

Furthering our objection to Meath County Council upon 7th of April, We wish to appeal Meath County Councils' decision to grant permission to the proposed development (File Number 21414) for the following reasons -

Dawn Meats AER 2020 contains information relating to wastewater monitoring covering BOD, COD, Ammonia, Total Nitrate, Total Phosphorous, Suspended Solids, Fats, Oils, Greases, and pH only. These are parameters that can be easily removed from wastewater. What can't be removed is not reported. (FYI 52461 m3 of groundwater was extracted in 2020 and 15095.946 GJ of energy was used, and zero of that was from renewables – this is unsustainable) [https://epawebapp.epa.ie/licences/lic\\_eDMS/090151b2807ae806.pdf](https://epawebapp.epa.ie/licences/lic_eDMS/090151b2807ae806.pdf) Meath County Council has granted permission to Dawn Meats to build a wastewater treatment plant with a population equivalent of 28,000 and the Further Information (FI) report rightly notes that “This would exceed the threshold population of 10,000 as defined under Class 11, Part 2 of Schedule 5 of the Planning and Development Regulations, 2001, as amended”. Tullamore Town has a wastewater treatment plant that size so Meath County Council has given permission for one business to treat as much effluent as a whole town. That is out of proportion and cannot be said to have no significant effect on the receiving environment.

Dawn Meats have been granted permission by Meath County Council to extend their industry eight times since 2003. It has encroached on agricultural land and intensified production over the years. The Council has now given permission for them to encroach on the River Boyne SAC and SPA which is protected under National and EU law.

The treated waste water that will leave the proposed outflow pipe will not be benign and it will have an effect on the receiving environment. A paper published in Circular Economy for Global Water Security in 2021 titled “Biowastes of slaughterhouses and wet markets: an overview of waste management for disease prevention” mentions the toxic element to “treated” wastewater -

“The wastewater from slaughterhouses and wet markets also contains several toxic materials, such as nitrate, detergents, surfactants, and chloric anions, which are classified as emerging contaminants” <https://link.springer.com/article/10.1007/s11356-021-16629-w> Because the Boyne River is such a sensitive receptor the proposed effluent should be monitored for the above toxicants before considering granting permission to discharge effluent into the widely protected Boyne River.

A peer-reviewed paper published in 2017 titled “Slaughterhouse Wastewater: Treatment, Management and Resource Recovery” refers to problems with the applicant's proposed DAF wastewater treatment -

“Nevertheless, common DAF disadvantages include occasional malfunctioning, poor TSS elimination, and moderate nutrient removal”.

A research article written in Water Science and Technology “Passive sampling of polar emerging contaminants in Irish catchments” written in 2019 concludes that pharmaceuticals and pesticides cannot be removed from wastewater treatment in Ireland and are released as “treated” effluent into the receiving environment, where they persist.

<https://iwaponline.com/wst/article/79/2/218/65503/Passive-sampling-of-polar-emerging-contaminants-in>

The request for further information (FI) contains the relevant legislation “pertaining to biodiversity and nature” but does not reference the most recent Climate Action and Low Carbon Development (Amended) Act 2021. This essential piece of legislation contains for the first time, direct protection for biodiversity. Meath County Council referenced the 2015 Act in its Climate Action Strategy 2018 and yet does not require that the planning application in question adhere to the amended law.

<https://consult.meath.ie/en/system/files/materials/55/Climate%20Action%20Strategy.pdf>

Meath County Council also references the 2015 Act along with the proposed Climate Action and Low Carbon Development (Amendment) Bill 2020, the precursor to the 2021 Act in their Development Plan 2021 – 2027.

<https://consult.meath.ie/en/system/files/materials/7447/SEA%20Environmental%20Report.pdf>

Meath County Council had no regard for their own Climate Strategy or County Council Development Plan when granting permission for this development.

One Act that is referred to in FI is The Fisheries (Consolidation) Act, 1959 which “prohibits the entry of polluting substances into waters, which have the potential to adversely impact upon fish,”. See above, toxicants cannot be removed from wastewater.

Another, European Communities (Quality of Salmonid Waters) Regulations, 1988, list the River Boyne as Salmonid Waters. Schedule 2 and 3 of the regulation refer to the testing methods for Salmonid Waters. Chlorine is one of the parameters and needs to be measured under 0.005mg/litre.

The US Environmental Protection Agency (EPA) describes Chlorine as - “Chlorine is poisonous to fish even at very low levels. One of the most important uses of chlorine is the disinfection of drinking water to kill disease-producing bacteria. Chlorine is also used as a disinfectant in wastewater treatment plants”.

