# Wensum Working Group Meeting 19<sup>th</sup> Nov 2020

## Attendees

Graham Gamble, Geoff Phillips, Chris Turnbull, Andy Beckett, Colin Howlett, Tim Ellis, Kevin Grout, Tim Venes, David Harper, Kelvin Allen & Jessie Leach

Apologies Roger Gibbons

Previously the Wensum Working Group had defined several projects within the scope of fisheries. This session was to review these and agree a way forward.

|              | ion was to revi              | ew these and agree a way forward.  |  |
|--------------|------------------------------|--|--|
| Serial<br>No | Title                        | Action   | Status                                     |
| ECO-<br>007  | Habitat<br>Middle<br>Reaches | Provision of 150 SqM of additional off channel habitat and refuge annually (Middle and Lower Reaches)  | Open                                       |
| ECO-<br>008  | Habitat<br>Upper<br>Reaches  | Provision of 100 SqM of additional off channel habitat and refuge annually (Upper Reaches)   | Open                                       |
| ECO-<br>009  | Habitat<br>Macrohytes        | Summarise the SSSI designations and understanding of macrophytes (plants) across all reaches of the Wensum, building on the 6 year Natural England assessment period.  | Open                                       |
| ECO-<br>010  | Fish<br>Densities            | Understand all fish species to enable the identification of any aspect of ecology, pollution or morphology that has a detrimental effect on the health and welfare of River Wensum fish populations  | Closed<br>Oct-20                           |
| ECO-<br>011  | Fish<br>Limnophilic          | Identify any adverse conditions that undermine(habitat, pathway etc) and make recommendations to the River Wensum catchment Partnership for rectification/referral of the issue as required. Potential to link intro Loughborough PhD study 2021 | Closed<br>PhD<br>No<br>Longer<br>Available |
| ECO-<br>012  | Fish<br>Rheophilic           | Identify any adverse conditions that undermine(habitat, pathway etc) and make recommendations to the River Wensum catchment Partnership for rectification/referral of the issue as required  | Open                                       |

| ECO-<br>013 | Fish<br>Migratory | Identify any adverse conditions that undermine(habitat, pathway etc) and make recommendations to the River Wensum catchment Partnership for rectification/referral of the issue as required | Open |
|-------------|-------------------|---|------|
| ECO-<br>014 | Fish<br>Predation | To introduce a plan on predation for the Wensum   | Open |

Kelvin gave a short update on the wider Wensum Partnership Activities and introduced Jessie Leach the recently appointed Wensum Project Officer.

The group started with a review of the 2019 fisheries survey and report, made available by the Environment Agency, which was created with the content contained in similar reports created across the region. This itself is a significant step forwards and progress and took 18 months to achieve. Report content

It was generally felt that the report consisted of desktop study and not a true reflection of progress. The report didn't reflect on the annual habitat works completed at Sayers Meadow by WACA which had previously been recognised as important working habitat for young fish.

The report did reflect angler's views on the decline in chub in the last decade, but roach it needed to go back a further 20 years to capture the glory days of Wensum Roach.

The Wensum densities do reflect that of similar chalk Stream Rivers however.

The report still doesn't provide any recommendations unlike other reports across the region on what's needed to either sustain or enhance fisheries. This seems to be something that the ENS management team don't understand is required from their teams of fishery technical officers. Perhaps this is a reflection of the management structure difference in fisheries between FBG and A&R in this part of the region.

With Kevin Grout now part of the group, his advice will form part of the initiatives going forward.

## **Future initiatives**

Needs more habitat creation.

Previously we had scoped provision of 150 SqM of additional off channel habitat and refuge annually (Middle and Lower Reaches). But for various reason nothing has occurred recently apart from the WACA stretch.

