

# ATTACHMENT I

## Existing Environments & Impacts of the Facility

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## **I.1 Assessment of atmospheric emissions**

A discussion on Air Quality and Emissions to Atmosphere is included in Sections 3.5, 5.3, 6.5, 6.6 and 7. The emissions associated with the facility will be dust, odours, emissions from CHP and emissions from road vehicles.

Ambient Air Quality at the site is detailed in Section 5.3.3 of the Environmental Impact Statement.

## **I.2 Assessment of Impact on Receiving Surface Water**

Teagasc has been monitoring the surface water run-off flows and quality from this valley in recent years, at a point upstream of this proposed development. It is intended to continue to monitor these results in future to determine and monitor any future impacts resulting from this proposed development.

Upon completion of this proposed development it is intended to engage with this programme to monitor any impacts from the development of application to land of pig manure and other organic materials, in this catchment area from the anaerobic digester process.

### Potential impacts during Construction Stage

Construction activities pose a risk to watercourses. The main sources of contamination from construction include:

*Silt:* elevated silt loading in surface water discharge may result from construction activities. The vast majority of the proposed development consists of the construction of tanks which will be below the existing ground level. These effectively form attenuation ponds for percolation through the sides and the base because there is a requirement for space surrounding the perimeter of the houses and tanks to erect shutter pans etc. for the construction. Therefore, the areas between the existing ground and the tank construction form an effective sump to prevent silted water from reaching the watercourse.

*Hydrocarbons:* accidental spillages from construction plant, fuel or oil storage depots can cause faecal coli-form contamination due to poor containment and treatment of on-site washing and toilet facilities.

Installation of oil interceptors and the spill containment facilities will not pose a risk to the local watercourse as there is a sufficient distance between the outfall and the larger surface water features.

### Proposed Mitigation Measures

Prepare an Emergency plan detailing the procedures to be undertaken in the event of a chemical, fuel or other hazardous waste spill, a fire or non compliance incident which any permit of licence issues.

Ensure all staff is trained in the implementation of the Emergency Response Plan and the use of any spill control equipment as required.

Prepare a method statement for the control, treatment and disposal of potentially contaminated surface water.

Pollution of aquatic systems during the construction phase will be reduced by the implementation of the following mitigation measures:

- Use of settling ponds, silt traps and bunds and by avoiding constructing burms ear watercourses where possible.
- When pumping of water is carried out, filters will be used on the suction side also to discharge through a sediment trap.
- Training of site managers, foremen and workforce, including all subcontractors, in the pollution risks and the preventative measures.
- Where possible, prevent water from entering excavations. Use cut-off ditches to prevent entry of surface water and well point dewatering or cut-off walls for ground water. Use the corner of the excavation as a pump sump and avoid disturbing that corner. Do not allow personnel or plant to disturb water in the excavation.
- Minimise the amount of exposed ground and stockpiles. Stockpiles can be seeded or covered and silt fences constructed from a suitable geo-textile may be useful.
- Wheel washes and plant washing facilities should be securely constructed with no overflow and the effluent should be contained for proper treatment and disposal. These should be regularly brushed and scraped and kept free from dust and mud deposits. In dry weather dust suppression measures may be required.
- The risk of spilling of fuel is at its greatest during refuelling of plant.

Where possible:

- Refuel mobile plant in a designated area, preferably on an impermeable surface and away from any drains or watercourses.
- Keep a spill kit available.
- Never leave a vehicle unattended during refuelling or force open a delivery valve.
- Check hoses and valves regularly for signs of wear and ensure that they are turned off and securely locked when not in use.
- Diesel pumps and similar equipment should be placed on drip trays to collect minor spillages. These should be checked regularly and any accumulated oil removed for disposal.

- Concrete is highly alkaline and corrosive and can have a devastating impact on watercourses. Suitable provision will be made for the washing out of concrete mixing plant or ready mix concrete lorries. Such washings will be monitored so as not to allow it to flow into any drain or watercourses.

### On Site During Operational Stage

The main potential threat to ground water in the vicinity of the proposed development is due to the storage of a relatively large volume of liquid digestate on-site in the proposed 3 no Geo-membrane Lines Basins. In order to ensure that the proposed development does not impact on the groundwater in the hinterland, the following measures will be implemented;

- All tanks are constructed to Department of Agriculture, Food and Rural Development Standards for construction of farm buildings.
- The provision of a substantial amount of excess digestate storage capacity, well above the 6 month minimum requirement will ensure that organic fertiliser is managed to the highest possible standard on-site.
- A leak detection system will be provided under all new structures and facilities in this proposed development. A regular inspection will be carried out of monitoring points and records of these inspections will be maintained on-site.

### **I.3 Assessment of Impact of Sewage Discharge**

Canteen and W/C facilities provided at the Biogas Plant will be connected to the reception system for the Biogas Plant and the waste stream will be pasteurised and treated with the other biomass streams in the Biogas Plant and will not require a percolation system.

### **I.4 Assessment of Impact of Ground/Groundwater Emissions/**

### **I.5 Ground and/or Groundwater Contamination**

As the development is to be located on a Green Field site, there has been no historical contamination of groundwater at this site. The proposed development will further reduce the potential impacts at this site, for the following reason:

A leak detection system will be provided under all new structures and facilities in this proposed development – the location of which are shown on Drawing 005 – Leak Detection Plan in Attachment D of this application – *Infrastructure and Operation*.

### **I.7 Noise Impact**

A full noise report is included in **Attachment 5** of the Environmental Impact Statement.