



Senior Executive Officer

Planning Department,  
Kildare County Council,  
Áras Chill Dara,  
Devoy Park,  
Naas,  
Co.Kildare,  
W91 X77F

24/05/2022

Dear Sir / Madam,

**RE: Draft Kildare County Development Plan 2023-2029**

Further to the notice given to this Department of the publication of the Draft Kildare County Development Plan 2023-2029, the following submission outlines its observations in respect of a number of policy areas for which the Department is responsible.

**Climate Action**

The Department welcomes the manner in which Climate Action is addressed in the Draft Plan and, particularly, how Chapter 7 of the Draft Plan contains specific policies and objectives relating to adaptation and mitigation, decarbonisation and peatlands. We would note that the revised Climate Action Plan 2021 has been published and request that the Draft Plan be updated to reflect same, including additional references to the specific actions and targets set out therein, in order to ensure greater consistency with the State's increased ambitions in this regard (e.g. the new renewable energy target of 80% renewables by 2030).



The focus on Climate Action throughout the Draft Plan is commended and this Department would welcome the opportunity for direct bilateral engagement on the proposed implementation of the objectives set out in the Draft Plan.

### **Electricity Infrastructure**

The Department notes and supports the inclusion of Section 7.10 – Strategic Energy Zones and Section 7.14 – Energy Supply and Infrastructure. The maintenance and improvement of Ireland's grid infrastructure is a critical component of its energy security and the inclusion of the policies and objectives set out in Section 7.14 in particular will facilitate the upgrading of the network to accommodate the existing and future population. Further clarity around the intention of Objectives EC 068 and EC 069 would be greatly appreciated and we invite the Council to engage directly with this Department on same.

### **Renewable Energy**

The Department welcomes Kildare County Council's commitment to playing its role in the transition towards a climate resilient and low carbon country by the inclusion of a significant range of policies and objectives relating to renewable energy and, in particular, the support for the development of solar and wind infrastructure development in the County and the inclusion of a Draft Wind Energy Strategy at Appendix 2. We would, however, note the following specific observations on the Draft Plan text:

- The Draft Plan text should be updated to reflect the increased ambition for renewable electricity as expressed in the Climate Action Plan 2021, in particular the increase from a 70% target to an 80% share of electricity from renewable sources. All references to the Climate Action Plan in the Draft text should reflect the 2021 Plan.
- Actions EC A2 & A3 – It would be preferable if these actions were time-bound, as per Action EC A1, targeting their swiftest enactment.
- With respect to the wind energy target of 107MW from a potential 280MW, the Council is invited to review the rationale for same, given the increased ambition



set out in the Climate Action Plan 2021. It is important that the ambition of the targets in the Draft Plan align with the scale of the national ambition as set out in the Climate Action Plan 2021, and facilitate and promote investment in renewable energy. In that regard, it is important that the target of 107MW set out in Draft Wind Energy Strategy is not inadvertently interpreted as a maximum.

- A specific and measurable target solar energy should be included in the Draft Plan, in order to support the national target of between 1.5 – 2.5 solar PV capacity by 2030.
- Wind Energy Strategy Section 5.1 – The methodology used in the determination of renewable electricity targets appears to be based on an average between population and land area quotients. In order to achieve our national climate objective, it is essential that, in the determination and review of local renewable energy targets, Local Authorities look beyond their borders and local population and pursue a course that maximises the contribution to the national (and, when determined, regional) renewable energy target as determined by available land, energy generation potential and environmental designations. In this regard, the objective set out in Section 5.3 of the Draft Wind Energy Strategy for Kildare to “generate the equivalent of 70% of its electricity needs” (emphasis added) should be re-examined with reference to Section 4(2) of the “Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change” (2017) and the revised ambition for renewable energy as expressed in the Climate Action Plan 2021.
- We also request that the Council considers the capacity of locally available renewable energy resources, rather than existing population, as a more appropriate determinant of any potential contribution to the State’s energy requirements and targets, as determined by available land, energy generation potential and environmental designations.

