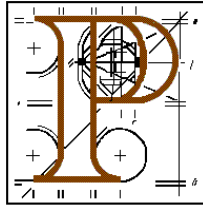


An Bord Pleanála



Inspector's Report

Development: Construction of a water treatment plant.

Location: Gortersluin, Lough Talt, Co. Sligo.

Planning Application

Planning Authority: Sligo County Council
Planning Authority Reg. Ref.: 15/227
Applicant: Uisce Éireann
Type of Application: Permission
Planning Authority Decision: Refuse Permission

Planning Appeal

Appellant: Uisce Éireann

Type of Appeals: 1st v Refusal
Date of Site Inspection: 10th May 2016
Inspector: Dolores McCague

1 SITE LOCATION AND DESCRIPTION

1.1 The appeal site is situated at Gortersluin, Lough Talt, Co. Sligo. The site is located along the Regional Road R294 east of Bonneyconnelan (c10km) and west of Tobercurry (c 12km), in a valley framed by high ground to either side. The site is less than 200m south east of the existing water treatment plant and 400m south east of Lough Talt, which is part of the Lough Hoe Bog SAC (000633). The River Talt outflows southwards from the lake and is joined by the Lough Hoe River coming from the west, a short distance south of the lake. The combined river, known as the River Talt or River Eighnagh, flows along the bottom of the valley with the regional road running alongside. The river is part of the River Moy SAC (002298). The appeal site is immediately east of this SAC which extends to the edge of the public road opposite the site. The site is surrounded by a forested area north of the regional road, with riparian vegetation on the opposite side of the road. The site slopes upwards from the road. This is a scenic area with few buildings visible other than the water treatment works.

1.2 Lough Talt is located on the eastern slope of the Ox Mountains. It is stated that it has a catchment area of 480ha. and an approx. surface area of 90ha with a normal top water level of 136mOD. The Lough Talt catchment is steeply sloped with ground elevations from 300 - 136mOD (Malin). The water quality is classified as oligotrophic/mesotrophic (naturally nutrient poor) by the EPA. The lake is designated under the Drinking Water Regulations 2000 as it acts as a water source. It is an A2 quality water source, falling short of A1 due to exceedances in the colour parameter. Lough Talt as part of the SAC is discussed later in this report. The site is bordered by recently felled Coillte forestry. The area is given as 0.7787ha.

2 PROPOSED DEVELOPMENT

2.1 The proposed development comprises construction of a new water treatment plant (WTP) and associated site works. Notices describe the application as:

The construction of an interim water treatment plant consisting of a new WTP building (gross floor area 1,095m² approx.), tank structures, underground water mains, construction of a new entrance/egress onto the R294 Road, landscaping & site development works at this interim WTP site, construction of water mains at the site of the existing Lough Talt WTP and also interconnecting water main pipework laid along the R294.

The proposed development will have a treated water production capacity of 8,000 m³/day. Backwash will be recycled within the water treatment process, therefore there will be very little lost water. Waste from the process will be an estimated 0.88m³/day of dewatered sludge. The detailed layout and design will be determined by the successful DBO tenderer. Drawings are indicative only but are based on commonly used water treatment processes.

The proposed WTP includes:

- Settlement and filtration tanks,
- Process units in a main building also housing control rooms, administration areas, office and chemical storage and dosing,
- Clear water storage tank – underground with an over ground pump house,
- Sludge treatment – sludge thickening, sludge dewatering and dewatered sludge storage,
- Wash water storage tank (underground) with overground pump house to allow for recirculation back to WTP system.

2.2 The documentation states that in 1969 the capacity was 936m³/day. In 1972 the capacity was 5,455m³/day. Currently the demand is 8,000m³/day and previously it peaked at 10,500m³/day. The abstraction point is from Lough Talt at a location close to the outflow river the Lough Talt River. During the summer months, outflow from Lough Talt occasionally ceases during drier periods and during these periods the daily demand for the Lough Talt RWSS is generally met from the storage capacity of the lake. There is reference to a hydrology report conclusion that there is no inflow to the lake other than the surface flow resulting from rainfall in the catchment i.e. no groundwater inflow.

2.3 The invert level of the lake outflow channel is 135.5m.

3 PLANNING AUTHORITY DECISION

3.1 The planning application was lodged on the 3rd July 2015. The application was accompanied by:

A planning application report, prepared on behalf of the first party, by RPS Group. It includes chapters as follows:

- 1 Introduction
- 2 Existing Water Treatment Plant
- 3 Proposed Treatment Plant
- 4 Environmental Impacts & Mitigation Measures
- 5 Appropriate Assessment Screening
- 6 Archaeological Assessment

Appendices

A – Drawings

B – Storm Water Calculations

C - Appropriate Assessment Screening Report

D – Archaeological Report (included in the list of recorded archaeological sites are two holy wells 530m and 770m southeast of the site)

E – Legal Opinion.

3.2 The chapter **Environmental Impacts & Mitigation Measures** – states that the type and scale of this proposed development of an interim WTP is not listed as an Annex 1 project and as a result an EIA is not required. The development is also below the threshold for Annex II projects and as such is not required to consider if the project is likely to have significant effects on the environment by virtue of its nature, size or location.

3.3 The **Appropriate Assessment Screening Report**, includes several appendices:

Appendix:

A – Drawings

B – Site Synopsis

C - Natura 2000 Data Form

D – Existing Environment

- 3.4 Appropriate Assessment Screening Report states (p2) that in 2006 RPS was appointed by Sligo County Council to prepare a Preliminary Report for the Lough Talt RWSS. The final version was completed in August 2008 and recommended that a water abstraction order be applied for and that a new water treatment plant be built. Irish Water is currently in the process of obtaining a Water Abstraction Order (WAO) for Lough Talt. This process will continue in tandem with this project and will be subject to a separate AA process.
- 3.5 It states that the RWSS provides a supply of treated drinking water to an estimated population of 13,663 through a 520km long pipe distribution network. It is a primarily rural scheme serving the area south and east of the Ox Mountains. There is an existing water treatment plant, constructed in 1972, which consists of:
- A control building which houses a microstrainer unit, designed to treat 5,455m³/day. This unit is currently bypassed,
 - The main building which houses chlorine and soda ash dosing equipment, store rooms, a kitchen, toilet and office, and
 - A treated water holding tank with a capacity of 307m³.
- 3.6 Fifty five water samples, taken from the supply, have been non-compliant with the drinking water regulations over the past 11 years (2005-2015). Table 1.1 sets out the areas of non-compliance and the year it occurred; exceedences include E. Coli, fluoride, lead, trihalomethanes (THMs) and iron. The RWSS is listed on the EPA's Remedial Action List as supporting inadequate treatment for Cryptosporidium. The source is placed in a high risk category for Cryptosporidium. The EPA has issued a Direction in relation to inadequate disinfection. The proposed interim WTP will continue to receive its water from Lough Talt which is designated as part of Lough Hoe Bog SAC. The AA Screening considers potential impacts to Natura 2000 sites associated with the site Investigation, construction and operation of the proposed Lough Talt Interim Water Treatment Plant only. Water abstraction rates associated with the proposed project will correspond to current

abstraction rates at Lough Talt. This AA does not consider or assess current or ongoing abstraction from Lough Talt and its potential impacts to Natura 2000 sites including Lough Hoe Bog SAC. Ongoing abstraction will be considered as part of a separate planning process and subject to AA for the Lough Talt Water Abstraction Order (WAO).

- 3.7 The Archaeological Report states that the only structural features encountered within the proposed development area were the remains of a man-made terrace which has been built into the slope using drystone walling. Such terraces could also be seen further upslope, north of the proposed development area where the vegetation was less substantial. The presence of the drystone built terraces on the sloping valley side is unusual given that the soil observed did not seem conducive to cultivation. It is possibly a platform constructed to level out this area to facilitate the building of the farmyard and ancillary buildings, visible on historic mapping.

Prescribed Bodies

- 3.8 IFI (Inland Fisheries Ireland) – 28/7/2015 – including:

Lough Talt is an oligotrophic lake which is home to a population of Stickleback, Eel, Perch and White-clawed Crayfish. Lough Talt is historically recognised as a good brown trout fishery and also holds an Arctic charr population, a rare and threatened species listed in the Irish Red Data book for fish, as vulnerable. Lough Talt is the last remaining lake in County Sligo and also within the wider River Moy catchment, to sustain a population of Arctic charr. Arctic charr are closely related to brown trout and Atlantic salmon and were once widespread throughout Ireland. However, in the last few decades, the remaining isolated populations have been in serious decline, and there have been a number of high profile extinctions. Fish stock surveys carried out by IFI, as part of the Water Framework Directive surveillance monitoring programme between 2011 and 2014, showed a significant decline in Arctic charr numbers in Lough Talt and IFI has serious concerns for the survival of this species in Lough Talt. Unlike trout, Arctic charr are shore spawners and the continued survival of this species in Lough Talt is extremely dependent on current water levels being maintained into the future. Any lowering of water levels

associated with increased abstraction would lead to a significant deterioration in spawning, ova survival and subsequent recruitment of juveniles to the population.

