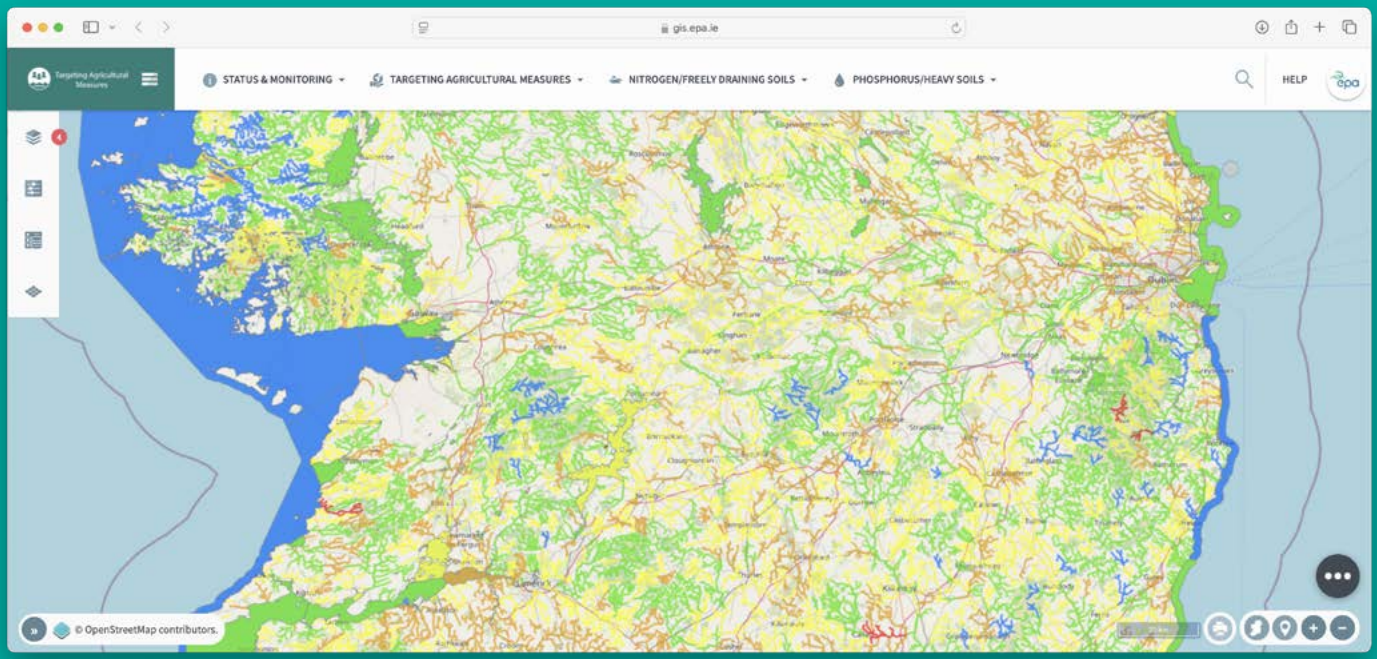
Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

The EPA Targeting Agricultural Measures Mapping Tool

Learn about your local water quality and what you can do to protect and restore it.



A new user-friendly EPA Targeting Agricultural Measures Mapping Tool is now available. The EPA Targeting Agricultural Measures Mapping Tool has key information that will help farmers and other landholders learn about their local water quality and what action needs to be taken.

Agriculture in Ireland has a significant role to play in helping the country to achieve good water quality targets as set by the Water Framework Directive.

Agriculture is the most common land use in Ireland, covering approximately 70% of the country, the majority of which is in pasture. Agriculture has been identified as the most prevalent significant pressure, impacting over 1000 waterbodies, or approximately 60% of all waterbodies At Risk of not achieving their environmental objective under the Water Framework Directive.

What information is on the EPA Targeting Agriculture Measures Mapping Tool?

