

Presentation by A. D. Frazer

# Northern Ireland Water Framework Directive Stakeholder Forum

24th April 2006

## **PRESENTATION FOR STAKEHOLDER FORUM MEETING AT CLARENCE COURT, BELFAST ON 24<sup>th</sup> APRIL 2006**

### **Introduction**

A D Frazer – Chairman of NI Branch of BHA  
Represent the interests of 10 members  
In addition there are some 50 other owners or operators

### **Preliminary**

1. Lot of detail in this presentation – available to Brenda
2. There are 5 questions that will require a written answer
3. Show of hands of those with knowledge of NI hydro schemes
4. Reminder of the aims of the WFD – to achieve good water status by 2015.

The WFD is a framework on which each Member State may base its own legislation; this may include provision for a programme of measures, to help achieve this aim.

One of these measures that the Department has determined is fundamental to achieving good water status is Abstraction and Impoundment Licensing, and a scheme to recover the cost of administering these. At Cookstown, we were told that the licenses would be a legal requirement for all abstractors and that they would be time limited and no compensation would be paid for any future variation or removal. No consideration was given to non-consumptive users like hydro power. In reply it was put forward that such licenses were unnecessary and would impinge on existing Water Rights.

In looking further at these two areas I am going to talk a bit about biological status and also the way forward.

### **Photos**

1. Family business – linen and textiles
2. Started in 1710 – good site because abundant water and fall for power and process – “the full command of the river”.
3. Purchase of Water Rights – “the full and free use of the water in the river commonly known as the River Mayne”  
Without the security of owning the Water Rights no-one would have invested in a large company employing 600 people  
Closed 2003 after 293 years  
Labour too expensive compared with China/India  
Excessive regulation  
Continued future for water power under NFFO and NIRO
4. Hillmount weir  
River divides – some continues down river and some flows into headrace  
Follow the headrace and then come back and follow the river
5. Headrace low velocity  
Banks tree covered
6. Entrance to Ajax – 1896 Francis type turbine

7. Smallest of 2 turbines at Hillmount
8. Wrought iron shaft -12' long
9. Recently removed in 2001 – first time out since 1896 – rotor weighs 1.5 tons
10. Guide vane assembly – like large meccano – each part weighs c.1/2 ton
11. Rotor runs at slowly at 111 rpm
12. Tailrace 12.5' below headrace level - lower than river bed level
13. Tailrace with electric fish barrier
14. Rejoins river
15. Back to Hillmount weir to look at the rest of the water  
Just because we own the Water Rights does not give us the right to damage the environment. So what steps have we taken to protect it?
  - a. fish barrier on tailrace
  - b. screens for smolts and smolt bypasses
  - c. fish passes
  - d. residual flow agreed with Fisheries Division
16. Work with Fisheries Division and Maine Angling Club to enhance habitat for fish and provide pools – so that there is always sufficient water for fish and all the river ecology.
17. Pools for anglers
18. Continues downstream
19. Continues downstream
20. Rejoins river

½ a mile downstream is Harperstown Beetling Engines and another weir which I will return to later.

At Cookstown, G O'Neill's (Fisheries Division) opening remark was that plentiful fish stocks were a good indicator of the whole aquatic environment. Such stocks could only exist if there was sufficient insects/invertebrate life for the fish to feed on. At Hillmount, the presence of mammals like otters and birds like herons, kingfishers, dippers and cormorants would tend to indicate that there are sufficient fish stocks to sustain them.

But is this really true?

In 1977 the Maine Angling Club commissioned Dr T J Pitcher (Oxon) and A Murray of University of Ulster to carry out research to examine the "Growth, Food, Density of Brown Trout in the River Maine" at Hillmount. The question put was "Should artificial stocking of brown trout take place?" Three sampling point were identified, one at Harperstown weir, one in the tail race at Hillmount which I have just shown you and one at McDowell's Stepping Stones a mile above Hillmount Weir. They captured by various means 596 trout; of these, they dissected 113 and counted the contents of their stomachs. They also counted food organisms at the 3 sampling sites. Here are some of the findings:-

Table 13 finds that the population density of fry and 1/2year old fish is favourably comparable with other rivers in N.Ireland and Cumbria.

Table 12 shows that growth rate at the end of their 3<sup>rd</sup> year is very good when compared with Irish, Scottish and English rivers; the Roe, the Aghadowey, the

Agivey, the Braid, The Glenwherry, the Moyola and the Callan all having less growth rates

Table 9 and 11 enumerates 16 main type of food organisms and compares incidence between the three sites; these are largely Mayfly larvae, but also include Blackfly larvae, pupae, and adults, Midge pupae, Web Caddis, Cased Caddis, Free-living Caddis, beetle larvae, valvatid snails, hoverfly, shrimps, water bugs and snails, not to mention 23 others found at lower frequency. All the trout that were dissected from each site had a similar amount of fat deposited around the intestine.

The point is that the two turbines at Hillmount were in operation during this study and for the previous 95 years. If their operation or their use of water was having or had had any effect on the aquatic environment it is unlikely that this would have not shown up in this detailed study. The truth is that neither the operation of these turbines nor their use of water - what you like to call abstraction - has any effect on fish stocks or insect life or the environment in general.

So, what is the point of abstraction or impoundment licenses? It appears that they are just regulation for the sake of regulation. It is not good enough just say that there is a weir on the map where it has been for the last 250 years, therefore there is now a risk that N.Ireland is going to fail to achieve Good Status because of this. What is required is some well researched and documented evidence and this will include looking at all sorts of impacts including anglers and other predators like cormorants.

Do you remember what you said in the Cost Compliance Assessment in 1998?  
“Given the climatic conditions and relative abundance of supplies, an abstraction control system is not considered necessary for the whole of N.Ireland.”

