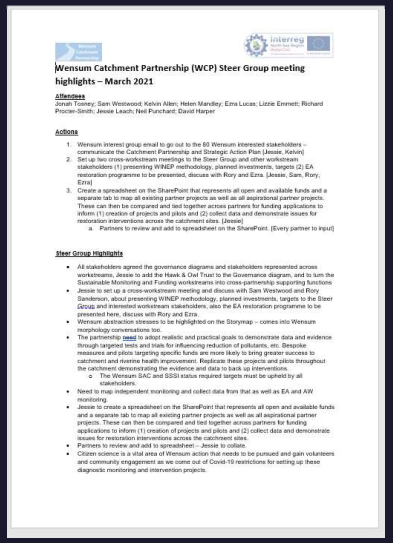
REPORTING POLLUTION

Explore the interactive story map below to find out more about the Wensum river catchment and its issues

Overview & Welcome Catchment Monitoring: Issues a... Catchment Pr

hand side). The main rivers and streams appear in blue (main river) and grey (catchment streams) lines within the sub-catchments.

  - The quarterly Steering Group publishes its highlights to Catchment Partnership members.



Wensum Catchment Partnership (WCP) Steer Group meeting highlights – March 2021

Attendees
Jonah Tosney; Sam Westwood; Kelvin Allen; Helen Mandley; Ezra Lucas; Lizzie Emmett; Richard Procter-Smith; Jessie Leach; Neil Punchard; David Harper

Actions

1. Wensum interest group email to go out to the 80 Wensum interested stakeholders – communicate the Catchment Partnership and Strategic Action Plan [Jessie, Kelvin]
2. Set up two cross-workstream meetings to the Steer Group and other workstream stakeholders (1) presenting WINEP methodology, planned investments, targets (2) EA restoration programme to be presented, discuss with Rory and Ezra. [Jessie, Sam, Rory, Ezra]
3. Create a spreadsheet on the SharePoint that represents all open and available funds and a separate tab to map all existing partner projects as well as all aspirational partner projects. These can then be compared and tied together across partners for funding applications to inform (1) creation of projects and pilots and (2) collect data and demonstrate issues for restoration interventions across the catchment sites. [Jessie]
   a. Partners to review and add to spreadsheet on the SharePoint. [Every partner to input]

Steer Group Highlights

- All stakeholders agreed the governance diagrams and stakeholders represented across workstreams, Jessie to add the Hawk & Owl Trust to the Governance diagram, and to turn the Sustainable Monitoring and Funding workstreams into cross-partnership supporting functions
- Jessie to set up a cross-workstream meeting and discuss with Sam Westwood and Rory Sanderson, about presenting WINEP methodology, planned investments, targets to the Steer Group and interested workstream stakeholders, also the EA restoration programme to be presented here, discuss with Rory and Ezra.
- Wensum abstraction stresses to be highlighted on the Storymap – comes into Wensum morphology conversations too.
- The partnership need to adopt realistic and practical goals to demonstrate data and evidence through targeted tests and trials for influencing reduction of pollutants, etc. Bespoke measures and pilots targeting specific funds are more likely to bring greater success to catchment and riverine health improvement. Replicate these projects and pilots throughout the catchment demonstrating the evidence and data to back up interventions.
   a. The Wensum SAC and SSSI status required targets must be upheld by all stakeholders.
- Need to map independent monitoring and collect data from that as well as EA and AW monitoring.
- Jessie to create a spreadsheet on the SharePoint that represents all open and available funds and a separate tab to map all existing partner projects as well as all aspirational partner projects. These can then be compared and tied together across partners for funding applications to inform (1) creation of projects and pilots and (2) collect data and demonstrate issues for restoration interventions across the catchment sites.
- Partners to review and add to spreadsheet – Jessie to collate.
- Citizen science is a vital area of Wensum action that needs to be pursued and gain volunteers and community engagement as we come out of Covid-19 restrictions for setting up these diagnostic monitoring and intervention projects.

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Forward look – objectives and outcomes

The Wensum Catchment Partnership held a Steering Group in December 2021. A forward look was agreed along the following lines, to agree focus for the WCP Steering Group for the next year (and into the longer term):

- Objective: Whole Wensum catchment scale approach to monitoring and improving the health of the Wensum catchment.
- Outcomes: The full Wensum Catchment is monitored, evidence about catchment health is collected, and targeted improvements are agreed between WCP (including organisations, landowners, communities, and other interested parties). Wensum catchment evidence is monitored and documented in agreed scientific case studies and taken to regional and national policy initiatives.