The overall ambition and intention of the Draft Plan in respect of renewable energy is broadly welcomed by this Department and we would encourage direct bilateral engagement on any changes to the Draft Plan text as it relates to renewables.



## District Heat and Geothermal Energy

The Draft Plan text provides a significant degree of support for the roll out of district heating systems, including the policies and objectives set out in Sections 7.12.1 to 7.12.4. These policies are consistent with the emerging considerations relating to district heat and energy efficiency and demonstrate that the Council considers district heating to be a key part of the State's climate mitigation and adaptation strategy. We would, however, request that the Council considers additions to these polices requiring not only that applications for new developments demonstrate that they have merely considered district heating systems / technologies in their design, but that they have the capacity to connect to such systems in the future if they cannot do so at present. We also welcome the inclusion of Draft Objective EC O61, which aims to "Ensure that all significant development proposals for Data Centres are accompanied by an Energy Analysis that explores the potential for the development of low carbon district heating networks."

We would draw the attention of the Council to the National Heat Study, carried out by the Sustainable Energy Authority of Ireland, which was published earlier this year. The Study provides a comprehensive assessment of the options available to decarbonise Ireland's energy used for heating and cooling homes, businesses, and industry and can assist in any review of the Draft Plan text.

We would also draw the Council's attention to the "Draft Policy Statement on Geothermal Energy for a Circular Economy," published in December 2021 with respect to geothermal energy.

## Circular Economy

The specific references to the principles of circularity and the transition from a linear to a circular model to keep resources in use as long as possible in Chapter 6 are noted and welcomed. In particular, we welcome the references to the Waste Action Plan for a Circular Economy 2020-2025.



The Council's attention is also drawn to the "Whole-of-Government Circular Economy Strategy" – launched December 2021, a high-level document setting out Ireland's ambition to be a Circular Economy leader in Europe by 2030. One of the main objectives of the Strategy is communicating the Circular Economy to households, communities and businesses and County Development Plans play a key role in this messaging and, in that regard, direct references to the Strategy would be welcomed.

More broadly and with respect to waste in the within documentation, we would be obliged if the Council could consult directly with their respective Regional Waste Management Planning Office regarding development of the final Plan and to ensure that there are adequate policy supports for the development and improvement of recycling and sorting facilitates at appropriate locations.

## Communications

The provisions relating to communications at Sections 7.13, 7.15 and 7.17 are noted and welcomed. We would also note for the Council's attention the following relevant Government approved policy documents:

- '*Harnessing Digital – the Digital Ireland Framework*' launched by Department of the Taoiseach, with particular regard to Dimension 2 of the framework which places importance on supporting 5G rollout across all populated areas of Ireland by 2030; and
- '*National Development Plan 2021-2023*' – National Strategic Objective 6 which speaks to enhancing our high-quality international connectivity.

It is considered that national policy objectives in terms of digitalisation, 5G rollout and enhancing Ireland's national and international connectivity outlined in these policy documents can be further underlined and supported by Local Authorities via specific reference to them in County Development Plans.



Other policy measures that may be considered by the Council include:

- An objective to create centralised telecoms unit to manage all issues relating to telecoms, access to local authority assets and Smart Initiatives.
- For National Broadband Plan and telecoms development, we would encourage a commitment to efficiently process application for required permits and licences to the scaled needed to support the National Broadband Plan deployment, and a commitment to work with operators to streamline and simplify the process (in addition to Draft Objectives EC O89 – O93).
- For ducting and other assets owned by the State, we would encourage a commitment to publish inventories of these assets and develop a streamlined process to allow for easy accessibility for access seekers.
- Regarding 5G /Small Cell deployment we would encourage a commitment to identify suitable urban and suburban locations owned by the State for Masts/Small Cells to support smart town initiatives/programmes.
- In regard to, Smart programmes, we would encourage a commitment to replicate smart programmes / initiatives across all towns and villages across the county.