The new EPA Targeting Agricultural Measures Map has information under these menu headings:

- Status & Monitoring
- Targeting Agricultural Measures
- Nitrogen/Freely Draining Soils
- Phosphorus/Heavy Soils

Status and Monitoring

- **WFD status 2016-2021** shows the latest water quality status for all rivers, lakes, estuaries, and coastal waters in Ireland – *these are already switched on when you open the map*.
- **National Water Monitoring Stations** shows the locations where water is monitored.

Targeting Agricultural Measures

- **Targeting Agricultural Measures** shows what the issue/pollutant is in waterbodies that are impacted by agriculture.
- **River Agricultural Pressures** – this shows the river waterbodies where agriculture is a significant pressure on water quality.

Nitrogen/Freely Draining Soils

- **Nitrogen is more likely to be an issue in areas with freely draining soils, where water tends to drain away down through the soil.**
- **Pollution Impact Potential – Nitrate (PIP-N)** shows the most likely areas for nitrate losses.

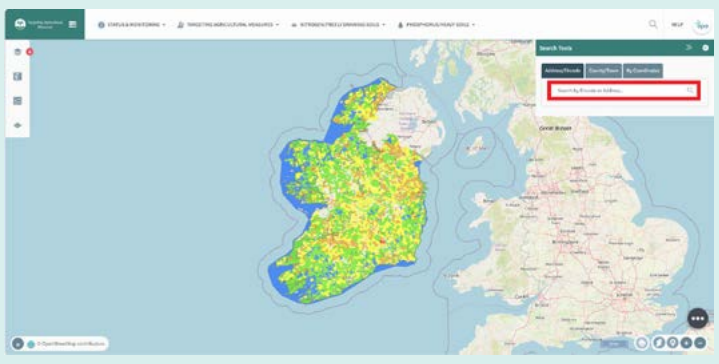
Phosphorus/Heavy Soils

- **Phosphorus and Sediment run off is more likely to be an issue in areas with heavy soils, where water tends to flow overland.**
- **Pollution Impact Potential – Phosphorus (PIP-P)** shows the most likely areas for phosphorus losses.
- **PIP-P Flow Delivery Paths** show the paths where water is most likely to flow overland.
- **PIP-P Flow Delivery Points** show the points where water flowing overland is likely to enter a watercourse – these are potentially good spots for interception measures, like buffer strips.

You can access the EPA Targeting Agricultural Measures Mapping Tool here https://gis.epa.ie/EPAMaps/agriculture or by using this QR Code:

How to find your house and farm on the map using your Eircode

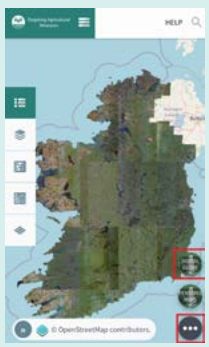
When this map opens, you can **enter your Eircode in the search box** (highlighted red) to zoom to your house. You can find your location on the Targeting Agricultural Measures Map using the Eircode search, which is highlighted with a red box in the screenshot above on your mobile phone (left) or a computer (right).

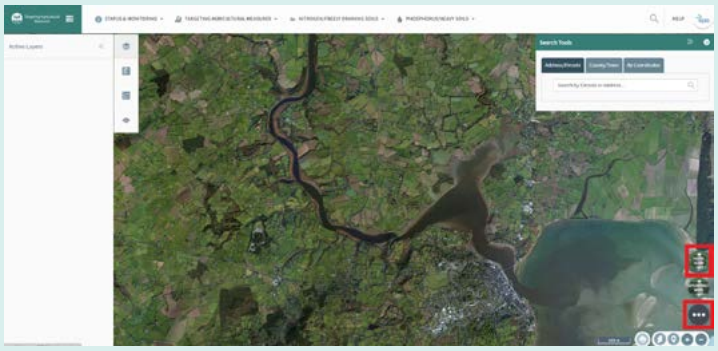


You may need to zoom out slightly by using pinch-to-zoom on your phone, or by using the minus key on the bottom right on your computer, so you can view certain information on the map.

