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Update on pressures impacting on water quality – May 2024

Introduction

Introduction

This report provides a summary of the latest EPA assessment of the pressures and impacts on our waters using data up to 2021.

Key Messages

The outcomes are compared with the assessments for 2015 and 2018 to provide an indication of direction and pace of change in response to measures.

Risk Assessment

The pressures have been identified using over 140 datasets, including water quality monitoring data, data on landuse and human activities in catchments, and models and tools to assess the relative importance and impacts of the pressures.

Significant Impacts

Significant Pressures

Significant Pressure Change

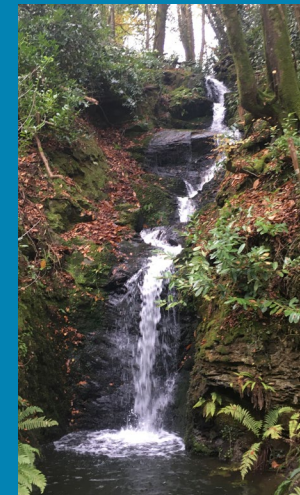
Targeting Action

For science, stories, data and dashboards go to www.catchments.ie

You can [view the latest status, pressures and other information](#) about all our waterbodies on the EPA Water Map



Learn about [the EPA's methodology for the WFD characterisation process](#)



Key Findings

Introduction

34% of waterbodies are currently *At Risk* of not meeting their environmental objectives and need to be prioritised for action to restore water quality.

Key Messages

Nutrient losses, physical changes to habitat conditions and organic pollution are the dominant significant impacts driving this risk.

Risk Assessment

Agriculture is the most **significant pressure** impacting over 1000 waterbodies, followed by hydromorphological pressures (physical changes to habitat conditions), forestry and urban wastewater.

Significant Impacts

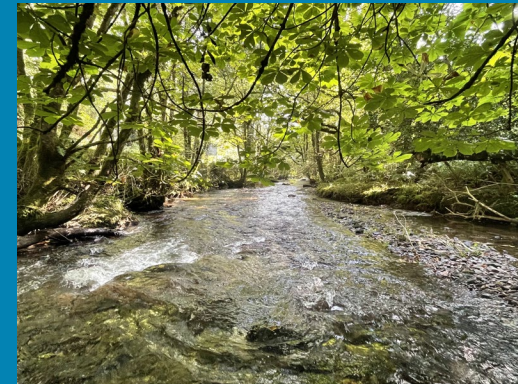
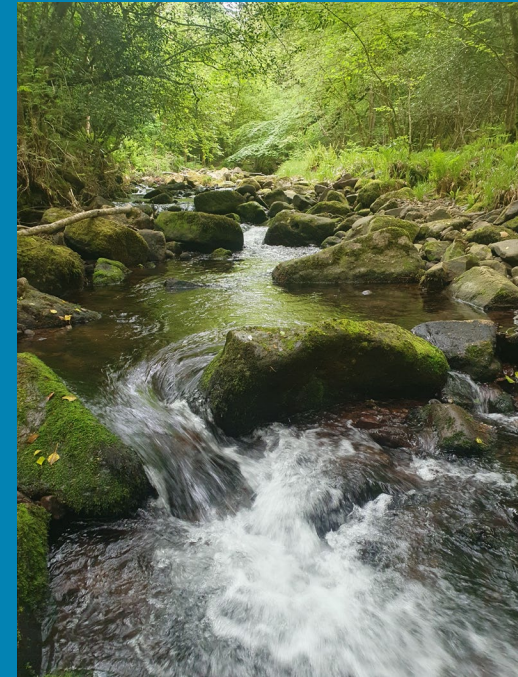
The output of this pressure and impact assessment provide the evidence to support the targeting of action.

Significant Pressures

Improvements in tracking and reporting on progress with measures implementation will be an important priority for the third river basin management plan, to allow more refined assessments of whether the measures are working.

