

# GIS Data and Web Resources



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# Topics

## Data Resources

- Water Framework Directive data
- National Soils Database

## Web Resources

- Hydrometric data (HydroStats site)
- Historic Mines Project
- Extractive Waste Facilities Register
- EPA Geoportal

# What does the EPA do?

1. Control emissions to the environment via **licensing and permitting**
2. **Enforce** conditions of licences and permits to prevent environmental damage; supervise environmental protection activities of Local Authorities
3. Environmental **monitoring and assessment**, including competent authority status for Water Framework Directive
4. **Reporting** of data to European Commission relating to various Directives
5. Provide **advice and guidance**; commission environmental research

# Data Sources

## **Licensing and enforcement**

Eastings and Northings of all licensed locations  
(IPPC, Waste, Urban Waste Water, Dumping at Sea)

Emissions and monitoring locations at licensed sites for some  
sites (LEEF project)

Currently developing online data collection for all licensed data  
to improve data quality (LEMA project)

# Data Sources

## Monitoring and Assessment

- Air quality monitoring zones and stations
- Bathing water quality sites and compliance data since 2002
- “Q Value” sites – river biological quality monitoring sites and results since 1972 expressed as a score from 1 – 5
- Lake, transitional and coastal water quality since 2007 (older reporting periods only as maps rather than GIS data)
- Groundwater quality monitoring sites: ammonia, nitrate, phosphate and faecal coliform concentrations 2003 - 2009

# Water Framework Directive

- First Directive to insist on collection and reporting of GIS data
- Lead to the creation of the following national data layers:
  - River lines, river water bodies, river sub basins, geometric river network
  - Lake polygons, lake water bodies, lake water body catchments
  - Transitional and coastal water bodies
  - Groundwater bodies
  - Register of protected areas

## WFD contd.

Since 2005, more qualitative data about our waterbodies has been developed to provide “national picture” maps and statistics

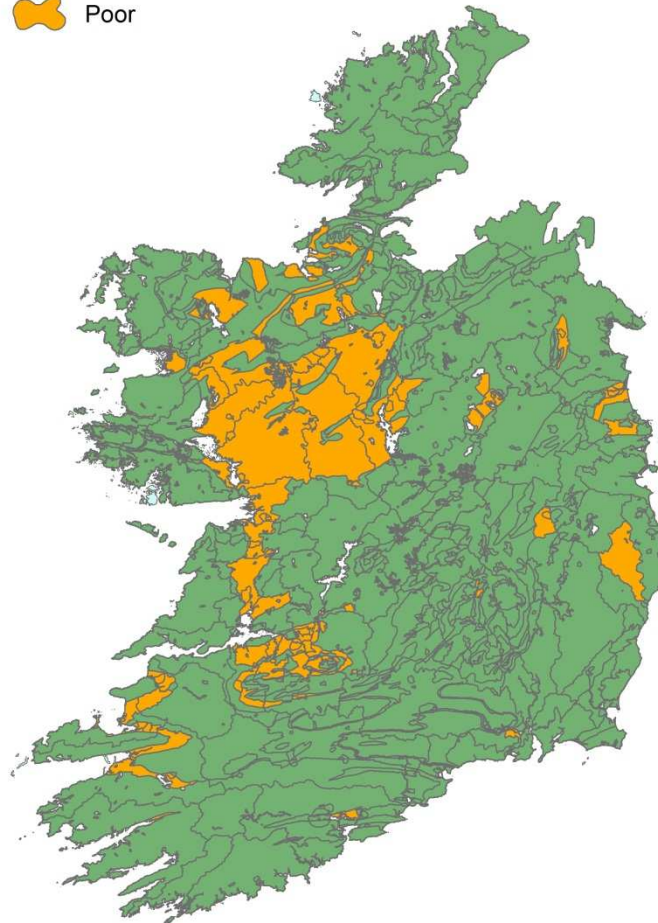
- Risk tests and scores per waterbody – will the waterbody achieve or maintain good status and what are the main environmental pressures that affect it?
- Measures and objectives for each waterbody – what must be done to protect and improve water quality?
- Current Status per waterbody on a five point scale for surface water and a two point scale for groundwater (good or bad)



