



Planning Policy Unit,
Kerry County Council,
Rathass,
Tralee,
Co.Kerry,
V92 H7BT

22nd February 2022

Dear Mr. Ginty,

RE: Draft Kerry County Development Plan 2022 - 2028

Further to the publication of the Draft Kerry County Development Plan 2022 - 2028, please see attached observations provided by officials from this Department from the following policy areas:

- Geological Survey of Ireland

We would also note that the revised Climate Action Plan 2021 has been published and request that the Draft Kerry County Development Plan 2022 – 2028 be updated to reflect same. The Climate Action Plan 2021 is available here: <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>

With respect to Ireland's increased ambitions under the Climate Action Plan 2021, and in particular the objective to provide up to 80% of Ireland's energy needs via renewable energy sources by 2030, this Department welcomes the statement in the Draft Plan that the County has significant renewable electricity potential, with "*huge potential for the development of wind, solar, biomass, geothermal, hydro and wave energy*", and with "*wave and wind resources are among the richest in Europe*". In particular, policy KCDDP 12-12, to "*Maximise the development of all renewable energies at appropriate locations in a manner consistent with the proper planning and sustainable development of the County,*" is supported.



The Department also notes, however, that the effect of the methodology employed in Appendix 6 of the Draft Plan may be to significantly reduce the available land for onshore wind energy. We would welcome clarity in the final Plan as to the rationale for this methodology, its effects on delivery and, in particular, how the wind energy strategy presented in the Draft Plan:

- Is consistent with the increased ambitions for renewable energy production as expressed in the Climate Action Plan 2021 to increase the share of electricity demand generated from renewable sources to up to 80%, (including up to 8.2 GW of onshore wind and up to 2.5 GW on grid scale solar PV) to deliver on Ireland's target of a 51% greenhouse gas emissions reduction by the 2030 as established under the Climate Action and Low Carbon Development (Amendment) Act 2021.
- Is consistent with the requirement that “National renewable energy objectives, and those set out in the regional strategies, should be reflected in County Development Plans” (Section 11.3.2).
- Is consistent with Action 100 of the Climate Action Plan 2021, which is to “Ensure supportive spatial planning framework for onshore renewable electricity generation development” (Section 11.4).
- Is consistent with the “Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change” (DHLGH, 2017).
- Is consistent with the ambition of draft policy KCDP 12-12.
- Affects permitted wind developments in the County and the potential pipeline of projects yet to proceed to planning.

We would be grateful if Kerry County Council would take these matters under consideration in the preparation of the finalised Kerry County Development Plan 2022 – 2028 and amend accordingly.

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.



The Department 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

Regards,

Corporate Support Unit

Department of Environment, Climate and Communications

Encl. Divisional observations



Damien Ginty
Senior Planner
Planning Policy Unit
Kerry County Council
Rathass
Tralee
Co. Kerry V92H7BT

21 February 2022

Re: Draft Kerry County Development Plan 2022-2028

Your Ref: n/a

Our Ref: 21/452 [c.f. 20/138, 20/211]

Dear Damien,

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 03 December 2021, concerning the Draft Kerry County Development Plan 2022-2028, Geological Survey Ireland would like to acknowledge our previous submissions, (20/138 & 20/211), in relation to the new draft CDP, and have the following additional comments to make.

Geoheritage

In Chapter 11, 'Environment', Section 11.7 'Geological Heritage' of the draft CDP, we welcome the inclusion of the following policy objectives:

Geological Heritage	
It is an objective of the Council to:	
KCDP 11-75	Seek to preserve and protect important features of geological interest and to maintain the conservation value of those features or areas of geological interest.
KCDP 11-76	Facilitate and support the auditing of the geological heritage sites of the county in partnership with Geological Survey Ireland and support initiatives which increase geological understanding and awareness.

And in Section 11.2 'Biodiversity':

KCDP 11-3	Work with all stakeholders in order to conserve, manage and where possible enhance the County's natural heritage including all habitats, species, landscapes and geological heritage of conservation interest and to promote increased understanding and awareness of the natural heritage of the County.
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We are pleased to see the inclusion of the list of unaudited County Geological Sites in Table 5.5: 'Sites of Geological Interest in the Plan Area', in Appendix 5 'Natural Environment and Designations'.

