



Forward Planning,
Economic Development and Enterprise Directorate,
Limerick City and County Council,
Merchants Quay,
Co. Limerick,
V94 EH90

6th March 2023

RE: Review of the Adare Local Area Plan 2015-2021 (As Extended)

Dear Sir / Madam,

Further to the notice given to this Department of the publication of an invitation for submissions on the pre-draft stage of the Adare Local Area Plan, the following submission outlines its observations in respect of a number of policy areas for which the Department is responsible.

The Department of the Environment, Climate and Communications' vision of a climate neutral, sustainable, and digitally connected Ireland will be achieved by collaboratively delivering policies and programmes to empower people, communities, and businesses to continue the transition to a better quality of life for current and future generations. The step change in our ambition from a low carbon to climate neutral Ireland requires strong leadership across Government and the wider public sector. This Department will drive the climate agenda by engaging with local authorities to build resilience in citizens, communities, and business to overcome climate adaptation challenges, maximising climate mitigation and adaptation opportunities and facilitating the transition to a truly Circular Economy.



The Department asks that you take the material outlined in the following sections into consideration when drafting the Adare Local Area Plan, which align with our Statement of Strategy for the period 2021-2023, [Le Chéile 23](#), which itself sets out our vision, mission, and five strategic goals in key policy areas.

Climate action

The [Climate Action and Low Carbon Development \(Amendment\) Act 2021 \(Climate Act 2021\)](#) amends the Climate Action and Low Carbon Development Act 2015 and sets Ireland on a legally binding path to net-zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade. The significantly strengthened legally binding framework established under the Climate Act, with clear targets and commitments set in law, will help ensure that Ireland achieves its national, EU and international climate goals and obligations in the near and long-term. In this regard, we would draw the Council's attention to Section 15(1) of the principal Act (as amended), which requires public bodies to “..perform its functions in a manner consistent with –

- (a) the most recent approved climate action plan,*
- (b) the most recent approved national long term climate action strategy,*
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*
- (d) the furtherance of the national climate objective, and*
- (e) the objective of mitigation greenhouse gas emissions and adapting to the effects of climate change in the State”*

The [Climate Action Plan 2023](#) (CAP 2023) sets a roadmap for taking decisive action to halve our overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. The Council will be required to have regard to the policies expressed therein in the preparation of the draft LAP.



It will put Ireland on a more sustainable path; cut emissions; create a cleaner, greener economy and society; and protect us from the devastating consequences of climate change. It is a huge opportunity to create new jobs and grow businesses in areas like offshore wind; cutting-edge agriculture; and retrofitting, making our homes warmer and safer.

The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually to ensure alignment with our legally binding economy-wide carbon budgets and sectoral ceilings.

This Plan makes Ireland one of the most ambitious countries in the world on climate action and we request that the Limerick City and County Council consider how the actions set out therein can be incorporated into the Local Area Plan, where relevant.

The [National Adaption Framework](#) (NAF) sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015.

The NAF builds on the work already carried out under the National Climate Change Adaptation Framework (NCCAF, 2012). The NAF outlines a whole of government and society approach to climate adaptation in Ireland. It also aims to improve the enabling environment for adaptation through ongoing engagement with civil society, the private sector, and the research community.

In all matters relating to Climate Action, local authorities should also consult directly with their own Climate Action Regional Offices (CAROs).



Transport

The Climate Action Plan 2023 (CAP 2023) commits the Government to reducing transport emissions by 50% from 2018 emissions rates. To facilitate the reduction in greenhouse gas emissions, CAP 2023 supports the transition towards a sustainable transport system, through enhanced land-use planning, public transport, active travel, reducing the demand for transport, vehicle efficiency and clean fuels. As such, the Local Authority is requested to consider the measures within the CAP 2023 relating to transport and reducing the demand for transport when drafting the local area plan.

Renewable Energy

The target of delivering up to 80% of Ireland's electricity from renewable sources by 2030, as set out in the [National Development Plan 2021-2023](#) (NDP) and the CAP 2023, will come from a combination of onshore and offshore renewable sources. Regular [Renewable Electricity Support Scheme](#) (RESS) auctions will deliver competitive levels of onshore wind and solar electricity generation. The Local Authority should note that the Government has increased its ambitions for renewable energy generation under the CAP 2023:- Solar PV Capacity targets have been updated to 5GW by 2025 and 8GW by 2030. Onshore wind capacity has increased to 6GW by 2025 and 9GW by 2030.

We would encourage the inclusion of an objective of the Council to promote the development of appropriately scaled renewable energy installations (rooftop solar, geothermal energy and other types of installations appropriate to urban environments) and to support the development of additional supporting grid infrastructure. It is crucial that all counties look to continue to increase their contribution to the national renewable electricity generation target and, where possible, aim for developments that are carbon or energy use neutral.