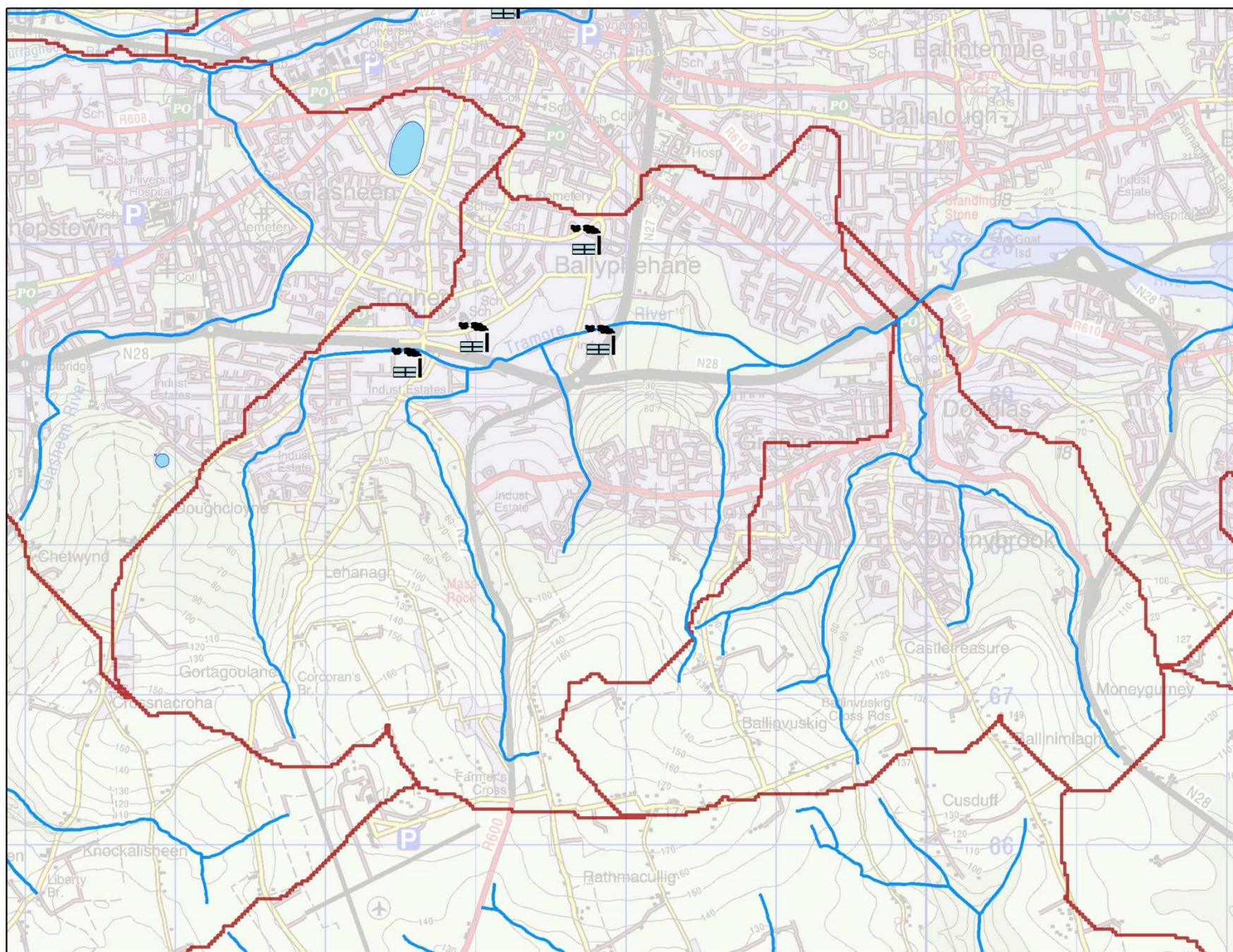
# Format and potential applications of WFD data

