

**Meeting:** Ruswarp Hydro Meeting Notes  
**Venue:** The National Park Moors Centre, Danby  
**Date:** Thursday 24 October 2013, 10am-1pm

**Attendance;**

Mark Reid, Pat O'Brien, Andrew Delaney (EA); Jon Bolland (HiFi); Mike Ford, Colin Mather, Dr Stephen Larkin (Esk Energy); Angus Oughtread, Stephen Till, (YERT); Michael Graham (NYMNPA).

**Apologies;**

Andy Wilson, Caryn Loftus

**Papers Circulated;**

Notes of meeting on 9 May 2013 and works in river meeting 7 August 2013.  
EA paper on fish monitoring August 2013

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

- 1.1 Flows over the summer period have been the lowest in 20 years and as a result the turbine has only generated intermittently. There have been floods on the river which have left an amount of debris on the weir.
- 1.2 The work on the island discussed onsite at the August meeting has been completed and MR and AO said they were both satisfied with the way this has been carried out. ST said the EFA would like to see a plan in place to deal with any further deposition (or erosion) around the island.
- 1.3 The claim of ownership of the river bed downstream of the weir foot had been a surprise to EE. ST said the title had been with the EFA for many years but they had done nothing about it formally until alerted by the potash pipeline application which required a registered title. There was also the suggestion that there was a 'no man's land' area at the bottom of the fishpass that they could claim. This was disputed by EE who think the deeds of Roy Jay and Reviewtime Ltd cover the whole pass. (*note from MG – on checking the land registry drawings post meeting the latter appears to be the case*). MF said that on the current evidence, as far as EE were concerned the whole of the site of bank works and the river bed affected were owned by the above. ST pointed out that the fish pass was constructed by MAFF but administered by the Yorkshire Ouse River Board in the 60's who did not engage in the process of determining ownership as permissive powers will have allowed this.
- 1.4 The EFA were invited to the meeting (via ST) but had not replied. AO said if they attended it would be to represent them as a Riparian owner / anglers body. ST had kept EFA fully informed of developments throughout the joint liaison process and would continue to represent their interests.
- 1.5 MR asked that EE/EA synchronised clocks on the turbine and the monitoring apparatus to which EE thought daylight saving was automatic, but would inform EA of any manual adjustments required. **Action; MF will inform MR when clocks are changed.**

- 1.6 AO asked about the regularity of EA inspection of the turbine to determine compliance with the abstraction licence (PY's recent report). MF said the condition of compressible rubber bumpers on the leading edge of each turbine blade was monitored by video and a record was kept of this. MR replied that the EA have an obligation to keep an eye on downstream migration of fish including kelts and smolts. **Action; MR to ask Dave Maudsley to provide further information.**

MF asked what was the most sensitive time for migrating fish? In discussion this was agreed as November to May, first kelts, Jan-March, Smolts, May, then adult salmon back from say June-December.

AO had asked EA in writing for more information around abstraction licence compliance but none had been forthcoming. He had heard of (an unverified) report of dead fish being found by the downstream island and was concerned the fish could have been damaged in the turbine. MR recalled a report commissioned by the EA on a wide range of turbines and Archimedes screws were shown not to damage fish. PO'B said this was the basis for the approval of the current turbine.

MR added that any issues must be reported to the EA using the hotline phone number. AD had seen fish part eaten by an otter followed by gulls.

**Action;** It was agreed that the best mechanism to deal with these issues if for evidence to be collected, reported to the EA quickly and then for incidents to be reported back to the next liaison meeting

- 1.7 MF reported some trouble with turbulence around the upstream vertical bar intake screen is causing a lack of generating output and EE are exploring possible solutions with the contractor. Leaves in Autumn are causing partial screen blockages as expected but EE have a cleaning process in place. Blockages could cause a total shutdown if not cleared."
- 1.8 ST asked how big the problem with debris is and was thinking ahead to how the weir was going to be cleared after AD retired. There is potential for the NP/EE/YERT/EA to work together on this. MF said impact from leaves was low and restarting the turbine twice a day cleared them. In due course this could be programmed in automatically. SL added that branches and other debris were cleared weekly from the screen and if it was safe to do so would also be cleared from the fish pass entry. If the debris was too big to be removed manually the EA would be informed.

PO'B noted a lot of tree debris occurs and could be more in the future due to alder disease and recommended a tree management plan be drawn up. ST replied that YERT are to look at this in April.