The Department also notes regional policy objective 221 of the Southern Regional Spatial and Economic Strategy, which states:

“The RSES supports strengthened and sustainable local/community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid. The potential for sustainable local/community energy projects and micro generation to both mitigate climate change and to reduce fuel poverty is also supported”

Response no. 25 of the [National Energy Security Framework](#) (NESF) proposes to align all elements of the planning system to fully support accelerated renewable energy development and ensure that the local planning policy framework “fully supports the national objectives.” The NESF provides an overarching and comprehensive response to Ireland’s energy security needs in the context of the war in Ukraine. The Framework outlines the structures which are in place within Government to monitor and manage our energy supplies. It sets out the plans which are in place to deal with energy security emergencies should they arise, and outlines out how these plans will be tested in light of the war in Ukraine. This includes shifting away from fossil fuel energy generation and use. A key aspect of this is local, community-based approaches to renewable energy, the reduction in the reliance on the grid transmission system (through local and domestic generation) and through microgeneration.

The Local Authority should have regard to the CAP 2023, regional policy objective and Response no. 25 of the NESF when drafting the local area plan and implement policy for same.

.



Retrofitting

The Programme for Government and the CAP 2023 set ambitious targets to retrofit 500,000 homes to a Building Energy Rating of B2 (or cost optimal equivalent) by 2030, and to install 400,000 heat pumps in existing dwellings, to replace existing heating systems by 2030. This represents approximately 25% of the housing stock and is among the most ambitious retrofit programmes worldwide. The review of the NDP resulted in an unprecedented financial commitment to support achievement of the Government's retrofit targets including a €43m investment in the Community Energy Grant Scheme which includes grants for public, commercial and community buildings. The ambitious National Retrofit Plan, sets out how the Government will deliver its ambitious retrofitting targets. The Plan identified an €8 billion Exchequer commitment to 2030 to support homeowners to upgrade their homes through SEAI home energy grant schemes including free energy upgrades for households at risk of energy poverty. It is designed to address barriers to retrofit across four key pillars: driving demand and activity; financing and funding; supply chain, skills, and standards; and governance. For each pillar, barriers were identified and timebound policies, measures and actions were put in place to address them.

The Department notes regional policy objective 38 of the Southern Regional Spatial and Economic Strategy, which states:

- “a. Local Authorities, through County Development Plan and Local Area Plan objectives, will identify retrofitting initiative priorities within settlements that grew rapidly without corresponding investment in infrastructure and amenities which demonstrate achievement of National Strategic Outcome: Compact Growth;*
- b. Support initiatives that seek retrofitting infrastructure to existing buildings including smart technologies, energy efficient and micro renewable systems and seek targeted initiatives and actions at a local level for the refurbishment and upgrading of suitable vacant and underused building stock;*
- c. Support initiatives that retrofit environmental amenities to address adverse effects on biodiversity and the environment;*
- d. Support initiatives that address fuel poverty”*



The Local Authority should be mindful of the regional policy objective when drafting the local area plan and explore how it can effectively be implemented at local level, for example, by identifying retrofitting initiative priorities within the Adare local area, supporting initiatives that seek retrofitting infrastructure to existing buildings and provide for policies to implement same.

Heat and District Heating

The [National Heat Study](#) provides a comprehensive assessment of the options available to decarbonise Ireland's energy used for heating and cooling homes, businesses, and industry. Options available include the electrification of heating. The CAP 2023 adopts measures to support the electrification of heating by strengthening our existing Building Regulations and implementing an ambitious National Residential Retrofit Plan. Targets set are 170,000 new dwellings using heat pumps by 2025, and 400,000 by 2030, and 45,000 existing dwellings using heat pumps by 2025, and 400,000 by 2030. The Local Authority is requested to consider the development of the electrification of heating during the preparation of the Local Area Plan, having regard to the CAP 2023.

We would also note Response no. 17 of the National Energy Security Framework, which (building on specific actions in the Climate Action Plan) seeks to reduce the reliance on fossil fuel heating systems. The Council is requested to consider how the Local Area Plan, through its development management policies, could contribute to this ambition.