The Western River Basin Management Plan has classified Lough Talt as “at risk due to water balance abstraction issues”. The Appropriate Assessment Screening report states that “current water abstraction rates from Lough Talt will remain unchanged under the new operation”. Irish Water must guarantee this. IFI has concerns regarding the possible negative effects that abstraction of water from Lough Talt is currently having on the physical environment (water levels and temperature). A drop in water levels during dry periods may affect fish habitat, exposing the spawning gravels leading to egg mortalities or may even cause a change in water temperatures in the lake which, when combined with increased retention of nutrients within the lake, may lead to algal blooms.

3.9 DAHG – archaeology – 10/8/2015 – conditions re. archaeological monitoring.

3.10 DAHG – natural heritage – 14/8/2015 – including:

The sole purpose of the interim treatment plant is to treat water that is abstracted from Lough Talt. Lough Talt is an oligotrophic lake, a qualifying interest for Lough Hoe Bog SAC. An earlier draft EIS (posted to NPWS on 13.03.2012), regarding the Water Abstraction Order proposal, highlights the potential impacts of this project on the:

Trophic status of L Talt, a lowland oligotrophic, lake oligotrophic waters containing very few minerals on sandy plains – *Littorelletalia uniflorae*, an Annex I habitat.

Arctic Charr considered probably the most sensitive ecological receptor in the lake, an Annex V species which is most vulnerable during spawning in spring.

White Clawed Crawfish an Annex II species with significant population in Lough Talt.

The EIS highlights the importance of considering cumulative effects on nature conservation interests. Furthermore, as the Council is aware, it is the competent authority for the screening for appropriate assessment and appropriate assessments for any permission that it provides. Notwithstanding the statements within Irish Water's AA Screening report about the appropriate assessment of a Water Abstraction Order, the obligations of the Habitats Directive Article 6(3) and the Planning and Development Acts require that screenings and appropriate Assessments assess if the proposed development, individually or in combination with another plan or project, is likely to significantly affect or adversely affect the integrity of European sites.

The Waddenzee judgement is referenced.

The abstraction occurs in the Lough Hoe Bog SAC (000633), qualifying interests include:

- oligotrophic waters containing very few minerals on sandy plains (including Lough Talt itself),
- blanket bogs
- Geyer's whorl snail
- White-clawed Crayfish.

The conservation objectives are to maintain or restore to favourable conservation condition, and an appropriate assessment of the implications of a project for a European site is to be undertaken in view of this. This requires, for a habitat such as Lough Talt, that the specific structures and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, amongst other things. Abstraction/ fluctuating water levels may affect, amongst other things, the habitat and habitat usage of Geyer's whorl snail and White-clawed Crayfish, as well as Lough Talt itself, including its structure and function. The Council is also advised that ongoing activities such as water abstraction can or may cause long-term deterioration to sensitive ecological receptors. The Department notes that the Abstraction Order is going through another consent process, though the timeframe is not clear, but in light of the above, recommends that the potential and likely effects of both the Interim Plant and the abstraction should be included in the cumulative effects analysis that is to be undertaken as part of a screening and an appropriate assessment, as required.

It should also be noted that pursuant to regulation 27 of the European Communities (Birds and Natural Habitats) Regulations 2011, there is a duty on all public authorities to, amongst other things, undertake their functions, including consent functions, in a manner that does not cause deterioration to habitats and species, within European sites; for which those European sites have been designated.

Re. reference to certain measures that will be included in method statements, there is no demonstration or evidence provided that such measures will be successful in avoiding all potential impacts.

There is reference to Circular letter PD 2/07 and NPWS 1/07 - restriction of use of compliance conditions. The Environment Sections recommendation that a site-specific CEMP, and also the fact that no detail is provided on the proposed site drainage, noting it is a steep site, with ponds, drains and wet grassland, that will need to accommodate silt traps and proposed ponds, and the implications for the reduction in scrub habitat and effects on the hydrology of the River Moy should be considered and assessed prior to consent to ensure the appropriate assessment is complete, precise and definitive.

The project details are generally lacking in detail, specificity and scientific analysis that demonstrates that the conservation objectives for the site integrity of Lough Hoe Bog SAC and the River Moy SAC will not be adversely affected by the proposed development in combination with other projects.

EIA

The Department notes that it is indicated in the Planning Application form that the proposed development does not require the preparation of an EIA. The site of the proposed development is near to two sites designated as SACs and will treat water abstracted from one SAC. The Council may wish to consider if this abstraction may be considered to be an integral part of the proposed project, for the purposes of EIA, as well as its potential to affect sites and species protected under the Habitats Directive.

Technical Reports

- 3.11 As part of the screening and registration of the application, the register map shows a previous record, no. 194, which refers to a part 8 application.
- 3.12 Area Engineer – 20/7/2015 – conditions including requirement for a sightline envelope.
- 3.13 Environment Section - 29/7/2015 – conditions.
- 3.14 Heritage Officer – 19/8/2015 – The AA screening proposes that, as there is no proposal to alter the current baseline water abstraction, the project can be screened out. This assumes that the current abstraction rate and baseline conditions for the Natura 2000 sites, support the existing conservation objectives and qualifying interests. Up to date and best available scientific information is required to support this approach and this has not been provided in the AA screening.

Current and proposed water abstractions from Lough Talt were not considered as part of the screening process (a key resource requirement for the operation of the WTP) which led to the screening statement determining no significant effect on Natura 2000 sites. It is clear that the water abstraction requirement for the proposed development should have been considered as part of the screening process and that doing so would have triggered a negative screening assessment (arising from the potential for significant effects on the conservation objectives and qualifying interests of the Natura 2000 site), and the subsequent requirement for a NIS for the proposed development.

The requirement for considering the water abstraction along with the proposed development is clearly provided for under the Habitats Directive Art 6(3) through the consideration of 'in combination effects' on Natura sites.

The in combination assessment requires consideration of the potential affects of the water abstraction on Lough Talt, even

though a WAO would be dealt with through a separate consent process. Where the proposed WAO is deemed to require a Natura Impact Statement, a WAO would be determined by An Bord Pleanála. As the water resource requirement is an integral part of the proposed project it would be optimal to have the WAO resolved, and the ecological thresholds for sustainable water abstraction set for Lough Talt in the long term, to ensure the conservation objectives for the site, and the associated water dependent qualifying interests are safeguarded.

Recommendation that the applicant be required to furnish NIS; advance the WAO; advise of potential for significant effects and where there are no alternatives, the project could only be delivered through IROPI.

- 3.15 Planning Report 24/8/15 – including AA screening, determination that stage 2 AA is required. Further information recommended.
- 3.16 **Further information** request 25/8/2015 – requiring NIS.
- 3.17 **Response to Further information** request received 30/11/2015; document titled Lough Talt Regional Water Supply Scheme Proposed Interim Water Treatment Plant Natura Impact Statement, November 2014, by RPS group; containing 10 chapters:
- Introduction,
 - Methodology,
 - Project description,
 - Existing environment,
 - Description of European Sites,
 - Impacts on Qualifying Habitats and Species,
 - Impact Assessment,
 - In-Combination Effects,
 - Best Practice Design and
 - Construction Methodology/Mitigation and Conclusion; and
 - Attached appendices.

Appendices:

- A) Site drawings
- B) River Moy SAC NPWS Site Synopsis
- C) Natura 2000 Data Form
- D) Construction Environmental Management Plan
- E) Invasive Species Management Plan
- F) Ecofact Water Quality Chapter

3.18 The submission includes:

The NIS is in response to a request from Sligo County Council.

Irish Water is currently preparing an application for a Water Abstraction Order for L Talt. This process will continue in tandem with this project and will be subject to a separate AA process.

As this interim water treatment plant will not alter in any way the current abstraction from L Talt, it will not be necessary to have the AA of the water abstraction completed before applying for planning for this interim plant.

This application is not an application for authorisation, which will continue as it is, with or without the interim treatment plant, until the application for the L Talt WAO and related AA have been determined.

