



### Submission

Submitter:	Trish Smullen
Submission Title:	Ms Trish Smullen, GSI
Submission Reference No.:	S009965
Submission Received:	22 April 2021

### Application

Applicant:	Longfield Poultry Unlimited Company
Reg. No.:	P1150-01

See below for Submission details.

Attachments are displayed on the following page(s).

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Environmental Licensing Programme  
Office of Environmental Sustainability  
EPA  
Johnstown Castle Estate  
Wexford, Y35 W821

22 April 2021

**Re: EPA Licence Application to discharge industrial emissions at Lislea, Virginia, Co. Cavan**

**Your Ref: P1150-01**

**Our Ref: 21/107**

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIA, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to your email received on the 31 March 2021, concerning the EPA Licence Application to discharge industrial emissions at Lislea, Virginia, Co. Cavan, Geological Survey Ireland would like to make the following comments.

### **Geoheritage**

Geological Survey Ireland is in partnership with the National Parks and Wildlife Service (NPWS, Department of Housing, Local Government and Heritage), to identify and select important geological and geomorphological sites throughout the country for designation as geological NHAs (Natural Heritage Areas). This is addressed by the Geoheritage Programme of Geological Survey Ireland under 16 different geological themes, in which the minimum number of scientifically significant sites that best represent the theme are rigorously selected by a panel of theme experts.

County Geological Sites (CGSs), as adopted under the National Heritage Plan, include additional sites that may also be of national importance, but which were not selected as the very best examples for NHA designation. All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online [Map Viewer](#).

The audit for Co. Cavan was completed in 2013. The full report details can be found [here](#). **Our records show that there are no CGSs in the vicinity of the poultry facility.**

### **Groundwater**

Groundwater is important as a source of drinking water, and it supports river flows, lake levels and ecosystems. It contains natural substances dissolved from the soils and rocks that it flows through, and can also be contaminated by human actions on the land surface. As a clean, but vulnerable, resource, groundwater needs to be understood, managed and protected.

Geological Survey Ireland's [Groundwater and Geothermal Unit](#), provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our [Map viewer](#), which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps.



For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.

**The Groundwater Vulnerability map indicates the area is classed as 'Extreme' and the area is underlain by a 'Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones'.**

**If the waste arising from the intensive poultry facility is being landspread, it should comply with the Licensed Landspreading Groundwater Protection Response and indicated site assessment requirements for the particular groundwater vulnerability, aquifer and source protection area setting, as well as the relevant current EPA guidelines.**

**The Groundwater Protection Response overview and link to the main report is here: <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx>.**

**The Licensed Landspreading document is here:**

**[https://www.gsi.ie/documents/Groundwater\\_Response\\_Matrix\\_for\\_Landspreading\\_of\\_Organic\\_Waste.pdf](https://www.gsi.ie/documents/Groundwater_Response_Matrix_for_Landspreading_of_Organic_Waste.pdf).**

Groundwater flooding maps (historic & predictive) are available through our [web viewers](#). The historic flood maps provide information of historic flooding, both surface water and groundwater. The predictive groundwater flood map provides information on the probability of future karst groundwater flooding (where available). For information on the development and limitations of these flood maps, please check the user guidance notes on our website.

### **Geological Mapping**

Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found [here](#), in your future assessments.

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me, Clare Glanville ([Clare.Glanville@gsi.ie](mailto:Clare.Glanville@gsi.ie)), or my colleague Trish Smullen, ([Trish.Smullen@gsi.ie](mailto:Trish.Smullen@gsi.ie))

Yours sincerely,

Clare Glanville  
**Senior Geologist**  
**Geological Survey Ireland**

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

**Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes**  
following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018  
(S.I. No. 296 of 2018)

Geological Survey Ireland Programme	Dataset	Relevant EIA Topic	Coverage	Description / Notes	Link to Geological Survey Ireland map viewer
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c</a>
Geohazards	Groundwater Flooding (Historic)	Water	Regional	Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Groundwater Flooding (Predictive)	Water	Regional	Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Radon Map	Land & Soils/Air	National		<a href="http://www.epa.ie/radiation/radonmap/">http://www.epa.ie/radiation/radonmap/</a>
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Plans	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228</a>
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0</a>
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea91067ee1b6ab8d58&amp;scale=0</a>
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physiographic landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b</a>
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	Includes 3D models	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093beb2212a850ce6&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093beb2212a850ce6&amp;scale=0</a>
Geological Mapping	Geotechnical database	Land & Soils	National	Digital geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a27138be1873d47a585a3f0415b4a724c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a27138be1873d47a585a3f0415b4a724c</a>
Goldmine	Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	Land & Soils/Water	National	Available online	<a href="https://secure.dcaa.gov.ie/goldmine/index.html">https://secure.dcaa.gov.ie/goldmine/index.html</a>
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater recharge.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National	Data is limited to scale of 1:40,000. Data does not include all of the source protection areas	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Catchment and WFD management units.	Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	karst specific data layers	water	National	For areas underlain by limestone, includes karst features, tracer test database; turf/rough water levels (gwlevel.ie)	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater body Descriptions	Water	National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx</a>
Groundwater & Geothermal	Geothermal Suitability maps	Land & Soils/Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9eae46bee08de41278b90a991460c0b9e">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9eae46bee08de41278b90a991460c0b9e</a>
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		<a href="https://secure.dcaa.gov.ie/GSI/INFOMAR_VIEWER/">https://secure.dcaa.gov.ie/GSI/INFOMAR_VIEWER/</a>
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headlands)	Water	Regional		<a href="http://www.cherishproject.eu/en/">http://www.cherishproject.eu/en/</a>
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water / Land & Soils	Regional	Currently the project is being carried out on the east coast and will be rolled out nationally	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx</a>
Minerals	Aggregate potential	Land & Soils/Material Assets	National	Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Active quarries	Land & Soils	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Historic mines	Land & Soils/Cultural Heritage	National	Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC).	<a href="https://gis.epa.ie/EPAMaps/default?zesting=7&amp;lid=EPALEMA_Facilities_Extractive_Facilities">https://gis.epa.ie/EPAMaps/default?zesting=7&amp;lid=EPALEMA_Facilities_Extractive_Facilities</a> <a href="https://www.epa.ie/enforcement/mines/">https://www.epa.ie/enforcement/mines/</a>
Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	urban geochemistry mapping (Dublin SURGE project).	Land & Soils	Regional		<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>

- Notes:
- The maps and data listed above are available on the Geological Survey Ireland map viewer <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>
  - Please read all disclaimers carefully when using Geological Survey Ireland data
  - Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.