With respect to district heating, the Department notes that the objectives of the Adare Local Area Plan 2015-2021 (As Extended) are cognisant of the concept of compact development (Objective H2). The Department highlights specific policies at national, regional and local level that should be taken into account when preparing the Draft Adare Local Area Plan, such as:

- National Planning Framework: *“District heating networks will be developed, where technically feasible and cost effective, to assist in meeting renewable heat targets and reduce Ireland’s GHG emissions.”*¹
- Regional Policy Objective 105: *“It is an objective to support development of district heating schemes by promoting innovation in the use of recoverable heat sources and related technologies. The development of new low carbon heat sources should include non-fossil fuel heat sources including clean electric and renewable gas heat technologies in the Region.”*²
- Objective CAF O15: *“It is an objective of the Council to support localised renewable and carbon friendly means of heating and energy provision, including district heating systems. New technologies such as air to water and geothermal may have a role to play in this regard.”*³

Each of the above-referenced policy documents supports the development of district heating, which should be explored as an option to decarbonise heat in the local area and promote security of supply and diversification of fuel for heating. The Department encourages the Local Authority to consider the development of district heating using suitable waste heat sources where available, technically feasible and cost effective. As such, explicit policies in support of same are encouraged in the Draft Adare Local Area Plan.

¹ National Strategic Outcome 9, [National Planning Framework](#), Pg 149

² Regional Policy Objective 105, [Southern Regional Assembly Regional Spatial & Economic Strategy](#), Pg 138

³ Objective CAF O15, [Limerick Development Plan 2022-2028](#), Pg 275



Circular Economy

The Circular Economy is an alternative to the predominant ‘take-make-waste’ linear economic model. Meeting Ireland’s climate action targets requires a transition to a circular economy which protects and restores our environment through sustainable resource use, as 45% of global emissions come from current systems of production and resource consumption. The challenge Ireland faced was around creating a policy or framework that would radically shift focus back to the start of the product life cycle, to focus on prevention and designing out waste, and to effect behavioural change at an individual, household, and business level. This policy is set out in the government’s [Waste Action Plan for a Circular Economy](#), and the Whole-of-Government Circular Economy Strategy.

The [Circular Economy Act 2022](#), will ensure all households have access to and use segregated waste services and incentivise the commercial sector to increase waste separation, as well as providing waste authorities with new tools to tackle illegal dumping. The Act also provides for the reconfiguration of the Environment Fund to become Ireland’s Circular Economy Fund, ring-fenced to support environment and circular economy projects and initiatives.

Ireland’s first [Whole of Government Circular Economy Strategy](#) was approved by Government and launched last year. This first iteration of the Circular Economy Strategy marked a significant milestone in Ireland’s transition towards greater circularity. In tandem with the Strategy, the EPA developed a new Circular Economy Programme. This new programme will be a driving force in Ireland’s move to a circular economy by businesses, householders, and the public sector. The Council is requested to consider all aspects of how it can support the transition to a circular economy in the preparation of the Local Area Plan.

Generally, with respect to the development of any waste-related policies, Local Authorities should consult directly with their respective [Regional Waste Management Planning Office](#) regarding development of the final plans.



Geoscience Policy

A public consultation took place in 2021 on the draft [Policy Statement on Mineral Exploration and Mining in Ireland](#) and associated Strategic Environmental Assessment Environmental Report and Appropriate Assessment Natura Impact Statement. The goal is to put in place a clear and sustainable policy framework that can play a role in Ireland's transition to a circular economy and net-zero greenhouse gas emissions.

The [Draft Policy Statement on Geothermal Energy for a Circular Economy](#) is an important step in addressing the barriers to the development of geothermal energy in Ireland and focusing our attention on its potential. The Policy Statement, once finalised, will outline the regulatory framework, highlight the requirement for meaningful engagement with the public, and for further work in the collection of data on Ireland's geothermal resources. While the lack of geothermal legislation does not necessarily preclude exploration for, or development of, geothermal energy, it does increase the level of risk and uncertainty for projects and potential investors (including local authorities/municipal users). Having a dedicated regulatory framework for geothermal energy would help to attract interest in this renewable energy and realise a number of associated environmental, circular economy and climate benefits.



A list of Geological Survey Ireland's (GSI) 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), is attached to this submission provides the datasets available for the following areas:

- Land & Soil
- Water
- Landscape
- Air and
- Climate

The maps and data listed in the attached chart are available on the Geological Survey Ireland map viewer. Please read all disclaimers carefully when using Geological Survey Ireland data.

The full submission by Geological Survey Ireland, a division of this Department, is attached herewith for consideration.

Telecommunications

Ireland's national and international digital connectivity is critically important to maintaining and enhancing Ireland's competitiveness in global markets and in the knowledge and information economy while supporting the shaping of Europe's digital future. This Department provides digital policy leadership and foster investment in high quality communications infrastructure while driving digital entrepreneurship and innovation and promoting the digital society at national, European, and international levels.



An agile, responsive, and resilient digital infrastructure is needed to support the development of the digital economy while improved cyber security will build trust and confidence in online activities and support digital transformation for the benefit of every citizen, business, and community in Ireland. The creation of a gigabit and fully connected digital society, that safeguards the citizen in their use of digital services and applications will promote the use of digital services to meet societal needs, foster innovation and enhance the quality of citizens' lives.