Turning on satellite imagery

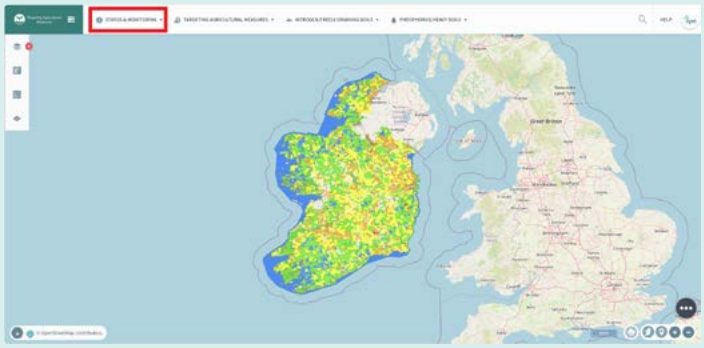
It may be easier to see your farm and fields on the map if you turn on the satellite imagery on the map – you can do this by selecting the three dots on the bottom right of the map and choosing '*Digital Globe*'.





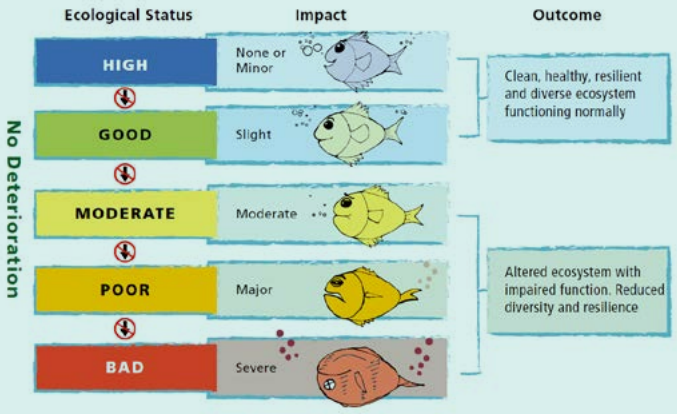
Status and Monitoring

The menu location for 'Status and Monitoring' on mobile (left) and a computer (right).



Ecological Status 2016-2021: When the map is first opened, it shows the latest water quality (ecological status) for all rivers, lakes, estuaries, and coastal waters in Ireland.

- You may need to zoom out to find the nearest waterbody.
- The waterbodies are coloured based on their current ecological status.
- **National Water Monitoring Stations:** this layer shows where monitoring stations are located. You can switch this on by finding the 'Status and Monitoring' menu and then toggling the switch for 'National Monitoring Water Stations'.



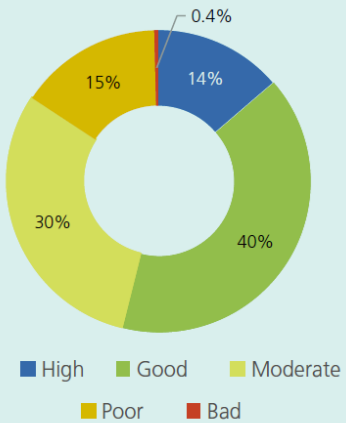
Ecological Status 2016-2021 – how healthy are our waters?

Just over half (54%) of our surface waters (rivers, lakes, estuaries and coastal waters) are in satisfactory ecological health, being in either good or better ecological status.

This means that just under half (46%) of the surface water bodies in Ireland are not as ecologically healthy or resilient as they should be.

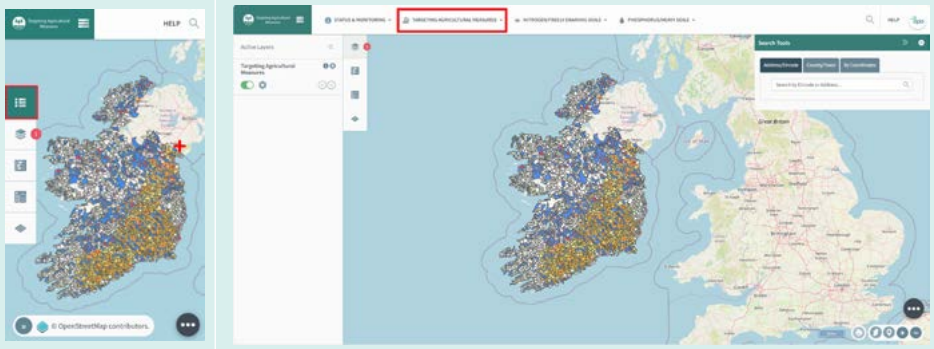
All waterbodies need to be protected, and any waterbodies that are not meeting their environmental objectives of good or high ecological status need action to restore the water quality to what it should be.