- 1.9 AD suggested a deflector boom be fitted, CM suggested that this would need to be sited 3-4m away from the turbine to prevent leaves being sucked in. A discussion on the installation of a boom ensued with various options suggested but no clear way forward. JB noted that booms could have an impact of silver eel behaviour which had been observed around a surface boom (elsewhere) when normally they would remain on the river bottom. JB and MR noted the need for consistency during the monitoring period to give directly comparable data.

## 2. Update from YERT

- 2.1 AO: YERT had a public launch on 26 June 2013, and gained charitable status on 7 July. They have signed a Memorandum of Understanding with the National Park Authority setting out ways in which the organisations would work together in the future.

YERT had successfully applied for funding from the Catchment Partnership Fund, and had worked with Simon Hirst to apply for this. The funding was given to help catchment partnerships, basic admin, promotion, educational events, development of websites, auditing compliance, and consultancy based projects such as juvenile monitoring and information gathering around coastal streams. YERT will attend a meeting in two weeks time in the National Park to find a way forward for these projects. The YERT website is now live at [www.yorkshireskriverstrust.org](http://www.yorkshireskriverstrust.org).

- 2.2 YERT have produced a first newsletter, initially paper, posted to angling/owners interests and launch attendees. Future newsletters would be emailed where possible.
- 2.3 A meeting was held with owners to establish how the trust can gather data of fish catches at the end of the season. It was agreed that these would be given to YERT by the end of November for the 2013 season for salmon and sea trout totals. In 2014 this information would be recorded and presented on a day by day basis so that this could be compared with river conditions. They were also intending to carry out intelligence gathering, which is people on the river reporting on catches, and sightings of fish relative to river conditions.
- 2.4 AO had a meeting with MR/AD about juvenile monitoring and how to put in place ways of monitoring future change. 2013/14 is seen as being critical for baseline information.
- 2.5 AO mentioned work that could be done by the National Park Northern Apprenticeship Team. MG updated the meeting; that with the EA not being able to commit to funding two years of a new apprenticeship team, the National Park (especially with anticipated impending budget cuts) felt unable to underwrite the entire scheme for two years, and therefore was not going ahead with a second Northern Apprentice Team. **Action MG to ask Richard Gunton to discuss with AO.**
- 2.6 MF asked if YERT was developing River Esk action plans with Simon Hirst does it change the role of the Trust on the river. AO said there would be no change, and the action plan would be reviewed in 2015. There was a meeting on Friday in Leeds on the Yorkshire and Humber river basin catchment plan. YERT also embraces the coastal streams.
- POB said catchment partnership projects were being launched in London on 5 November. There were two days, one in London and one at Fountains Abbey to discuss the partnership approach.
- 2.7 MF said that Esk Energy have submitted comments on the River Esk Action Plan to Duncan Fyfe (EA Catchment Co-ordinator Derwent, Hull, Humber, Esk and Coast) and to Simon Hirst. They felt that any restrictions on any future hydro should be left

to EA to set. AO reported that the comments have been seen by YERT, but did not consider discussion of the plan relevant to the meeting.

2.8 ST said YERT were drawing up a wish list over the winter with the National Park looking at tasks that needed carrying out in the winter. Some of these items may be of use to Esk Energy, such as timber management and debris clearance. MR noted it was worth looking at the Challenges and Choice Consultation now out on river basin management.

### 3. **Fish Counter**

3.1 MR had sent an email update explaining why the fish counter had been refused permission by EA and had also addressed additional points asked by Rex Parry of EFA. He acknowledged that he still needed to respond to ST's questions. Future funding by the EA makes a fish counter unlikely but he was willing to look at all options and come back to the partners.

3.2 AO asked if the main concerns were technical or financial. MR replied the concerns were technical about installing it and that a fish counter could affect the effectiveness of the fish pass. MF disagreed and thought this would be acceptable if in the right place. POB explained there were technical and legal issues if any of the baffles were removed and looked at a secondary installation made of polypropylene within the leat leading to the fish pass. National experts thought fish on ascending the weir might be influenced by the counter to change their route downstream rather than pass over the counter.

3.3 AO felt strongly that the window of opportunity to install a counter should not be missed and was an important part of intelligence gathering. He had seen fish going up the side of the pass on Monday but couldn't tell if other fish were actually using the pass.

A long, wide ranging and heated discussion about the pros of cons of installing a fish counter followed. When asked about the procedure for applying for a counter PO'B explained that application had to be made in writing via MR. Depending on the proposal it could be either approved locally or by the National Fish Panel as the previous application had been.

