



Submission

Submitter:	Miss Jennifer Hayes
Submission Title:	Objection to Licence for Dairygold Waste
Submission Reference No.:	S005919
Submission Received:	02 January 2020

Application

Applicant:	Dairygold Co-Operative Society Ltd and TINE Ireland Ltd
Reg. No.:	P1103-01

See below for Submission details.

Attachments are displayed on the following page(s).

For inspection purposes only.
Consent of copyright owner required for any other use.

2/1/20

Re: Submission of Objection to the proposed licence for Dairygold waste in Rathcoursey Co. Cork.

Dear Sir / Madam,

I have lived in East Ferry for 44 years. I am writing to express my concerns and object to the proposed licence request for Dairygold to pump waste effluent into the waters at Rathcoursey, Midleton, Co. Cork. My concerns are detailed below:

Impact on the Environment:

According to Dairygold, the effluent will be treated but not clean. Dairygold state that it will be released into Rathcoursey at a 'grey' water standard and will contain fats, oils and grease (FOG). The company claim that this is a small amount of FOG per litre. However, given that their plan is to dump somewhere between 3 and 4 million litres of waste into East Ferry daily and on into the longer term indefinitely, I have concerns about the cumulative impact of the pollutants over time.

This concern is significantly increased by virtue of the fact that it **will not** easily be washed out to sea (as has been incorrectly claimed by Dairygold). It is a scientifically established fact that very little water exchange occurs in the North Channel (proposed site to dump effluent) and also up through East Ferry itself. Evidence based research clearly proves that the rate of water exchange in the North Channel and down the neck of the East Ferry is actually one of the worst in the entire harbour. Modelling of water exchange using comprehensive, valid, reliable and robust methods clearly demonstrate that it takes anywhere between 60 to 72 days for water in these areas to be replaced by 'new water'. This is a far cry from the incorrect claims made by Dairygold that 80% of the waste will be washed out to sea with a single tide change! Please see (see Nash et.al 2011; Nash et. Al XXX for a comprehensive, valid and reliable profile of the movement of waters in Cork Harbour.

Special Areas of Conservation / Special Protected Areas

The site where this effluent is to be released is approximately 10-15 metres away from a site of protection under EU legislation.

Given the poor water exchange, it seems perfectly logical that the treated but unclean effluent will slosh around over lengthy periods of time and will inevitably come into contact with the area of special conservation protected under EU law, 10-15 meters away from the proposed fallout pipe. It is inevitable that waste will be brought back in with the tide impacting directly on this highly sensitive and protected area. This problem will be further compounded by the presence of prevailing winds which will blow the pollution directly into contact with the protected areas. The presence of backcurrents along the shoreline that exist in this area will also ensure that the pollution will be brought into direct contact with the area of conservation even when the tide is going out in the direction of the sea. By simply observing the water by the shorelines you will notice that when the main current is travelling in one direction the water by the shoreline travels in the opposite direction. If planning is granted this proposal carries the risk of significantly and adversely impacting on the eco system in this conserved area and also places Ireland at risk of breaching EU law. In addition to this area of protection, there are a number of species living in East Ferry which are protected in their own right and I am concerned about the impact of this proposal on them. For example, otters, kingfishers, Sea Bass and others.

Results and conclusions of EIS are invalid and unreliable

I have concerns about the quality of the EIS provided by Dairygold. They reference Windfarms in the proposal for example! This data is clearly and cut and paste job from another project and has absolutely nothing to do with the current proposal. Given the seriousness of this project it is incomprehensible to me that they would reference an entirely different project in their environmental impact statement.

The EIS states that there will be no adverse impact from the release of treated but unclean effluent. Yet, the evidence that they base this conclusion on is fundamentally flawed. Their whole argument pivots on the false claim that there is an 80% exchange in water with the change of each tide. This is completely incorrect. See points above. Given this, the EIS is based on an incorrect assumption /

foundation and as such no false because it does not consider the impact of the pollutants on the environment at all.

The lack of a **valid and reliable** modelling study to demonstrate the impact that the release of effluent will have on the environment renders the Dairygold's EIS conclusions invalid and unreliable. In keeping with best practice guidelines (Nash et. al., 2010; Hartnett et.al., 2012) on reliably establishing the impact of pollutants in water over time the following steps are required (Hartnett et.al., 2012).

- a. Carry out a modelling study using multiple interdisciplinary sources
- b. Validate this model against known and measured data from the area
- c. Determine how planned discharge fits into their validation model
- d. Take a holistic approach and determine how their discharge will interact with all the other background chemicals / nutrients in the area.