Right: Proportion of all surface water bodies in each ecological status class 2016-2021



Targeting Agricultural Measures

The menu location for 'Targeting Agricultural Measures' on phone (left) and a computer (right).



- **Targeting Agricultural Measures** shows what the issue/pollutant is in waterbodies that are impacted by agriculture.
- Where agricultural measures are needed to improve water quality, one or more colours indicate the types of water quality issues in that area. This helps farmers in these areas to focus on actions that are likely to have the best water quality results.
- The map has white for 'Protect' in areas where there are no agricultural significant pressures on water quality; in these areas it is still important that everyone takes action to continue to protect water quality.

Orange: Priority - High Nitrate

Yellow: Risk of Nitrate Losses

Blue: Phosphorus/Sediment

Blue & Orange: Phosphorus/Sediment & Nitrate

Blue & Red: Phosphorus/Sediment & Point Sources

Blue & Orange & Red: Phosphorus/ Sediment, Nitrate & Point Sources

White: Protect

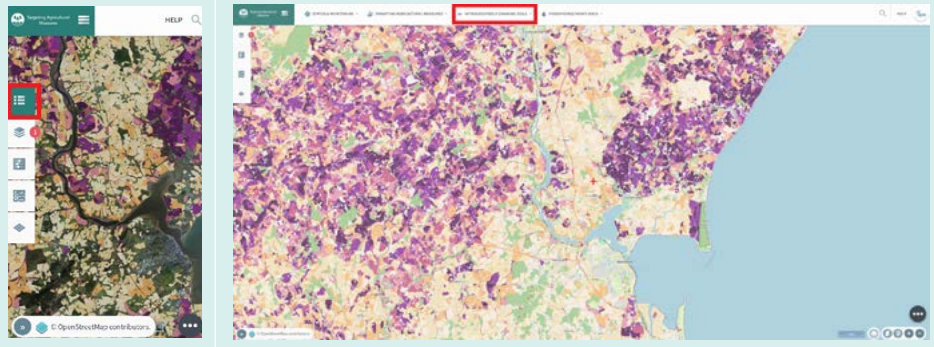
River agriculture pressures: This layer shows all river waterbodies in Ireland where agriculture is a significant pressure

- An agricultural significant pressure can be caused by diffuse and/or point source(s) of pollution
- *Diffuse pollution sources are those spread out, for example, a source which is spread across several fields; point sources are those from a point, for example a farmyard, or drainage outfall pipe*
- Many of our waterbodies have multiple significant pressures

Nitrogen / Freely Draining Soils

Nitrogen is more likely to be an issue in areas with freely draining soils, where water tends to drain away down through the soil.

The menu location for 'Nitrogen/ Freely Draining Soils on a phone (left) and a computer (right).



Pollution Impact Potential – Nitrate (PIP-N): This layer shows Nitrate Critical Source Areas (CSA) where there is a diffuse source of N from agricultural areas and the land is susceptible to nitrogen losses.

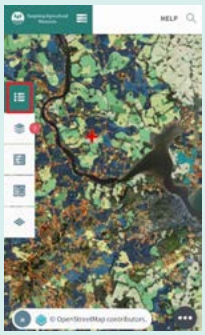
- **The more intense the colour the higher the risk of nitrogen losses in the area.**
- This 'High PIP' (Rank 1, 2 or 3) is typically due to the presence of freely draining soils and high livestock intensity.

