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03rd February 2022

Meath County Council, Buvinda House, Dublin Road Navan, County Meath C15 Y291

Meath Co. Co. Reference: 21-424

RE: *"The development consists of the construction of an extension to an existing wastewater treatment plant (WWTP) where the works include:*

a) Demolition of an existing storage building (17.50m2) and construction of a new single-storey industrial type building to enclose the DAF unit granted planning permission under planning reference LB180300 and to provide new enclosed storage and control rooms (total floor area 119m2).

b) Install a new sludge press at intake to WWTP, change aeration tank to anoxic tank, install 2 no. additional aeration tanks, alteration to perimeter berm to increase the footprint of WWTP, by 539m2 to that granted planning permission under planning permission LB180300.

c) Treated wastewater rising main from the site of the proposed development to new discharge point at the River Boyne (distance 7.2km), where pipeline shall be laid along a section of Windmill Road, the L1013, Yellow Furze Road, the L1600 (Boyne Road), and the unnamed local road leading from the L1600 to the private lands abutting the River Boyne at the discharge point."

Subject: Response to Submission by IFI

A Chara,

Panther Environmental Solutions Ltd, acting as consultants for Dawn Meats Ireland (Slane), iewing rungoses only would like to submit the following response to the submission made by the Inland Fisheries Ireland (IFI).

The following section provides excerpts of the submission and responses.

If you have any queries regarding the above, please do not hesitate to get in contact.

Yours faithfully

Merlin C

Martin O'Looney Panther Environmental Solutions Ltd Meath Meath Units 3 & 4, Innovation Centre Institute of Technology

Inland Fisheries Ireland wishes to object to this application on the following grounds:

We would also like to submit in support of our argument the July 1st, 2015 judgement by the Court of Justice of the European Union (CJEU) (case C-461/13 Bund furUmwelt und Naturschutz Deutschland eV v Bundesrepublik Deutschland). Amongst other things the CJEU held that Member States are required – unless a derogation provided for by the Water Framework Directive is granted – to refuse authorization for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the WFD. This case can be viewed at: http://curia.europa.eu/juris/liste.jsf?num=C-461/13.

Please see Assimilative Capacity Report as Attachment 8.6 and Mixing Zone Modelling Report as Attachment 8.5. Both reports conclude after assessments and modelling that the proposed discharge will not lead to significant adverse impacts to the water quality of the River Boyne.

Details of the exact construction methodology used to construct the pipeline are not known and included in the NIS. Therefore, it is not possible to conclude what the potential impacts of the works are on the Qualifying interests of the SAC and Meath County Council may be obliged to refuse consent.

Please see Outline Construction & Environmental Management Plan as RFI Attachment 3.2. This report details all mitigation measures to be implemented during construction works at the River Boyne and River Blackwater SAC. The NIS included as Attachment 8.1 of the EIAR has assessed the proposed pipeline for a potential impact on the Natura 2000 network and has outlined any potential impact and measures to be taken to prevent that impact from having a significant impact on any protected habitat or species listed within the Conservation Objectives of Natura 2000 sites within the zone of influence.

Details of the exact details of the discharge pipe at the discharge point have not been provided. Is it a point discharge, a diffuse discharge, how far into the river will it go, what position in the river, will it disturb substrate, spawning beds, etc? Such details are not known and included in the NIS. Therefore, it is not possible to conclude what the potential impacts of the works are on the Qualifying interests of the SAC and Meath County Council may be obliged to refuse consent.

Please see Aquatic habitat, macroinvertebrate and otter surveys were carried out by ECOFACT in October 2021 (Attachment 8.2 of the EIAR). The conclusion of this report states the proposed discharge location there is siltation, but it is a thin layer and is not optimal lamprey habitat. In addition, the substrate present is predominantly rock/cobble, and it is considered that the proportion of rock is too high for this to be suitable salmonid spawning habitat. In the area where the discharge is proposed there is no optimal lamprey spawning

or nursery habitat. In addition, there is no optimal salmon spawning or nursery habitat. In addition, see revised plans that show the location and design of the proposed outfall location

We believe details of the pipeline are sufficiently vague or have not been fully defined as to cast severe doubt on the integrity of the pipeline. It is unclear as to what procedures are in place or alarms, should an issue arise, that will result in a potentially lethal wastewater discharge.

Please see WWTP Operation Contingency Measure Summary Report as RFI Attachment 3.1. This report details the operational phase of the proposed development and outlines in detail the standards and emergency procedures to prevent any discharge that could cause an impact to water quality.

We are concerned about any potential over-pumping or open cut in-stream works that may occur during the pipe construction phase.