In support of the Water Abstraction Order for L Talt RWSS, Irish Water have commissioned RPS and Dr Evelyn Moorkens to undertake and continue hydrogeological, hydrological and ecological monitoring of L Talt.

This monitoring will seek to improve the understanding of how the phreatic surface (zone of saturation) across the L Talt site and its surrounds, responds to fluctuations in lake levels at L Talt. The hydrological and hydrogeological monitoring of the site and its surrounds will tie in with ecological monitoring of the L Talt and its marginal habitats.

Ecological surveying and monitoring to accompany hydrological and hydrogeological surveys for L Talt will focus on habitat suitability for *Vertigo geyeri* (Geyer's whorl snail) a species listed and protected on Annex II of the EU Habitats Directive.

Dr Moorkens will complete an eco-hydrological assessment of suitable *Vertigo geyeri* habitat located on the margins of L Talt, relating habitat condition and suitability to lake water levels.

Project description – L Talt RWSS provides a supply of treated drinking water to an estimated population of 13,663, primarily rural, through a 520km long pipe distribution network.

The existing treatment plant was constructed in 1972 and consists of:

- A control building which houses a microstrainer unit, designed to treat 5,455m³/day. This unit is currently bypassed.
- The main building which houses chlorine and soda ash dosing equipment, store rooms, a kitchen, toilet and office, and
- A treated water holding tank with a capacity of 307m³.

Current treatment consists of chlorination and fluoridation alone. This level of treatment is inadequate to provide drinking water which is in compliance with the EU (Drinking Water) Regulations 2007. In addition, a cryptosporidium risk assessment undertaken resulted in a very high risk classification.

The EPA issued a Direction to Irish Water on the 15 August 2014 in relation to inadequate disinfection.

It is located approx. 100m north east of the Eighnagh River which is designated under the River Moy candidate SAC. Two ephemeral drainage channels within the site continue south of the site for 50m before entering the Eighnagh River.

There has been continuous abstraction since the 1950s. During the late 1990s it reached a peak of 10,500m³/day. Due to

significant conservation investment the average abstraction is now 8,000m³/day. (7,812m³/day 2014) a water conservation project is proposed that will replace 20km of leaking pipework which should continue to reduce the water demand or at least stop it rising in the coming years. The stage 3 - phase 2 works project is currently at tender; to be completed Q1 2017.

Lough Talt is a branded fishery lake considered significant in terms of its value as a salmon and trout fishery. Five fish species were found (September 2014) in a survey conducted for the Water Framework Directive – three spined stickleback, arctic charr, eel, perch, and brown trout.

The Eighnagh River connectivity represents the main vector and impact source associated with the proposed construction of the interim WTP. Therefore the site's construction should be designed and completed in such a way to retain all potential pollutant sources emanating from the site via its drainage channels. The measures outlined in the CEMP will seek to avoid the release of deleterious substances associated with all aspects of the project's construction phase.

Avoiding, controlling and managing sediment loss from the site during the project construction phase is considered to be the primary issue in terms of mitigating potential effects on nature conservation locally and the River Moy SAC. The release of particulate matter and other pollutants in solution, via overland flow and via the sites drainage system, represents the greatest impact source to the River Moy SAC.

Swale channel / sediment basin – containment areas where sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is discharged, are proposed. Sediment that accumulates in the trap must be periodically removed in order to maintain effectiveness. Sediment should be removed when the sediment accumulation reaches 50% of the trap capacity, (P16). Silt Fencing - placed below areas of sheet flows, discharge from the site. Sediment should be removed when the sediment accumulation reaches one third of the trap capacity, (P17).

It is recommended that lorries and mixers are washed out off site.

In 1972 the capacity was 5,455m³ /day, (p17).

Chapter 7 includes: Water abstraction from Lough Talt has been ongoing since the 1950s. Current average daily abstraction at the existing water treatment plant is 8,000m³/day with up to 10,500m³/day having been abstracted historically. The decrease has occurred as a result of ongoing network improvements and water conservation activities. Abstraction rates will not differ from those current. As the proposed abstraction rates will not change during the operation of the interim plant, there is no potential for impacts associated with the operational phase of the proposed interim Water Treatment Plant.

3.19 Appendix F – Ecofact Water Quality Chapter includes:

The proposed Lough Talt RWSS is to progress a water abstraction order in accordance with the Water Supplies Act 1942, for a maximum daily abstraction of 9,040m³/day from LTalt. It is estimated that the existing abstraction takes 8,906m³/day from L Talt.

Accurate electronic flow measurement was introduced in 2005 making it possible to derive accurate daily abstraction. The revised water abstraction order will facilitate and formalise the continued abstraction of raw water from L Talt to meet the forecasted demand of the Scheme.

The proposed development will involve the construction of an adjustable level weir at the outlet of Lough Talt. The weir will operate in the range of 145.5mOD to 136.0mOD. The proposed weir will facilitate increased raw water storage effectively holding the winter lake level for longer into the spring. The control level will be managed so as to prevent flooding during wet weather while at the same time lessening the risk of drying out of the Lough Talt River during drier periods.

The proposal would also include the construction of a 600mm diameter watermain from the existing raw water intake chamber to the water treatment plant site. The pipe would be constructed parallel to the existing pipe and within the existing way leave; involving one crossing of the L Talt / Eignagh River.

The purpose of the revised water abstraction order is to facilitate and formalise the continued abstraction of raw water from Lough Talt to meet the demand of the Lough Talt RWSS. Raw water has been abstracted from Lough Talt since the 1950's, via a 125mm pipe until 1972. In that time abstraction has increased from: 936m³/day in 1969, to an average abstraction of 9,791m³/day in 2005, to the current average abstraction rate of 8,906m³/day. Abstraction will increase on completion of the new WTP to an estimated maximum daily abstraction of 9,040m³/day in 2015 before gradually reducing thereafter to an estimated daily average abstraction of 8,108m³/day in 2032. According to the hydrology chapter (Chapter 3), the maximum proposed abstraction rate of 9,040m³/day and the proposed new outflow control (adjustable weir) level at 136.00mOD, the estimated average year (2-year return period) drawdown below the proposed outflow control level would be in the order of 0.338m to a level of 135.662mOD, which is 0.162m above the lake outlet bed level. This means that during the average year an outflow from Lough Talt to the Lough Talt River will be maintained at all times eliminating the drying out of the Lough Talt River. During a 50 year drought condition, the lake water level would drop to a minimum level of 135.133mOD which is 0.867m below the proposed outflow control level and 0.367m below the level that would be reached, under the current (existing) scenario. According to the Hydrology chapter¹, by constructing the control weir and raising the lake control level in the spring/early summer the situation improves to the point that during the average year, drying out of the Eighagh River will not occur. It is only in drought conditions that the potential exists for lake drawdown below the lake bed outlet level, i.e. the Lough Talt River running dry. However the Hydrology chapter notes that it is not possible to estimate the specific extent of the no outflow period as this is dependent on rainfall on the catchment. It is noted in the hydrology chapter that the potential maximum drawdown of 0.367mm below the outlet bed level (i.e. to a water level of 135.133mOD) is given as the worst case scenario. The forecasted lower abstraction rates both in the years before and after 2015 will result in smaller magnitude lake drawdown in the drought condition. Current drawdown of the lake and drying up of the Eighnagh River are significant impacts of the existing abstraction. There is potential for deterioration of freshwater and wetland habitat in and around Lough Talt as a result of the potential increased abstraction. However mitigation measures

¹ This may refer to the draft document which has not been supplied as part of this application but as a draft EIS which was posted to NPWS 13/3/2012 (per DAHG. See page 7 of this report.

such as the introduction of some regulation (as proposed) could potentially offset this effect.

There is reference to consultation with the DAHG - 23rd August 2010 – when the DAHG advised of

the potential to damage/destroy the habitat of lowland oligotrophic lakes – Annex I EU Habitats Directive. The existing channel bed level is 135.5mOD. Current drawdown of the lake and drying up of the Eighnagh River are significant negative impacts of the existing abstraction. There is potential for deterioration of freshwater and wetland habitat in and around Lough Talt as a result of the potential increased abstraction.

Arctic charr are probably the most sensitive ecological receptor in the lake and their survival in the lake is currently being threatened by a number of factors, including nutrient enrichment, sedimentation, water abstraction, climate change, introduction of non-native species, and other activities that cause in-lake disturbances; see Arctic charr report, Appendix 5². In terms of water levels the spawning areas would be particularly vulnerable up until late spring, when fry emerge and move to deeper waters. However, spawning areas exposed by a reduction in water levels later in the year could become unsuitable for spawning due to physical and biological effects.