## Groundwater Body Status

- Good
- Poor







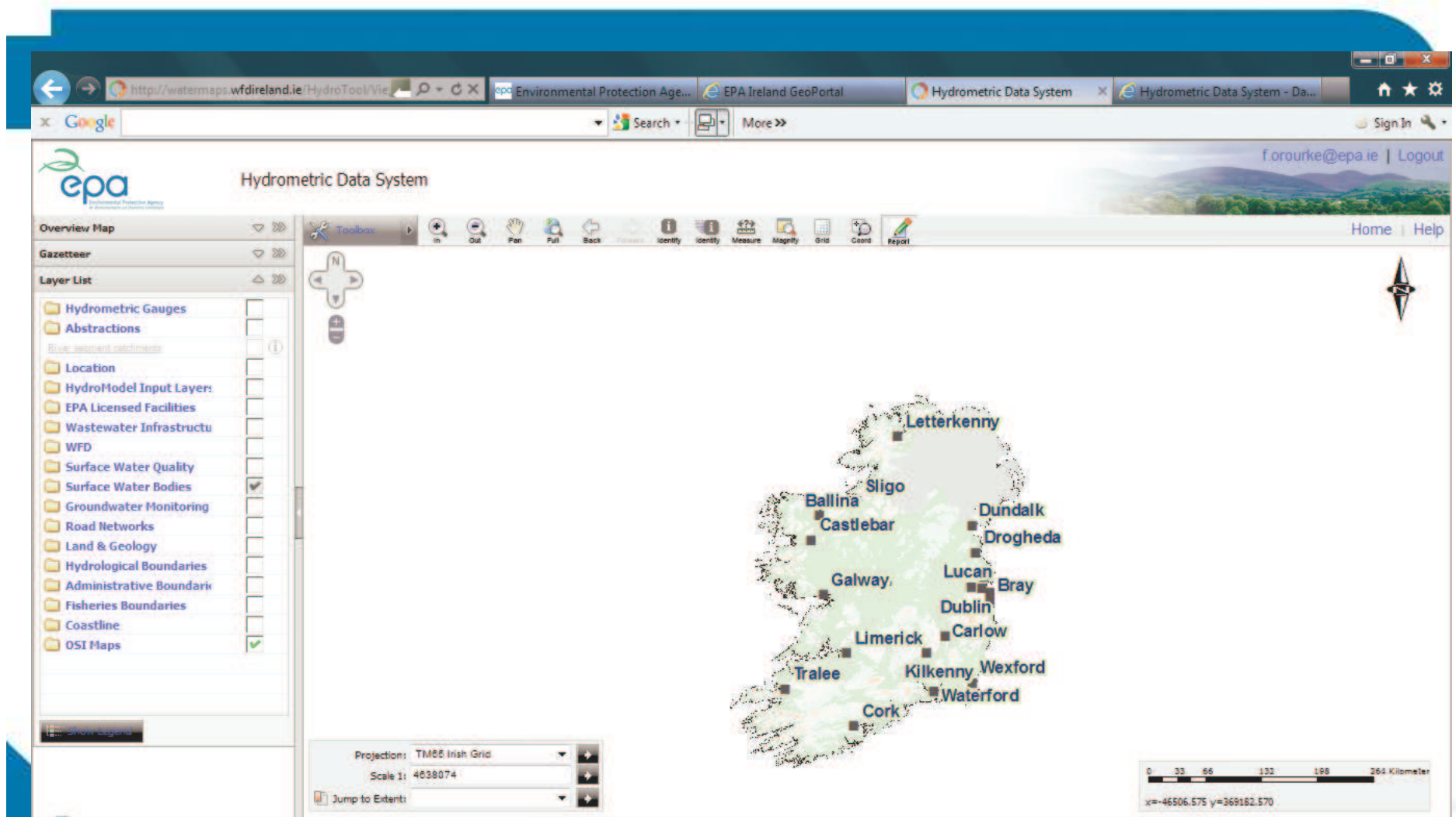
# Data sources from Research

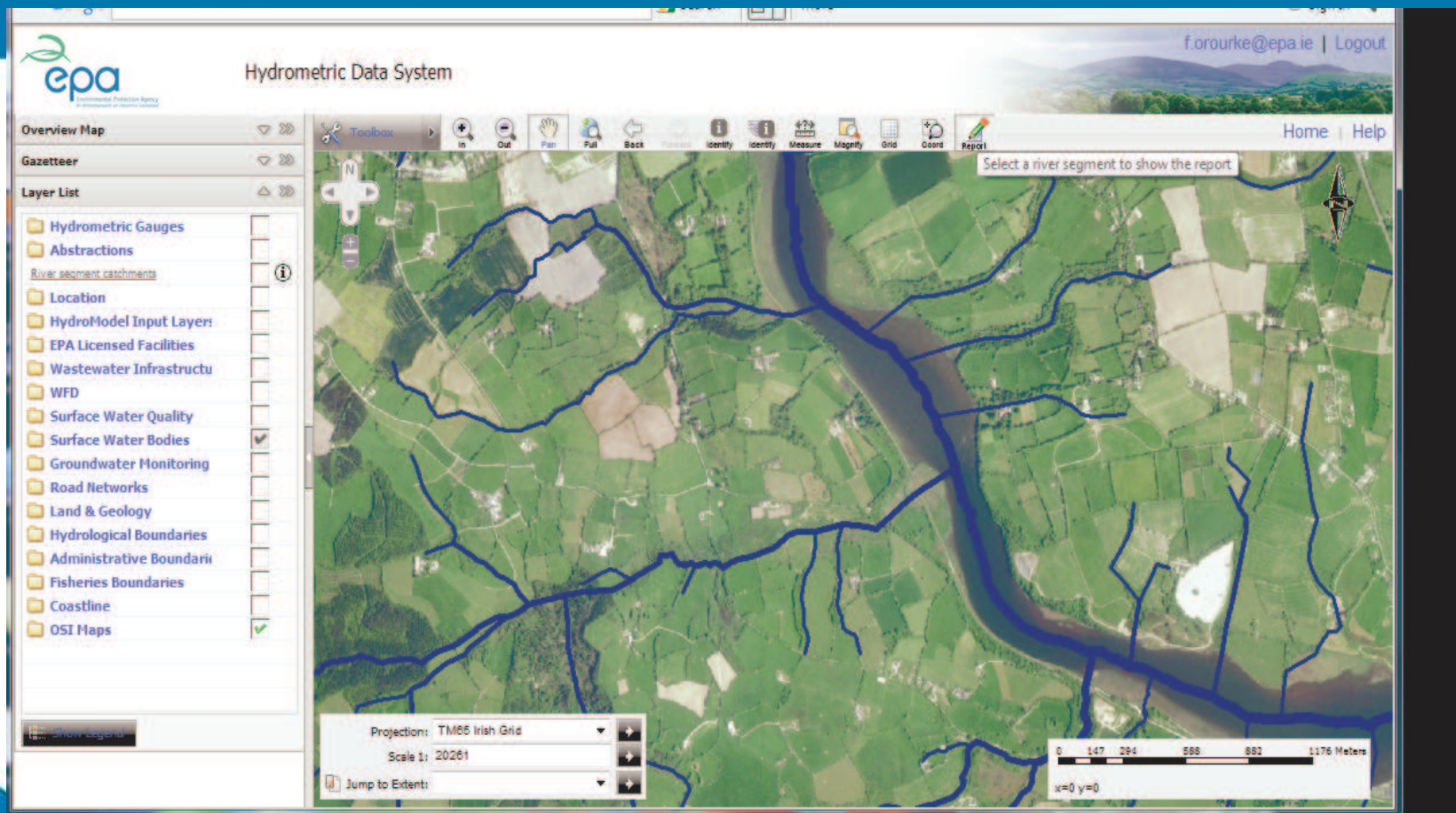
- National Soils Database (<http://erc.epa.ie/nsdb/>)
- National baseline database of soil geochemistry
- Nutrient, major element and trace element data collected at sampling points maps amalgamated to produce spatial distribution maps
- National Soil Archive, comprising both dried soil samples and a nucleic acids (DNA) archive as well as sampling and location information for each sampling point.
- Data viewer available online
- Downloads of data can be requested via <http://erc.epa.ie/nsdb/>



# HydroStats website

- Joint EPA – ESB project
- Uses flow data for existing “candidate” sites to provide estimated flow data for locations with no gauge
- Based on a number of physical descriptors: catchment size, soil and subsoil type, rainfall, slope
- Restricted to approved users: intended for an audience who understand the data and can decide if it is fit for purpose