### 4. **Progress on 2013/14 Monitoring**

4.1 JB said deployment of the monitoring array had been slightly delayed due to the in river works, but on 24 September two sea trout were caught and on 16 October a further 22 sea trout were tagged. No salmon were caught either time. Loggers had been installed downstream, upstream, in the fish pass, and one in Whitby Harbour. HiFi could tell from the array exactly which way fish ascend the weir. To date all but one of the tagged fish had been detected, four had gone back to sea, 50% had ascended the weir and two thirds of these had used the fish pass and the rest had ascended the side of the fish pass.

4.2 MF asked if the baulk pass had been used to which JB said not by the current tagged fish. Having a logger in the pass proves that the fish pass is being used. JB reported that two fish that went out to sea came back when the river flows increased. The full report would be available in draft form about the end of March 2014.

4.3 JB was looking at the next tagging being with suitable tides between 4 – 6 November. HiFi would be as reactive as possible to the correct conditions when catching fish. It

was noted that in November that fish had the potential to go up the river quicker as spawning time approached.

- 4.4 AO said electro fishing for brood stock in Glaisdale soon to be carried out will show how many salmon are present there. AD said salmon were present but not when they had been monitoring and that a lot of salmon had gone up the river in September on high flows.
- 4.5 Returning to the discussion to the fish counter PO'B noted that the data was unreliable and installation costly. The situation in Scotland (previously discussed) was more to do with the local economy for fisherman as the fish passes there were owned by power companies who had a vested interest in demonstrating fish passage. He said the counter would only count a proportion of fish but one could be sited on the down slope of an insert in the upstream pool. Permission would be granted for this from the EA. This still would only count a proportion of the fish. He added that Esk Energy could put forward a proposal, and if the EA approved they would also loan a fish counter for a time limited period. HiFi could analyse the data if funds can be found to pay for it.

Drawings and a technical specification were needed of proposals PO'B said that if an application went to the fish pass panel it could be determined in around two months. The technical discussion continued on the merits of the different options and sites for the installation of a counter.

**Actions: EA to discuss and advise on how best to proceed with an application. YERT/EE to discuss how to apply for funding and operate a fish counter.**

- 4.6 JB noted installing a fish counter could be very expensive and could decrease the efficiency of the fish pass. It would need careful installation and operation and would not be considered as a reliable indicator of fish migration.
- 4.7 ST said there were two distinct issues: 1) counting fish which in itself is useful and 2) is the turbine affecting the use of the fish pass?
- 4.8 MR repeated that there was an uncertainty about the risk that installing a counter could decrease efficiency of the fish pass and doubt over the value of the data and on balance felt that it was not worth installing. ST asked if sonar monitoring was a possibility to which JB replied that that technique was not suitable for installation in this location.
- 4.9 MG said having listened to all the arguments he had heard it appeared that installing a fish counter was a risk to fish pass monitoring, a risk to effective monitoring of tagged fish and could result in variable quality data which had dubious value. MR replied this was the conclusion that EA had reached and was the reason why the fish counter had been refused by the National Panel.

5. **Potential CCTV Monitoring**

AO reported this was not to be pursued further.

6. **Update on the Settle Hydro**

PO'B reported there was no further data available yet.

7. **Any Other Business**

7.1 MF said that an idea had been raised by Julia Foster to remove the lower half of the outlet screen. ST asked why and it was thought fish which get in may have a problem getting out, however there were also risks to people on the site and these would have to be evaluated further. MF said maintenance work on the turbine was on-going and EA requested to be informed on days when work was been carried out as this may affect the monitoring of tagged fish.

**Action; EE to inform EA/YERT of days when maintenance works are to carried out with as much notice as possible**

7.2 JB suggested leaving the screen as it is for consistency during the monitoring period MF explained that removal of the bottom half of the screen would make it easier to install stop logs so the turbine can be drained down when servicing is due without the need for a crane. JB noted as many things as possible need keeping consistent during the monitoring period.

7.3 MF said any reduction in the size of the grill would only be below water level. ST suggested that nothing should be done unless there was a problem.

**Other Actions;**

- **HiFi to provide email update on monitoring early in the new year.**
- **MR to provide updates as and when there is information to report. (three sent so far)**
- **YERT carrying out electro fishing on 4 November in Glaisdale.**

8. Date of Next Meeting

**Thursday 1 May 2014 10-12 at The Moors National Park Centre Danby.**