Significant Pressure Change

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Risk Assessment

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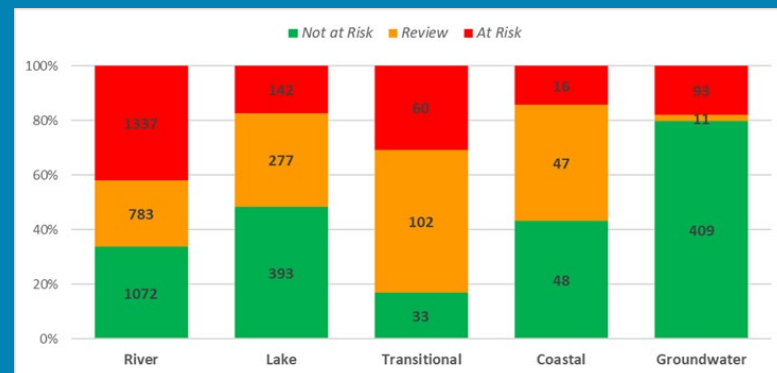
Risk assessments are carried out to determine the risk of a waterbody not meeting its environmental objectives. This latest assessment was carried out using data up to 2021 and considers whether the objective is likely to be met in 2027. Three risk categories are assigned:

- 'At Risk' waterbodies are not achieving their environmental objective, or there is a trend that indicates that they may no longer meet their objectives by the end of the cycle. The impacts and issues are known.
 - *Actions to restore water quality are required.*
- 'Not At Risk' waterbodies are currently achieving environmental objectives.
 - *Actions to protect water quality are required.*
- 'Review' waterbodies may be unmonitored and further evidence is required to determine risk. For monitored waterbodies, there may be some evidence of improvement, or measures are planned/recently implemented, and more time is needed to assess the effectiveness of such measures.
 - *Additional monitoring and/or assessment is needed. Actions to protect water quality are required.*

1648 waterbodies (34%) are **At Risk** of not meeting their objectives, the majority of which are rivers.

1955 waterbodies (40%) are **Not At Risk**, the largest share proportionally are Groundwaters.

1220 waterbodies (25%) are under **Review**.



Risk categories for all waterbody types (2021 assessment).

Significant impacts driving risk

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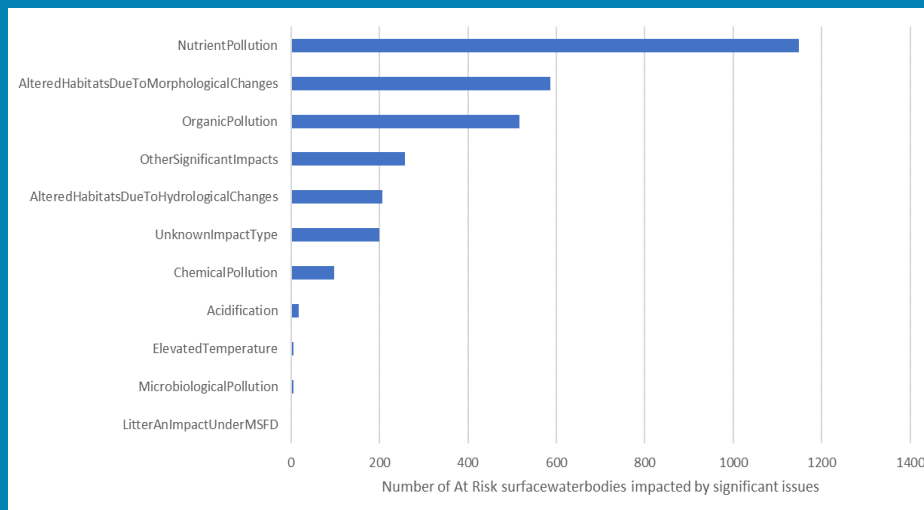
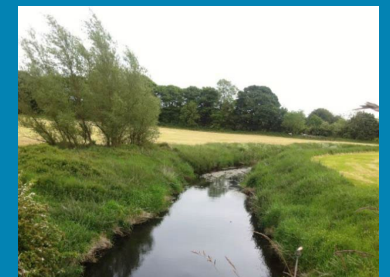
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The main issue impacting on our waters is **nutrient pollution** (nitrogen and phosphorus) from agriculture and urban wastewater.

Physical changes to the habitat conditions (referred to as morphology) of a waterbody is the second most prevalent issue impacting on water quality. Many of these activities are associated with dredging and straightening of river channels, and drainage.

Organic pollution (ammonia and high biological oxygen demand), typically associated with insufficient wastewater treatment and/or farmyard effluents is the third most significant issue.

