

Noeleen Keavey

Subject: FW: Submission re. P1078-01 - Shanoon Resources Ltd.
Attachments: Galmoy IPC.pdf

From: Jane Gilleran [REDACTED]
Sent: 02 July 2018 17:04
To: Licensing Staff <licensing@epa.ie>
Subject: Submission re. P1078-01 - Shanoon Resources Ltd.

Dear Sir/Madam,

Please find attached the submission of Inland Fisheries Ireland in relation to the above IPC licence application.

Yours sincerely

Jane

Jane Gilleran
Fisheries Environmental Officer
Inland Fisheries Ireland - Clonmel

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Iascach Intíre Éireann
Inland Fisheries Ireland

02/07/2018

Re. P1078-01: Shanoon Resources Ltd. Garrylaun, Galmoy, Kilkenny: New IPC Licence

Dear Sir/Madam,

In respect of the above named IPC application, Inland Fisheries Ireland (IFI) has considered the application and has the following observations and recommendations to make.

IFI is a statutory body with responsibility under the provisions of the Fisheries Acts for the management, conservation and protection of Ireland's fishery resource. The fisheries resource is worth €836 million to the Irish economy annually and supports upwards of 11,000 jobs, often in rural and peripheral communities (Socio-Economic Survey of Recreational Anglers, IFI 2013). The principal concern therefore of IFI is the protection of this resource and in particular reference to this application, both the instream and riparian habitat and the water quality of all watercourses on and bounding the proposed site.

IFI draws attention to the requirements of the Water Framework Directive (WFD) that all waters, whether or not they are modified, should meet the quality elements to comply with good ecological status for unmodified waters or good ecological potential for modified waters. The WFD requires that member states protect inland surface waters and shall implement the "necessary measures to prevent deterioration of the status of all bodies of surface waters". A recent judgement by the European Court of Justice (Judgment in Case C-461/13) has clarified that this responsibility applies not just as a generality but to individual projects. It is clear that this proposed development and associated discharges to surface waters have the potential to significantly impact on the current water status of the bounding rivers.

While water quality in the catchment as a whole is described in the EIAR as poor, individual sites within the Goul, Glasha and Erkina system attain status values higher than this. Fertagh Bridge on the Goul is Q3-4 and Maneybog Bridge is Q4 status. In contrast, the Erkina at Rathdowney has in recent years decreased to Q3 status. There is an onus on the applicant to protect these rivers from further deterioration and not impact on their recovery to good status.



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Inland Fisheries Ireland**

While IFI have no objection in principal to the proposed recommencement of mining activities at Galmoy, there are a number of deficiencies in the application that preclude IFI from making a full assessment of the proposal. There are several references to re-opening existing infrastructure and operating to the original licence conditions. IFI is of the opinion that given the exigencies of the WFD this approach is insufficient. Given that some heavy metal levels have not yet fallen to pre-mining levels and the previous issues with suspended sediment loads to the River Goul, IFI believe that the quality standards must be improved.

Proprietary Effluent Treatment System

The proposed system detailed in Appendix 2.1 is one with a design capacity of 20PE. However, Section 2.4 estimates that the site will generate 35-40 direct jobs, 10-15 indirect jobs and with up to 50 people employed on site during construction. IFI seek clarification on the treatment capacity of the system and its ability to adequately treat the proposed volumes of waste. Any system installed should meet the required standards of the EPA manual "Waste Water Treatment Manuals Treatment Systems for Small Communities, - Business, Leisure Centres and Hotels".

Surface Water Drainage and Management Plan

There is a lack of detail in relation to the proposals in how surface water run-off from buildings and yards is to be dealt with. A full surface water and drainage management plan is requested.

Construction Environmental Management Plan

There is no CEMP/CMP included in the current proposal. It is therefore difficult to assess the potential impact of the construction phase of the mine-reopening to the greater surface water network. Adequacy of mitigation measures cannot be assessed without this information.

Proposed Discharge to the River Glasha

IFI contend that the information supplied in relation to the proposed secondary discharge is inadequate to allow a full assessment of the potential impacts. Indicative flow volumes are given but there is ambiguity in relation to the timing of discharges. It is unclear whether this is to be a continuous discharge or an overflow discharge at times of high rainfall. The mixing ratio is calculated in relation to the flow at the 75% percentile only, with no reference to dry weather flows. It is not apparent that the receiving water flows will coincide with times of actual discharge. Locations upstream and downstream of the proposed discharge point should be added to the Monitoring Plan outlined in Section 6.11. IFI further request information on plans for re-oxygenation of clean groundwater prior to discharge to the Glasha. Plans to deal with sediment load prior to discharge are also required.



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Mine Water Treatment Capacity

IFI would like to see details as to the treatment capacity and retention times for the proposed Water Treatment Pond. The methodology to keep clean and dirty mine water separate is also unclear and requires clarification. IFI would like to see an analysis of the retention time available in the Water Storage Ponds and their capacity to settle out suspended solids with particular attention paid to the settling of finer colloidal particles. IFI would also request information on the design criteria for the water treatment plant, including design quality level for BOD, heavy metals, ammonia, suspended solids and nutrients.

A brief referral is made to an option of a constructed wetland system to manage ammonia levels. IFI request full details of this system and its ability to adequately reduce ammonia levels.

Separation of Clean and Dirty Mine Water

IFI request detailed information as to the systems in place to prevent the potential mixing of clean and dirty waters and of any fail-safe mechanism proposed should said system fail. IFI also request data as to the composition of the clean water.

Surface and Groundwater Monitoring

IFI notes that field monitoring is to take place weekly and is satisfied with this monitoring frequency. IFI also request detail in relation to the expected turn-around time of heavy metal analysis from the Goul and Glasha discharges in the on-site laboratory. There should be no lag time between a problem occurring and it being identified.

Mine Dewatering Phase

Given the probability of higher concentrations of heavy metals and suspended solids during the initial de-watering phase, IFI request detail as to the capacity of the water treatment infrastructure to adequately treat this initial discharge. This de-watering phase is also predicted to dry the springs feeding the River Glasha. IFI request an assessment of the length of channel affected and the impact on the aquatic biodiversity of such a change. This should include an analysis of the impact of a change in source water with a potentially different chemical, temperature and oxygen-carrying regime.

Baseline Fisheries Population Data

There is no current information as to the existing population of fish or invertebrate communities within the River Goul or Glasha. IFI request that such baseline surveys are carried out as an assessment of impacts to the fish population cannot be made without such information.



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Assimilative Capacity Modelling

As regards the assimilative capacity calculations in the Piteau Associates Report "Garrylaun Mine: Initial assessment of receiving water quality and ELV's" IFI contend that this analysis should be completed using annual maximum values. It is not an average concentration that is potentially lethal to fish but the maximum value discharged.

Further, IFI reject the assertion in Section 4.4 that the EQS can be exceeded while maintaining the environmental objectives. The EQS should never be exceeded and the proposed discharge is not entitled to the full assimilative capacity of the receiving waters.

The SI 272 standard referred to for Zinc is that for waters where hardness is greater than 100mg/L CaCO_3 . The water hardness data for the Glasha or Goul is not presented in the report.

Please do not hesitate to contact IFI should you require further detail or clarification on any matter

Yours sincerely,

Jane Gilleran

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Jane Gilleran
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Inland Fisheries Ireland - Clonmel

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