## Link to hydro report

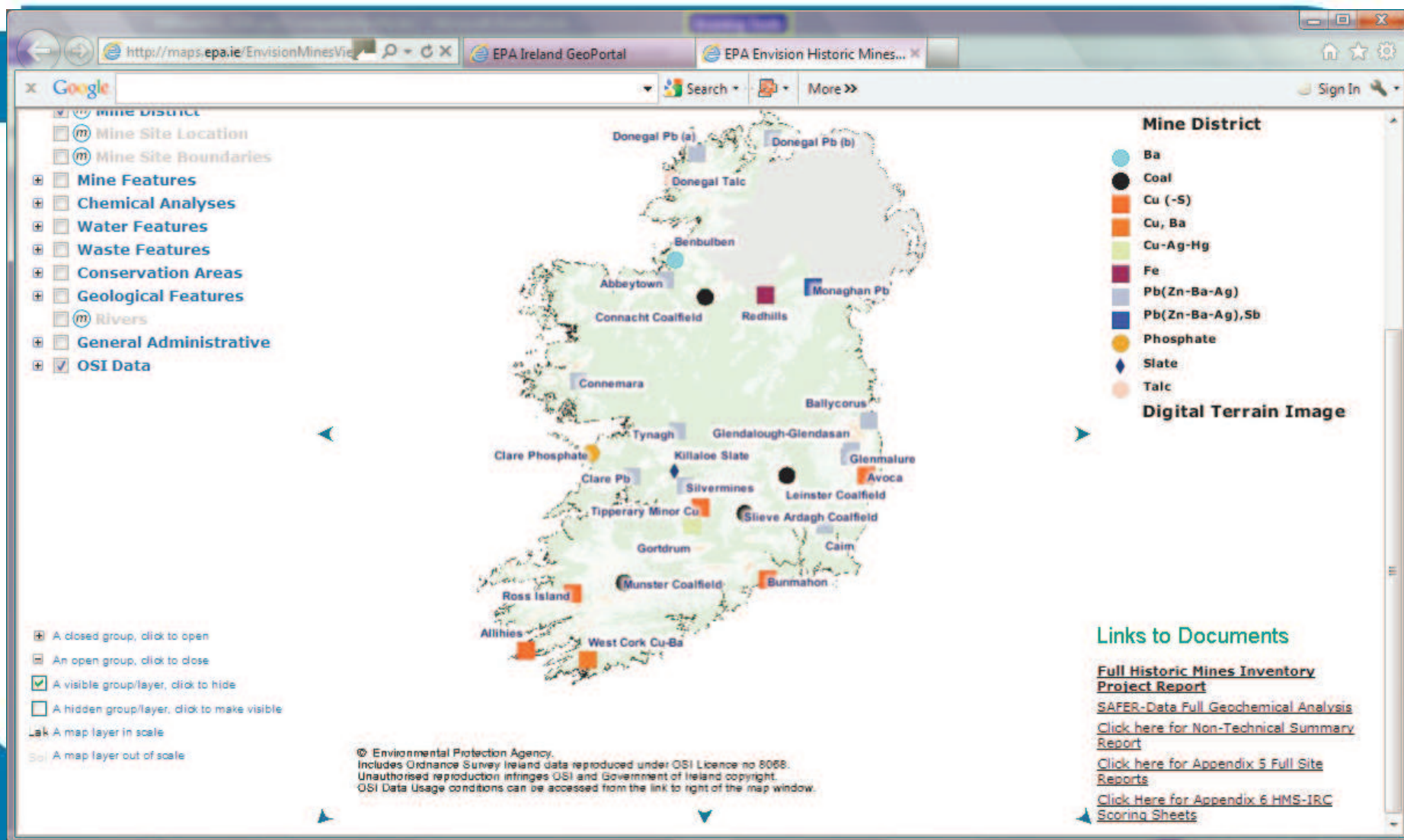
- [Sample output report from site](#)



# Historic Mines Project

- Joint EPA – GSI project
- Detailed site investigation of 27 closed and abandoned sites
- Risk ranking of the sites to prioritise corrective actions
- Final report describing methodology and main findings
- Detailed site reports for each mine location
- GIS layers of site locations, mine features, water analyses and mine waste locations
- Photographs taken at site locations
- Data available for download and view





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# Extractive Facilities Register

- A register for Local Authorities only to digitise extractive mining locations and pinpoint the location of the waste facility for the quarry/mine
- This data will add to the data already collected for the Historic Mines Project to create a more comprehensive register of mines and quarries

# EPA Geoportal

Main GIS resource for EPA customers. Allows you to:

- Browse data on one of our 4 different GIS applications
- Search for data via a connection to the main ISDE metadata catalogue
- Download data immediately where there is no OSI licence required or request restricted data
- Contact the GIS team with any queries about data or our websites
- Use an INSPIRE compliant metadata data editor to write and save metadata files about your data

What would you like to do?

[Search For Data](#)

Find data sources by browsing the metadata search catalogue. This catalogue includes data from the EPA, Marine Institute, Geological Survey of Ireland and Marine Digital Atlas.

[Browse a map](#)

Look at spatial data using a WebGIS browser. For general maps please select "Envision", for theme specific maps please select an option from the list that appears.

[Download Data](#)

Access downloadable data from a selection of pre-zipped files for download. If you prefer to preview the data before you download, go to the "Browse a Map" option.



## Write Metadata

Use the free metadata editor to create INSPIRE metadata files (as xml files) for your own data, which you can store in your own file systems or publish to share with others.



[Contact the GIS Team](#)

Contact us if you have any queries or suggestions about any aspect of this GeoPortal or EPA GIS Data.



## Accessibility

This section will give you accessibility information about the EPA services



# Browse Maps

- [Envision](#): the primary WebGIS for general EPA GIS data. Can help you identify what we hold that you might need, or provide “what’s in my backyard” view
- [Splash](#): dedicated website for bathing water quality, updated with Local Authority data as they publish it
- Envision mines: dedicated WebGIS for historic mines project
- [PRTR](#): Pollution Release and Transfer Register, showing emissions from licensed locations



# ENVision

environmental maps at your fingertips

## Find Your Townland

Select County



## Legend

Digital Terrain Image

## Layers

- ☐ General Gazetteer
- ☐ Licenses and Enforcement
- ☐ Air Quality
- ☐ Surface Water Quality
- ☐ Groundwater Quality
- ☐ Cleaner Greener Production
- ☐ WFD Status
- ☐ WFD Protected Areas
- ☐ Water Features
- ☐ Water Regions
- ☐ National Soils Database
- ☐ Land
- ☐ General Administrative

- ☐ A closed group, click to open
- ☐ An open group, click to close
- ☒ A visible group/layer, click to hide
- ☐ A hidden group/layer, click to make visible
- ☐ A map layer in scale
- ☐ A map layer out of scale

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Includes Ordnance Survey Ireland data reproduced under OSI Licence EN0050208.  
Unauthorised reproduction infringes OSI and Government of Ireland copyright.  
OSI Data Usage conditions can be accessed from the link to right of the map window.