We note in objective KCDP 11-76, the undertaking to "Facilitate and support the auditing of the geological heritage sites of the county in partnership with Geological Survey Ireland....." An audit of the County Geological Sites (CGSs) for Kerry County was due to commence during 2020 but was delayed due to the Covid-19 Pandemic and as such the CGS for Kerry remain unaudited. As such there is limited detailed information on each site available.



The sites are listed in a master list of unaudited sites and are presented on Geological Survey Ireland's Map Viewer as sites with buffer zones but no specific site boundary. These sites are those listed in the 2015-2021 CDP and in the draft 2022-2028 CDP.

A Geological Survey Ireland publication "*The Geology of Dingle Peninsula – A Field Guide*" authored by Ken Higgs and Brian Williams was published in May 2018. This geological field guide to the Dingle Peninsula includes detailed and richly illustrated descriptions and interpretations of localities where key elements of Dingle geology can be examined. This publication makes available to the public detailed geological information on many of the CGS within the Dingle Peninsula area of Kerry including some additional sites which are not listed as CGS at the moment.

Currently 27 local authority areas have completed geological heritage audits, and a further three are currently under way, creating an almost national level of audited sites. Completed audits for other counties and local authority areas can be viewed and downloaded [here](#). We would hope that the delayed audit of CGS in Kerry may be able to be funded again by Kerry County Council and the Heritage Council during 2022.

CGSs 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).

Culture and Tourism

We note in Chapter 10 'Tourism & Outdoor Recreation', policy objectives KCDP 10-5 and KCDP 10-3:

Tourism in County Kerry

It is an objective of the Council to:

KCDP 10-5 Engage and collaborate with strategic partners such as Fáilte Ireland, the National Parks and Wildlife Services, OPW, Inland Fisheries Ireland, Waterways Ireland, Údarás na Gaeltachta, Coillte and other relevant bodies and local communities to develop the tourism sector in Kerry and to ensure that the economic potential of the tourism sector is secured for the benefit of the local economy.

KCDP 10-3 Liaise with strategic partners such as Fáilte Ireland (South West Region), the National Parks and Wildlife Services, Inland Fisheries Ireland, Waterways Ireland, Coillte, other relevant national bodies and the local tourism sector on the identification of land use strategies for areas, focusing on their tourism, environmental and heritage value.

We would welcome the amendment of these objectives to include Geological Survey Ireland as a strategic partner to develop the tourism sector and identify land use strategies in Co Kerry.

As well as being an UNESCO World Heritage Site, Scelig Mhichil is an important county geological site. A response to the SEA Screening and preparation of the draft Scelig Mhichil Management Plan 2020-2030 was submitted by Geological Survey Ireland in March 2020. Geological Survey Ireland has also submitted responses to Fáilte Ireland's Draft Dingle Peninsula Visitor Experience Development Plan and Draft Killarney Destination Experience Development Plan in March 2019 and November 2021 respectively.



In December 2020, Geological Survey Ireland awarded a Geoheritage grant to a community-based project based in Valentia Co Kerry. Valentia Island Geoheritage Association (VIGA), is a not-for-profit organization, one of whose aims is to promote Valentia Island's geoheritage and geotourism, in tandem with developing sustainable employment and enterprise on Valentia Island and surrounding areas in Co. Kerry. The Island is home to the world-renowned Devonian tetrapod trackways which showcase one of the earliest traces of land-dwelling vertebrates (amphibians). VIGA seek to promote both the tetrapod trackway and the Valentia Slate Quarry by developing a geotour of these locations and highlighting their unique geology.

We would encourage Kerry County Council to use geological information to be a significant part of any tourism initiative that may be introduced.

Groundwater

In Chapter 13 'Water & Waste Management', Section 13.2.1.4 'Groundwater Protection Schemes' of the draft CDP, we are pleased to see the inclusion of policy objectives to safeguard the quality of groundwater in Co Kerry, including:

KCDP 13-5	Ensure that planning applications are assessed with regard to the Groundwater Protection Scheme and the potential impacts the development may have on groundwater quality.
KCDP 13-6	Protect all sources and potential sources of public water supply, including their zones of contribution within the County from pollution resulting from any development and/or land use.
KCDP 13-11	Protect, enhance and support the restoration of groundwaters and ensure a balance of abstraction and recharge, with the aim of achieving good groundwater status and to reverse any significant and sustained upward trends in the concentration of pollutants in groundwater.