Last year the Government published a new national digital strategy, [Harnessing Digital – The Digital Ireland Framework](#), to drive and enable the digital transition across the Irish economy and society. Dimension 2 of the framework places importance on supporting 5G rollout across all populated areas of Ireland by 2030.

National Strategic Objective 6 of the NDP states that high-quality, secure, and reliable connectivity to global telecommunications networks is of significant strategic importance to the Irish State. To achieve this Ireland must develop high capacity and diverse connectivity routes directly to mainland Europe, whilst continuing to encourage investment in cable projects from North America to Ireland. Further measures may be required over time in order to leverage the private investment required to further develop international connectivity to mainland Europe and to ensure that Ireland becomes a central connectivity hub.



It is considered that national policy objectives in terms of digitalisation, 5G rollout and enhancing Ireland's national and international connectivity outlined in those policy documents can be further underlined and supported by Local Authorities via specific reference to these matters in Local Area Plans. In particular, a direct support in the draft Plans of supporting 5G rollout and the National Broadband Plan would be welcome from a policy perspective. Further measures to consider include:

- 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 particular, specific support for 5G infrastructure in the draft LAP would be welcome from a DECC perspective.
- With respect to Smart programmes, we would encourage a commitment to replicate smart programmes / initiatives across all towns and villages across the county.



Conclusion

We would be grateful if Limerick City and County Council would take these matters under consideration in the drafting of the Adare Local Area 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 Limerick City and County Council in the following areas:

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

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

Regards,

Planning Advisory Division

Department of Environment, Climate and Communications

Encl. Supplementary Submission from Geological Survey Ireland



Forward Planning Section
Economic Development and Enterprise Directorate
Limerick County Council
Merchants Quay
Limerick

20 February 2023

Re Review of the Adare Local Area Plan 2015-2021 & Pre-Draft Issues Paper

Your Ref: n/a

Our Ref: 23/35

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 07 February 2022, concerning the Review of the Adare Local Area Plan 2015-2021 & Pre-Draft Issues Paper, Geological Survey Ireland would encourage use of and reference to our datasets. 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.

Issue: Natural heritage and biodiversity

In relation to this issue we would like to draw your attention to a national inventory of geoheritage sites known as County Geological Sites (CGSs) which is managed by the Geoheritage Programme of Geological Survey Ireland. CGSs, as adopted under the National Heritage Plan, include sites that are of national importance which have been selected as the very best examples for NHA (Natural Heritage Areas) designation. NHA designation will be completed in partnership with the National Parks and Wildlife Service (NPWS). CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online [Map Viewer](#).

The audit for Co. Limerick was completed in 2022. The full report details can be found [here](#). **Our records show that there are no CGSs in the vicinity of the proposed LAP.**

Issue: Tourism and Recreation

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. 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 Limerick County Council to continue this trend of geotourism, and to use the geological audit information making it easily available to the general public.

Issue: Built Heritage

With regards to this issue we would like to draw your attention to Stone Built Ireland which 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 builds 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 (www.stonebuiltireland.com).

Issue: Climate Action and Flooding

In relation to this issue Geological Survey have a number of data sets that may be useful to the development of this theme in the LAP. These are summarized below.

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.

The Groundwater Data Viewer indicates two aquifers classed as a 'Regionally Important Aquifer - Karstified (diffuse)' and a 'Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones' underlie the LAP.

The Groundwater Vulnerability map indicates the range of groundwater vulnerabilities within the area covered is variable. We would therefore recommend use of the Groundwater Viewer to identify areas of High to Extreme Vulnerability and 'Rock at or near surface' in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas.

[GWClimate](#) 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. Maps and data are available on the [Map viewer](#).

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. **The Groundwater Protection Response overview and link to the main reports is here:** <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx>

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.

Please note we have recently launched QGIS compatible bedrock (100K) and Quaternary geology map data, with instructional manuals and videos. This makes our data more accessible to general public and external stakeholders.



QGIS compatible data can be found in our downloadable bedrock 100k .zip file on the [Data & Maps](#) section of our website.

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.

Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated [Map Viewer](#). Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.

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.

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](#)).

Issue: Active Travel, Transport, Infrastructure and Utilities

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.

Natural Resources (Minerals/Aggregates)

Geological Survey Ireland is of the view that the sustainable development of our natural resources should be an integral part of all development plans from a national to regional to local level to ensure that the materials required for our society are available when required.



Geological Survey Ireland highlights the consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process.

Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our [Minerals section](#) of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our [Map Viewer](#).

We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in any developments are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.

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,

Dr. Clare Glanville
Senior Geologist
Geological Survey Ireland

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