

Meeting: Ruswarp Hydro Meeting Notes
Venue: NYMNPA, The Old Vicarage, Helmsley
Date: Thursday 21 May 2015, 10-1pm

Attendance;

Mark Reid, Pat O'Brien (EA); Richard Noble (HiFi); Mike Ford, Dr Stephen Larkin (Esk Energy); Angus Oughtread, Stephen Till, (YERT); Michael Graham (NYMNPA).

Apologies;

Laura Hogg (EA); EFA Secretary invited but post currently vacant

Papers Circulated;

Notes of last meeting on 16 January 2015 (previously agreed by email)
Draft monitoring report by EA

1. Update From Esk Energy on Operation of The Turbine and Other Issues

- 1.1 MF reported that electricity generation over the last year was well down on 2013/14 due mostly to low rainfall and flows and there had been no real technical difficulties encountered. The weather in January, February and April had all been drier than usual and full details can be viewed on the website;
<http://whitbyeskenegy.org.uk/powerlog/>

2. Update from YERT

- 2.1 Catchment Based Approach (CaBA)
In March the second CaBA Steering Group meeting was attended by Jeff Pacey of the EA. The group had provided input into the draft Humber Basin Management Plan Riverfly Monitoring.
- 2.2 Two training days had been held and there were now c. 20 volunteers carrying out monitoring within the Esk catchment. Equipment/ life jackets etc had been provided and Alex Cripps was meeting up with all new volunteers on site to provide further support and guidance. The hope was that this team together with the volunteers within the PMRC would effectively provide a cohort to deliver the 'adopt a stream programme'. The intention was to bring the volunteer team back together at the end of the monitoring season, to learn any best practice and to hold a BBQ event to mark YERT/ NYMNPA appreciation for their efforts.
- 2.3 Wild Brown Trout Trust
Two very well attended demonstration days focussed on habitat/ bank stabilisation were held on Glaisdale Beck.
- 2.4 Young Angler Initiative
Now in its second year the 2015 programme was launched on Saturday 16th May, was attended by 11 young people from the Esk Valley and proved to be a highly successful first day. Funding for this had been secured through the Postcode Lottery.

2.5 Projects

YERT/ NYMNPA have applied for funding to carry out works on Glaisdale Beck through the Catchment Restoration Fund (CRF); a response is awaited.

YERT was in discussions with the EA on the future stocking plans for the Esk and also together with HIFI on mapping the data from the recent electro fishing activities. This would hopefully provide guidance on the requirements for future stocking.

3. **Update from EA**

3.1 Staff changes since last meeting

- Claire Everington has joined the team for 1 year to work on the eel regulations. Tom Pagett is acting team leader for Fisheries Biodiversity and Geomorphology whilst MR is on assignment. for rest of this year (tbc
- EA met YERT in April to discuss the future of stocking the Esk with salmon after 2016.
- New fish movement regulations. Site and carrier permits. Triploid trout only or Local Brood Stock rearing to continue to stock Diploid trout.
- North Yorkshire Fisheries Forum, Weds 10 June at Coverdale House, 1830. Dave Morley. AT Lead.
- Yorkshire River Trust Group. Non EA. New River Trust Chairman Andrew Wallace met some on 23 March at Thirsk?
- ABP cash for river trust migratory projects £180K- Humber only.
- New Fish Pass being developed at Linton-on-Ouse as hydro condition. To include improvement to old fish pass.
- Rod licence enforcement to be undertaken during coarse fish closed season until 16 June.
- 15 May-30 Sept is Bathing waters season, 99.5% sites meet minimum standards. Whitby/ Scarborough rank highly.

3.2 In 2013-2014 EA

- Approved 75 new fish and eel passes
- Improved over 100km of fisheries habitat
- Prosecuted 2,800 licence cheats
- Worked with partners to encourage new anglers into the sport

3.3 Plans for 2015/2016

- EA want 5% more current anglers to renew their licence and 5% more lapsed anglers to start fishing again.
- EA will build on last year's successful tactics, reaching more people and increasingly by email, thanks to more online licence sales.
- EA also want to test several new tactics including some suggested by areas in last year's month of action, for example, the use of blogs and working with established bloggers to promote licence compliance in the fishing community.
- This year we're aiming to net a further £2 million on £9.3M last year.

3.4 New River Basin Management Plans by Dec 2015

- This is a statutory document and a legal requirement of the Water Framework Directive, which aims to improve the health of all water bodies across Europe (including rivers, lakes, streams, estuaries, coastal and ground waters). There are 8 RBMPs for England.
- Each of the 8 river basin management plans provides a high level summary of the commitment that government, its partners and stakeholders have made to

improving the health of individual water bodies within a specific river basin district.

- EA are responsible for writing and implementing these plans, as well as gathering the data required to identify how healthy water bodies are and what the costs and benefits are of making improvements.

