Ecology Group Meeting

Apologies Roger Gibbons.

Present:

Name	Organisation/Involvement	
Chris Bone	Dereham Angling -keen to increase env. awareness	
Colin Howlett	LADAC, Worthing Fisheries, WG	
Dennis Willis	Norfolk Flycatchers Club. Riverfly	
Jeremy Haddaway	WACA Bintree Mill Wensum Riverfly co-ord	
Graham Riley	Volunteer water quality monitoring (CASTCO)	
Alan Chillingworth	Dereham and District angling club	
Helen Mandely	Water Management Alliance	
Steve Lane	Rivers Trust Castco delivery officer	
Amy Butcher	EA Project Manager	
Arnie Warsop	EA Fisheries Officer	
Tim Venes	Fakenham AC	
Ezra Lucas	NE Lead Adviser – Broads and River Wensum	
Tim Ellis	Wensum Anglers Conservation Association	
Rory Sanderson	EA Catchment Delivery Manager – Norfolk	
Elle Clairborn	Norfolk Rivers Trust Castco WQ monitoring	
John Findley	EA Citizen science Officer	
Andy Beckett	Dereham Angling, LADAC, WWG	
Graham Gamble	Retired EA Fisheries Officer, RiverFly, Fish surveys	
Kelvin Allen	Chair and BASG	
Sarah Gelpke	Norfolk Rivers Trust WCP Coordinator	

Previous actions

All Actions achieved. Details below (See minutes Dec meeting)

Actions

Action	Responsible	By date
Continue to investigate and develop the	Kelvin Allen	Update next Ecology
FIP		group meeting in May
Riverfly training and locations	Jeremy, Kelvin or Sarah	By April 15 th 2023
Collaborative work on the River Wensum	Morphology and	On-going.
Strategy	Ecology working group	
	members	

WCP Morphology Group - River Wensum Strategy

(Presented by Rory Sanderson, Ezra Lucas and Amy Butcher) Slides attached Rory explained the 4 objectives of the WCP morphology group.

Amy and Ezra presented the River Wensum Restoration Strategy 2009, which sets out minimum restoration needed to meet statutory requirements (SAC and SSSI designations)

Part 1 <u>http://publications.naturalengland.org.uk/file/59064</u> Part 2 <u>http://publications.naturalengland.org.uk/file/64064</u> SSSI designated length is 78km with 28 km already restored (Green dots). 67% of Wensum is impounded by 14 mill structures which limit the impact of any restoration work. Most restoration has taken place below mill structures so far. Before we left the EU the goal was to restore the whole river by 2027 under WDF rules. Some delays are due to complexity of this work, the need to involve landowners and to follow ecological regulations, such as not cutting trees and shrub during the bird breeding season (March to September). WCP and partners are now in a good place to start working together with landowners to improve the health of the Wensum.

Amy gave a case Study of Lyng Mill with a private landowner keen to see the river restored. Even with these favourable permissions, the work is complex involving the re-meandering of the original river course (now an IDB drain), and planning permissions. It is essential to consult and work with landowners to achieve RWS aims, a new relationship between EA and landowners needs to be fostered.

Q&A

- Does the RWS take into account climate change and abstraction resulting in a decreasing water supply? A: Yes, it may be necessary to narrow the channel to ensure it remains deep and supports fish spawning. Climate change and abstraction are included in ecological considerations. Restoration aims to include these uncertainties, including flashing and flow drops in relation to these factors.
- What consideration is given to water quality in relation to water availability and flow to aid dilution, and create and maintain habitats? **A:** Water quality is integral to restoration and the WCP is working towards collaboration between all three groups to incorporate ecology, water quality and morphology.
- The IDB drain water quality seems to be better than the main river, would the restoration result in a braided channel, and are there efforts to improve water quality in both? **A:** The river is perched unlike the drain, which is in parts spring fed with the addition of good quality ground water. However, drains may not be part of the statuary driven section, unless restoration aims for a braided river including drain restoration (the original course)
- What is the flow regime based on? Does it include the number of trees, rainfall, abstraction levels ? How is the expected flow calculated? Historic pictures show a full river with few trees on the banks. Does the plan consider how much water trees take up? **A**: The modelling seeks to consider a variety of factors, but it is complex, for example; while trees do demand water, climate change will require trees to provide dappled shade to cool water temperatures. Kelvin has produced a Wensum Monitoring dashboard which will help to identify and prioritise areas where we could target morphology.
- Kelvin's Wensum Monitoring dashboard has provided a list of compartments for the Wensum. Would it be useful to standardise the sections across all WCP groups to better plan for restoration work? For example, there are 10 SSSI sections (NE), 34 reaches (EA), and 45 compartments in Kelvin's table. A: The more granular the sections, the more targeted the work can be, but statutory bodes will still work to their existing sections. The RWS only covers the main river, not the tributaries and drains. It would be sensible to start restoration, including improved water quality and ecology at the headwaters and work downstream. Nutrient neutrality may provide an opportunity to fund solutions through mitigations from developments.

