

**Wensum Catchment Partnership  
Ecology Group Meeting 23<sup>rd</sup> March 2022**

**Present:** Jeremy Hadaway, Colin Howlett, Dennis Willis, Roger Gibbons, Tim Venes, David Harper, Kelvin Allen, John Flowerdew, Sarah Gelpke, Geoff Phillips, Andy Beckett, Graham Gamble, Chris High. **Apologies:** Tim Coleman, Tim Ellis

**Agenda:**

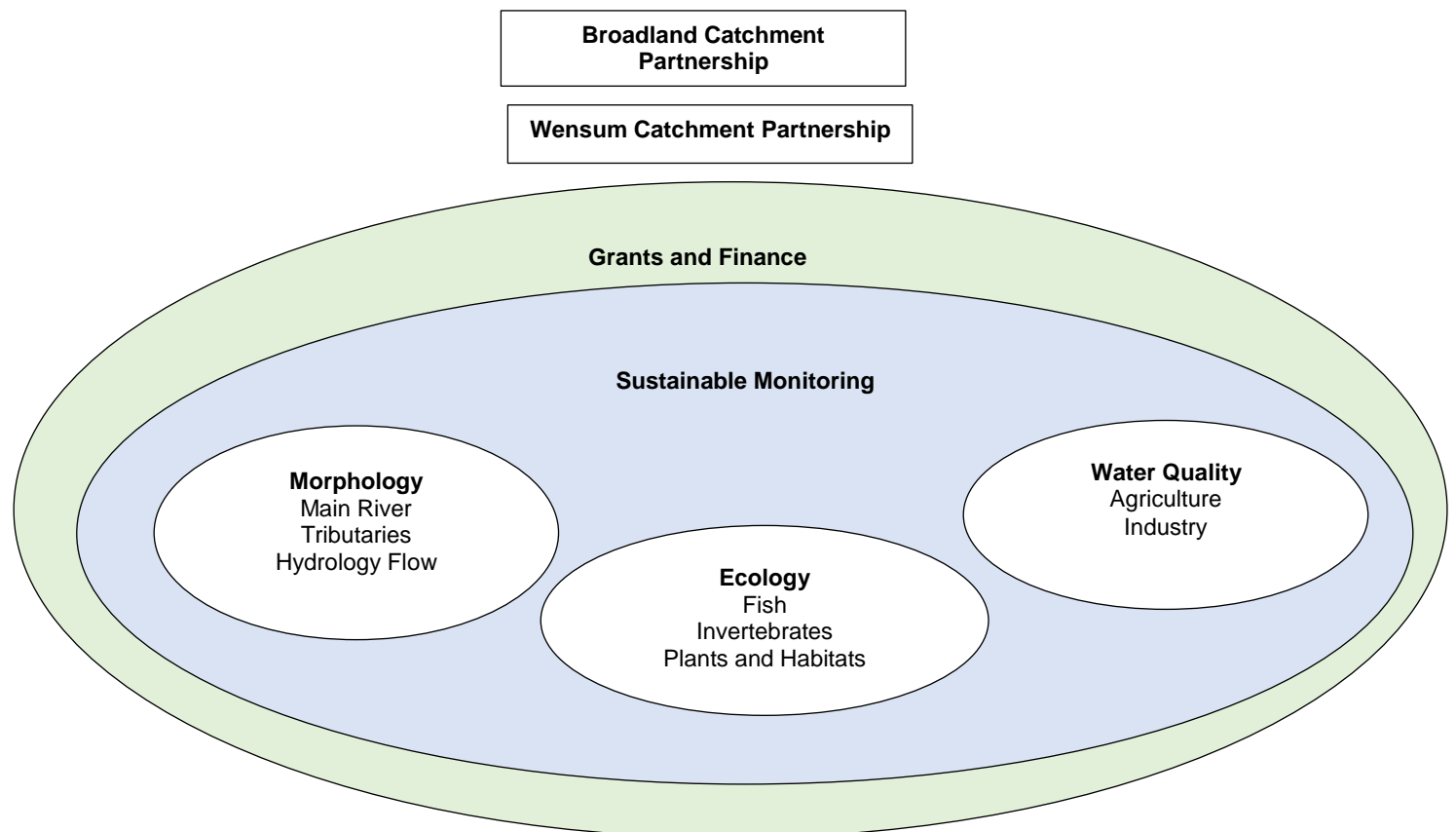
- A. Introductions: John Flowerdew Chair of the Wensum Catchment Partnership and Sarah Gelpke NRT Wensum project officer
- B. Outcomes from last year’s objectives and focus on plans for the coming year and beyond.
- C. Brief introduction to the Water quality testing feasibility study (Steve Lane)
- D. Formalising the Riverfly Monitoring
- E. Plans for BioBlitz on the Headwaters this spring
- F. Seeking willing volunteers to engage with water quality monitoring on the Headwaters
- G. Reviewing and agreeing next steps and locations for potential fishery habitat improvements and connectivity

**B. Wensum Catchment Partnership 2021 outcomes and forward plans**

The Wensum Catchment Partnership (WCP) was structured into five main groups.



