

## **Clohamon Fish Release Observation Report**

**6<sup>th</sup> August 2013**

This observation report verifies and records the events of fish extraction and release at the millrace stream associated with and below Clohamon weir and the river slaney. The visits took place on Tuesday 6<sup>th</sup> and Thursday 8<sup>th</sup> of August 2013 following unofficial notification that the IFI were on site to carry out the urgent rescue of trapped salmon and sea trout within the lower millrace stream zone. A further release event occurred a few days later without any prior notice to the SRT in this instance.

**The content of this report is summarised as follows:**

- Visual appraisal of the catch and release events. (Photo Images)
- River flow post turbine shutdown and start up that merits attention. (Photo Images)
- Summary

**Visual Appraisal:** The catching of the trapped fish by the IFI team consisted of the tried and tested method of electro fishing technique from a small boat and a hand held drift net by two IFI team members at the lower zone of the millrace water. As fish were lightly stunned, they were hand netted and put into containers for quick release to the adjacent main river channel. Other fish alerted by the activity moved downstream and were caught in a driftnet and released in a similar manner.

A total of 127 (may change upward) salmon up to approx. 12.7 kilo (28 lbs.) and approx. 500 sea trout up to 1.81 kilo (4 lbs.) were released into the main river channel. I was informed by Stephen Byrne (IFI) that there was a total of four fish fatalities during the release process. This is a very low percentage loss given the very warm conditions present over the activity days.

**River Flow:** It was clearly evident that once the millrace turbines were switched off, a significant quantity of water now diverted, freely flowed over the adjacent weir. As the river gauge downstream indicated a level of two inches (very low summer level) during the events, it is clear that any water abstraction or turbine activity during summer drought conditions seriously impedes fish and other species migration passage over the weir.

**Summary:** Although the fish release exercise was a great success, there are some outstanding issues that need to be addressed:

Robert Hogg assisted in the shut-down of the turbines when requested by the IFI, in order to attend to the urgent remedial works to the lower steel grating. This work was carried out without any inspection and explanation as to how the fish entered the millrace zone. Furthermore, the turbines were turned on immediately on completion of the initial grate remedial works.

Following a further request by IFI the following day to suspend turbine activity, only then the true cause of the problem of fish migration into the millrace was identified. It was clearly evident that the lower steel grate bars in some instances were broken or missing in addition to gaps in the adjacent stone supporting wall, thereby allowing free passage of fish into the millrace zone, This issue is clearly illustrated in the photo images below.

In my opinion, there should be more frequent inspections of the millrace zone by the IFI going forward. Many of the fish released were in the millrace zone for some time that would indicate a lack of action on behalf of the IFI at earlier high water conditions. There are tested measures that can be implemented to prevent fish passage to unwanted areas of a river course and the suggested remedial solution information below should be seriously considered by the IFI and all concerned parties in order to prevent a further event of this nature.

On a more positive note, as a result of the closure of the river from the fishing hut to the weir, a substantial number of fish released have now moved up river largely due to the increased volume of water coming over the weir during the turbine shut-down process.

## Comments

**Image 1:** View of the upper millrace steel gates in a closed position. This view also shows the immediate rise in water levels above the weir.

06/08/2013

1.



**Image 2:** Further view of the weir looking downstream showing the extent of water level increase during the turbine shut down process. (Image 15 below illustrates the low water levels crossing the weir when the turbines were switched off)

06/08/2013

2.

***Comments***

**Image 3:** Close up view of the IFI team in action at the head of the millrace zone using a well-established electro fishing technique. (Described in Image 17 below.)

06/08/2013

3.

**Image 4:** Further view of the millrace stream mid-section showing IFI team in action using a drift net to capture any fish moving downstream.

06/08/2013

4.

## Comments

5.



**Image 5:** View of IFI operative netting a small salmon from within the driftnet zone.

**Image 6/7:** View of some of the many sea trout and salmon captured and immediately transferred to the main river channel. (The water level was falling steadily at this stage)

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9.