## Links

- [Information about data changes and updates](#)
- [More information on EPA spatial data services](#)
- [Usage of this viewer implies acceptance of these conditions](#)

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## Select Location

### Local Authority

Wexford County Council

### Bathing Water

Ballymoney, North Beach

### River Basin

Not specified

Go >

To view results for a bathing water, select a local authority or river basin district to list their bathing waters and then choose your bathing water or use the map to zoom to your preferred bathing water.

## Bathing Safety

Check out [Lifeguard availability](#)  
Find out more about [Bathing Safety & Lifeguard Info](#)

## Blue Flag Status

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The latest water quality of a bathing water is assessed on the most recent sample analysis results. Overall water quality of a bathing water is assessed on all sample analysis results taken for the bathing season (1 June - 15 September) and pre-season sampling period (22 - 31 May).

Please contact the relevant local authority if you have any queries on the information shown below.

## Latest Bathing Water Results 13/9/2011

Parameters	Result	Status	EU Guide Limits	EU Mandatory Limits
Escherichia coli (cfu/100ml)	2	Good	100	2000
Intestinal enterococci (cfu/100ml)	72	Good	100	

During the Transition Period (2011-2013) for Intestinal enterococci, all bathing waters get compliant with mandatory value automatically as no corresponding mandatory limit is specified in 1992 Regulations.