It was suggested that the structure could be better shown as follows:



**The Ecology Group (Chaired by Kelvin Allen) have decided on the following five Objectives:**

1. Develop and grow Riverfly monitoring scheme
2. Explore wider biodiversity monitoring opportunities
3. Improve riverine habitat
4. Survey river and identify areas for improvement
5. Research key issues (stocking, predation, alien species, catch returns)

**If you think there are other areas the ecology group could focus on, please send thoughts and ideas to Kelvin Allen.**

**1. *Develop and grow Riverfly monitoring scheme***

Dennis Willis has updated Wensum Riverfly data on the Riverfly webpage. Sixteen additional RF monitors have been trained in 2021.

**Actions:**

**David Harper, Dennis Willis, Jeremy Hadaway and Chris High** have offered to form a working group to action the following:

- Agree on governance/leadership of RF monitors – who will organise/mange this group?
- Decide who is responsible for uploading data to the Riverfly or Wensum sites.
- Identify gaps and decide which sites to allocate to new Riverfly monitors along the Wensum, including 2-3 on the headwaters (Tat and Raynham)
- Update the existing map to show the locations of all Riverfly monitors (Kelvin offered to do this)
- Identify those River fly monitors either interested in doing water quality monitoring, or already doing this (please copy to Sarah so they can be included in the training session)

Post meeting comment: BASG is in the process of transitioning to the Clubmate membership IT system. This should by the end of May support messaging by email or text to defined groups of subscribers (Riverfly) and even create schedules for activities. One of its members Allan Kirby will be leading in the admin of such a setup.

Once this is verified, this has the potential to extend to cover regular water quality scheduled sampling activities.

**2. *Explore wider biodiversity monitoring opportunities***

One action that will improve the Ecology groups' ability to monitor biodiversity better is to train people in biodiversity monitoring, and decide how the frequency of surveys, where to allocate people to sites and how to record and store the data.

There are two upcoming training and surveying events planned to get the ball rolling:

**SCULTHORPE MOOR NATURE RESERVE VISITOR CENTRE, SCULTHORPE FAKENHAM**

**Friday April 8th, 10am - 4pm (with lunch break)**

1. An introduction to freshwater biology - for naturalists, fishermen, concerned citizens
2. An introduction to water - what it is, why it's unique and is the basis for life
3. The range of natural waters
4. How we damage it - a simple guide to what pollution is and does
5. What lives in it and how are they adapted?
6. A simple guide to animals (collection and examination of samples from the Reserve).
7. Citizen scientists and water.

<https://hawkandowltrust.org/what-s-on/smnr/an-introduction-to-freshwater-ecology-with-professor-david-harper>

Booking necessary at Sculthorpe Nature Reserve, details on this website.

### **Saturday April 23rd and Sunday April 24th**

Upper Wensum 'Bioblitz' - for anybody trained as a Riverfly surveyor. Untrained volunteers may be able to work in pairs with a trained surveyor. **Please contact David Harper if you would like to attend this; no charge, but advance notice necessary for planning and safety.**

**david.m.harper@icloud.com**

A field survey weekend, in two teams led by David Harper & Chris Adams (retired Biologist, Environment Agency), sampling the Upper Wensum around the Raynhams, Whissonsett & Helhoughton and the Tat around the Rudhams, Syderstone and Coxford, then the Wensum after the two join at Sculthorpe. Colin Hewlett could do the survey above Fakenham.

The samples will be collected in the field and examined using the new "Extended Riverfly" scheme, which names 33 different types of animal, all easily recognisable. A new, simple method for recording the diversity of habitats at each site will also be trialled.

The mornings will be spent collecting the samples and analysing them in the field; the afternoons sorting back in the Sculthorpe Reserve visitor centre classroom, removing individuals for eventual species identification and discussing what the results mean. There will be opportunity to discuss and understand the Extended Riverfly scheme.

Please bring magnifying lens if you have and waders if you use them.

### **Actions**

**Dennis Kelvin will send invitation to Riverfly surveyors, other members to share widely.**

### **3. Improve riverine habitat**

While not discussed in the meeting, David Harper has suggested that this objective could be achieved by:

1. Measure and understand effectiveness of past river improvement schemes.
2. Design new river improvement schemes with post-project appraisal to avoid failures.

Comments and thoughts welcome.

### **4. Survey river and identify areas for improvement**

The BASG Wensum working group aimed to provide 150m<sup>2</sup> of off channel habitat and refuge annually (middle and lower reaches), and 100 m<sup>2</sup> of off channel habitat and refuge annually (Upper reaches). Kelvin gave an update on progress so far.

In 2021 500m in Lyng Rectory Road has been completed.

In 2021 the EA completed their restoration works at Attlebridge with 1.5kms of improvements and fry refuges.