The EIS fails to follow best practice guidelines and as such its conclusions pertaining to the movement and impact of the effluent on the area are neither valid nor reliable.

The EIS fails to adequately demonstrate how the fats, oils and grease will change or breakdown over time and how these pollutants will interact with other background nutrients (also in various stages of being broken down or changing) and what the impact of that will be on the water and environment in general in the context of an accurate profile of the movement of water in this area. This is not in keeping with best practice procedures and as such the findings of the EIS are neither valid nor reliable.

The above points demonstrate that the conclusions of the EIS are neither valid nor reliable. Furthermore, such shoddy work in the context of the concerns of local people and the potential risks associated with their proposal serve to undermine confidence in Dairygold's ability to show due diligence, care and responsibility. It also leads one to question how competent Dairygold will be in ensuring robust and enforced systems that minimise risk and ensure the necessary level of care to safeguard and protect the environment as a direct result of their commercial activities.

Lack of consideration of any other site

At a meeting held by Dairygold in the Midleton Park Hotel (**after** they had made their planning submission), it was confirmed by Dairygold representatives that at no stage did Dairygold consider any other site to dump effluent apart from Rathcoursey. This is in keeping with the EIS which makes no reference to the consideration of different options / alternative sites and the likely impact of the waste water in each option and associated environmental impacts. This is not in keeping with best practice guidelines on site selection and shows a complete lack of due diligence / care in **scientifically** selecting the site which would have the least level of adverse impact on the environment. Not acceptable!

Risk of Eutrophic water

The waters in the North Channel and East Ferry have been categorised as potentially eutrophic (Nash et. al). This, coupled with the poor water exchange rates, coupled with the fact that sac / saps **any additional** pollutants make the proposal to dump wastewater particularly concerning. These waters must be afforded the highest possible level of protection from any additional pollutants because the water simply cannot take any more. This waters have been categorised as potentially eutrophic and as such there is a significant risk of the water becoming fully eutrophic due to pollution (depletion of oxygen in the water, which kills aquatic animals). Any additional pollutants, licensed or otherwise, in the context of very poor water exchange carry the risk of this potentially eutrophic water becoming eutrophic and this would be **catastrophic** to the fish, birds and entire eco system.

Increased Risk of Flooding

Rathcoursey, the pier in East Ferry and the Ferry road en route to Saleen are all prone to flooding. This is especially true when there are spring tides and / or bad weather and / or heavy rainfall. I am concerned that the additional 3-4 **million** litres of wastewater that Dairygold propose to dump will add further to this problem directly causing further health and safety problems.

Dairygold state that the fats, oils and grease contained in the effluent will rise to the surface of the water and disperse across it. There are two access points onto boats that pull up at the pier in East Ferry. These are a vertical metal ladder and a series of concrete steps. With daily the rise and fall of the tide, these steps and rungs on the ladder are exposed at different levels. Given the poor water

exchange in the area which will inevitable mean that fats, oils and grease slosh around for lengthy periods of time it is inevitable that they will stick to the ladder and the steps and build up over time. Anything that makes these slipperier is potentially a treacherous risk to the health and safety of people of all ages who use this facility on a regular basis.

In the context of the flooding already outlined, I am also concerned that fats, oils and grease will end up on the main surface of the pier itself and at sites that flood in Rathcoursey and the main East Ferry to Saleen road. This is a health and safety issue for road users and for people using the pier.

Outstanding and Unanswered Questions of Concern

How will Dairygold stop pipes from getting blocked or narrowed from fats, oils and grease contained in the effluent? Will they put chemicals down the pipe e.g. caustic soda or others? What will the impact of this be?

East Ferry is one of the most naturally scenic and beautiful places in Ireland. This area welcomes young and old to use the waterways and to enjoy the scenery and all that this unique place has to offer. Children and adults come from all the surrounding areas to take part in rowing, sailing and other water based activities. Other people make their livelihood from this unique area, such as local sea angling businesses, Murphs pub, sailing school and others. I believe that all of the above will be threatened if the proposal goes through.

Thank you for taking the time to consider my proposal and for ensuring the voice of local people who are lucky enough to call this area home are heard.

References:

Hartnett, M., Nash, S. & Olbert, I. (2012) An integrated approach to trophic assessment of coastal waters incorporating measurement, modelling and water quality classification *Estuarine, Coastal and Shelf Science* 112 (2012) 126-138

Nash, S., Hartnett, M., 2010. Modelling phytoplankton dynamics in a complex estuarine system. Proceedings of the ICE - Water Management 164 (1), 35e54.

For inspection purposes only.
Consent of copyright owner required for any other use.