Although charr have survived in Lough Talt during 40 years of significant abstraction (since 1972), it is likely that the avoidance of the cumulative impact of abstraction along with a number of emerging threats will be important in terms of securing the long-term survival of this species in this part of Ireland. According to Low et al (2001) the shallow, localised and restricted nature of Arctic charr spawning grounds makes such populations extremely vulnerable to “anthropogenetically induced postoviposition changes in surface water level, eutrophication processes such as increased lake sedimentation and elevated nutrient status”. It is clear that the littoral substrates of Lough Talt are currently under significant threat from a number of pressures, identified as nutrient enrichment, sedimentation, water abstraction, climate change, introduction of non-native species, and other activities such as clay pigeon shooting at perhaps the main charr spawning site on the lake.’

² The report referred to is not attached.

White clawed crayfish are mobile and it is likely that the majority of individuals can move out along the shoreline when water levels are drawn down, as this can be expected to be a fairly gradual process. Even hatchlings are quite mobile. There is evidence from the littoral macroinvertebrate sampling undertaken in 2010, as evidenced by the diversity and abundance of species present, that many of the other macroinvertebrate species can adjust their position in relation to water level fluctuations. Arctic charr ova are not mobile and if water levels dropped prior to fry emerging then all the ova will die. Once the charr fry emerge they will move to the deepest areas of the lake and will not be significantly affected. Brown trout also spawn the littoral areas of L Talt. Trout fry also use this area as a nursery, (perhaps) making the lake trout population more susceptible to lake level variations. Considering the speed at which Arctic charr populations have disappeared from lakes in Ireland, any potential impact – and in particular any combination of negative impacts on this species, needs to be considered very carefully.

White-clawed crayfish mate during late autumn and the female remains fairly inactive while she incubates the ova for 8-10 months. Hatching takes place during June or July and the hatchlings remain attached to the female until their second molt. The hatchlings then become independent and the female resumes active feeding. Because of the long reproductive process and low fecundity (60-80 ova per year), this species must be considered to be vulnerable to environmental changes; and is currently being threatened by many of the same cumulative effects outlined for Arctic charr.

Some crayfish populations in Ireland have collapsed dramatically when subjected to stress such as declining water quality. It is possible that if lake levels fell at particularly sensitive times of the year: breeding season and periods when females are incubating: that significant effects on the population are possible.

It is not known if crayfish are present in the deeper areas of the lake, but it is certainly the littoral areas that are of importance to them.

‘Under the existing condition, during dry periods, the L Talt River dries out in the vicinity of the lake. The hydrology report³ indicates that there is no flow from L Talt for 39 days of an average year.

³ Not included

Under the proposed condition to introduce water level regulation, the outflow from the lake could be maintained in most years (i.e. not dry up at all). This would be a significant benefit compared to the existing scenario.'

3.20 Further Reports following submission of Further Information

Prescribed Bodies

3.21 IFI – 12/1/2016 – including:

IFI would like to restate the importance of Lough Talt and the Lough Talt River in terms of their fish populations, water quality and ecological status. Lough Talt is an oligotrophic lake which is home to a population of Stickleback, Eel, Perch and White-clawed Crayfish. Lough Talt is historically recognised as a good brown trout fishery and also holds an Arctic charr population, a rare and threatened species listed in the Irish Red Data book for fish as vulnerable. Lough Talt is the last remaining lake in County Sligo and also within the wider River Moy catchment to sustain a population of Arctic charr. In the last few decades, the remaining isolated populations have been in serious decline, and there have been a number of high profile extinctions. IFI has serious concerns for the survival of the Lough Talt population of Arctic charr. Unlike trout, Arctic charr are shore spawners and the continued survival of this species in Lough Talt is extremely dependent on current water levels being maintained into the future. Any lowering of water levels associated with increased abstraction would lead to a significant deterioration in spawning, ova survival and subsequent recruitment of juveniles to the population.

The Water Framework Directive charges Local Authorities with duties and responsibilities to maintain high/good ecological status water bodies and to reinstate poor and moderate ecological status water bodies within specified time frames.

The Western River Basin Management Plan has classified Lough Talt as at risk due to water balance-abstraction, it must be a fundamental requirement that this proposed interim drinking water treatment plant doesn't prevent the maintenance of its current

designation of 'High Ecological Status'. The statement *'the proposed development will involve the construction of an adjustable level weir on the outlet of Lough Talt'*, needs to be clarified.

IFI has concerns regarding the possible negative effects that abstraction of water from Lough Talt is currently having on the physical environment (water levels and temperature). A drop in water levels during dry periods may affect fish habitat, exposing the spawning gravels leading to egg mortalities or may even cause a change in water temperatures in the lake which, when combined with increased retention of nutrients within the lake, may lead to algal blooms. It is noted that this specific application and NIS addresses the interim water treatment plant only. Ongoing abstraction must be considered and assessed as part of a separate planning process and subject to Appropriate Assessment for the Lough Talt Water Abstraction Order. Any future upgraded /amended / upsized plant proposals to accommodate the long term treatment needs must also be subject to the Appropriate Assessment process. It is crucial that the Lough Talt Water Conservation Project is given high priority and commenced at the earliest opportunity. This project proposes to replace 20km of leaking pipework which should continue to reduce water demand in the future.

The Construction and Environmental Management Plan must be consistent with the NIS and IFI must be copied the final draft. Method statements must be circulated to IFI three weeks in advance of commencement of construction and be incorporated in the final CEMP. In the absence of appropriate mitigation measures there is potential for pollutants including sediment, silt, concrete/cement and hydrocarbons to enter the Lough Talt River and consequently the River Moy SAC, via the site's drainage channels. The Lough Talt River provides crucial spawning and nursery habitat for salmonids in the River Moy system. Mitigation measures must be included in the final CEMP. It is welcomed that *'IFI will be notified immediately of spillages or other accidents during construction which threatens aquatic zones'*; and this should be extended to the operational phase.

Water quality monitoring must be carried out on site. No machinery should be allowed to enter or cross the site's drainage channels. The Environmental Officer role is welcomed.

Safeguards against the introduction of invasive species are fundamental. Prior to starting work the contractor should provide a bio-security method statement.

3.22 DAHG – natural heritage – 21/1/2016 – including:

Within the NIS (November 2015) it is stated that the appropriate assessment of the future abstraction of water from Lough Talt will be considered as part of a separate consent process for Water Abstraction Order in due course, timeframe unstated, and in the meantime abstraction will be ongoing.

In section 1.1.1 of the NIS, concerning the applicant's Water Abstraction Order application, the applicant sets out the monitoring and surveying it will undertake to determine how the appropriate assessment process for the WAO is advanced. This work will be undertaken during one period of wet and one period of dry conditions. The department notes that the proposed work only concerns one of the qualifying interests for Lough Hoe Bog SAC: Geyer's whorl snail. No work appears to be proposed for any of the other qualifying interests which will also need to be addressed in any related AA process. The other qualifying interests for the site are: blanket bog, oligotrophic waters and white-clawed crayfish. It appears from these statements that a future application for a WAO is a number of years away, in the meantime Irish Water intends to continue abstracting from Lough Talt, in the absence of AA for same.

Based on the documents provided, it is the Department's view that it remains to be demonstrated by the applicant that the ongoing and future abstraction will not adversely affect the integrity of Lough Hoe Bog SAC and River Moy SAC. The sole purpose of this proposed Interim Treatment Plant is to treat water abstracted from Lough Talt. In view of this and the expressed view of the Council that the water resource requirement is an integral part of the project, the Department's observations on these matters in its earlier submission still stand.

In relation to reference to positive impacts or no impacts under the heading in-combination effects, where no scientific evidence has been advanced to support these statements; it is unclear how it

has been concluded that there will be no cumulative effects arising on the conservation objectives and integrity of the sites in question, particularly in view of the possible effects arising from the current abstraction, even if the volume is reduced, as is indicated may occur. The statement of no adverse impact: that '*as proposed abstraction rates will not change during the operation phase of the proposed interim Water Treatment Plant*', is challenged, as ongoing activities may cause deterioration to sites, particularly if current levels, or even the reduced levels indicated, are already causing deterioration to the site, for example by lowering water levels and reducing the habitat availability for crayfish.

Regarding the construction phase submission, the habitat as listed on site: S1.1.3 Scrub WS1 and its relationship to the priority habitat WN6 is queried.

Reliance on a CEMP is unacceptable.

The NIS does not address whether drainage, sediment and flow/volume, from the site, through the connecting drains into the River Moy SAC may already be or is affecting the integrity of the site, and whether it may or will increase in volume as a result of the proposal.

The possibility of impact on otter, a qualifying interest of the River Moy SAC is raised.