Please see Outline Construction & Environmental Management Plan as RFI Attachment 3.2. Mitigation measures are detailed in this report for all construction activities at the River Boyne.

We are concerned about the integrity of the river bank where the stone wall is planned to be located. Any construction works may result in the undermining of this bank, resulting in the initiation or acceleration of erosion.

Please see Outline Construction & Environmental Management Plan as RFI Attachment 3.2. In addition, please see revised plans for the outfall location that remove the requirement for a stone wall at the riverbank.

There has been already an accident on this site (not caused by the present owner) resulting in a successful prosecution.

The accident referenced occurred in 2016 while the site was in the ownership and management of Dunbia, prior to the site being incorporated into Dawn Meats Ireland Unlimited Company in 2018. In cooperation with the EPA under their Industrial Emissions License, recommendations for the improvement of onsite infrastructure and management were implemented as a matter of priority at the Dawn Meats (Slane) facility. No further such incidents have occurred to date and would not be expected to re-occur.

During the transfer process, the management structure and operational procedures at the Slane site have been revised and improved in line with Dawn Meats Ireland standards.

There have been no surveys undertaken on the Dollardstown tributary or indeed any other tributary of the River Boyne. Such waters can provide some spawning and can serve as a valuable food source for fish.

Aquatic habitat, macroinvertebrate and otter surveys were carried out by ECOFACT in October 2021 (Attachment 8.2 of the EIAR) along the River Boyne that includes the confluence with the Dollardstown Stream. Within the Outline Construction & Environmental Management Plan (RFI Attachment 3.2) are details of crossing this watercourse at the existing road culvert and mitigation measures to prevent a significant impact on water quality. No other watercourse will be crossed during the construction phase with measures to be implemented to prevent any impact on water quality of drainage ditches in proximity to the proposed rising main.

There is no mention of Rana temporia or the Common Frog, which can serve as a valuable food source for fish.

Section 8 of the EIAR details all fauna that could potentially be impacted by the proposed development. A Common Frog (*Rana temporia*) survey was not included as part of the survey but habitats with the potential to contain this species were noted. Mitigation measures to prevent an impact on water quality of all waterbodies (drainage ditches, streams and rivers) have been included in both the Outline Construction & Environmental Management Plan (RFI Attachment 3.2) and the NIS included as Attachment 8.1 of the EIAR. In addition, biosecurity measures during the construction and operational phase will prevent the spread of potential aquatic pathogens.

The flow details in the River Boyne are very vague and only go up to 2018. We believe they do not take sufficient account of the droughts that took place in 2018 and 2021. Thus, the assimilative capacity figures may be flawed.

Please see revised Assimilative Capacity Report as Attachment 8.6 and Mixing Zone Modelling Report as Attachment 8.5. Both reports have assessed low water levels such as periods of drought and Mixing Zone Modelling Report has assessed the potential impact on water quality when factoring potential changes in water levels due to climate change.

The average background figures are used to calculate treated wastewater concentrations. The higher figures of 21.8 C for temperature, 4.0 mg/l BOD, 0.11 mg/l Ortho-P and 0.13 mg/l Total Ammonia should be used.

Please see the Mixing Zone Model (Attachment 8.5 of the EIAR) and Revised Assimilative Capacity Assessment (Attachment 8.6 of the EIAR). The use of mean background concentrations in the assessment is in keeping with experience for similar projects including

municipal wastewater projects. The assessment adopts a conservative approach in terms of assuming the maximum concentrations in the proposed discharge coinciding with low flow (95%-ile) rates in the receiving watercourse. The assessment includes investigation of seasonality on mean background ambient concentration, which confirms that background concentrations increase over winter seasons (coinciding with greater flow in the river). There is no justification within the ambient concentration records for any presumption that maximum recorded or extreme (95%-ile) background ambient concentrations would coincide with the low flow scenarios which are critical to this assessment.

The area around the proposed discharge is a very valuable habitat for Atlantic Salmon. In the case of an accident or miscalculation all the breeding stock will be wiped out and the unique Boyne Salmon will be eliminated.

Please see Aquatic habitat, macroinvertebrate and otter surveys were carried out by ECOFACT in October 2021 (Attachment 8.2 of the EIAR). Regarding habitat present for fish species it is considered that any location in this survey stretch could be a holding place for adult Salmon. The substrate present is predominantly rock/cobble, and it is considered that the proportion of rock is too high for this to be suitable salmonid spawning habitat. In the area where the discharge is proposed there is no optimal salmon spawning or nursery habitat. The placement of the discharge in this location would not damage sensitive spawning habitat for Salmon.