Fishery Recovery Plan (Slides 2 – 4)

Kelvin outlined the strategy to ensure sustainable fish (roach) stocks in the river. He has had several meetings with EA, NE and landowners and has identified priority stretches. So far there is no agreement with the landowner at Billingford, but the Swanton Morley to Elham Mill stretch is looking more favourable. The deadline for FIP grant funding is March which gives little time to

complete enquiries and work with landowners so proposes to delay until later in the year, possibly in September subject to the Rudd licence income. Agreed by Ecology group.

• In some places such as the Little Ouse, fish are constantly being restocked but not on the Wensum. Why is this, and is there a future goal for fish restocking? A: There are currently no plans to restock without first establishing the health of the river and fish, including the maintenance of existing fish refuges. The reasons for fish population decline are still under investigation and we don't want to put healthy fish into an unsafe environment.

Wensum Fish surveys (Slide 4)

Graphs show fluctuations in fish populations, but numbers are low overall. While these graphs do show overall low density; fish movements around the river and the drop in EA monitoring sites mean the picture is not clear for the catchment as a whole.

What is the density of other fish species? **A:** It seems density of Dace, Perch, Gudgeon and Chub at Swanton Morley are adequate, but less roach caught than in the past. These will be available once the full report is published by the Agency.

PHD Studies

Volunteer involvement in the otter spraint project was ceased due to concerns about otters catching avian flu. Jeremy Hadaway has continued in full protective gear. So far about 15 frozen samples have been collected and will start collecting fresh refrigerated samples with the U. of Nottingham team on March 23rd.

Roach research undertaking by a specialist fish pathologist at the University of Stirling has sadly ended and an alternative has been found in Canadian. They will need to discuss any analysis undertaken by the EA labs as Roach are being collected 22nd Feb for the National Fish Labs in Brampton.

Riverfly 2023 (Slide 6-7)

Blue dots show sites where monitoring has taken place in last few years. Amber shows where we would like to monitor. It would be good to add another RF monitor to the Tud, possibly matched with a water quality volunteer.

Saturday 15th April – Riverfly training at Sculthorpe Moor Nature Reserve, Turf Moor Rd, Sculthorpe, Fakenham NR21 9GN. Funding has been secured from Natural England for this. Anyone interested should contact Jeremy, Kelvin or Sarah. Elle will send invitations to existing WQ monitors to see if they would like to get involved.

Riverfly Conference March 17th 2023. Be aware there is a train strike the day before which may affect travel on the 17th March.

Training in 2023 will focus on 7 classes of invertebrates with a plan to scale up to Riverfly plus 33 classes in 2024.

Partnership Update and Spring Newsletter

KA put together a newsletter – can other groups contribute articles to this. One of the issues is who should own a mailing list?

AOB

Water Quality Monitoring- there seem to be a number of people and organisations monitoring water quality, but where can we go to view the data on the Wensum? **A:** The Wensum water quality group are working to develop a database to show records from different agencies and organisations, including citizen science. The scale of monitoring by the EA will not increase due to resource restrictions. EA data is available at <u>Open WIMS data</u> and we hope to include Anglian water monitoring as the database develops.

Are there any records of Signal or native crayfish data on the Wensum? **A:** Limited monitoring by EA, and limited number of crayfish licensed recorders, so gaps in our understanding. All licenced recorders report to the biological records centre. It appears that white-clawed crayfish density has dropped significantly from Pensthorpe downstream a few years ago. For recorded data please visit https://registry.nbnatlas.org/public/show/dp77

It is essential that all ecological monitoring on the Wensum follow strict biosecurity protocolsclean all kit with Virkon before moving between sites and between rivers.

Next meeting May 22rd 2023