



Senior Planner,
Planning Department,
Leitrim County Council,
Áras an Chontae,
St. Georges Terrace,
Carrick on Shannon,
Co. Leitrim,
N41 PF67

27 April 2022

Dear Sir / Madam,

RE: Preparation of the Draft Leitrim County Development Plan 2023-2029

Further to the notice given to this Department of the publication of the Draft Leitrim 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.

At the outset, we note that this Department is referred to as both the Department of the Environment, Climate Action and Communications and the Department of Communications, Climate Action and Environment at various points in the Draft Plan and we would greatly appreciate it if the Council could review this and amend the references to appropriately reflect the official name of the *Department of the Environment, Climate and Communications* where they refer to the current Departmental structures.

Climate Action

The Department welcomes the manner in which Climate Action is addressed in the Draft Plan and, particularly, how Chapter 12 of the Draft Plan contains specific policies and objectives relating to adaptation and mitigation. 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). Additionally, updated references to the Climate Action and Low Carbon Development (Amendment) Act, 2021 would be welcomed (as opposed to the references to the Bill in the Draft text).

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.

Energy Infrastructure

The Department notes and supports the inclusion of Section 9.15 of the Draft Plan. The improvement of Ireland's electricity grid and gas infrastructure are critical components of its energy security and the inclusion of policies set out in this section will facilitate the upgrading of the networks to accommodate the existing and future population. The policies and objectives contained in this section are important in this regard and it would be preferable if they remained as per the Draft text in the final version of the Plan.

Renewable Energy

The Department welcomes Leitrim County Council's commitment to playing its role in the transition towards a climate resilient and low carbon country. We would note, however, that the Draft Development Plan and the Draft Renewable Energy Strategy therein have not been updated to account for the increased national ambitions set out in the Climate Action Plan 2021 for up to 80% renewable electricity by 2030 and would appreciate it if this could be examined when amending the Draft Plan.

The Draft Plan notes that Co. Leitrim has an abundance of natural resources and that there is potential for a range of renewable energy technologies, however it also states that *'The capacity study concludes that there is very limited capacity to absorb future large scale proposed developments in the form of multiple wind turbines and wind farms.'* (page 288). The capacity study is based on a series of limiting factors, including:-



“..set-back distances from housing using the minimum separation distance of 500m from all sensitive receptors as identified in the 2006 Wind Energy Development Guidelines (WEDG) and the 2019 Draft WEDG...” (page 287)

The Council is requested to clarify where in the 2006 Wind Energy Guidelines there is a requirement at the Plan level to use such separation distances as a limiting factor for the allocation of suitable sites. The reference to the 2019 Draft Guidelines is also noted but in that respect, we would note that these are draft guidelines and not issued under Section 28 of the Planning and Development Act, 2000 and that, furthermore, sections 6.18.1 and 6.18.2 of the Draft Guidelines clearly indicate that this is a project level assessment limitation for dwellings that has associated exceptions to be examined at the local level (the Plan level criteria refers to “existing settlements” as opposed to “all sensitive receptors” – Table, 1, Step 3, page 25). The Council is also requested, therefore, to demonstrate how the above limiting factor complies with Section 4(3) of the “Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change” (2017).

It is in this context, and in the context of the revised targets for renewable energy set out in the Climate Action Plan 2021, that the Council is requested to reconsider the onshore target of 83MW set against a theoretical wind capacity of 594MW, with a significant proportion of the proposed wind development coming from repowering (26MW) or extensions to existing developments (27MW).

The conclusion on the contribution to national targets appears to be based on a % increase of existing connected wind energy rather than the available resources. Given that the existing connected wind energy is a fraction of the available theoretical wind capacity (594MW), the Council is requested to clarify the appropriateness of this approach to demonstrating compliance with the increased national ambition. While a 90% increase is significant, given the available resources, the Council may wish to revisit this metric.



