CYMDEITHAS PYSGOTWYR SEIONT GWYRFAI A LLYFNI
SEIONT GWYRFAI & LLYFNI ANGLERS SOCIETY

Cwmni a Gofrestrwyd yng Nghymru /Company Registered in Wales Rhif-No 3198557

Your ref. EN010072
Our ref. GRPS-AFP115

The Planning Inspectorate
3.18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Sir/Madam,

The Planning Inspectorate - Re. Application on 'Snowdonia Pumped Hydro Storage Scheme' at Mynydd Gwefru, Llanberis 8 - 9th. March 2016.

Comments from Cymdeithas Pysgotwyr Seiont Gwyrfai a Llyfni.

During the examination on Tuesday 8 March 2016. I related the following information verbally to the Inspector.

1. Previous submission

During my comments I was surprised that all documents relating to the Quarry Battery application submitted to Gwynedd Council Planning Dept by the society have not been passed on for the Inspectorates attention. I was invited to re-submit however due to the complexity of these submissions the proper and far easier way would be for the council to pass on these documents for your attention.

Both myself and other individuals present on the 8th March were surprised that some matters referred to could not be commented upon due to the fact that National Resources Wales's submissions were had not as yet been received. This was disappointing as part of my comments related to the Dissolved Oxygen problems now affecting Padarn.

2. **Ownership of rights on Llyn Padarn and rivers Rhythallt and Seiont**

The society are the freehold owners of 90% of the bank fishing rights and 33% of the surface rights of Llyn Padarn, in addition some 70% of the fishing rights on both rivers and substantial land holdings adjoining the rivers are in club ownership.

Llyn Padarn and part of the river Rhythallt downstream of the lake are designated SSSI's. Part of the Padarn SSSI is it's unique Arctic Charr population. Since 1992 the lake had been affected by serious pollution. The source of this problem has at last been recognised by National Recourses Wales as being caused by the operation of the Llanberis STW. In addition there are worrying factors concerning loss of spawning grounds due to the construction and discharges into the catchment of excess water from the Dinorwig Pump Hydro Station. There is no doubt whatsoever that the STW and Hydro operations are responsible for the decline in the general salmonoid and the near extinction of the arctic charr populations.

3. Pollution Problems

Despite a serious green algal bloom on Padarn in 1992. The authorities showed scant concern to this problem despite complaints and numerous meetings with both National Rivers Authority and their successors the Environment Agency the situation was deteriorating annually. The only reliable indicator as to a steadily declining in water quality is the fish population which has been steadily declining since 1991. In 2000 there was a near complete collapse in the Arctic Charr population. In subsequent years the society was passing on it's serious concerns about rapidly declining water quality, not only anglers but the general public were showing real concern as to the quality of the lake's water. Unfortunately there was little response from the regulatory authority, sadly our concerns were fully realised during 2009 when a serious bloom of blue/green algai occurred resulting in the lake being closed to all activities.

I do not propose to expand on what has taken place since as this is well documented in the investigative reports carried out by both Environment Agency and National Resources Wales. I'm in possession of copies if these documents which are available if required.

Catch returns form 1967 to the present are in my possession and can also be made available if required.

3. Present situation

We as a society are generally supportive of schemes that set out to protect our natural environment, however from our experiences with the construction and subsequent operation of the Dinorwig Hydro Plant, which has proved to be a complete environmental disaster for the Padarn/Seiont catchment. Valuable fish spawning grounds have been lost as a result of the construction and now it's discharges of excess water causes discolouration and fluctuations in levels in the both lake and river buy up to .80 metres. This can be confirmed by National Res. Wales's data from their gauging stations at both Nant Peris and Caernarfon.

In addition to fluctuating levels these discharges cause temperature increases in the river downstream of the discharge point, this area is incidentally the only remaining

arctic charr spawning ground. No serious investigation has been carried out into the effect of this problem on the charr population. Granted that artificial stocking has been ongoing for some four years, however this is scant compensation for a natural self sustaining population.