View the [impacts and pressures dashboard on catchments.ie](https://www.catchments.ie)



Number of At Risk surface waterbodies impacted by various significant issues in 2021.

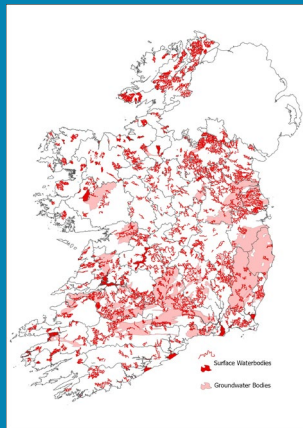
Significant Pressures in 2021

Introduction

For those waterbodies identified as At Risk of not achieving their environmental objectives in 2021, **agriculture**, **hydromorphology** (physical habitat modification), **forestry** and **urban wastewater** were the top four significant pressures.

Key Messages

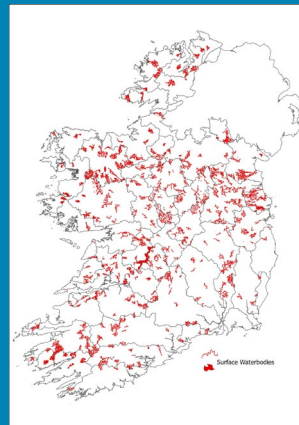
Agriculture was the most dominant significant pressure. Impacts on water quality are largely due to loss of nutrients, organic pollution and sediment.



Waterbodies where **agriculture** was identified as a significant pressure in 2021.

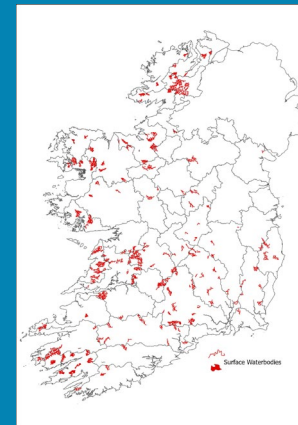
More information on significant pressures is on [catchments.ie](http://www.catchments.ie/significant-pressures/)

Physical Modification means the impact to a waterbody's hydromorphology (physical habitat condition, flows and levels). These are important elements that together act as a foundation to support healthy aquatic ecosystems. Such pressures include dredging, channel maintenance, land drainage, flood protection and barriers.



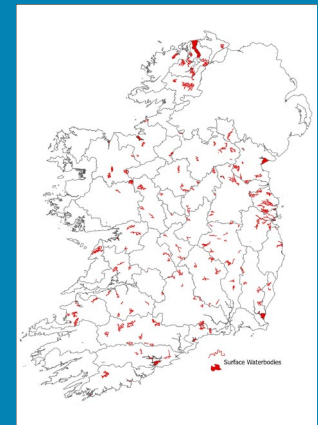
Surface waterbodies where **physical modification** was identified as a significant pressure in 2021.

Forestry activities, such as clearfelling, thinning, planting and site preparation (e.g. land drainage) can release fine sediment and nutrients to surface waterbodies. Forestry in certain settings can also give rise to acidification impacts.



Surface waterbodies where **forestry** was identified as a significant pressure in 2021.

Urban Wastewater treatment plants and associated networks (combined storm overflow and storm water flows) can impact waterbodies by releasing excess nutrients. Elevated concentrations of microbes to bathing and shellfish waters can also be an issue.



Surface waterbodies where **urban wastewater** was identified as a significant pressure in 2021.

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Changes in Significant Pressures over time