Technical Reports

- 3.23 Environment Section - 10/12/2015 – conditions.
- 3.24 Heritage Officer – 14/12/2015 – The AA screening proposed that as there is no proposal to alter the current baseline water abstraction, the project can be screened out. This assumed that the current abstraction rate and baseline conditions for the Natura 2000 sites support the existing conservation objectives and qualifying interests. Up to date and best available scientific information to support this approach was not provided in the AA screening submitted. Sligo County Council determined that there was potential for significant effects on the Natura 2000 network arising from the proposed project and in particular the proposed

ongoing water abstraction from Lough Talt, and requested that a NIS be prepared and submitted. The submitted NIS deals with impacts of the proposed development on the River Moy SAC only. Having discounted any requirement to assess potential impacts of the project on Lough Hoe Bog SAC, the NIS considers potential impacts on the River Moy SAC only, arising from the project and mitigates accordingly.

Current and proposed water abstractions from Lough Talt were not considered within the NIS (a key resource requirement for the operation of the WTP). It is clear that the water abstraction requirement for the proposed development should have been considered as part of the assessment process and that doing so would have triggered a negative assessment (arising from the potential for significant effects on the conservation objectives and qualifying interests of the Natura 2000 site). The submitted NIS is silent on the potential significant impacts of the proposal on Lough Hoe Bog SAC (Lough Talt) through water abstraction.

The requirement for considering the water abstraction along with the proposed development is clearly provided for under the Habitats Directive Art 6(3) through the consideration of 'in combination effects' on Natura 2000 sites.

As the water resource requirement is an integral part of the proposed project it would be optimal to have the Water Abstraction Order resolved and the ecological thresholds for sustainable water abstraction set for Lough Talt in the long term, to ensure the conservation objectives for the site and the associated water dependent qualifying interests are safeguarded.

The submitted NIS, in setting aside and not considering potential significant impacts of the proposed development on the Lough Hoe Bog SAC, remains incomplete and does not adequately address the requirements of Article 6(3) of the Habitats Directive.

Article 6(3) of the Habitats Directive provides that competent national authorities shall agree to a plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. The proposed Interim WTP is hydrologically connected to Lough Hoe Bog SAC (Lough Talt) through water

abstraction. The NIS does not assess such impacts on the site and the competent authority does not have the information required to ascertain that the proposal will not adversely affect the integrity of the Lough Hoe Bog SAC.

In light of the above, the options open to the competent authority are restricted to compliance with Article 6(3) of the Habitats Directive and consideration should be given to refusing the current proposal as it does not adequately address the provisions of Article 6(3) .

The report recommends refusal for the reasons:

The submitted NIS is silent in the water abstraction requirement from Lough Hoe Bog SAC and accordingly is not in compliance with the Habitats Directive in assessing potential significant impacts of the proposal.

3.25 There are restricted provisions under which a competent authority can consider developments with potential for significant effects on Natura 2000 sites under Article 6(3) of the Habitats Directive: a planning authority cannot grant permission for development where potential for significant effects on a Natura 2000 site have not been addressed in a NIS.

3.26 Planning Report – 25/1/201

The NIS in setting aside and not considering potential significant impacts of the proposed development on the Lough Hoe Bog SAC remains incomplete and does not adequately address the requirements of Article 6(3) of the Habitats Directive. Potential impacts of the proposed development on the River Moy SAC have been inadequately addressed in a number of respects, (which are listed).

It is considered and hereby determined in accordance with section 177V(3) of the Planning and Development Act 2000(as amended) that the planning authority is not satisfied that adverse impacts on the integrity of European sites (Lough Hoe Bog SAC and River Moy SAC) in relation to the

proposed development would not be likely for the following reasons:

- a) The potential for adverse impacts on Lough Hoe Bog SAC associated with the ongoing water abstraction from Lough Talt by reason of fluctuating water levels which may affect the habitat and habitat usage of and by protected species, as well as Lough Talt itself including its structure and function.*
- b) The potential for adverse impacts on areas of scrub transitioning to the priority annexed habitat Alluvial forests with *Alnus glutinosa* and *fraxinus excelsior*, which may be connected to or be supportive of qualifying interests in the River Moy SAC.*
- c) The potential for adverse impacts on the River Moy SAC associated with construction run-off and additional drainage measures or changes to flow.*
- d) The potential for adverse impacts on suitable habitats for Otter within the River Moy SAC.*
- e) The inadequate information and scientific analysis submitted with respect to the in-combination effects of the proposed development.*

As set out in this report the planning authority is keenly aware of the deficiencies in the existing water treatment facilities and would have no objection in principle to the proposed development subject to compliance with the Habitats Directive. However an AA has been carried out and it cannot be determined that the proposed development will not adversely impact on the integrity of Lough Hoe Bog SAC and the River Moy SAC, both designated Natura 2000 sites. This is due to the uncertainty regarding the impact of ongoing abstraction of water from Lough Talt and the associated potential for impacts on Lough Hoe Bog SAC by reason of fluctuating water levels which may affect the habitat and habitat usage of and by protected species as well as Lough Talt itself (including its structure and function). There is also uncertainty in relation to the potential impacts of the proposed development on the protected habitats and species that are qualifying interests for the River Moy SAC. The planning authority cannot therefore agree to the proposed development and refusal of permission is recommended.

3.27 The planning authority – 1/2/2016 - decided to refuse permission for one reason:

The proposed development is reliant on the ongoing abstraction of water from Lough Talt which is located within Lough Hoe Bog Special Area of Conservation (site code 000633). It is considered that the ongoing abstraction from Lough Talt has the potential for adverse impacts on Lough Hoe Bog SAC by reason of fluctuating water levels which may affect the habitat and habitat usage of and by protected species, as well as Lough Talt itself including its structure and function. The proposed development is also connected to and located in close proximity to the River Moy SAC and has the potential to impact on its qualifying interests by reason of habitat disturbance, construction and drainage impacts.

In this regard and having considered the Natura Impact Statement and other documentation supporting the planning application, the Planning Authority is not satisfied that the potential impacts of the proposed development have been adequately identified or described. The Planning Authority is therefore not satisfied that the proposed development would not be likely to have an adverse impact on the integrity of these European sites, in light of their conservation objectives and accordingly, the proposed development would be contrary to the proper planning and sustainable development of the area.

- 3.28 The decision was in accordance with the planning recommendation.

4 PLANNING HISTORY

In 2009 Sligo County Council proposed a Water Treatment Plant on the subject site in accordance with the provisions of Part 8 of the Planning and Development Regulations 2001, file no 194, no details available.

5 GROUNDS OF APPEAL

- 5.1 The first party appeal against conditions, submitted by Irish Water, can be summarised as follows:

Lough Talt has been used as a source of raw water for the Lough Talt Regional Water Supply Scheme since the late 1940's. Sligo County Council has records of land purchases dated 1947 and 1948 for the intake works and treatment plant site. The scheme has been continuously abstracting water from Lough Talt since that time. During the late 1990s the abstraction reached a peak of 10,500m³/day, however due to significant water conservation investment in the distribution network, the average abstraction is now approximately 8,000m³/day (average daily abstraction for 2014 was 7,812m³/day). It is important to note that this abstraction is not to be varied in any way by the proposed development. The RWSS serves an estimated population of 13,663, including the town of Tobercurry and the villages of Annagh, Aclare, Curry, Charlestown, Lavagh, Ballinacarrow, Carroweden, Kilmacteige and Coolaney. This is an isolated water supply network.

The existing WTP site is just under 0.5ha. The restricted site area prohibits extension that could accommodate the required treatment facilities to address the significant public health issues at the site. A new WTP is required to be constructed on an adjacent site approx. 150m from the existing site. It is proposed that the raw water intake pipes at the existing site are used to feed the new interim water treatment plant. The treated water from the new plant will be pumped back to the existing treated water storage tanks at the original site, from where it will flow by gravity to the Lough Talt Regional Water Supply network. Therefore the reuse of part of the existing WTP site will form an intrinsic part of the new WTP process. All the proposed works are downstream of the existing water treatment plant and therefore do not constitute any change in current abstraction conditions. The remainder of the existing WTP will be decommissioned. The grounds refers to the rationale for the proposed development: deficiencies in the existing facilities, non-compliance issues, being on the EPA's Remedial Action List, the Direction issued, and HSE communication re. boil water notice. The proposed development does not involve the abstraction or treatment of any more water from Lough Talt than is currently abstracted. Irish Water understands that new Irish legislation is pending, but is not yet enacted, which will require the regularisation of ground and surface water abstraction. Irish Water also understands that this legislation will reflect environmental legislation that has been enacted since the Water Supplies Act, 1942. As such the regularisation of water abstraction at Lough Talt, as may be

required by future legislative changes, will include the preparation of a NIS.