4. Fish Pass Operation & Maintenance

- 4.1 MF thanked EA for the good long term improvement works undertaken recently on the penstock, footbridge and lamprey pass. The former will make it easier to clear obstructions and to shut and drain the pass when necessary. YERT added their thanks also.
- 4.2 There had been less debris generally in 2014 and no money had to be spent clearing major debris from the weir.
- 4.3 ST said that the Esk Fisheries Association have the right to access the weir over the riverbed though this has only come to light since the hydro was put in. Whilst the weir is owned by a shell company, the deeds contain various covenants and ST suggested that Esk Energy need to explore the full access rights appended to the weir.

5. Downstream gravels

- 5.1 At a meeting to discuss the build-up of gravel it was agreed that no action would be taken until 2016 when the monitoring was finished. MF has notes of the meeting where it was agreed to remove some gravel to improve habitats, create pools, clear the channel and lower the level of water which would be beneficial to both fish and the hydro operation.

6. Presentation of draft monitoring report 2014/15 and discussion

- 6.1 Richard Noble gave a presentation on the initial analysis of the 2014 monitoring data with initial headline conclusions (copied from the meeting presentation) as follows;

6.2 Conclusions 1

- (1) The **Attraction Efficiency** (proportion of tagged sea trout entering the array) **significantly higher** in the post-monitoring dataset
- (2) The overall **Passage Efficiency** (proportion of tagged sea trout successfully ascending the weir) **significantly higher** in the post-monitoring dataset
- (3) The **Fish Pass Efficiency** (proportion of tagged sea trout detected in the array that ascended the weir via the primary [Larinier or Pool/Traverse] fishpass) **significantly lower** in the post-monitoring dataset
- (4) The final batch of 13 sea trout in 2014 had an unusually low passage success and exerts an influence over the statistical significance of the change in fish pass efficiency
 - However, that batch had no overall influence on the significance of increases in attraction efficiency and passage efficiency

6.3 Conclusions ii

- (1) The delay between arrival in the pool and eventual passage was, whilst statistically significantly greater in 2013 and 2014 than in the baseline, probably of little energetic consequence given the overall scale and duration of the sea trout migration.
- However, it is possible that this delay may have consequences for successful passage in relation to potential increased risk of predation before passage.
 - Predation is now confirmed to occur within the vicinity of the pool but it is not known for how long it has been taking place
- (2) There is some evidence of attraction of fish to the area in front of the hydropower outfall screens, which was most apparent when the turbine was active at flows $< 6 \text{ m}^3 \text{ s}^{-1}$.
- However, this area is also the deepest part of the pool so it is difficult to determine if these trout were seeking refuge in deep water or being distracted from the fish pass plume by the outfall from the hydropower screw

6.4 The full conclusions and recommendations are contained in the circulated draft report.

6.5 Discussion

ST asked if single fish monitored could have been predated and 'inside' seals? RN said they could, and added that; 50% of fish 'disappeared', i.e. had not been recorded as going up the weir, and a similar result was noted for monitoring on the Tees.

Post monitoring, fish took a longer time to ascend the weir (which may increase the chance of predation) but the final batch in 2014 were unusual in that none ascended.

AO was concerned that the longer the time fish remain at the foot of the weir, the more exposed they were to predation. Whilst attraction efficiency appeared positive, there remained a key issue with regard to fish pass efficiency and that this must remain a critical measure and form part of future monitoring.

ST raised a question over the fate of the last batch of fish to which RN gave a further summary and explanation clear. From MR

Since the turbine went in fish have been more attracted to the fish pass / turbine flows and now less use the baulk pass.

7. **Any Other Business**

7.1 Funding for 2015 monitoring

MR said the team were doing their best to secure funding for 2015 monitoring but this was proving difficult and there was no dedicated budget for the work. The cost had been reduced from £50k to £40 in 2014 but there was little scope to reduce it further. MG said he would ask about a contribution from the National Park, similar to that made in 2014 if that would make the difference. Because of the time needed to purchase tags and plan, funding ideally needs to be in place by the end of June for monitoring to take place in 2015.

Action; MR to let the group know the position on funding for the 2015 study by the end of June.

7.2 Other matters

- HiFi were keen to finish the report for publication as soon as comments on the draft have been received. The study was to be presented at two conferences in 2015 (Groningen & Dundalk).

Action: All to send any comments on the draft report to RN

Action: RN to inform group when 2014 Monitoring Report is finalised and circulate.

- RN said the Ruswarp study was not unique but of national and international importance in fish behaviour research.
- MF stressed the reason for the study was to see if the turbine impacted on fish passage.
- Esk Energy would add the baseline monitoring reports to their website.
- ST thought it was difficult to know, because of equipment change in 2012 if predation was more or less than in the baseline.
- MR suggested a seal scarer, a sound operated device used in fish farms could be used.
- SL suggested ways to improve passage through the Larinier pass could be considered after the monitoring
- AO asked if an alternative research package could be developed focusing on specific outcomes to see if the fish pass was working to its optimum
- RN suggested focussing on what happens to fish that don't go up the weir.
- PO'B said the reported rod catch was slightly down on 2013 but the opportunities for fishing had not been as good due to the weather.

8. **Date of Next Meeting**

8.1 Due to the uncertainty of funding for the 2015 study a meeting date was not set.

However, the group felt it would be worth meeting later in the year irrespective of the 2015 study to keep a dialogue on the Ruswarp site open.