In relation to solar energy, there appears to be no solar target in the Draft Plan text, acknowledging the solar target of 30MW in the draft Renewable Energy Strategy. The Draft Plan would benefit from same including clarity on how it contributes to the national ambition.

District Heating

The Department notes and welcomes the inclusion of policies RH POL 2 and RH POL 3 in the Draft Plan. These policies are consistent with the emerging considerations relating to district heat 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 policies requiring that applications for new developments demonstrate that they have considered district heating systems / technologies in their design and that they have the capacity to connect to such systems in the future if they cannot do so at present.

Circular Economy

The Council's attention is 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. Attention is also drawn to A Waste Action Plan for a Circular Economy - Ireland's National Waste Policy 2020-2025'.

While the Circular Economy is referenced in draft Policy WM POL 3, it is considered that greater emphasis should be placed on the transition to a Circular Economy and additional 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 should be included in the final Plan.



A systemically circular economy is one in which waste and resource use are minimised by default, in which good design preserves product value for as long as possible, via durability and repair and where, when a product has reached the end of its life, its parts can be readily used again and again to create further useful products – it is more than a waste disposal strategy.

It is noted and acknowledged, however, that the policies and objectives at Section 9.10 are broadly in line with the principles of the Circular Economy Strategy. In respect of 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.

Communications

The provisions relating to communications at Sections 9.16-9.18 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 Policy BR POL 1).
- 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 Leitrim County Council would take these matters under consideration in the finalisation of the Leitrim County Development Plan 2023-2029.

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 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 (including District Heating)
- Communications
- Environmental Policy and Governance
- Waste and Natural Resources and Inland Fisheries

Please direct any requests for further consultation to planningadvisory@decc.gov.ie

Regards,

Planning Advisory Division

Department of Environment, Climate and Communications

Encl. Divisional observations



Planning Department
Leitrim County Council
Áras an Chontae
St. George's Terrace
Carrick on Shannon
Co. Leitrim, N41 PF67

05 April 2022

Re: Draft Leitrim County Development Plan 2023 – 2029

Your Ref: n/a

Our Ref: 22/38

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 11 February 2022, concerning the Draft Leitrim County Development Plan 2023 – 2029, Geological Survey Ireland would encourage use of and reference to our datasets. This data can add to the content and robustness of the SEA process. With this in mind please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.

Geoheritage

The audit of County Geological Sites of County Leitrim was completed in 2020 and published in 2021. The main report and individual County Geological Site (CGS) reports can be found [here](#). In Section 11.7 'Areas of Geological Interest' of the draft CDP, we are pleased to see the following geoheritage policy objectives in the draft CDP.

- AGI POL 1** To recognise the need to identify sites of geological interest in the county and to protect these sites in the interest of protecting our geological heritage.

- AGI POL 2** To protect County Geological Sites from inappropriate development, as outlined in Appendix XI of this Plan.

The Geological Heritage Programme views the Local Authorities as critical partners in protecting, through the planning system, those CGS which fall within their county limits. In many cases these are often sites of high amenity or educational value, already zoned or listed in the plan.

Listing in the CDP provides protection of the sites against potentially damaging developments that normally require planning permission, such as building, quarrying, landfilling or forestry. It is also important that the democratic process of public consultation and approval by councillors of the CDP means that stakeholders in the sites and all the local community can buy into the process.

County geological Sites have been adopted in the National Heritage Plan, and will form a major strand of geological nature conservation to complement the various ecological and cultural conservation measures. It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites, and in some cases development may facilitate enhanced geological understanding of a site by exposing more rock sections - for example, in a quarry extension. Consultation at the earliest stages can identify any issues relevant to an individual site or proposed development.



County Geological Sites are the optimal way of addressing the responsibility of each authority under the Planning and Development Act 2000 and its amendments, to protect sites of geological interest.