### **Geological Survey Ireland**

Additional observations from Geological Survey Ireland are attached to this submission.

### **Conclusion**

We would be grateful if Kildare County Council would take these matters under consideration in the finalisation of the County Development Plan.

Department officials can make themselves available for a discussion on any matters raised in this submission or any other matters within the remit of the Department of the Environment, Climate and Communications relevant to the preparation of this plan.



Officials can provide support to the County Council in the following areas:

- Climate Action, Engagement and Adaptation
- The Circular Economy
- Energy Generation and Networks
- Energy Use / Demand in the Built Environment
- Communications
- Environmental Policy and Governance
- Waste and Natural Resources

Please direct any requests for further consultation to [planningadvisory@decc.gov.ie](mailto:planningadvisory@decc.gov.ie)

Regards,

A handwritten signature in black ink.

Paul O'Neill, Principal Officer  
Planning Advisory Division  
Department of Environment, Climate and Communications

Encl. Divisional observations from Geological Survey Ireland





Senior Executive Officer  
Planning Department  
Kildare County Council  
Áras Chill Dara  
Naas  
Co. Kildare W91X77F

04 May 2022

**Re: Draft Kildare County Development Plan 2023-2029**

Your Ref: n/a

Our Ref: 22/80 [c.f. 21/03, 21/04]

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 EIAR, 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 14 March 2022, concerning the Draft Kildare County Development Plan 2023-2029, Geological Survey Ireland would like to acknowledge our previous submissions, (21/03, 21/04), in relation to the new draft CDP and associated SEA report, and have the following additional comments to make.

**Geoheritage**

In Chapter 12, Section 12.13 'Geology', of the draft CDP, we are pleased to see the County Geological Sites (CGSs) listed in Table 12.7 – 'Sites of Geological Importance'. **However we note the omission of Rathcore Spring CGS and the combination of Louisa Bridge Springs (Cold and Warm). We would welcome this list to be amended to include Rathcore Spring CGS and to separate the two Louisa Bridge Springs (Cold and Warm) CGSs so that the list includes all 22 County Geological Sites of County Kildare.**

**In the draft SEA Report, we would welcome the above amendments to be included in Table 5.4.1 'Kildare County Geological Sites' and to note in Section 5.4.1.2 'Geology', that there are 22 County Geological Sites in County Kildare.**

Further information on these sites can be found on The Geological Heritage of Kildare webpage:  
<https://www.gsi.ie/en-ie/publications/Pages/The-Geological-Heritage-of-Kildare.aspx>

and individual reports at:

[https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE022\\_Rathcore\\_Spring.pdf](https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE022_Rathcore_Spring.pdf)  
[https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE016\\_Louisa\\_Bridge\\_Cold\\_Spring.pdf](https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE016_Louisa_Bridge_Cold_Spring.pdf)  
[https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE017\\_Louisa\\_Bridge\\_Warm\\_Spring.pdf](https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/KE017_Louisa_Bridge_Warm_Spring.pdf)

We commend the policy and objectives for Kildare's County Geological Sites in Section 12.13 'Geology':

<b>BI P10</b>	Maintain and protect the conservation value of geological sites of national or local importance and seek the sustainable management of the county's geological heritage resource as listed in Table 12.7.
<b>BI O37</b>	Consult with the Geological Survey of Ireland regarding any development proposals within or likely to have an impact on Sites of Geological Importance set out in Table 12.7.
<b>BI O38</b>	Contribute towards the protection from inappropriate development of Geological Natural Heritage Areas that become designated during the lifetime of this Plan.