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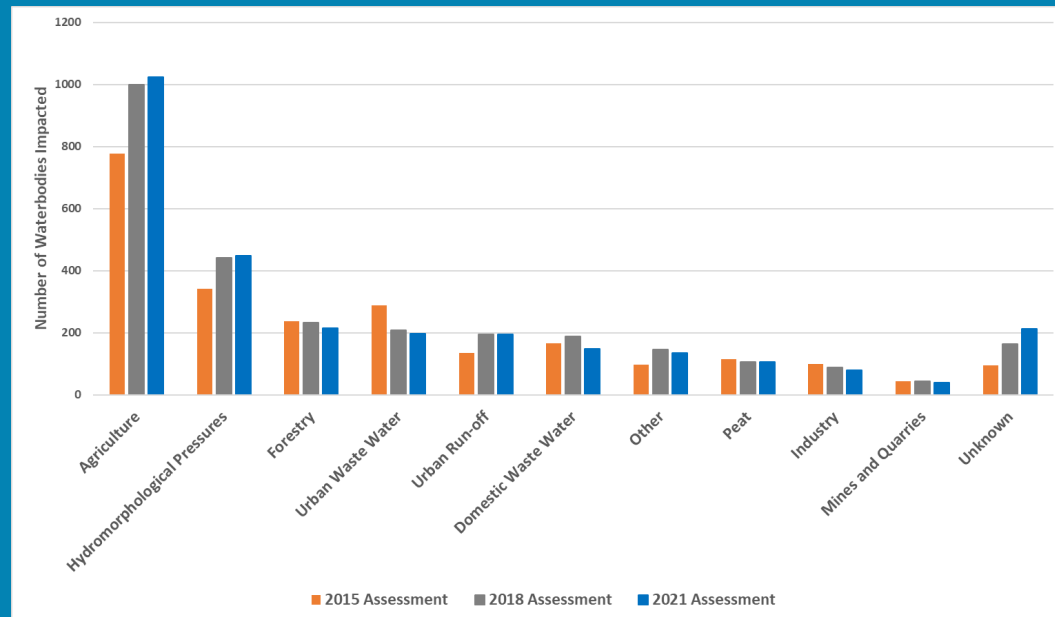
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- The number of At Risk waterbodies with Agriculture as a significant pressure increased by over 200 between 2015 and 2018, and by a further 23 in the period to 2021.
- The apparent increase in Hydromorphological pressures between 2015 and 2018 was due to a combination of new assessment tools and improved understanding of this pressure type. This pressure type will be reassessed as tools and data evolve.
- Numbers have reduced for Urban Wastewater by almost 100 over the three assessments, the majority of which were between 2015 and 2018. The number of waterbodies still impacted remains high in 2021.
- Identification of urban run-off as a significant pressure increased due to additional evidence from EPA, LAWPRO and local authorities between 2015 and 2021.



Change in number of waterbodies impacted by various significant pressures in 2015, 2018 and 2021.

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The EPA characterisation assessments, models and tools are providing the evidence to support the targeting of actions. Some examples are outlined below. The EPA will continue to work with others to track the progress in water quality outcomes, pressures and impacts, which will help in assessing the effectiveness of measures.

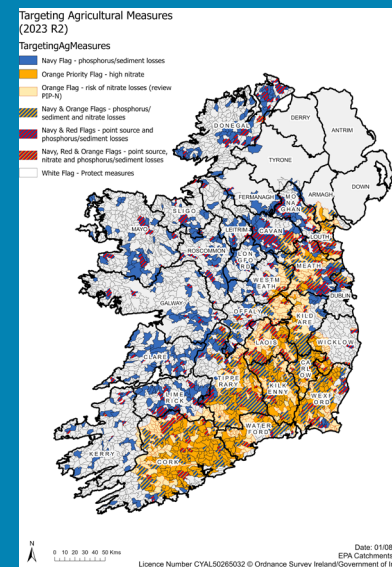
Risk assessment output has informed the identification of **Priority Areas for Action** for the third cycle.

More information on Areas for Action is available at www.catchments.ie/taking-action

Risk assessments for **urban wastewater (UWW) impacts** are used to inform the EPA Priority Action List for investment by Uisce Eireann.

Reports on UWW are published by the EPA: www.epa.ie/publications/compliance--enforcement/waste-water/

A **Targeted Agricultural Measures Map** has been developed to identify the types of agricultural issues that require targeted measures. These are used by Local Authorities as part of the National Agricultural Inspection Programme.



You can [view the targeted agricultural measures on the EPA Water Map.](#)

You can download these maps from gis.epa.ie/getdata/download – see Water/Water Framework Directive/General Information

The pressure and risk assessment outputs, and EPA models and tools, are also informing the [National Domestic Wastewater Inspection Plan](#), the [Agri-Environmental Rural Environment Scheme \(ACRES\)](#), the [Waters of Life](#) EIP project and the new €60M [Water EIP](#) project which will target action on farms to protect water.