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

We welcome the listing of the 32 CGS sites in Appendix XI of the draft CDP and mapped on Figure 4.9 'County Geological Sites' of the draft SEA Report. We would like to draw your attention to an additional **Upland Karst Area Overview** report that has not been included within the listing.

Upland Karst Area (overview), Co. Leitrim (GR 580000E 846000N (centre of area)), under IGH themes: IGH 1 Karst, IGH7 Quaternary. The Glenade and Glencar Valleys are deep and wide glacial valleys, while the uplands flanking the valleys are some of the best areas in Ireland to see upland karst features, including potholes, shafts, caves, enclosed depressions and limestone pavement. The significance of the 'upland karst landscape' is heightened by the number and complexity of karst features in a relatively small area.

Link to Site Report: [LM013 Overview](#).

We would welcome the addition of the Upland Karst Area Overview report to the general text so that it is not overlooked. Indeed, this could be a significant consideration in landscape planning and landscape assessment.

We are pleased to see the inclusion of CGSs as part of policy 'WE POL 3': "To ensure that the assessment of wind energy development proposals will have regard to the following: ...impacts on nature conservation designations, archaeological areas, county geological sites, historic structures, public rights of way and walking routes".

Culture and Tourism

Over the past number of years geology has become a large part of Irish tourism. Ireland currently has three UNESCO Global Geoparks, and a number of other geotourism projects. The Cuilcagh Lakelands UNESCO Global Geopark in nearby Fermanagh and Cavan seek to promote geotourism in these counties. These Geoparks, along with other tourism initiatives such as the Wild Atlantic Way, Irelands Ancient East, and Irelands Hidden Heartlands have bolstered tourism in various parts of Ireland and helped to increase its levels in areas that were previously not as popular with tourists. We would encourage Leitrim County Council to continue this trend, and to use the geological audit information making it easily available to the general public. We would encourage geology to be a significant part of any tourism initiative that may be introduced.

Dimension Stone/Stone Built Ireland

Stone Built Ireland is a 2 year research collaboration agreement between Geological Survey Ireland, Trinity College Dublin & the office of Public Works. The project aims to document building and decorative stone in Ireland to inform government agencies, building owners and conservationists of the sources for suitable replacement stone in restoration work and to develop a greater awareness among the general public.

In addition to promoting citizen science and awareness of local materials, the inventory will aid the public in complying with part 4 of the Planning and Development Act 2000, which requires owners to conserve protected structures. It will also assist local authorities in issuing Section 57 Declarations, which outline 'the type of works which it considers would or would not materially affect the character of the structure or any element of the structure'.

This project will build on work already completed funded by the Irish Research Council (March 2019 - September 2020) that carried out primary research on the topic and developed a simple database and web-based platform as well as hosting various heritage displays at venues.

This project would be of benefit to the policies in Sections 11.18 'Record of Protected Structures', 11.20 'Architectural Conservation Areas' and 13.15.2 'Architectural Heritage – Protected Structures' in the draft CDP.



Groundwater

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.

Our Groundwater and Geothermal Unit run [GWClimate](#) which is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWflood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Groundwater maps and data are available on the [Map viewer](#).

In Section 9.6 'Groundwater' of the draft CDP, we note "It is considered important that a Groundwater Protection Scheme is prepared within the life of this Plan to provide guidance for Leitrim County Council in decision making on the location, nature and control of developments and activities in order to protect groundwater" and note policy objective WQ OBJ 5:

WQ OBJ 5 To request the Geological Survey of Ireland to complete a Groundwater Protection Scheme for Co. Leitrim to assist in decision making by the Local Authority on the location, nature and control of developments and activities in order to protect groundwater.