In preparation for this regularisation of this water abstraction, Irish Water is continuing with the process of undertaking ecological assessments and monitoring for the required NIS. A broad range of ecological surveys have been carried out at Lough Talt to date. In 2013, as a result of these studies, our understanding of the hydrological functioning of the habitat supporting the Annex I rare snail *Vertigo geyeri* changed, prompting the establishment of a new monitoring program specifically to address the potential impacts of any abstraction on this species. The current monitoring program is being directed by molluscan expert Dr Evelyn Moorkens, to undertake and continue hydrogeological, hydrological and ecological monitoring of L Talt. Following initial monitoring in 2013, further sampling events have been undertaken in 2014 and 2015 and it is proposed to undertake two further sampling events. It is anticipated that the studies currently being undertaken will provide the robust evidence required to determine beyond reasonable scientific doubt whether or not abstraction has the potential to adversely affect the conservation status of this species in the SAC. It is estimated that a further 2 years is required to complete the baseline data/scientific evidence to form part of an application to regularise water abstraction at Lough Talt. Irish Water considers that it is reasonable to expect that the regularisation of the water abstraction at Lough Talt could potentially be concluded by late 2019, early 2020. Therefore, if An Bord Pleanála deems it appropriate, the operational life of this interim WTP would be limited to five years from commissioning of the WTP. If planning permission is not granted the abstraction from Lough Talt will continue, because there is currently no other identified source of drinking water for the 13,663 population. The only impact would be that the water being supplied would not be treated to acceptable standards with a high risk of a boil water notice being imposed.

The refusal appears to be based on a misunderstanding that the ongoing abstraction forms part of the proposed development.

A legal opinion is attached and referred to, as confirming that the abstraction does not form part of the proposed development. Irish and EU case law establishes that screening for AA and EIA is only required for the actual project for which consent is being sought.

The in-combination effects of the WTP with existing projects (i.e. including the abstraction), must be considered; this is done in the addendum to the NIS. There are no in-combination effects as the abstraction is not altered by the interim WTP. Robust and effective mitigation measures have been proposed for the avoidance of impacts to those areas of the River Moy SAC located downstream.

The statement of grounds of appeal is accompanied by a report titled Lough Talt Regional Water Supply Scheme Proposed Interim Water Treatment Plant Addendum to NIS, 25th February 2016, by RPS. The report refers to the scrub habitat WS1 identified on site (NIS section 4.1.1.3) and confirms that the definition of this habitat it is not the annex I habitat 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*, neither is the habitat to the front of the site or between the roadside and the river bank opposite the site. It seeks to clarify how suspended solids pollution will be prevented. It seeks to clarify that there will be no significant impact on otter. In relation to in-combination effects it reproduces table 8.1 from the report Lough Talt Regional Water Supply Scheme Proposed Interim Water Treatment Plant Natura Impact Statement, Nov 2015 (i.e. the further information response) which had three columns: 'Plans and Projects', 'Key Policies/Issues/Objectives directly related to the River Moy SAC' and 'Impact'; and includes an additional column 'Impact Assessment' which gives a short narrative in relation to identified impacts; and it refers further to the Construction and Environmental Management Plan (CEMP).

6 RESPONSES

6.1 Planning Authority Response.

The Planning Authority has responded to the grounds of appeal. The response includes:

Water abstraction rates are not and cannot be controlled in the absence of a current Water Abstraction Order. Notwithstanding whether or not the abstraction levels will be increased, the ongoing impact of the abstraction should be assessed as it is an integral resource requirement associated with the proposed development. Water level fluctuations have the potential to

significantly impact the hydraulic conditions of Lough Hoe Bog SAC and by extension its protected habitats and species. The contention that abstraction rates will not be affected conflicts with the details set out in Appendix F of the NIS (5.3.1.1) which states that *'abstraction will increase on completion of the new WTP to an estimated maximum daily abstraction of 9.040m³/day in 2015 before gradually reducing thereafter to an estimated daily average abstraction of 8,108m³/day in 2032.'*

Pending legislation – the planning authority cannot comment on any pending Irish legislation regarding the regularisation of ground and surface water abstraction. The issue of water abstraction rates and AA must be regularised in advance of or in conjunction with the proposed development.

The planning authority notes the stated ongoing assessment and monitoring proposals and that a further 2 years is required to complete the baseline data and evidence to form part of an application to regularise water abstraction from Lough Talt. This is essentially a clear acknowledgement that fluctuating water levels associated with the abstraction from Lough Talt has the potential to adversely impact on *Vertigo Geyeri* and furthermore it is an acknowledgement that insufficient information exists at present to make a determination in relation to such impacts in the context of the maintenance of site integrity.

Regarding the contention that there will be no in-combination abstraction effects because abstraction will not be altered by the proposed development; and the legal opinion supplied:

2.1 re O'Grianna and Wells - *it is erroneously assumed by the planning authority and a statutory consultee that the existing abstraction and new water treatment works are one project* - the planning authority does not consider the abstraction and treatment as one project but rather as intrinsically related projects, the cumulative effects of which must be considered. The planning authority is not contending that planning permission is required for the water abstraction. However the effects of the abstraction must be regularised and assessed through the appropriate process – water abstraction order.

2.2 & 2.3 – 2.2 - *If it were accepted that O'Grianna means that the water treatment plant and the 50+ year old abstraction were one project, the same argument would require planning permission and EIA/AA of any development with a functional connection to any old development (project) which would require AA/EIA if it was being built today. Planning applications for any project connected*

to any existing public infrastructure would have to include an AA or EIS of any existing services integral to that project and would have to assess the environmental/habitats impacts of those existing services. 2.3 – it would be even more absurd if a proposed development in itself did not require EIA or AA but the development to which it was connected did. - It is considered entirely appropriate that the planning authority consider the effects on public infrastructure in the context of planning applications for projects to connect to such infrastructure.

Section 3 – re. attempts to establish that the abstraction project in itself should not be subject to EIA/AA, it is the appellant's stated intention to prepare a NIS for the Water Abstraction Order application, which conflicts with the legal opinion. AA was deemed necessary for the current application, however the NIS must consider the cumulative impacts of the proposed development, notably the abstraction.

Section 4 to 6 – as above.

The addendum to the NIS is noted but still fails to address the cumulative impacts of the ongoing water abstraction from Lough Talt.

7 LEGAL & POLICY CONTEXT

7.1 The Sligo Development Plan 2011-2017 is the operative plan. Relevant provisions include:

Policies and objectives to protect the county's natural heritage including Natura sites:

O-NH-1 Protect and maintain the favourable conservation status and conservation value of all natural heritage sites designated or proposed for designation in accordance with European and national legislation and in other relevant international conventions, agreements and processes. This includes sites designated or proposed as Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Natural Heritage Areas (NHAs), Ramsar Sites and Statutory Nature Reserves.

P-NH-19 Protect rivers, streams and other water courses and their associated Core Riparian Zones (CRZs) wherever possible and maintain them in an open state, capable of providing suitable habitats for fauna and flora.

The rivers and streams, lakes, wetlands and groundwater occurring within the Plan area are home to a variety of habitats and species. Lough Gill, Lough Arrow, Lough Talt, the lakes Gara, Easky and Templehouse, together with the rivers Owenmore, Unshin, Moy and Easky, are the main water bodies in County Sligo.

O-NH-19 Ensure that an appropriate ecological assessment is undertaken for developments with the potential to impact on inland waters.

P-NH-28 Protect species and their associated habitats that require strict protection under the Habitats Regulations (S.I. No. 477/2011 - EC (Birds and Natural Habitats) Regulations 2011).

Policies and objectives to protect the county's landscape:

Scenic Views to be preserved include no. 19 - R294 from The Gap (Mayo County boundary) Views of Lough Talt and Ox Mountains to Mullany's Cross.

Policies and objectives in relation to public infrastructure:

Currently there are eight schemes (listed below) supplying public water throughout Sligo, six of which are regional schemes.

Lough Talt RWSS
Riverstown RWSS
Lough Easkey RWSS
Kilsellagh WTW
North Sligo RWSS

Cairns Hill WTW
South Sligo RWSS
Foxes Den WTW

Proposed improvements to enhance Sligo's water supply schemes include Lough Talt Regional Scheme - chlorination, fluoridation, construction of a new water treatment works, storage reservoirs and intake works; capacity to be determined.