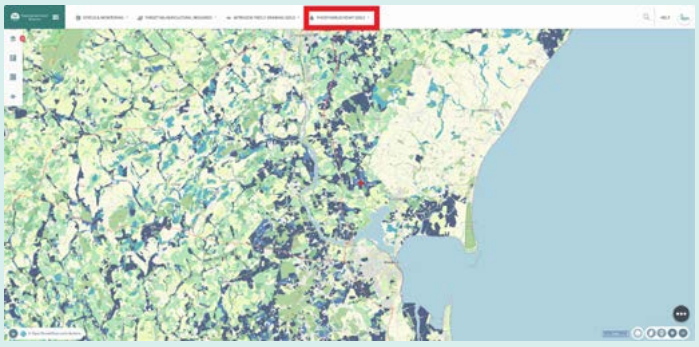
You may need to zoom out by using pinch-to-zoom on your phone, or by using the minus key on the bottom right on your computer, so you can view the PIP-N Maps.

Phosphorus / Heavy Soils

Phosphorus and/or Sediment run off are more likely to be an issue in areas with heavy soils, where water tends to flow overland

The menu location for 'Phosphorus/Heavy Soils' on a phone (left) and on a computer (right).





Pollution Impact Potential - Phosphorus (PIP-P): This layer shows Phosphorus Critical Source Areas (CSAs) where there is a diffuse source of P from agricultural areas and the land is susceptible to phosphorus losses.

- **The more intense the colour the higher the risk of P losses in that area.**
- 'High PIP' (Rank 1, 2 or 3) is typically due to the presence of heavy, poorly draining soils and moderate/high livestock intensity.

You may need to zoom out by using pinch-to-zoom on your phone, or by using the minus key on the bottom right on your computer, so you can view the PIP-P Maps.

PIP-P Flow Delivery Paths show the path where water is most likely to flow overland.

- The red flow paths have the highest surface runoff of water.
- You should look at both *PIP-P Flow Delivery Paths* and the *Pollution Impact Potential – Phosphorus* together to see areas of land that have a high pollution impact potential for phosphorus and also water flowing overland that can carry this phosphorus to a nearby stream, river, or lake. Where flow delivery paths cross areas of land with high PIP-P, losses of P are likely to be higher.
- Sediment can also be carried by this water flowing overland.

PIP-P Flow Delivery Points show where water flowing over land and potentially carrying phosphorus or sediment is likely to enter a watercourse, like a stream, river or lake.

- The size of the point indicates the relative volume of water flowing.
- **These are points where interception measures like buffer strips could be considered.**

Teagasc: Better Farming for Water - 8 actions for change

Better Farming for Water
8-Actions for Change

Teagasc
Agriculture and Food Development Authority

Teagasc have launched a national campaign with 8 actions for change. This campaign will include clear, simple and positive messaging to enhance farmers' and the agri-food industry's understanding of the agriculture pressures on water quality and the need for improvement.

Learn more at
www.teagasc.ie/environment/water-quality/better-farming-for-water/
or by using this QR Code:

Teagasc's 8 Actions for Change are:

- Reduce purchased nitrogen (N) and phosphorus (P) surplus per hectare.
- Ensure soil fertility is optimal for lime, phosphorus and potassium.
- Ensure application of fertiliser and organic manure at appropriate times and conditions.
- Have sufficient slurry and soiled water storage capacity.
- Manage and minimise nutrient loss from farmyards and roadways.
- Fence off watercourses to prevent bovine access.
- Promote targeted use of mitigation actions such as riparian margins, buffer strips and sediment traps to mitigate nutrient and sediment loss to water.
- Maintain over-winter green cover to reduce nutrient leaching from tillage soils.

Learn more about water quality on www.catchments.ie

Living in a catchment that has healthy water can help a community to have a better quality of life.

A healthy water catchment provides high-quality drinking water and supports livelihoods such as agriculture, recreational angling and water sports. It also supports local ecosystems so plants, animals, fish and insects that depend on having healthy water can thrive and flourish.

catchments.ie shares science and stories about Ireland's water catchments, and people's connections to their water.

For water, a catchment is simply defined as an area of land that drains into a river, lake or other body of water.

catchments.ie
Water from source to sea

www.catchments.ie
www.epa.ie

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