We welcome use of **Figure 4.10 'Source Protection Areas', Figure 4.14 'Groundwater Vulnerability' and Figure 4.15 'Groundwater Productivity' maps within the draft SEA Report. Please ensure that use of our data or maps is attributed correctly to 'Geological Survey Ireland'.**

Geological Survey Ireland has completed the mapping that underpins the Groundwater Protection Schemes, namely Aquifers, Groundwater Vulnerability and Groundwater Source Protection Areas. Note that the Source Protection Areas (SPAs) within Leitrim are for Group Water Schemes, and are preliminary SPAs. It is our understanding that there is one groundwater supply within Leitrim – Kinlough Tullahan – for which there is currently no Source Protection Area delineated. Geological Survey Ireland would be happy to undertake source protection studies for any groundwater abstractions in partnership with Irish Water, on request by them, with suitable resourcing.

Geological Survey Ireland are in the process of finalising the Groundwater Protection Response map, which will be published online in the coming months. This map will delineate Groundwater Protection Zones and include all Groundwater Protection Responses for potentially polluting activities:

- **Landfill**
- **IPC Land spreading**
- **On-site wastewater treatment systems (e.g. septic tanks)**
- **Out wintering pads**
- **Earth-lined slurry stores**



In Section 9.7 ‘Wastewater Treatment and Disposal’, we note that the option of direct discharge from domestic waste water systems to surface water that is being considered raises some concerns. There is abundant evidence that the direct piping of effluent from non-performing septic systems in different areas of the country currently contributes to adverse environmental impacts. Stringent controls on the types of treatment system that may facilitate this, plus a high degree of inspection on correct use and maintenance, will be required to ensure that any system of this type that may be permitted in the future don’t add further to environmental impacts on surface water systems caused by domestic wastewater treatment systems.

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.

In Section 4.8 ‘Soil’ of the draft SEA report, we are pleased to see mention of our Aggregate Potential Mapping, Bedrock Mapping, Quaternary and Physiographic, and National Aquifer and Recharge datasets that would be of benefit to planning and individual projects.

Geohazards

Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.

We are pleased to see use of our Landslide Database and Landslide Susceptibility Viewer to highlight areas of landslide risk in Co. Leitrim, in Section 4.8.4 ‘Landslides’ and shown in map form in Figure 4.11 of the draft SEA Report.

Geological Survey Ireland also engaged in a national project on Groundwater Flooding. The data from this project may be useful in relation to Flood Risk Assessment (FRA) and management plans, and is described in more detail under ‘Groundwater’ above.

Coastal Vulnerability while seen as a potential geohazard, is discussed in more detail under our marine and coastal unit information below.

Geothermal Energy

Geothermal energy harnesses the heat beneath the surface of the Earth for heating applications and electricity generation, and has proven to be secure, environmentally sustainable and cost effective over long time periods. Geothermal applications can range in depth from a few metres below the surface to several kilometres. Ireland has widespread shallow geothermal resources for small and medium-scale heating applications, which can be explored online through Geological Survey Ireland’s Geothermal Suitability maps for both domestic and commercial use. 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. Ireland also has recognised potential for deep geothermal resources.

The Roadmap for a Policy and Regulatory Framework for Geothermal Energy was launched at the Geoscience 2020 Conference in November 2020. The [Assessment of Geothermal Resources for District heating in Ireland](#) and the [Roadmap for a Policy and Regulatory framework for Geothermal Energy in Ireland](#) documents have been developed to support the Government’s commitments under the Climate Action Plan 2019 and the Programme for Government.

For further information please see our [Geoenergy pages](#) on our website or contact the [Groundwater and Geothermal Unit](#) of the Geological Survey Ireland directly.

These datasets will be of benefit to some of the policies in Sections 12.6.1 ‘Draft Leitrim County Renewable Energy Strategy’ and 12.6.7 ‘Renewable Heat’ of the draft CDP.



Natural Resources (Minerals/Aggregates)

In the draft CDP, Chapter 10 'Rural Development', Section 10.7 'Extractive Industry and Building Materials Production', we note Policy **AGG RES POL 7**.