In early 2022 the IDB completed the ditching of 3.5kms of the drain from Billingford to Swanton Morley Falls. An area previously identified as holding large pockets of trapped fish. Kelvin and the group have an ongoing discussion as to whether these works will enable fish passage into the Wensum and it would benefit from some study by the EA. (If only they had the resources)

The previously, created fry refuges at Swanton Morley adjacent to the Dereham Lakes, were highly successful when the EA first created them some 10 years previous. They are currently completely silted and overgrown and would benefit from some maintenance.

It was agreed to add these to the list of potential activities and create a plan on a page, in readiness for any potential funding scheme. Action Kelvin Allen & Roger Gibbons

In addition, David Harper has suggested that the ecology group could help to:

Develop plans to trial a method for simply quantifying the physical diversity of habitat along a river stretch and at monitoring sites, and design a method to record changes through natural events or river improvements

Comments and thoughts welcome.

## 5. Research key issues (stocking, predation, alien species, catch returns)

- A. Fish population surveys. Kelvin presented a few slides on the Wensum Comparative Survey Analysis looking at density of Roach, Dace, Chub, Perch and Pike compared to similar rivers (Ouse and Gipping). The report shows that the long-term trend for Roach stock when compared to similar rivers is between 2 – 7 times lower. For more information: <https://basg.online/wensum-comparative-survey-analysis/>

The Wensum like many Rivers should have statutory monitoring of fish every 3 years, undertaken by the EA. The last survey was done in 2019 and therefore should be scheduled for 2022.

However unlike the West of the Area, whereby the Angling Trust is supplied with the annual monitoring program, the previous Essex, Norfolk and Suffolk area, seems not willing to share such level of detail, even now accountable to the same area.

Kelvin has a called scheduled for the 28<sup>th</sup> March when this will be again addressed with the EA.

- B. While not discussed, the issue of over abstraction is of concern, and the challenge of ensuring the EA is working in harmony with fisheries and biodiversity needs. This subject on abstraction and water resources is currently part of the Water Resources East study, also being led by Norfolk County Council. <https://water-for-tomorrow.com/broadland-rivers-england/>

- C. **Feasibility Study on the Wensum for water quality monitoring (Steve Lane) will be completed by April and will be shared with the Ecology group on approval by the WCP. This will outline the method, locations and equipment to be used.**

The aim of the “Water for Tomorrow (WfT) project (Broadlands) is to implement and scale up a monitoring programme for the whole Wensum catchment which will use citizen science alongside the existing institutional monitoring, including monitoring river flows and water quality. Research into equipment and best practice for a citizen science approach to monitoring are ongoing, developing tests and trials for equipment and monitoring methods. Sarah Gelpke is developing a pilot project to pilot test the citizen science water quality methodology and kit on the Headwaters (and Blackwater with Colin) from May to December 2022, with a view to scaling this up to other parts of the Wensum from 2023. Results from the kit used will be cross-checked by NRT Lovibond, UEA laboratories and EA monitoring station results.

### Comments:

- It makes sense to combine water quality testing with Riverfly monitoring at the same locations. The pilot scheme aims to do this on the headwaters and Blackwater; **scaling up from 2023.**
- The Ecology group highlighted the importance of using the same approach (kits, methodology, training) across the Wensum and other Norfolk Rivers. This is the aim of water quality monitoring in Norfolk - We are talking to the Lark catchment partnership to make sure our methods and results will be comparable.
- Cross-checking results with laboratories and Lovibond kit will ensure data is robust and accurate, and acceptable to agencies as valid.
- Is turbidity going to be recorded as well?
- Steve’s work has had John’s support in securing access to private land for monitoring purposes- especially Tom Raynham, Anthony Duckworth-Chad, Robert Fox and Garth( didn’t get the name) Any data gathered from their land will need to be fed back to land owners- this includes the work of the morphology working group, ecology group and water quality testing groups of the WCP.

### Actions

- Need to check exactly what EA is testing for at Helhoughton and Tatterford on a weekly basis  
Data from EA NEMIS 25<sup>th</sup> March 2022

EA Weekly Measures WEN-010 Tatterford Bridge	EA Weekly Measures WEN-020 Hellhoughton Bridge
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Ammoniacal Nitrogen as N	Ammoniacal Nitrogen as N
Nitrogen, Organic as N	
Nitrogen, Total Oxidised as N	Nitrogen, Total Oxidised as N
Nitrate as N	Nitrate as N
Nitrite as N	Nitrite as N
Nitrogen, Total as N	Nitrogen, Total as N
Nitrogen, Kjeldahl as N	Nitrogen, Kjeldahl as N
Orthophosphate, reactive as P	Orthophosphate, reactive as P
Phosphate :- {TIP}	Phosphate :- {TIP}
Phosphorus, Total as P	Phosphorus, Total as P
Solids, Suspended at 105 C	Solids, Suspended at 105 C
Temperature of Water	Temperature of Water

- Need to decide how we link water quality results to the impact on biodiversity
- Need to think about how we store, share and use the data to educate people about water quality and its impact on nature and people.

**AOB Next meeting: June 30<sup>th</sup> 2022**