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Forward look – roles and responsibilities

- Roles:
  - A Wensum Catchment Officer is recruited by Norfolk Rivers Trust: to convene Wensum Catchment Partnership meetings, hold the key WCP materials such as the Wensum Catchment Management Plan, The Water for Tomorrow funded monitoring feasibility assessment, data platforms gathering information about Wensum catchment health data and evidence, and more.
  - The WCP Steering Group review key actions and direction across the Wensum catchment, and make decisions about organisational partnerships, involvement, and agreements for action in the Wensum. Organisations commit to reviewing Wensum datasets, attending working groups where relevant (such as the water quality working group).
  - Working groups identify key challenges and opportunities in the Wensum: the ecology WG, water quality WG and morphology WG. Feed key updates in to the Steering Group and pursue opportunities for data collection, catchment restoration, and joint partnership projects in the Wensum.
  - Citizen scientists: a crucial role for the future of the Wensum group, gathering data and evidence from across the Wensum catchment and feeding into the different Wensum working groups, coordinated by the Wensum Officer and overseen by Norfolk Rivers Trust and the WCP Steering Group.

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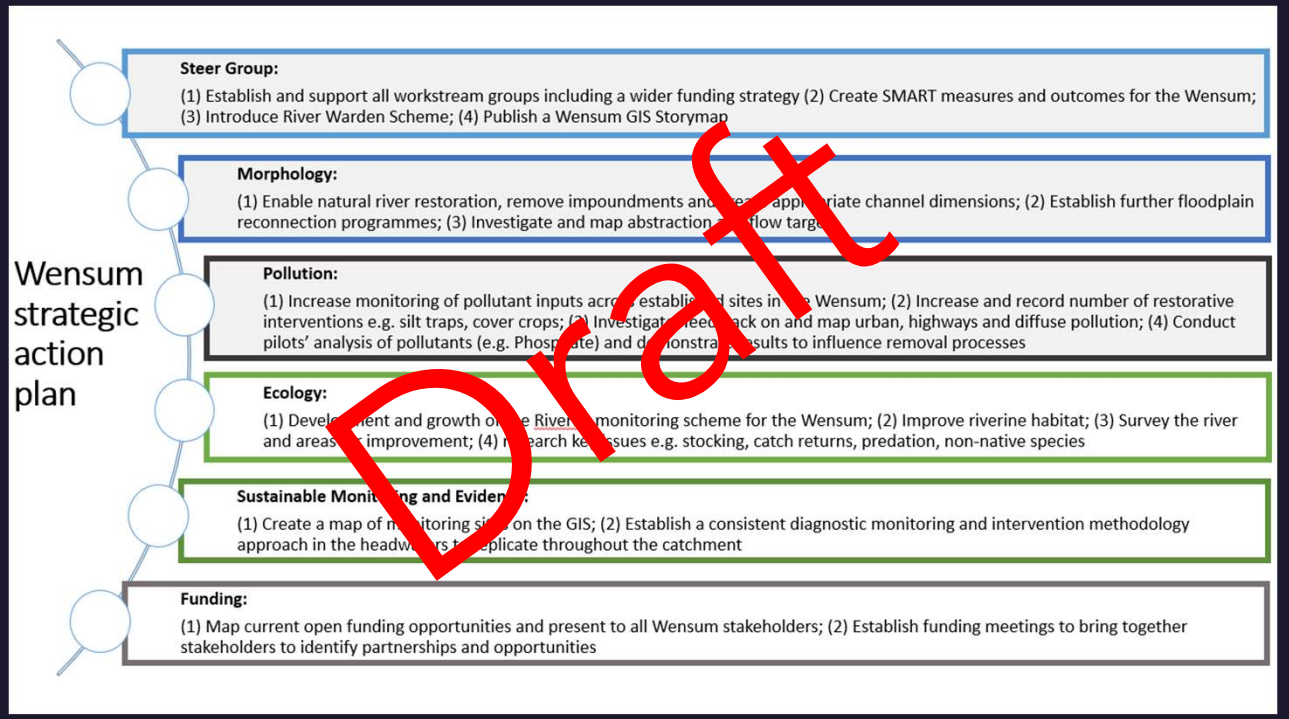
Catchment Partnership Strategic Action Plan 2022-23

- The Wensum CP will review and update, at the next steering group, the strategic action plan for 2022-2023.



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