In 1985 a mitigation stocking agreement was set up between the CEGB then owners of the Dinorwig plant and Welsh Water Authority. This agreement was never fully honoured and today due to a supposed enlightened fishery policy by NRW all artificial stocking otherwise than the charr rearing programme has been discontinued to be replaced by habitat restoration. On our catchment this will have little if any effect, as all the major spawning /rearing areas have been lost to the Hydro operation.

4. **Concerns re. current application**

Algai pollution incidents have been briefly covered and at long last due to action by NRW. Welsh Water are now committed to improving the water quality of Llyn Padarn. Although after the last serious bloom in 2009 the water company were in total denial that their operations were in any way responsible for the problem. Today after continued pressure from the society and regulatory action by NRW, Welsh Water are now in the process of carrying out improvements to the tune of some £7 million. There is no doubt whatsoever that this spend would not have been authorised if it had not been absolutely necessary in order to improve a serious threat to the environment.

Due to on going work it would be fair to assume that the STW and resulting algai problems are now behind us, however this is not so. The major problem which remains to the fishery in general otherwise than the loss caused by the Dinorwig operation is the side effect of the algai blooms which I will touch upon as follows:-

Once a specific algal bloom has run it's course the bacterial organisms die down and settle on the lake bottom as fine brown sediment (decomposing algai). Padarn has had two significant episodes together with annual less obvious incidents between 1992 and 2009 so the deposit of decomposing algai is substantial. There is evidence available from NRW as to the extent of this deposit and it's effect in depleting the dissolved oxygen. Arctic charr, salmon and brown trout are vulnerable to this depletion which has the effect of limiting their habitat and impacting on their reproductive capabilities.

Snowdonia Pump Hydro's report - *Llyn Padarn Freshwater Ecology Impact Assessment* considers the arctic charr, salmon and brown trout. Although it explains that the charr stocks are in a vulnerable condition and declining, it fails to identify the reason why - lack of spawning areas is one. However the extent of the dissolved oxygen problem is not followed through. This I will expand upon by quoting NRW *Llyn Padarn - Decision Document Pursuant to the Environmental Damage (Prevention and Remediation (Wales)Regulations 2009* which points out that dissolved oxygen levels of 1.7mgh/l have been recorded on Padarn, where as it's widely commented upon that *Cold water fish like trout (including charr) and salmon are most affected by dissolved oxygen levels. The DO levels for adult salmonoids is 6.5mg/l and the minimum as 4mg/l. These fish generally attempt to avoid areas where DO is less than 5mg/l and will begin to die if DO levels is less than 3mg/l for more than a couple of days. For salmon, trout including charr DO levels below 11mg/l will*

delay their hatching and below 8mg/l will impair their growth and lower survival rates. When DO levels fall below 6mg/l most fish eggs will die.

5. Water discharges to lake bed.

Improvements to the STW system have improved Padarn's water quality, however due to the extensive deposits of decomposing algai on the lake's bed the DO content continues to disappoint. In fact 2015 was the worst year on record. It has been confirmed by NRW that it will be many years before the situation begins to improve if at all. Common sense would seem to dictate therefore that for the lake/river to have any chance of recovery there should be no disturbance at all to the lake bed. Any meaningful discharge of water would inevitably stir up the decomposing algai causing turbidity and further decline in the DO situation.

6. Mitigation for declining fish stocks and angling amenity

Should this application will be granted despite of the current fragile situation of Llyn Padarn and Rhythallt/Seiont river, despite NRW assumption that no mitigation package to offset the continuing decline of the fishery can be called for. We as a society would urge the Inspectorate to impose a package of improvements to restore the fishery to its once prime status amongst Welsh Fisheries. This package should include a proviso for providing the society with the means to secure alternative fishing for it's members on other lakes/rivers not affected by this construction and subsequent operation.

Action for the restoration and protection of this fishery is top priority as we are already a long way down the road of loosing one of the jewels of UK fisheries.

If this application is granted then we not only anglers but the country in general will have lost something unique.

Huw P. Hughes
(Secretary)
11 Ystad Eryri
Bethel
Caernarfon
Gwynedd
LL55 1BX

01248 670666
huw.hughes@lineone.net