The first question:-

What product i.e. improvement to the aquatic environment, are we going to see as a result of the introduction of these licences and how is the Department going to measure it?

21. Harperstown Beetling Engines – built about 1770
22. Different to Hillmount in that the turbines sit on the weir  
There is no stretch with reduced flow  
No abstraction – in England this would not require an abstraction license
23. Water wheel up until 1881 – new turbine installed (£6,000)  
Direct line shafting up to 1927  
Introduction of DC – 2<sup>nd</sup> turbine  
Re-engineered by Drainage Division in 1984 (Maine Drainage Scheme)  
Introduction of AC in 1994
24. Kaplan turbine
25. Hercules
26. Smolt protection – 2006
27. Electric fish barrier
28. Smolt by pass- fish pass – this site was continuously monitored by Alan Keyes and the Maine Angling Club from 1997-1999.

So let me just sum up the benefits for the environment of what I do:-

These 4 turbines have:-

- a. supported hundreds of families over the past 125 years.
- b. now produce 1,500,000kWh /year.
- c. produce Renewable Energy with no emissions into the atmosphere
- d. are part of the Government's Policy on Sustainable Energy
- e. save NI importing 1000 barrels of fossil fuel each year
- f. have stopped the emission of nearly 2 million tons of CO2 over the last 125 years or 15,000 tons/year
- g. reduce dependence on intermittent renewable energy like wind
- h. unlike a nuclear or fossil fuelled power station, every hydro site has an infinite life

Every day on the television news or radio interviews, we have experts and Government drawing attention to Climate Change and the effects of greenhouse gases and of impending Global Warming. So what are we doing about it in N.Ireland, that centre of excellence for Renewable Energy as the Secretary of State describes us. You have probably already guessed it; Government is aiming to bring in restrictions and controls on hydro schemes; in the UK hydropower is the largest producer of Renewable Energy and something that might just help us solve our energy problems.

Second question

Why can the Department not accept that the hydro-power industry has no effect that is detrimental to water status and why can the Department not utilise the exemption contained in Article 11 (3)(e)?

At Cookstown, it was suggested that abstraction licenses would be limited to 6 years; this shows how little the Department understands the economics of building a water driven power station as this would have the direct consequence that no-one will invest in the rejuvenation or development of new hydro schemes. Perhaps, this is what you want to achieve! As has already been explained these schemes by their nature are long term investments which could never be repaid within 6 years.

I have been involved for some time in water matters. In 1998 at Upperlands, proposals were made for abstraction licenses and charges but these were never included in the Water Order of 1999. At that time, I drew the Department's attention to the issue of Water Rights and in order to clarify the situation I asked Dr.Paisley to write to Lord Dubs, the then Minister of the Environment. This what he said on Legal Entitlement of Water Rights:-

“Parliament has the power to make new laws and the supremacy of Parliament is often cited. However, this power is subject to the European Convention on Human Rights. Article 10 of the Convention, which lays down that a person cannot be deprived of rights without compensation, has been interpreted as applying to water rights. As my letter of 12 August explained, before any regulations were introduced, a full consultation would be carried out. Article 20(4) of the Order provides that regulation must provide for the protection of interests affected. Existing users would

be able to apply for a license as of Right and compensation would be payable for any variation or revocation of a licence”

Question three

In the light of the Department’s proposals at Cookstown, how does it intend to protect the interests of those affected by the regulations as in Article 20 Paragraph (3)(f) and Paragraph(4) of the Water (Northern Ireland) Order 1999?

If you had followed what Lord Dubs had said or indeed the EA policy rather than SEPA, you would not have fallen foul of so many turbine owners at Cookstown. I am not going to say much more about Water Rights as you have heard it all before but you might just find it interesting to know that this issue is alive and well; only 3 years ago Rivers Agency were obliged to pay substantial damages to us for interfering with our Water Rights.

There were a number of other matters that concerned many people at the meeting at Cookstown; firstly, the inability to answer questions; seemingly simple questions like what is good water status or significant impact produces have never received an answer. So here’s another chance in the fourth question:-

What is good water status in the heavily modified water bodies of N. Ireland and what is the impact of morphological changes on chemical and biological status in such water bodies?

What really annoyed everybody is the idea of paying charges to the Department for something that they already own the right to and which is unnecessary, particularly when they see that it is the same Department that has been responsible for the deficiencies in Water Treatment and Planning policy and which has allowed Drainage Division, now Rivers Agency in the Department of Agriculture, to do untold damage to the environment.

Fifth question:-

How does the Department justify a system of charges unless there is a significant and demonstrable improvement in water status attributable to the abstraction and impoundment licences?

All of those turbine operators that I know are very supportive of the ambitions contained within the WFD of improving our aquatic environment; but we are pretty unimpressed with your bureaucratic proposals which are based on SEPA in Scotland.

However, I would like to make it clear that we would be quite happy to support you by providing a register that would contain details of what we do, where/when we do it, how much energy we extract from water, together with details of fishery protection measures.

One final point that you need to understand is that the more regulation on us means the less renewable energy produced; less renewable energy means more fossil fuel

consumed and that means more Greenhouse gases released into the whole environment.

In conclusion, I suggest that the way forward might be this:-

1. that a Working Group should be established between E&H Service and BHANI which will seek to resolve the issues that I have brought up during the Consultation period. This would be on the same lines as has been in existence in England for some time and was established by the Regulation Impact Unit within the Cabinet Office.

2. at the same time we will consider the draft Regulations and Consultation paper and if necessary we will take Counsel's opinion on our position within the Law. If we are advised that your proposals are an infringement of our human rights, we will not apply for any Abstraction Licences.