AGG RES POL 7 To ensure that development for aggregates/mineral extraction, processing and associated processes does not significantly impact in the following areas:

- a) Special Areas of Conservation and/or Special Protection Area
- b) Natural Heritage Areas and Proposed Natural Heritage Areas
- c) other areas of importance for the conservation of flora and fauna
- d) areas of significant archaeological potential
- e) in the vicinity of a recorded National Monument
- f) sensitive landscapes

We would welcome an amendment to AGG RES POL 7, to include that development for aggregates/mineral extraction, processing and associated processes does not have a significant negative impact on "County Geological Sites and/or sites of geological importance".

Geological Survey Ireland would request that Leitrim County Council might assist our geological heritage goals with the following (and ideally this would be written into the restoration / closure plan) and be included as a condition of planning as deemed appropriate by the planning authority:

1. Allowing access to quarry faces by appropriate scientists (upon request and with due regards to Health and Safety requirements) during quarrying to check for interesting new stratigraphies / relationships as they might become exposed and to establish if the quarry site is worthy of recognition post extraction and through aftercare/restoration planning.
2. If deemed appropriate in (1) above, leaving a representative section of the quarry face at the end of the quarry life or inclusion of information panels to promote the geology to the public or develop tourism or educational resources if appropriate depending on the future use of the site. Natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface.

The above text would be of benefit to **AGG RES POL 6**:

AGG RES POL 6 To ensure that all existing workings are rehabilitated to suitable land uses and that all future extraction activities allow for the rehabilitation of pits and proper land use management. The biodiversity value of the site should be considered in the first instance when preparing restoration plans. Where land filling is proposed, inert material is the preferred method. Each planning application shall be considered on a case by case basis and where relevant will be dealt with under the relevant regional Waste Management Plan.

The Geoheritage Programme tries to promote a partnership between geological heritage and active quarrying, with such measures as those outlined in the 'Geological Heritage Guidelines for the Extractive Industry' document which we are pleased to see this referenced in Section 13.18.2 'Extractive Industries' of the draft CDP.

In Section 4.11.8 'Minerals and Aggregates' of the draft SEA Report, we are pleased to see mention of our Aggregate Potential mapping and welcome the inclusion of the mineral localities map in Figure 4.22 'Minerals Localities'.



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 Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and litho-geochemistry (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 [Tellus programme](#) provides expertise to the Environmental Protection Agency (EPA) for the determination of radon risk. The data is used in mineral exploration or is useful in aiding site investigation works for large scale projects.

The Geochemistry and Geophysical datasets would be of benefit to some of themes in Section 4 'Environmental Baseline' of the draft SEA Report.

Historic Mines

The EPA, Geological Survey Ireland and the former Exploration & Mining Division undertook a joint project entitled "Historic Mine Site - Inventory and Risk Characterisation (HMS - IRC)". This project carried out detailed site investigations and characterisation on priority historic mine sites in the country.

A risk ranking methodology was developed which categorised the sites according to the risks posed to human and animal health and the environment. The project commenced in January 2006 and was completed in December 2008.

A final report and a GIS geodatabase was produced on completion of the project. Reports and maps available [here](#). The project provides an understanding of the impacts of historic mining sites in Ireland and their status at the time of the study. **The Connacht Coalfield is partially located in County Leitrim. For further information is available at:**

<https://gis.epa.ie/data/Appendix%205%20Site%20Reports/Connacht%20Coalfield/Connacht%20Coalfield%20District%20Report.pdf> .

Marine and Coastal Unit

Our marine environment is hugely important to our bio-economy, transport, tourism and recreational sectors. It is also an important indicator of the health of our planet. Geological Survey Ireland's Marine and Coastal Unit in partnership with the Marine Institute, jointly manages [INFOMAR](#), Ireland's national marine mapping programme; providing key baseline data for Ireland's marine sector. The programme delivers a wide range of benefits to multi-sectoral end-users across the national blue economy with an emphasis on enabling our stakeholders. Demonstrated applications for the use of INFOMAR's suite of mapping products include Shipping & Navigation, Fisheries Management, Aquaculture, Off-shore Renewable Energies, Marine Leisure & Tourism and Coastal Behaviour.