We note the action BI A18 to publish the findings of the Geological Heritage of Kildare. The audit of County Geological Sites in Co Kildare was completed and published in 2005 and the full report can be accessed at: [https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/Kildare\\_Audit.pdf](https://gsi.geodata.gov.ie/downloads/Geoheritage/Reports/Kildare_Audit.pdf).

#### Action

It is an action of the Council to:

<b>BI A18</b>	Publish the findings of the audit of Geological Heritage of County Kildare on completion.
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#### Culture and Tourism

In Chapter 13, Section 13.6.5 'Public Rights of Way', we note the following objectives:

<b>LR O38</b>	Ensure the biodiversity value of all sites are considered and protected in the development of outdoor recreational facilities including greenways through the preparation of an Ecological Impact Assessment which shall guide the location and design of such facilities.
<b>LR O39</b>	Support Coillte, Bord na Mona, Waterways Ireland and other state agencies to explore the provision of more recreational infrastructure at appropriate locations to include access ways and nature trails with a view to opening up state lands for recreational use.
<b>LR O40</b>	Investigate the feasibility of developing a Midlands Peatlands National Park in consultation with Offaly County Council, Bord na Móna, Coillte, NPWS, local landowners and all other relevant stakeholders to include areas of (inter alia) high nature value, amenity, education/science and eco-tourism potential.
<b>LR O42</b>	Lead and support the extension and interconnection of Greenways, Blueways, Peatways and trails within and outside County Kildare in consultation with Coillte, Bord na Móna and all other relevant stakeholders.

With regard to the development of recreational facilities and infrastructure, Geological Survey Ireland would ask that the design of any future signage to consider the use of information panels as appropriate to highlight the significance of a County Geological Site or an area of geological and/or geomorphological interest that are in the vicinity of waymarked and signposted walking routes, trails, Greenways and Blueways.

We would be happy to assist with the potential development of a Midlands Peatlands National Park by offering advice and support on how best to promote the geological and geomorphological aspects of the Peatlands Park, and may fall under 'all other relevant stakeholders in this regard'.

As always we are available if you require any further information, please feel free to contact Clare Glanville ([Clare.Glanville@gsi.ie](mailto:Clare.Glanville@gsi.ie)).

#### Groundwater

In Chapter 6, Section 6.6 'Surface Water / Drainage', we are pleased to see mention of the Groundwater Protection Scheme for Kildare that has been developed in conjunction with Geological Survey Ireland and Kildare County Council.

**We recommend the ongoing use of Geological Survey Ireland's Groundwater maps and datasets within the Development Plan. These maps and datasets are updated regularly and refined as new data becomes available, further information is available on our [Map viewer](#).**



### **Geothermal Energy**

In Chapter 7, Section 7.8 'Geo-Thermal Energy', we welcome the inclusion of the geothermal policy and objective:

<b>EC P7</b>	Facilitate large and smaller scale geothermal energy generating developments both standalone and in conjunction with other renewable energy projects, subject to the proper planning and sustainable development of the area and consideration of environmental and ecological sensitivities.
<b>EC O32</b>	Promote the use of geothermal heat pumps for space heating and cooling as well as water heating in domestic, commercial and recreational buildings subject to the protection of water quality and any other relevant considerations.

We recommend use of our [Geothermal Suitability maps](#) to determine the most suitable type of ground source heat collector for use with heat pump technologies. For further information please see our [Geoenergy pages](#) on our website or contact the [Groundwater and Geothermal Unit](#) of the Geological Survey Ireland directly.