O-WS-2 Complete the planning and construction of the new water treatment plant at Lough Talt subject to compliance with the requirements of the Habitats Directive.

7.2 **Water Supplies Act, 1942**

Section 2.

Whenever a sanitary authority desire to take from a source of water (whether within or without their sanitary district) a supply of water for the purpose of increasing, extending, or providing a supply of water under the Public Health Acts, 1878 to 1931, they may make, under and in accordance with this Act, a proposal for so taking such supply of water from such source of water.

7.3 **European Communities (Birds and Natural Habitats) Regulations 2011. S.I. No. 477/2011**

Article 27

(2) Any public authority having or exercising functions, including consent functions, which may have implications for or effects on nature conservation shall exercise those functions in compliance with and, as appropriate, so as to secure compliance with, the requirements of the Habitats Directive and the Birds Directive and these Regulations.

8 ASSESSMENT

8.1 The main issues which arises in relation to this development is appropriate assessment and natural heritage and are the issues addressed in the following assessment.

8.2 Appropriate Assessment

8.3 The proposed development is the construction of an interim water treatment plant consisting of a new WTP building (gross floor area 1,095m² approx.), tank structures, underground water mains, construction of a new entrance/egress onto the R294 Road, landscaping & site development works at this interim WTP site, construction of water mains at the site of the existing Lough Talt WTP and also interconnecting water main pipework laid along the R294. The proposed development will have a treated water production capacity of 8,000 m³/day. The proposed WTP includes:

- Settlement and filtration tanks,
- Process units in a main building also housing control rooms, administration areas, office and chemical storage and dosing,
- Clear water storage tank – underground with an over ground pump house,
- Sludge treatment – sludge thickening, sludge dewatering and dewatered sludge storage,
- Wash water storage tank (underground) with overground pump house to allow for recirculation back to WTP system.

8.4 The Natura sites with potential to be affected by the proposed development are:

Lough Hoe Bog SAC site code 000633

River Moy SAC site code 002298

8.5 The qualifying interests for Lough Hoe Bog SAC are:

Oligotrophic waters containing very few minerals of sandy plains

Blanket bogs (* if active bog)

Vertigo geyeri (Geyer's Whorl Snail), and

Austropotamobius pallipes (White-clawed Crayfish)

8.6 The conservation objectives for Lough Hoe Bog SAC are To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected

8.7 The qualifying interests for River Moy SAC are

Active raised bogs

Degraded raised bogs still capable of natural regeneration

Depressions on peat substrates of the Rhynchosporion

Alkaline fens

Old sessile oak woods with Ilex and Blechnum in the British Isles

Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)

White-clawed Crayfish

Sea Lamprey

Brook Lamprey

Salmon, and

Otter

8.8 The conservation objectives for River Moy SAC are to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

8.9 From the documentation on file the following facts appear to emerge.

- Lough Talt has been used as a source or raw water for the water supply scheme since the late 1940's.

- Sligo County Council has records of land purchases dated 1947 and 1948 for the intake works and treatment plant site.
 - The intake in 1969 was 936m³/day.
 - Prior to 1972 the intake pipe was 125mm. Current diameter 450mm.
 - The existing treatment plant, constructed in 1972, was designed to treat 5,455m³/day.
 - Abstraction reached a peak of 10,500m³/day during the late 1990s.
 - 9791m³/day in 2005
 - Current abstraction in the order of 8,000m³/day.
 - 9040m³/day is the proposed maximum intake to 2032.
 - Water conservation measures have been undertaken and further water conservation measures are proposed.
- 8.10 No reference has been made to any abstraction order, either for the original scheme, or for any of the increases in abstraction since then.
- 8.11 The first party is preparing to make an application for an abstraction order to regularise the existing situation but in relation to the subject application is unwilling to consider the abstraction as an in-combination effect. The first party states that all the proposed works are downstream of the existing water treatment plant and therefore do not constitute any change in current abstraction conditions and also that whether or not the proposed treatment is permitted the abstraction will continue.
- 8.12 Notwithstanding any issues regarding the status / authorisation of the existing abstraction, the abstraction is an ongoing operation with direct bearing on the subject application and must be included in the in-combination effects to be considered as part of the AA.
- 8.13 In this regard there were consultations with the Development Applications Unit of the Department of Environment and Local Government 23rd August 2010; Sligo County Council being the relevant party as Sanitary Authority, prior to the incorporation of

Irish Water in July 2013. These are referred to in the Ecofax Water Quality Chapter, Appendix F of the further information submission.

the DAHG advised of the potential to damage/destroy the habitat of lowland oligotrophic lakes – Annex I EU Habitats Directive. The existing channel bed level is 135.5mOD. Current drawdown of the lake and drying up of the Eighnagh River are significant negative impacts of the existing abstraction. There is potential for deterioration of freshwater and wetland habitat in and around Lough Talt as a result of the potential increased abstraction.

- 8.14 Prior to submitting the grounds of appeal, the first party, had available the DAHG's comments on the planning application. Their advice to the planning authority, dated 14/8/2015 includes:

Notwithstanding the statements within Irish Water's AA Screening report about the appropriate assessment of a Water Abstraction Order, the obligations of the Habitats Directive Article 6(3) and the Planning and Development Acts require that screenings and appropriate assessments assess if the proposed development, *individually or in combination with another plan or project*, is likely to significantly affect or adversely affect the integrity of European sites.

The conservation objectives are to maintain or restore to favourable conservation condition, and an appropriate assessment of the implications of a project for a European site is to be undertaken in view of this. This requires, for a habitat such as Lough Talt, the specific structures and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future amongst other things. Abstraction/fluctuating water levels may affect, amongst other things, the habitat and habitat usage of Geyer's whorl snail and White-clawed Crayfish, as well as Lough Talt itself, including its structure and function. The Council is also advised that ongoing activities such as water abstraction can or may cause long-term deterioration to sensitive ecological receptors. The Department notes that the Abstraction Order is going through another consent process, though the timeframe is not clear, but in light of

the above, recommends that the potential and likely effects of both the Interim Plant and the abstraction should be included in the cumulative effects analysis that is to be undertaken as part of a screening and an appropriate assessment, as required.

It should also be noted that pursuant to regulation 27 of the European Communities (Birds and Natural Habitats) Regulations 2011, there is a duty on all public authorities to, amongst other things, undertake their functions (including consent functions) in a manner that does not cause deterioration to habitats and species, within European sites, for which those European sites have been designated.

- 8.15 Prior to submitting the grounds of appeal, the first party, had available the DAHG's comments on the planning application. Their advice to the planning authority, dated 21/1/2016 includes

Based on the documents provided, it is the Department's view that it remains to be demonstrated by the applicant that the ongoing and future abstraction will not adversely affect the integrity of Lough Hoe Bog SAC and River Moy SAC. The sole purpose of this proposed Interim Treatment Plant is to treat water abstracted from Lough Talt. In view of this and the expressed view of the Council that the water resource requirement is an integral part of the project, the Department's observations on these matters in its earlier submission still stand.

It is unclear how it has been concluded that there will be no cumulative effects arising on the conservation objectives and integrity of the sites in question, particularly in view of the possible effects arising from the current abstraction, even if the volume is reduced, as is indicated may occur. The statement of no adverse impact: that '*as proposed abstraction rates will not change during the operation phase of the proposed interim Water Treatment Plant*', is challenged, as ongoing activities may cause deterioration to sites, particularly if current levels, or even the reduced levels indicated, are already causing

deterioration to the site, for example by lowering water levels and reducing the habitat availability for crayfish.

- 8.16 Prior to submitting the grounds of appeal, the first party, had available the Heritage Officer's comments on the planning application. Her comments dated 14/8/2015 include:

Current and proposed water abstractions from Lough Talt were not considered as part of the screening process (a key resource requirement for the operation of the WTP) which led to the screening statement determining no significant effect on Natura 2000 sites. It is clear that the water abstraction requirement for the proposed development should have been considered as part of the screening process and that doing so would have triggered a negative screening assessment (arising from the potential for significant effects on the conservation objectives and qualifying interests of the Natura 2000 site) and the subsequent requirement for a NIS for the proposed development.

The requirement for considering the water abstraction along with the proposed development is clearly provided for under the Habitats Directive Art 6(3) through the consideration of 'in combination effects' on Natura sites.

The in combination assessment requires the consideration of the potential affects of the water abstraction on Lough Talt, even though a WAO would be dealt with through a separate consent process. Where the proposed WAO is deemed to require a Natura Impact Statement, a WAO would be determined by An Bord Pleanála. As the water resource requirement is an integral part of the proposed project it would be optimal to have the WAO resolved and the ecological thresholds for sustainable water abstraction set for Lough Talt in the long term, to ensure the conservation objectives for the site and the associated water dependent qualifying interests are safeguarded.