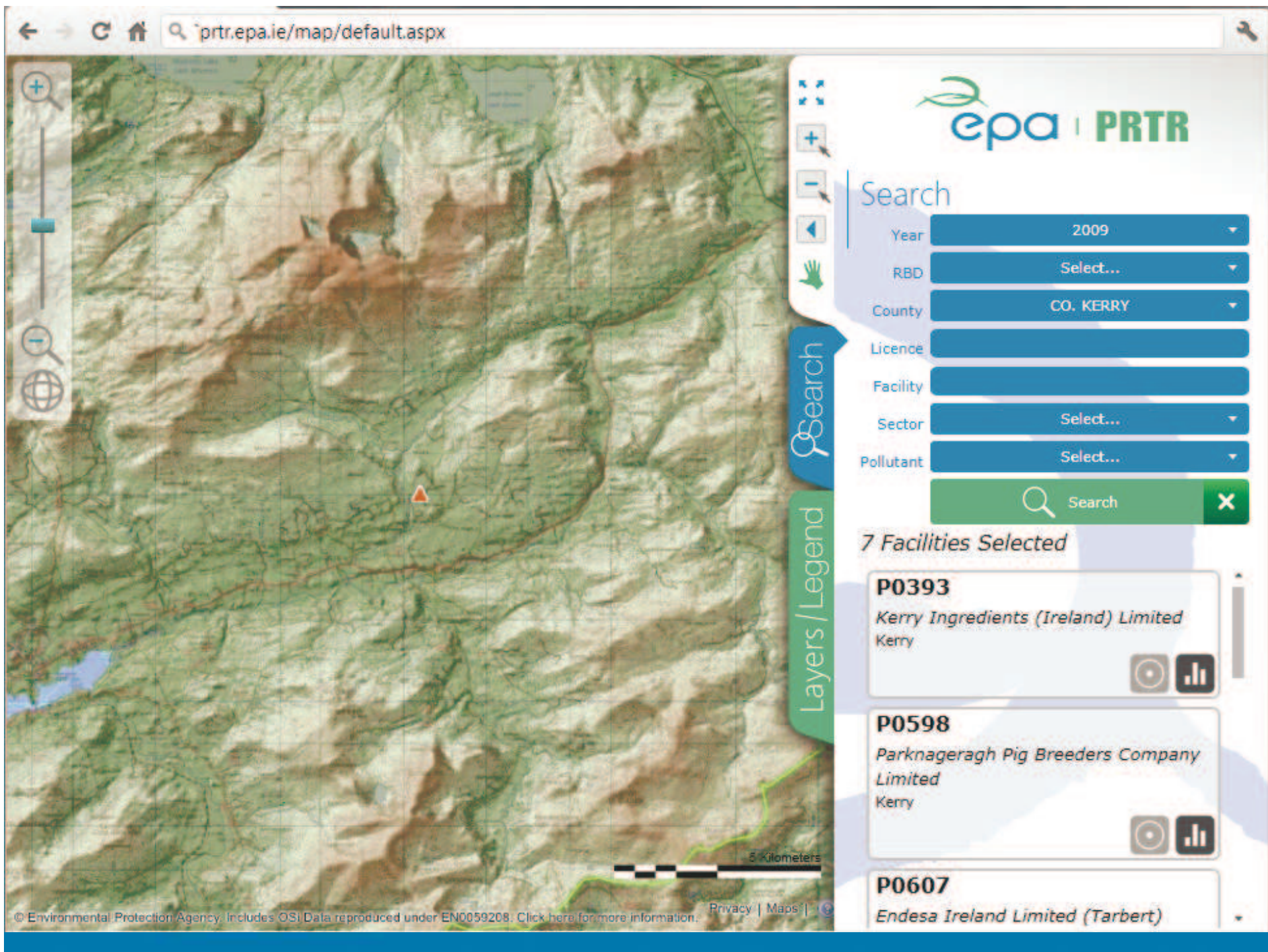
## Bathing Season Results

Date	Overall Status	Escherichia coli	Intestinal enterococci
13/09/11	Good	Good	Good
06/09/11	Sufficient	Good	Sufficient
30/08/11	Good	Good	Good

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# Search for data

The screenshot shows a web browser window with the URL <http://isdsearch.marine.ie/isdeportal/>. The browser tabs include "EPA Ireland GeoPortal" and "Irish Spatial Data Exchange". The page features the ISDE logo and navigation links: "About ISDE", "ISDE Search", "Links", "News", and "Contact". A breadcrumb trail indicates "You are here: About ISDE". The version is "version 10.1 Beta © ISDI".

The search interface includes a "Search Metadata" section with the following fields and options:

- Search for:** EPA
- in:** Complete Metadata (dropdown menu)
- Data Catalogue Source:** ☒ All ☐ Marine Institute
- Buttons:** Clear, Search Metadata
- Links:** Viewer, Help, Advanced Search Criteria

Below the search section, it states "Displaying 1 to 10 of 22 records". The first record is displayed with the following details:

- Resource Title:** National Groundwater Bodies
- Resource Type:** dataset
- Data Owner:** Geological Survey of Ireland
- Geographical Bounding Box:** -10.875678, 51.370743, -5.874678, 55.451953
- Actions:** [Show Summary](#), [Show Full Metadata Record](#)

A small map thumbnail is visible next to the record details.



# Download data

## Corine Landcover

## Soils and Subsoils

## EPA Licensed Facilities

## Water/Water Framework Directive

## Water Quality and Monitoring

- |  |   |
|--|---|
| <input type="radio"/> Biological Q Stations 27/01/2011                   | <input type="radio"/> Groundwater Quality 2007 - 2009             |
| <input checked="" type="radio"/> Biological Q Results 25/10/2011         | <input type="radio"/> Hydrometric Gauges Register 05/11/2010      |
| <input type="radio"/> Groundwater Monitoring Stations                    | <input type="radio"/> Groundwater Sampling points pre-WFD         |
| <input type="radio"/> Marine Water Quality 2004-2006                     | <input type="radio"/> Groundwater Quality (pre-WFD)               |
| <input type="radio"/> Marine Water Quality 2007-2009                     | <input type="radio"/> Groundwater Levels (pre-WFD)                |
| <input type="radio"/> Lakes Water Quality 2000 - 2003                    | <input type="radio"/> South East Water Quality 2007               |
| <input type="radio"/> Lakes Water Quality 2007 - 2009                    | <input type="radio"/> River Stations (Chemical)                   |
| <input type="radio"/> Groundwater Quality - Indicator Report 2007 - 2008 | <input type="radio"/> Bathing Water Locations and Compliance Data |

## Mines

Some of the datasets are updated when required. If you want to receive an update notification about this dataset please tick