**Image 8/9:** Further view of IFI team releasing a salmon from the drift net. 'Yours Truly' releasing a salmon in the main river channel.

## Comments

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10.



11.



12.



## Comments

13.



**Image 13/14/15:** View showing IFI operative measuring gaps between the steel bars of the grating. Some gaps found were in excess of 200mm and averaged 75mm.

Further images of remedial works with new steel bars welded in position to prevent passage of fish.

*It was noted during this visit that 75mm spacing of steel bars will not prevent fish under 1.8kilo (4 lb) from entering the millrace stream.*

14.



15.



10.



**Image 15:** View of the weir on the morning of the 9<sup>th</sup> August after the turbines were in full operation again. This view shows a disturbingly low flow level in the main channel with no water at all, flowing over the weir.

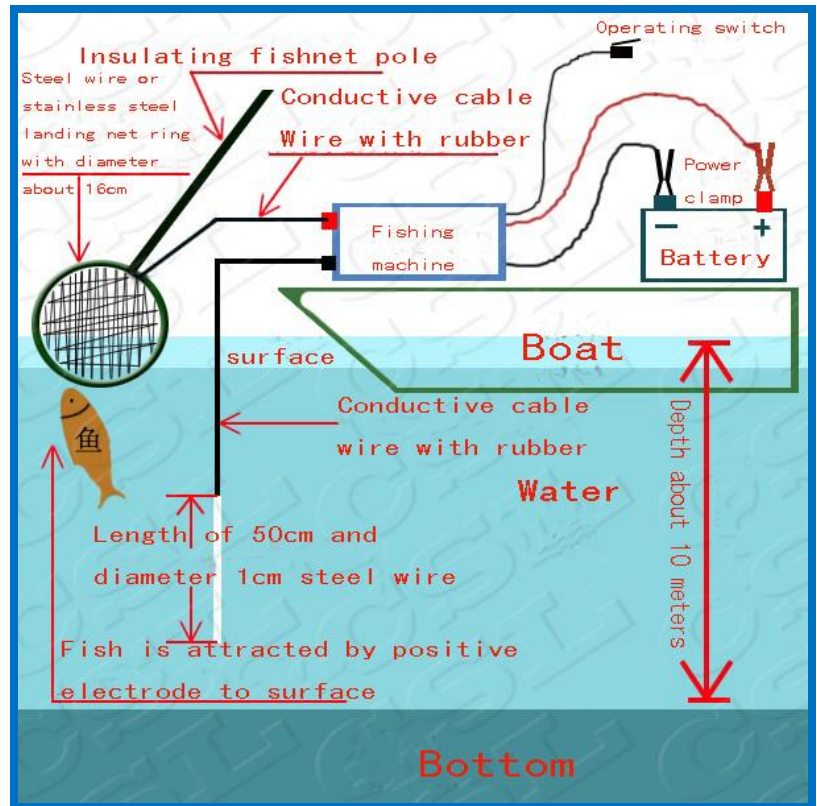
The water level was later measured indicating a depth of 150mm at the tail of the outflow from the 'Denil' fish pass.

## Comments

**Image 17:** Typical illustration of electro-fishing techniques used during the IFI catch and release event at Clohamon weir. All fish captured during the process were quickly released into the adjacent main channel of the Slaney River below the weir.

*Note: It was not possible to release the captured fish above the weir as the terrain was not suitable owing to the time constraints in getting stressed fish the much further distance beyond the weir in question.*

*A total of 127 salmon up to approx. 12.7 kilo (28 lbs) and approx. 500 sea trout up to 1.81 kilo (4 lbs) were released into the main river channel.*



**Image 17:** Typical image of an electro fish barrier in position using a light electrical current as supplied by Electro Fishing Services Ltd.

*At Electro Fishing Services Ltd we use projected field effects to frighten the fish, we try not to shock or stun them. Projected fields reduce the voltage gradient and extend the field by up to 1m. The fish feel the field a long way out and keep clear.*