### So ECO-007 becomes

Habitat Middle Reaches Provision of 150 SqM of additional off channel habitat and refuge annually (Middle and Lower Reaches)

## So ECO-008 becomes

Habitat Middle Reaches Define areas for potential additional off channel habitat and refuge for the creation of shelf ready projects. Middle and Lower Reaches) Ownership all members of WWG to scope.

Kevin Grout agreed to investigate current EA records held on Wensum and potential bottlenecks with respect to habitats and the current status of the previous planned works at Kingfisher Lakes stream. **Action KG** 

The historic fishery records do seem to exist but not in electronic form. Graham Gamble has copies of these going back into the 80's and agreed to source these for the group to understand further.

#### Action GG.

Discussion on the merits of managed stocking followed from Kelvin seeing EA stocking activities across the region on various rivers and drains. Andy Beckett agreed to investigate this further and how to redress this in terms of the Wensum.

#### **Action AB**

Discussion on the merits of obtaining anglers catch returns on the Wensum was agreed. Andy Beckett agreed to lead on this via social media and collate the information. **Action AB**Discussion on Salmonids stocking and its history, will be collated by Kevin Grout.
Discussion followed on the understanding of cyprinoid life cycles and food sources per each life stage. It was agreed that Chub and Roach would be a good area to explore via the Chub Study Group and Tim Jecklin, Chris Turnbull agreed to investigate. **Action CT** 

Discussion on whether analysis of these potential food sources could become part of the riverfly package study. David Harper agreed to investigate. **Action DH** 

## **Macrophytes**

The Agency has provided the records of all macrophytes surveys undertaken since 2004 with their based matrix. This is currently been analysed by David and Jeff. A further session will be arranged focussed on this once things are more understood in context with SSSI designations etc and the role of Natural England.

Through the meeting a number of issues where highlighted in the Zoom Chat.

There are copied below.

- 1. Attached PDF from Natural England 2010 with some tables and statistics in there on SSSIs habitats in the Wensum
  - a. A screenshot from the PDF showing the specific analysis of habitats
  - b. Another screenshot showing macrophyte and diatom assessment
- 2. The Wensum Alliance website refers to habitats but I need to speak to Richard Cooper about what was done in more detail: here's the quote "Of the 90.6 ha of 'River and Stream' habitat included in the SSSI, 99.4% is considered to be 'unfavourable and declining' mostly due to sediments, bank poaching and diffuse water pollution. The main river channel currently has 'poor' ecological status (and is also predicted to be 'poor' status in 2015)."
- 3. I found a link to a proposed EA project from 2015 but can't find any more information on it but it refers to habitat restoration in the Wensum project started in 2015 (was this the one you were discussing?): <a href="http://environment.data.gov.uk/catchment-planning/Action/39022">http://environment.data.gov.uk/catchment-planning/Action/39022</a>

#### In this report

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/446641/catchment-restoration-annual-rep-2014-2015.pdf there is reference to habitat restoration work as well:

| Finance | Organisation                            | Project Title  | Short project description   | Category                | CRF Grant<br>2014/15 | Total CRF<br>Grant | Total 'Other<br>Contributions'         |
|---------|---|--|---|-------------------------|----------------------|--------------------|--|
| CRF010  | Pensthorpe<br>Conservation<br>Trust Ltd | Wensum River<br>Restoration<br>& Floodplain<br>Enhancement | The project aimed to restore ecological and hydrological functionality to approximately 2.5km of the River Wensum flowing through Pensthorpe and provide habitats for a range of key chalk river species such as brown trout, white-clawed crayfish, Desmoulin's whort snail and water crowfoot. Additional predicted benefits included providing the adjoining floodplain with significantly enhanced connectivity to the river, and mitigation of diffuse pollution from both Fakenham and adjoining agricultural land. | Habitat<br>Improvements | £205,855             | €561,225           | £93,500 +<br>£93,000 extra<br>leverage |

Condition Assessment attributes for river SSSI units on the River Wensum SSSI/SAC Table 4.10 (from River Wensum SSSI Unit Condition Assessments, Natural England (2010)