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](#). Proposed County Development Plans should consider Groundwater Protection Schemes for groundwater protection (see Circular Letter SP 5-03). The Groundwater Protection Response overview and link to the report for County Kerry is here: <https://www.gsi.ie/en-ie/publications/Pages/Kerry-Groundwater-Protection-Scheme-Reports.aspx>

Geothermal Energy

We would like to draw to your attention to two new Geothermal publications. 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. **This data would be of benefit to the renewable energy section of Chapter 12 'Energy' of the draft CDP.**

Natural Resources (Minerals/Aggregates)

In Chapter 9 'Economic Development', Section 9.7.6.2.1 'Extractives Industry', we note policy objective KCDP 9-66:

KCDP 9-66	Ensure all extractive development proposals comply with the objectives of this plan including development management standards, flood risk management requirements and the protection of landscape, biodiversity, infrastructure, water and air quality, built and cultural heritage.
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We would welcome the inclusion of geological heritage and/or “sites of geological importance” within this objective.

We note “The council will have regard to the Quarries and Ancillary Activities-Guidelines for Planning Authorities (2004)”. **We would welcome the inclusion of the ‘Geological Heritage Guidelines for the Extractive Industry’ within this statement.** 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’, which can be downloaded [here](#). This document, written in association with Irish Concrete Federation, acts as a comprehensive guide in the sustainable extraction of natural resources while preserving the geological heritage of Ireland.

In the SEA Report, we note the amendment recommended for Section 1.16.1 ‘Extractive Development’ in Volume 6, ‘Development Management Standards & Guidelines’.

<p>1.16.1 Extractive Development The following points to be amended as follows:- 1.16.1 Extractive Development</p>	<p>i) Environmental Impact Assessment Report (EiAR) Any Environmental Impact Study EiAR including any remedial EiS EiAR required by statute. An EiAR EiS should ensure that all impacts in relation to heritage, environment, biodiversity, groundwater protection, etc are clearly addressed and appropriate mitigation measures are included (i) Heritage and Biodiversity Proposals in relation to heritage and biodiversity would to include any recommendations for the site to be considered as part of the geological heritage of the County and any proposed measures in respect of the protection and promotion of the environment and biodiversity, including any proposals for rehabilitation. The Council will require an Ecological Impact Assessment, Appropriate Assessment Screening and or Natura Impact Statement for all proposals within or in the vicinity of an SPA, SAC or NHA. Where a quarry development falls within a conservation designation, the developer is advised to consult with the National Parks and Wildlife Service Department Environment, Climate-Local Government prior to making an application. Evidence of such consultation should be submitted to the Planning Authority at application stage. The Council will require that the operator of the quarry shall put in place an Environmental Monitoring System, to monitor all environmental standards (noise, dust, blasting etc.) on an on-going basis. It is recognised that quarries offer opportunities for heritage and biodiversity, particularly in less intensively used areas of quarries and as part of site restoration. Heritage and biodiversity enhancement measures, to include consideration of geological heritage, is required to be taken into consideration as part of required site restoration proposals.</p>
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We note the new amendment text states “It is recognized that quarries offer opportunities for heritage and biodiversity, particularly in less intensively used areas of quarries and as part of site restoration. Heritage and biodiversity enhancement measures, to include consideration of geological heritage, is required to be taken into consideration as part of required site restoration proposals”. **Geological Survey Ireland recommends that this be amended further so that the requirement to include consideration of geological heritage also includes a requirement to consult with Geological Survey Ireland.**

Furthermore, Geological Survey Ireland would request that Kerry County Council might assist our geological heritage goals with the following (and ideally this could be written into the restoration / closure plan by the operator) 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 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’, which can be downloaded [here](#). This document, written in association with Irish Concrete Federation, acts as a comprehensive guide in the sustainable extraction of natural resources while preserving the geological heritage of Ireland.

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 map would be of benefit to objective KCDP10-3 in Chapter 10 'Tourism & Outdoor Recreation'.**

KCDP 10-3 Liaise with strategic partners such as Fáilte Ireland (South West Region), the National Parks and Wildlife Services, Inland Fisheries Ireland, Waterways Ireland, Coillte, other relevant national bodies and the local tourism sector on the identification of land use strategies for areas, focusing on their tourism, environmental and heritage value.

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.dcaa.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=9eae46bee08de41278b90a9916d0c0b9e
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		https://secure.dcaa.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.