See WWTP Operation Contingency Measure Summary Report (RFI Attachment 3.1.) and Outline Construction & Environmental Management Plan (RFI Attachment 3.2.) for all mitigation measures to prevent an impact on aquatic habitats during both operational and construction phases of the proposed development. In addition, biosecurity measures have been outlined within the EIAR (Biodiversity Chapter 8). It is the conclusion there would be no potential for a significant impact on aquatic habitats and species as a result of the proposed development with construction and operational measures to be employed.

The lower section from below Navan is probably the only location on the main chancel where sea lamprey can access and spawn. Any extra nutrient input could unduly encourage macrophytes and algae to grow, encroach upon and cover important spawning gravel sections. We have limited information on spawning river lamprey, but they are probably confined to the same section and susceptible to the same pressures.

Please see Aquatic habitat, macroinvertebrate and otter surveys were carried out by ECOFACT in October 2021 (Attachment 8.2 of the EIAR). the most ideal lamprey juvenile habitat is located approx. 230m upstream of the proposed discharge location. This area was previously surveyed by O' Connor (2006) which found relatively high juvenile lamprey densities at the site. The water here is quite deep, and a new slipway has been constructed into the lamprey habitat which has damaged some of the habitat in this area. At the proposed discharge location there is siltation, but it is a thin layer and is not optimal lamprey habitat. In the area where the discharge is proposed there is no optimal lamprey spawning or nursery

habitat. The placement of the discharge in this location would not damage sensitive spawning habitat for Lamprey.

See WWTP Operation Contingency Measure Summary Report (RFI Attachment 3.1.) and Outline Construction & Environmental Management Plan (RFI Attachment 3.2.) for all mitigation measures to prevent an impact on aquatic habitats during both operational and construction phases of the proposed development. In addition, biosecurity measures have been outlined within the EIAR (Biodiversity Chapter 8). It is the conclusion there would be no potential for a significant impact on aquatic habitats and species as a result of the proposed development with construction and operational measures to be employed.

We are also concerned about the potential effect, direct or indirect, that any viruses, bacteria or pathogens may have on fish stocks either resident, lying or passing by this proposed discharge pipe.

An MBR and UV filtration units would be installed on the final effluent line prior to the final sump. While the micro-filtration provided by the MBR unit has a high % removal for coliform bacteria and phages from an effluent, additional UV treatment would be provided in particular for cryptosporidium, cryptosporidium oocysts and viruses. MBR systems deliver high suspended solids and turbidity removal rates which are necessary to allow effective % transmittance rates for UV treatment. The proposed UV unit would be designed to achieve a 3log (99.9%) to 4 log (99.99%) removal rate for cryptosporidium. Following UV filtration, final effluent would be directed to the final discharge sump. In addition, biosecurity measures have been outlined within the EIAR (Biodiversity Chapter 8) to prevent the spread of any potential aquatic pathogen during the construction phase.

Concluding Remarks

The long-term environmental sustainability of any activity that may impact on the status of fish species, their habitats, fisheries and/or the recreational angling or related commercial activities that may utilise these resources is of primary concern to IFI. IFI is among the public bodies that have a role in making policies, plans and programmes relevant to surface waters in Ireland. Critical and sensitive habitats and species (both designated and otherwise) must be protected. A number of fish species and associated habitats are protected under European Directives in Ireland. From an IFI perspective, all fish species and associated habitats within its remit require protection and management for conservation and development. IFI advocates application of the precautionary principle when considering the fisheries resource in the current process. In addition, all available consideration and support should be afforded to the national 'Blue Dots Catchment Programme' which focuses on the protection or restoration of high ecology status water bodies – a vital component in fisheries ecology, freshwater ecosystems and in Ireland's aquatic biological diversity more generally.

The proposed development will implement mitigation measures during the construction phase to prevent a significant impact on all aquatic habitats and species of fish. Measures to

prevent a potential impact from sources such as hydrocarbons, sedimentation and pathogens will fully implemented. In addition, all works within and in proximality will be supervised by Project Ecologist that will have the final say on all works and ensure all mitigation measures are fully implemented. During the operational phase high quality standards for both the proposed WWTP and rising main will be enforced with emergency capacity and fail-safe procedures in place to prevent an impact on water quality. Discharge of effluent to the River Boyne will also be monitored by the EPA as per the Dawn Meats (Slane) discharge licence. The proposed discharge has been assessed for both assimilative capacity and mixing zone modelling that has factored in potential low volumes of water in the River Boyne during a of al. a of al. weath Meath droughts and potential changes due to climate change. It is the conclusion of all reports that