

Environmental Considerations for Tier 2 Applicants (construction)

The key environmental impacts from agricultural developments which include livestock activities or livestock waste processing are:

- the effects of ammonia and nitrogen, which can lead to damage to habitats, soil acidification and direct toxic effects on vegetation;
- contaminated run-off from litter / manure or slurry storage and utilisation, which can lead to nutrient enrichment in watercourses and groundwater, and excess levels of nitrogen and phosphorus in soil; and
- for intensive pig and poultry housing, odours, dust and noise, which can impact on air quality or cause a nuisance to local residents.

Anyone considering a Tier 2 project which would involve construction should think about the types of information needed by planning authorities and DAERA, and ways in which impacts can be reduced or avoided.

The following guidance gives an overview of the three main areas (Air, Water and Biodiversity) an applicant should consider, and provides links to further detailed guidance. Additional links are provided for Intensive Livestock projects (pig and poultry), and for Pesticides. Expert advice should be sought, for example from a chartered engineer, planning agent or the local planning authority, in relation to each individual project.

Air Emissions

Some forms of agricultural production produce ammonia outputs, which contributes to our general air quality. Unfortunately, there are some plant species that are highly sensitive to this pollutant, which results in loss of biodiversity for some habitats. In addition, ammonia deposition has the potential to decrease soil pH (e.g. acidification).

Ammonia arises from the decomposition of animal waste, from poultry houses, pig units and cattle houses. The amount of ammonia emitted from a livestock unit depends mainly on the number of animals, but also on how manure is managed, the ventilation system used and the deployment of ammonia stripping devices.

There are a variety of methods for reducing the amount of ammonia emissions, including through livestock feeding strategies, low-emission manure application, and manure handling in housing and storage, for example through: decreasing the surface area fouled by manure; by rapidly removing urine or rapid separation of faeces and urine; by covering slurry storage and increasing depth; by reducing the pH and temperature of manure; and by removing (scrubbing) ammonia from exhaust air. The suitability of various techniques will depend on an individual project.

Further information is available at:

Standing Advice Note No. 19 – Livestock Installations and Ammonia

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_19_-_livestock_installations_and_ammonia_-_issue_01_june_2015.pdf

Water

Consideration should be given to the potential risks to surface and groundwater quality, quantity and flow, and fisheries interests. Polluting discharges and / or contaminated run-off entering the surface water or groundwater environment as a result of construction and/or the operation of the proposed activity can impact on water quality.

There are several specific consents / authorisations relating to the water environment, which may be required depending on the proposed activity:

- Discharge consent, issued under the Water (Northern Ireland) Order 1999, is required for any potentially polluting discharges to the aquatic environment.
- An abstraction / impoundment licence is required under the Water Abstraction & Impoundment (Licensing) Regulations 2006 for abstraction, diversion or impoundment of water.
- Discharging hazardous substances and non-hazardous pollutants onto land requires an authorisation under the Groundwater Regulations (Northern Ireland) 2009.

Additional advice can be found at:

Standing Advice Note No. 11 – Discharges to the Water Environment

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_11_discharges_to_the_water_environment.pdf

Standing Advice Note No. 18 – Abstractions and Impoundments

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_18_abstractions_and_impoundments_issue_01_may_2015-2.pdf

Groundwater authorisations

<https://www.daera-ni.gov.uk/articles/groundwater-authorisations>

Standing Advice Note No. 12 – Agricultural Developments

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_12_agricultural_developments_issue_1.pdf

Biodiversity

Biodiversity includes all species of plants and animals, and the habitats in which they live. A number of species and habitats in Northern Ireland have been identified as Designated Sites (such as a Special Area of Conservation), Priority Habitats, Protected Species and Priority Species, and are protected under both European and Northern Ireland legislation.

Changes in land-use, changes in hydrology, or water and air pollution can affect both habitats and species. The NI Biodiversity Checklist can be used to help identify if a development proposal is likely to adversely affect protected habitats or species, and further information is available on certain species, such as bats and barn owls, which may be relevant to agricultural developments.

NI Biodiversity Checklist

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/ni_biodiversity_checklist.pdf

Standing Advice Note No. 13 – Priority Habitats

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_13_priority_habitats_issue_1_april_2015.pdf

Standing Advice Note No. 16 – Priority Species

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_16_priority_species_issue_01_may_2015-2.pdf

Standing Advice Note No. 15 – Bats

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_15_bats_issue_01_may_2015-2.pdf

Standing Advice Note No. 17 – Wild Birds

http://www.planningni.gov.uk/index/advice/northern_ireland_environment_agency_guidance/standing_advice_17_wild_birds_issue_01_may_2015.pdf

Intensive Livestock (Pollution Prevention and Control)

Under the IPPC Directive, intensive pig and poultry units over specified thresholds must obtain a permit to operate. The thresholds are as follows:

- poultry: 40,000 bird places
- pigs: 750 sows or 2000 production pigs over 30 kg

Guidance on PPC legislation (pig and poultry):

<https://www.daera-ni.gov.uk/articles/intensive-livestock-installations-0>

Pesticides

EU Directive 2009/128/EC on the sustainable use of pesticides, provides a framework to achieve a sustainable use of Plant Protection Products, specifically by “reducing the risks and impacts of pesticide use on human health and the environment and promoting the use of integrated pest management and of alternative approaches or techniques such as non-chemical alternatives to pesticides.”

The UK National Action Plan seeks to achieve these aims, through actions such as training and certification for use of pesticides, regulation on the sale, use and storage of pesticides, and inspection of application equipment.

Further information is available at:

<https://www.daera-ni.gov.uk/articles/departamental-responsibilities-regarding-pesticides>