<https://www.epa.gov/sites/default/files/201508/documents/34parentattainsdescriptions.pdf>

As a chlorine dosing system is proposed, why didn't Meath County Council insist that Dawn Meats monitor their “treated” wastewater for this molecule, according to European Community Regulations. Nowhere in the FI is the temperature of the receiving waters measured and this is required under the law. The River Boyne is classed as having only “moderate” status under the Water Framework Directive, and under this directive, waterbodies need to reach “good” status if they have not already. Meath County Council should not give permission to develop on sensitive receiving waters.

Meath County Council concluded from Dawn Meats EIAR that the proposed development will have no effect on the receiving environment based on organic parameters only. It is not considering the effects of chlorine or petroleum hydrocarbons, both of which are listed under the legislation as parameters for effluent treatment.

Meath County Council did not give this proposal full attention. Permission for this development contravenes national and European Law and the Council's own plans for the environment and for this reason granting of the licence should be revoked.

### **In relation to Mental Health**

We also make a submission to An Bord Pleanála on public health grounds in relation to the physical health of the people who use drinking water from the Boyne, the psychosocial health of the local community, and the psychological health of the individuals within it.

In modern society, unspoiled natural environments which are uninfluenced by human beings are becoming rarer and rarer, and yet they provide enormous mental health benefits to local people as COVID has emphatically illustrated.

Unfortunately, the Boyne and its catchment cannot be said to be uninfluenced and pristine (water quality is classed as moderate) but the river and surrounding natural areas still provide a significant amount of psychological restoration to citizens and visitors through fishing, water sports, and walking. Indeed, the newly built greenway is aimed at capitalising on the Boyne's beauty and psychologically restorative capacity. It is known that the environmental threat of pollution and disruption to such areas has particularly strong psychological and social implications for the people who live near to, or regularly use, such natural places (Albrecht et al., 2007; Durkalec, 2015). Indeed, a large volume of past, peer-reviewed research indicates that it is these same local people who are usually the ones most concerned about, and engaged with, such issues (Hu & Chen, 2016; Liu et al., 2020; Venables et al., 2012). This is confirmed in the case of the Boyne Valley.

Furthermore, the literature indicates that place disruption to valued places (in the form of construction, pollution, etc.) can have profoundly negative consequences for the psychosocial health of communities such as intra-community conflict, deterioration of trust in government and authority, feelings of unsafety and, ultimately, mass emigration and relocation (Dixon & Durrheim, 2010). Such consequences have characterised many similar struggles against environmentally destructive projects inflicted upon communities not just in Ireland, but around the world.

In relation to the struggle in County Meath, we, personally, have already experienced deep distress and various associated negative consequences as a result of this pipeline proposal. These have included sleep deprivation, feelings of helplessness, despair, and anger. We are not alone in this; my attendance at public meetings has confirmed a collective disgust and anger amongst local people that the authorities who are meant to defend their interests, Meath County Council, have rubber-stamped a proposal which is almost universally believed to be against their interests. These beliefs are shared by experts on water quality, biodiversity, zoning, and planning as well as many local politicians. There is no possible way to avoid a deterioration in people's trust in these local authorities; indeed, this has already happened.

In relation to my own MSc research, I measured the relationship between place attachment and action to protect that place against a threat, in this case, the proposed pipeline. Place attachment was operationalised as comprising place identity (the extent to which a place is integrated with one's sense of self) and place dependence (the extent to which one depends on a place for certain needs which are met by its physical features e.g. anglers depend on the Boyne for fishing). Many of the 193 participants in this study do indeed rely on the natural place in question, the valley of the River Boyne, not just for recreation but also for drinking water, meaning they depend on a healthy ecosystem both for their physical and psychological health. Indeed, this further underlines the critical importance, to the community, of the protection of this ecosystem.

Furthermore, general place attachment, but particularly the identity and dependence dimensions, have displayed a definite association with desire to protect natural places, such

as the River Boyne, indicating that such natural places provoke strong emotions (Halpenny, 2010; Udall et al., 2019). Moreover, Breakwell's (1993) Identity Process Model, describes how a valued place provides people with feelings of distinctiveness, continuity, self-efficacy, and self-esteem and is, thus, integrated with their self-schemas. Such places are, thus, very important to those who are attached to them (Korpela et al., 2009). When this person-place relationship is disrupted, it can pose a threat to one's very identity. Furthermore, the results of my research indicate that many people do depend on the local amenity that is the Boyne Valley and have integrated it with their identities. As asserted in Butler et al., (2019), law-makers and public health legislators have a duty to consider identity and place meaning in decisions that will affect these valued environments.

Indeed, the Boyne Valley and the history and culture associated with it, are significant not just to local communities but to the entire island of Ireland, appearing in many of our most treasured myths and legends. As Mazumdar & Mazumdar (2004) point out, attachment to place is learned through the process of socialization involving the use of artifacts, story-telling, and place visits. As the Boyne Valley contains some of our most ancient and sacred heritage sights (Bru na Boinne) which are visited by hundreds of thousands every year who are attached to these places culturally, spiritually, and socially, this pipeline would be truly spiritually damaging to many residents of Ireland as well as to our collective identity. I cannot help but wonder how we have strayed so far from our path as a society that these sacred sights are seen merely as a tourist trap and that the beautiful river flowing past them, with all of the history and mythology it carries in its currents, is treated as nothing more than a meat factory effluent dump.