☒ Notify me for updates

Please enter your email address to get the download link

Please re-enter your email

Send

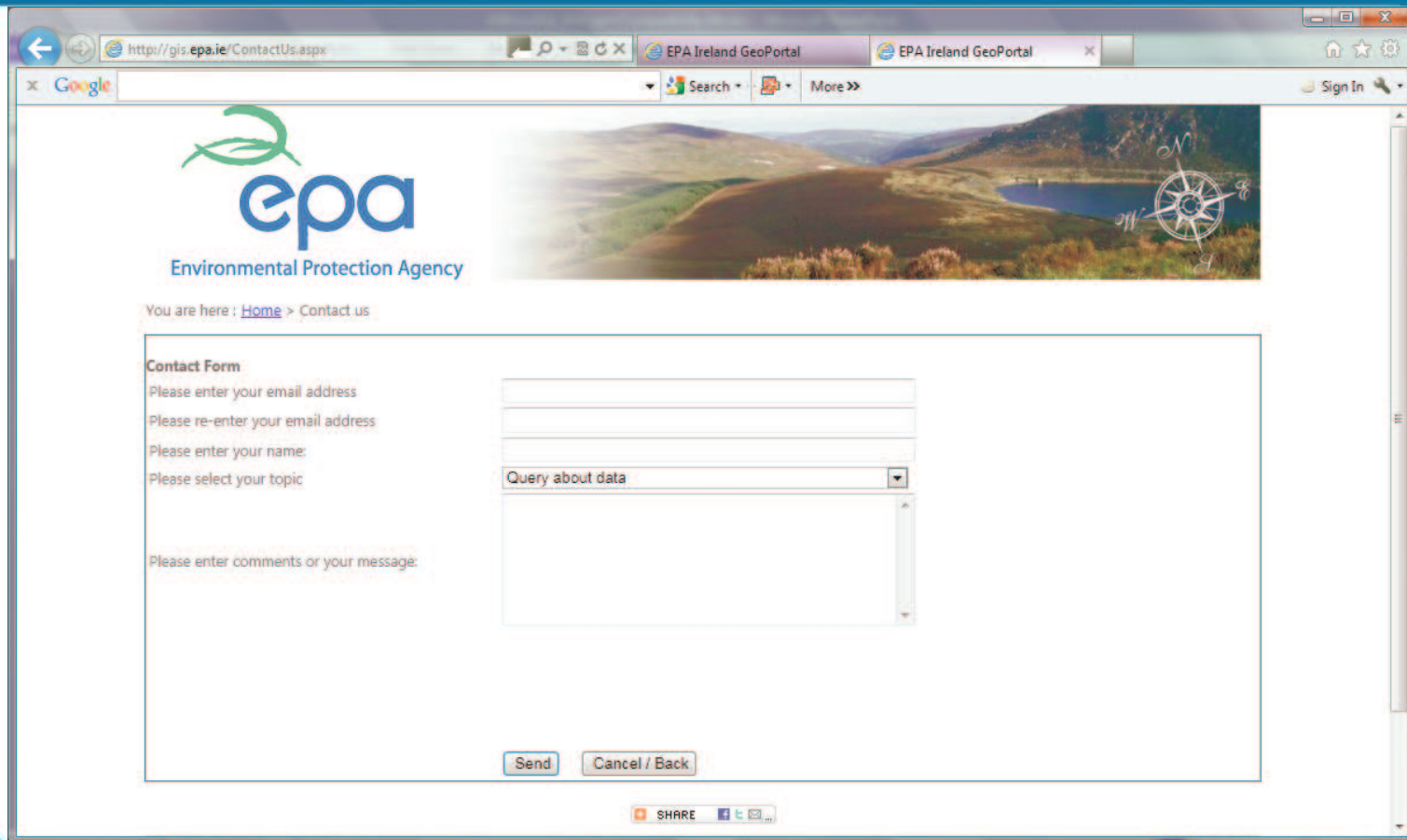
Go Back To Main Page



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# Contact GIS team



The screenshot shows a web browser window with the URL <http://gis.epa.ie/ContactUs.aspx>. The page features the EPA logo and a banner image of a landscape with a lake and a compass rose. The breadcrumb trail indicates the user is at [Home](#) > [Contact us](#).

**Contact Form**

Please enter your email address:

Please re-enter your email address:

Please enter your name:

Please select your topic:

Please enter comments or your message:

At the bottom, there is a "SHARE" button and social media icons for Facebook, Twitter, and LinkedIn.

# Write metadata

http://gis.epa.ie/metadata/editor/ EPA INSPIRE / ISDE Metadata...

Google Search More >> Sign In

EPA Ireland INSPIRE / ISDE Metadata Editor Test Page. For enquiries contact Ozan EMEM (o.emem@epa.ie) or Fiona O'Rourke (f.lawlor@epa.ie)

Metadata Editor Main (Dataset)

Metadata*
Identification_1*
Identification_2
Spatial
Classification*
Keyword*
Maintenance
Geographic*
Temporal*
Quality/Validity*
Conformity*
Constraints*
Organization*
Distribution*

**Metadata Point Of Contact**

E-mail

Organization Name

Metadata Date <yyyy-MM-dd>

Metadata Language eng