Of particular interest to tourism is the extensive database of shipwrecks mapped by the INFOMAR programme, many lost close to the coast and with engaging human interest stories associated with them

<https://www.infomar.ie/maps/story-maps/shipwrecks>.



INFOMAR also produces a wide variety of seabed mapping products that enable public and stakeholders to visualize Ireland's seafloor environment <https://www.infomar.ie/maps/downloadable-maps/maps>. Story maps have also been developed providing a different perspective of some of the bays and harbors of the Irish coastline. We would therefore recommend use of our Marine and Coastal Unit datasets available on our [website](#) and [Map Viewer](#).

The above datasets would be of benefit to Strategic Objective 3 of the North West Regional Enterprise Plan 2020 :“Harness the potential of the blue economy and the North-West coastline as a source of new employment generation” and Chapter 5 ‘Tourism’ of the draft CDP. They would also be of benefit to Section 4.11.6 ‘Coastline’ in 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 would be of benefit to Section 11.14’ Landscape Character Assessment’ of the draft CDP and Section 4.13 ‘Landscape’ of the draft SEA Report.**

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.

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. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c |
| 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] | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc |
| 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] | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc |
| Geohazards | Radon Map | Land & Soils/Air | National | | http://www.epa.ie/radiation/radonmap/ |
| 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. | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228 |
| Geological Mapping | Bedrock geology: | Land & Soils | National | 1:100,000 scale and associated memoirs. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Bedrock geology: | Land & Soils | Regional | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Quaternary geology: Sediments | Land & Soils | National | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Quaternary geology: Geomorphology | Land & Soils | National | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| 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 | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b |
| Geological Mapping | GeoUrban: Spatial geological data for the greater Dublin and Cork areas | Land & Soils | Regional | Includes 3D models | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093beb2212a850ce6&scale=0 |
| Geological Mapping | Geotechnical database | Land & Soils | National | Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c |
| Goldmine | Historical data sets including geological memoirs and 6" to 1 mile geological mapping records | Land & Soils/Water | National | available online | https://secure.dcca.gov.ie/goldmine/index.html |
| Groundwater & Geothermal | Groundwater resources (aquifers) | Water | National | Data limited to 1:100,000 scale; sites should be investigated at local scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| 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 | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Groundwater vulnerability. | Water | National | Data limited to 1:40,000 scale; sites should be investigated at local scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| 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. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| 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 | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Catchment and WFD management units. | Water | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| 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) | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Wells and Springs | Water | National | Not comprehensive, there may be unrecorded wells and springs | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| 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 | https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx |
| Groundwater & Geothermal | Geothermal Suitability maps | Land & Soils/Water | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9e46be08de41278b90a991160c0b9e |
| Marine & Coastal Unit | INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's | Water | National | | https://secure.dcca.gov.ie/GSI/INFOMAR_VIEWER/ |
| Marine & Coastal Unit | CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headlands) | Water | Regional | | http://www.cherishproject.eu/en/ |
| 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 | https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx |
| 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 | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956 |
| Minerals | Active quarries | Land & Soils | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956 |
| Minerals | Historic mines | Land & Soils/Cultural Heritage | National | Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC). | https://gis.epa.ie/EPAMaps/default?zesting=7&northing=7&lid=EPA:LEMA_Facilities_Extractive_Facilities https://www.epa.ie/enforcement/mines/ |
| Tellus | Geochemical data: multi-element data for shallow soil, stream sediment and stream water | Land & Soils | Regional | A national mapping programme | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |
| Tellus | Airborne geophysical data including radiometrics, electromagnetics and magnetics | Land & Soils | Regional | A national mapping programme | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |
| Tellus | urban geochemistry mapping (Dublin SURGE project). | Land & Soils | Regional | | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |

- 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.