Recommending that the applicant be required to furnish NIS; advance the WAO; advise of potential for significant

effects and where there are no alternatives, the project could only be delivered through IROPI.

- 8.17 Prior to submitting the grounds of appeal, the first party, had available the Heritage Officer's comments on the planning application. Her comments dated 14/12/2015 include:

The submitted NIS deals with impacts of the proposed development on the River Moy SAC only. Having discounted any requirement to assess potential impacts of the project on Lough Hoe Bog SAC, the NIS considers potential impacts on the River Moy SAC only arising from the project and mitigates accordingly.

The AA screening proposed that, as there is no proposal to alter the current baseline water abstraction, the project can be screened out. This assumed that the current abstraction rate and baseline conditions for the Natura 2000 sites support the existing conservation objectives and qualifying interests. Up to date and best available scientific information to support this approach was not provided in the AA screening submitted. Sligo County Council determined that there was potential for significant effects on the Natura 2000 network arising from the proposed project, and in particular the proposed ongoing water abstraction from Lough Talt, and requested that a NIS be prepared and submitted. The submitted NIS deals with impacts of the proposed development on the River Moy SAC only. Having discounted any requirement to assess potential impacts of the project on Lough Hoe Bog SAC, the NIS considers potential impacts on the River Moy SAC only arising from the project, and mitigates accordingly.

Current and proposed water abstractions from Lough Talt were not considered within the NIS (a key resource requirement for the operation of the WTP). It is clear that the water abstraction requirement for the proposed development should have been considered as part of the assessment process and that doing so would have triggered a negative assessment (arising from the potential for significant effects on the conservation objectives and

qualifying interests of the Natura 2000 site). The submitted NIS is silent on the potential significant impacts of the proposal on Lough Hoe Bog SAC (Lough Talt) through water abstraction.

The requirement for considering the water abstraction along with the proposed development is clearly provided for under the Habitats Directive Art 6(3) through the consideration of 'in combination effects' on Natura 2000 sites.

As the water resource requirement is an integral part of the proposed project it would be optimal to have the Water Abstraction Order resolved and the ecological thresholds for sustainable water abstraction set for Lough Talt in the long term, to ensure the conservation objectives for the site and the associated water dependent qualifying interests are safeguarded.

The submitted NIS, in setting aside and not considering potential significant impacts of the proposed development on the Lough Hoe Bog SAC, remains incomplete and does not adequately address the requirements of Article 6(3) of the Habitats Directive.

Article 6(3) of the Habitats Directive provides that competent national authorities shall agree to a plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. The proposed Interim WTP is hydrologically connected to Lough Hoe Bog SAC (Lough Talt) through water abstraction. The NIS does not assess such impacts on the site and the competent authority does not have the information required to ascertain that the proposal will not adversely affect the integrity of the Lough Hoe Bog SAC.

- 8.18 Prior to submitting the grounds of appeal, the first party, had available the IFI's comments dated 27/7/2015 and 12/1/2016 on the planning application, wherein their serious concerns for the survival of the species Arctic charr in Lough Talt and their concerns regarding the possible negative effects that abstraction of

water from Lough Talt is currently having on the physical environment (water levels and temperature) are expressed; and also their concerns in relation to Lough Talt River which provides crucial spawning and nursery habitat for salmonids in the River Moy system.

- 8.19 The further information request, which issued to the first party on 25/8/2015, made explicit the requirement to include the water abstraction as an in-combination effect, in the required NIS.

The Natura Impact Statement shall include all the necessary information as required by legislation to assess the impact of the proposed development in combination with other plans or projects on Natura 2000 sites in view of the conservation objectives for the sites. In particular, the Natura Impact Statement shall also address the reasons set out in the determination by the Planning Authority (that Appropriate Assessment is required) in accordance with Section 177U (4) of the Planning and Development Act (as amended), including the in-combination effects of the proposed development on the ongoing abstraction of water from Lough Talt.

The Natura Impact Statement should include, where appropriate, that if adverse impacts on a European site occur:

- (i) The alternative solutions that have been considered and the reasons why they have not been adopted.*
- (ii) The imperative reasons of overriding public interest that are being relied upon to indicate that the proposed development should proceed notwithstanding that it may affect the integrity of a European site.*
- (iii) The compensatory measures that are being proposed.*

- 8.20 The grounds of appeal states that the requirement for inclusion of the abstraction as an in-combination effect is based on a misunderstanding that the abstraction is part of the proposed development.
- 8.21 There is no misunderstanding in this regard. Both the planning authority and the DAHG require the impact of the abstraction to be included as an 'in-combination' effect.
- 8.22 In light of the refusal or inability to include consideration of the water abstraction as an in-combination effect, the Board cannot carry out appropriate assessment, and therefore cannot permit the proposed development, since it cannot be concluded that the project would not adversely affect the integrity of European sites in view of their Conservation Objectives.
- 8.23 From on the information available, including that in the further information submitted that current drawdown of the lake and drying up of the Eighnagh River are significant effects of the existing abstraction; it appears likely that the existing / ongoing abstraction of water from Lough Talt, an in-combination effect of the project, is adversely affecting and will continue to adversely affect the Lough Hoe Bog SAC qualifying interests species and habitat by lowering water levels and altering the structure and function of the lake and adjoining wetlands; thereby also potentially impacting adversely on the sensitive wetland species whorl snail, and the sensitive lake species: white clawed crayfish; both qualifying interest species.
- 8.24 It also appears likely that there may be adverse effects on the River Moy SAC qualifying interests species and habitat from the existing / ongoing abstraction of water from Lough Talt, an in-combination effect of the project, by lowering water levels, causing or increasing the incidence of drying out of the river, altering the structure and function of the river and affecting the qualifying interest species salmon for which the river provides '*crucial spawning and nursery habitat*'.
- 8.25 Having regard to the fact that the first party was previously requested, by the planning authority, to submit further information which included abstraction as an in-combination effect, I do not

recommend that the Board seek further information with regard to the in-combination effect of the water abstraction,

8.26 I note that Lough Talt is the source of an isolated water supply scheme. If no alternative to abstraction from this source exists, notwithstanding adverse effects, consideration would have to be given to whether Imperative Reasons of Overriding Public Interest (IROPI) arise. That situation is provided for in Appropriate Assessment, Stage 4 and was referred to in the Planning Authority's further information request. Such an exception has not been invoked and the fourth stage of the process has not been carried out.

8.27 On the basis of the information provided with the application and appeal, including the Natura Impact Statement, and in light of the assessment carried out above, I am not satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the integrity of European sites Nos. 002298 and 000633, in view of the sites' Conservation Objectives. In such circumstances the Board is precluded from granting permission.

8.28 **Natural Heritage**

In addition to the foregoing concerns regarding species which are qualifying interest species of the Natura 2000 sites, the potential for impact on the rare and threatened species arctic charr has been raised. This species is listed as 'vulnerable' in the Irish Red Data book for fish. Lough Talt is the last remaining lake in County Sligo and also within the wider River Moy catchment to sustain a population of Arctic charr. Inland Fisheries Ireland state that in the last few decades, the remaining isolated populations have been in serious decline, and there have been a number of high profile extinctions. They have expressed their serious concerns for the survival of the Lough Talt population of Arctic charr, which are shore spawners and the continued survival of this species in Lough Talt is extremely dependent on maintenance of water levels.

In the absence of information in relation to the water abstraction, it is not possible to assess the potential impact on this species and therefore the proposed development should be refused.

9 RECOMMENDATION

In accordance with the foregoing assessment, I recommend that planning permission be refused for the following reasons and considerations.

REASONS AND CONSIDERATIONS

On the basis of the information provided with the application and appeal, including the Natura Impact Statement, and the NIS Addendum, and in light of the assessment carried out above, the Board cannot be satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the integrity of European sites Nos. 002298 and 000633, in view of the sites' Conservation Objectives. The proposed development would accordingly be contrary to the proper planning and development of the area.

Having regard to the lack of information in relation to the impact of the current and ongoing abstraction of water from Lough Talt on the rare and threatened species arctic charr, the proposed development which relies on the abstraction, would be contrary to the proper planning and sustainable development of the area.

Dolores McCague
Inspectorate

Date

Appendix 1 Map and Photographs

Appendix 2 Extracts from the Development Plan 2011 -2017

- Appendix 3 Site synopsis for Lough Hoe Bog SAC site code 000633
- Appendix 4 Site synopsis for River Moy SAC site code 002298