Note: with the exception of Unit 55, SSSI Units move downstream with increasing Unit number. Unit 55 is a small

| 1.000 (0.000)  | SSSI Unit |     |         |         |          |       |     |        |         |       |     |
|--|-----------|-----|---------|---------|----------|-------|-----|--------|---------|-------|-----|
| Attribute  | 45        | 46  | 47      | 48      | 49       | 50    | 51  | 52     | 53      | 54    | 55  |
| Overall Status   | - #       |     | *       |         | *        | -     |     | . *    | *       |       |     |
| Habitat Extent (no loss)   | -         | 1   | 1       | 1       | -        | 4     | 1   | -      | 1       | 1     | -   |
| Habitat Functioning - water flow   | 1         | 1   | 4       | 4       | -        | 1     | 1   | 4      | 1       | *     | -   |
| Habitat Functioning – water quality<br>(general assessments biological<br>GQA class) | n/a       | 1   | -       | v       | ~        | ~     | 1   | ~      | V       |       | v   |
| Habitat Functioning – water quality<br>(general assessments chemical<br>GQA class)   | n/a       |     | *       | *       | *        | *     | *   | *      | 1       | **    | n/  |
| Habitat Functioning – water quality<br>(general assessments un-ionised<br>ammonia)   | n/a       | n/a | n/a     | n/a     | n/a      | n/a   | n/a | n/a    | n/a     | n/a   | n/i |
| Habitat Functioning – water quality<br>(suspended solids)                            | *         |     | *       | - 00-   | *        |       | *   | *      | - (8)   | *     | *   |
| Habitat Functioning – water quality<br>(Total Reactive Phosphorus)                   | *         | *   | *       | ×       | *        | *     | *   | *      | *       | *     |     |
| Habitat Structure— substrate<br>(siltation)  | *         | 1   | *       | *       | *        | *     | *   | *      | *       |       |     |
| Habitat Structure channel and<br>banks (channel form)                                | *         | 1   | ~       | 1       | n/a      | 1     | 1   | n/a    | *       | *     | ,   |
| Habitat Structure— channel and<br>banks (bank and riparian zone<br>vegetation)       | *         | 1   | *       | *       | *        | *     | *   | ~      | *       | 2     | 9   |
| Plant Community –species<br>composition and abundance                                | *         | ×   | *       | *       | *        | *     | *   | 1      | - 180   | 1     |     |
| Plant Community -reproduction  | -         | 1   | V       | 1       | V        | 1     | 1   |        | V.      | -     | -   |
| Plant Community Negative<br>Indicators—native species                                | 1         | 1   | *       | *       | 4        | *     | 1   | *      | *       | *     |     |
| Negative Indicators—<br>alien/introduced species                                     | 1         | *   |         | 1       | *        | 1     | *   |        | *       | *     | -   |
| Negative Indicators—fish<br>introductions  | *         | 1   | *       | 1       | *        | *     | *   | *      | *       | 4     |     |
| Negative Indicators— in-stream<br>barriers   | n/a       | n/a | n/a     | n/a     | n/a      | n/a   | n/a | n/a    | n/a     | n/a   | n   |
| 1-2-11-20  |           | SA  | C Speci | es Reco | rds (fro | m Con |     | ssessn | ent Tat | bles) |     |
| White-clawed crayfish  | 3         | p   | p       | р       | p        | P     | ?*  | p.     | p.      | p.    |     |
| Bullhead   | P         | 7   | ?       | 7       | 7        | 7     | 7   | 7      | 7       | - 7   | - 7 |
| Brook lamprey  | ?         | ?   | ?       | 7       | ?        | ?     | ?   | ?      | ?       | ?     |     |
| Desmoulin's whorl snail  | 7         | 7   | р       | D       | p        | 7     | 7   | 7      | D       | D     | 7   |

tributary, it's confluence with the Wensum is between Unit 48 and 49.