### **Natural Resources (Minerals/Aggregates)**

In Chapter 9, Section 9.9 'Mineral Resources & Extractive Industry', we commend the inclusion of Objective RD O33:

<b>RD O33</b>	Consult with the Geological Survey of Ireland (GSI), with regard to any developments likely to have an impact on sites of Geological Importance listed in Chapter 12 of this Plan.
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We are pleased to see the inclusion of the 'Geological Heritage Guidelines for the Extractive Industry' as one of the guidance documents of Objective RD O38:

<b>RD O38</b>	Have regard to the following guidance documents (as may be amended, replaced, or supplemented) in the assessment of planning applications for quarries, ancillary services, restoration and after-use: - Geological Heritage Guidelines for the Extractive Industry (2008).
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### **Geochemistry of soils, surface waters and sediments**

Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at <https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx>. This page also hosts urban geochemistry Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and lithogeochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture ([Terra Soil](#)), waste soil characterisation ([Geochemically Appropriate Levels for Soil Recovery Facilities](#)) and mineral exploration ([Mineral Prospectivity Mapping](#)).

### **Geophysical data**

Geological Survey Ireland produces high-resolution geophysical data (Magnetic field, electrical conductivity, natural gamma-ray radiation) of soils & rocks as part of the [Tellus programme](#). These data currently cover approximately 75% of the country and provide supporting geological information on a regional scale useful for assessing environmental impact and risk.

**The above datasets may be of benefit to Section 5.4.1.2 'Geology', of the draft SEA Report.**



**Physiographic Units**

Physiographic Units are cartographic representations of the broad-scale physical landscape of a region. They delineate physical regions showing internal uniformity with respect to one or more environmental attributes that can be clearly differentiated from neighbouring regions. They are valuable for regional land-use planning, and in studies of the influence of physical landscape on the ecological environment. This map is produced in support of the actions to be implemented in National Landscape Strategy for Ireland 2015 – 2025. Physiographic Units map data can be viewed online under the Physiographic Units tab on the online [Map Viewer](#). **This dataset may be of benefit to Section 13.3 ‘Landscape Character Assessment’ in Chapter 13 of the draft CDP.**

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, or my colleague Trish Smullen at [GSIPlanning@gsi.ie](mailto:GSIPlanning@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 / Limitations	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 Plan	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=a30af518e87a4c0ab2fbde2aaac3c288">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c288</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=de7012a99d2748ea9106e7ee1b6ab8d5&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&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=de7012a99d2748ea9106e7ee1b6ab8d5&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&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=de7012a99d2748ea9106e7ee1b6ab8d5&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&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=de7012a99d2748ea9106e7ee1b6ab8d5&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&amp;scale=0</a>
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physical 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=afa76a420fc54877843aca1bc075c62b">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420fc54877843aca1bc075c62b</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=9768f4818b79416093b6b2212a850ce68&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093b6b2212a850ce68&amp;scale=0</a>
Geological Mapping	Geotechnical database	Land & Soils	National	Digitised 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=a2718be1873d47a585a3f0415b4a724c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a2718be1873d47a585a3f0415b4a724c</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.dccae.gov.ie/goldmine/index.html">https://secure.dccae.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 protections 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; turlough water levels (gwlevel).	<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 GWDTs; for more information contact NPWS / EPA / site investigations	<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	Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9ee46bee08de41278b90a991d60c0b9e">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9ee46bee08de41278b90a991d60c0b9e</a>
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		<a href="https://secure.dccae.gov.ie/GSI/INFOMAR_VIEWER/">https://secure.dccae.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=ee8c4c285a49413aa6f134416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f134416dc9956</a>
Minerals	Active quarries	Land & Soils	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f134416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f134416dc9956</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?eastlong=?&amp;northlat=?&amp;lid=EPAL-LEMA_Facilities_Extractive_Facilities">https://gis.epa.ie/EPAMaps/default?eastlong=?&amp;northlat=?&amp;lid=EPAL-LEMA_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=6304e122b733498b9964270ff72f754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b9964270ff72f754</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=6304e122b733498b9964270ff72f754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b9964270ff72f754</a>
Tellus	Urban geochemistry mapping (Dublin SURGE project).	Land & Soils	Regional		<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b9964270ff72f754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b9964270ff72f754</a>

Notes:

1. 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>
2. Please read all disclaimers carefully when using Geological Survey Ireland data
3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.