Previous research asserts that threats to one's identity, in this case, represented by a place, are felt on a deep, existential level (Udall et al., 2019). As Stedman (2002) has pointed out, threats to a natural place which one depends on (this community depends on the River Boyne for recreation and drinking water) are likely to generate strong emotions, such as fear and despair (Ramkissoon et al., 2012). Conversely, natural spaces, when left intact, are known to have many physical, psychological, and social health benefits for people such as a positive sense of self and relaxation (Clayton, 2003) and a litany of positive emotions (see Jimenez et al., 2021, for a review). People use these places for their own psychological health which further cements the fact that public health and environmental health are deeply intertwined. The crucial importance of this has been illuminated beyond doubt by COVID-19 whereby local natural spaces provided some of the only respite and restoration for many individuals. In answering the questionnaire for my study, 93% of participants ticked either 'Agree' or 'Strongly Agree' for the statement 'I feel relaxed when I am at the Boyne Valley' and 90% rated the threat of 'Diminished overall enjoyment and restoration associated with the Boyne Valley' as 'Very severe'. This indicates that, even the idea of the threat posed by this proposal causes people deep concern. It is, therefore a duty of local area councils to factor into their decisions the amount of stress a new project would cause for citizens, as well as the potential psychosocial damage it would cause to a community, during both construction and operation. This was not considered during Shell's campaign to build a gas pipeline in Rossport, Mayo, in 2005 and it has not been considered in the granting of permission for Dawn Meats to build an effluent pipeline discharging into the River Boyne in 2021.

It is known that taking place-protective civic action may be an effective way for a concerned, local citizen to allay that concern, and the associated stress. Indeed, past research has shown that environmental concern can be constructive if it motivates individuals to take

environmental action and, in so doing, to reduce said negative affect (Coelho et al., 2017; Verplanken et al., 2020). Furthermore, this adds to the wider, societal argument for environmental health being considered in tandem with citizens' physical and psychological health as the two are intimately connected. But why are such actions asked of citizens in the first place? Why are local citizens, who all have their own day jobs, forced to become experts on environmental issues just to protect their local environments for their families and their children? Why is this left to them? We elect representatives to represent our interests and, in fact, the Save the Boyne campaign has experienced a huge amount of staunch and admirable support from councilors and TDs alike in the Louth Meath area. And yet, Meath County Council planning department approved this pipeline in spite of the fervent protestations of local area councillors and TDs who represent the people of the area affected, in spite of the many instances of procedural incorrectness in the planning proposal, and in spite of the many EU-level directives around biodiversity and water quality aimed to protect habitats like the Boyne Valley as well as people's drinking water. Several members of the Save the Boyne campaign have contacted Meath County Council's planning department to seek information regarding the decision and the appeal. However, based on the advice of an unknown party, the Council is refusing to speak with us until after the appeal deadline has elapsed, displaying a distinct lack of transparency. The trust in Meath County Council to represent the citizens of Meath is, understandably at an all-time low. In the absence of true representation, this community has been forced to represent themselves. The damage done to the relationship between the Council and its citizens cannot be underestimated and the long-term consequences remain to be seen.

To conclude, it is clear from a wealth of scientific literature, Aiden Rings research, and from the specific details of this proposal that this pipeline, if built, would have profoundly negative consequences for public health. Specifically, it could pollute the drinking water of tens of thousands of people significantly increasing the risks of potential harm from its consumption. Water is extracted from the Boyne river at Staleen is used to supply drinking water to Drogheda Corporation urban area and to the East Meath water supply scheme.

The pipeline's construction and operation would drastically diminish the beauty, and thus, the psychologically restorative capacity of the Boyne Valley for ramblers, anglers, water sports enthusiasts and local residents. Indeed, as my own research has revealed, many residents and visitors have integrated the River Boyne and its surrounding areas with their identities meaning that, for many, this proposal threatens our sense of who we are. This also applies on a more macro level, where this pipeline would have negative consequences on Irish culture and spirituality by tainting one of our most treasured amenities.

Finally, this proposal has already significantly eroded the trust local citizens have in Meath County Council, the Council's capacity to represent the citizens of Meath and Louth (who also use the river for drinking water) and in the fairness of the process by which these decisions are made. If the proposal ends up getting approved by An Bord Pleanála, this could only serve to further diminish this trust and the community's determination to take matters into their own hands by fighting it in any way necessary including the European High Court. In the interests of public health, dropping this proposal is the only morally, ethically, and legally defensible position.