<sup>√=</sup> favourable ←= unfavourable n/a= not assessed/supporting data not available
p= confirmed present ?=not confirmed \*=signal crayfish recorded

Table 5.7 Macrophyte and diatom community evidence compared with the relevant Natural England condition assessment attributes for river SSSI units on the River Wensum SSSI/SAC

|  | SSSI Unit                           |          |          |          |          |          |          |          |          |          |          |  |
|--|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| Attribute  | 45                                  | 46       | 47       | 48       | 49       | 50       | 51       | 52       | 53       | 54       | 55       |  |
|  | EA Routine Monitoring Data (Scores) |          |          |          |          |          |          |          |          |          |          |  |
| Macrophyte RMNI<br>WFD Status  | Moderate                            | n/a      | Good     | Moderate | n/a      | Moderate | n/a      | n/a      | n/a      | Moderate | n/a      |  |
| Macrophyte RMNI  | 8.36                                | n/a      | 7.83     | 8.2      | n/a      | 8.06     | n/a      | n/a      | n/a      | 8.11     | n/a      |  |
| Ranunculus sp.   | ×                                   | n/a      | ✓        | ✓        | n/a      | ✓        | n/a      | n/a      | n/a      | ✓        | n/a      |  |
| Macrophyte Mean<br>Flow Rank (MFR)   | 1.5                                 | n/a      | 2        | 1.88     | n/a      | 2.1      | n/a      | n/a      | n/a      | 1.96     | n/a      |  |
| River Trophic Diatom<br>Index (TDI4)   | n/a                                 | 51.35    | n/a      | 74.83    | 63.16    | n/a      | n/a      | n/a      | 64.78    | 67.04    | n/a      |  |
| River % Motile Diatom<br>Taxa  | n/a                                 | 21       | 17       | 30       | 21       | n/a      | n/a      | n/a      | 42       | 69       | n/a      |  |
|  | SSSI Status of Related Attributes   |          |          |          |          |          |          |          |          |          |          |  |
| Habitat Functioning –<br>water quality (general<br>assessments<br>chemical GQA class)  | n/a                                 | ×        | ×        | ×        | ×        | ×        | ×        | ×        | <b>~</b> | k        | n/a      |  |
| Habitat Functioning –<br>water quality (general<br>assessments un-<br>ionised ammonia) | n/a                                 | n/a      | n/a      | n/a      | n/a      | n/a      | n/a      | n/a      | n/a      | n/a      | n/a      |  |
| Habitat Functioning –<br>water quality (Total<br>Reactive Phosphorus)                  | ×                                   | ×        | ×        | ×        | ×        | ×        | ×        | ×        | ×        | ×        | ×        |  |
| Habitat Structure-<br>channel and banks<br>(bank and riparian<br>zone vegetation)      | 1                                   | ~        | ×        | ×        | ×        | ×        | ×        | <b>V</b> | ×        | ×        | <b>~</b> |  |
| Plant Community –<br>species composition<br>and abundance                              | ×                                   | ×        | ×        | ×        | ×        | ×        | ×        | <b>~</b> | ×        | <b>~</b> | ×        |  |
| Plant Community –<br>reproduction  | ✓                                   | <b>*</b> | <b>*</b> | <b>*</b> | <b>*</b> | <b>✓</b> | <b>V</b> | <b>V</b> | <b>~</b> | <b>*</b> | <b>V</b> |  |
| Plant Community<br>Negative Indicators–<br>native species                              | <b>~</b>                            | ~        | ×        | ×        | <b>*</b> | ×        | <b>~</b> | ×        | ×        | ×        | <b>~</b> |  |
| Negative Indicators–<br>alien/introduced<br>species                                    | <b>~</b>                            | ×        | ×        | <b>~</b> | <b>~</b> | ~        | ×        | ×        | ×        | ×        | ×        |  |

Kelvin Allen Chair BASG 21<sup>st</sup> Nov 2020