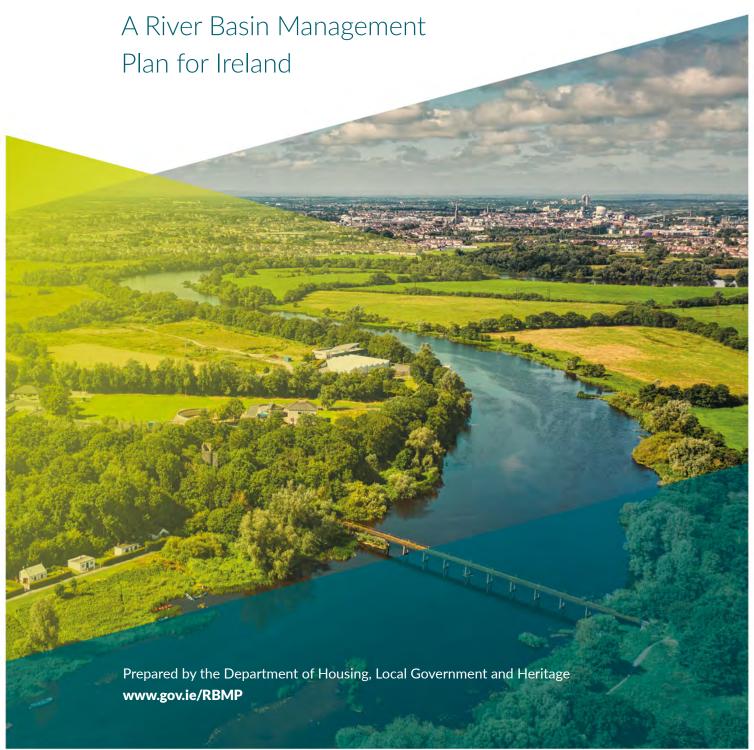


WaterAction Plan 2024



"Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such"

EU Water Framework Directive

Foreword

It is now more apparent than ever that global progress on water-related goals and targets remains alarmingly off track. The considerable challenges to ensuring the sustainable use and management of water resources requires a new determination at a global, national and local scale.

Even in Ireland, where our water quality is comparatively good and water is relatively abundant, our natural water systems are at substantial risk from such issues as increasing nutrient pollution, physical modifications, and urban pollution, all while our water systems are becoming more vulnerable due to changing weather patterns.

This Water Action Plan sets out a roadmap to restore Ireland's water bodies to the equivalent of 'good status' or better and to protect water from any further deterioration.

Ireland's water quality has declined in spite of actions taken to date. This decline in water quality is putting Ireland's 'clean and green' image at risk – as well as the livelihoods of farmers and those working in industries such as food and tourism that depend directly on this green image of Ireland.

This plan focuses on protecting and restoring water quality by preventing and reducing pollution, by restoring the natural ecosystem functions of rivers and by continuing to invest in water infrastructure.

New governance structures have improved how we manage water in an integrated way at local and at national level by bringing together all of the key water stakeholders - people living in catchments, environmental NGOs, farmers, implementing bodies, state agencies and departments, and industry. However, even where progress is being made, we must do more to meet the challenge of protecting and improving our water quality. A collaborative effort is the best way to achieve this outcome as the causes and the answers to protecting and restoring our water catchments are not within the grasp of any one group. Everyone needs healthy and well-protected water catchments - for nature, for growing crops, for our industries, for bathing areas, for clean drinking water supply and for effective sanitation.

In the Water Action Plan 2024 the focus will be on implementing actions to protect and improve water bodies. We will achieve this by ensuring that the necessary resources are available but also by having clear accountability that will require each

implementing body to deliver on the water action targets in the programme of measures. Each agency and authority will be required to monitor and report publicly on its progress. This plan will help mobilise a joint effort of the State, local authorities, public sector agencies, public and private sector companies, environmental organisations, farm organisations and the people living in each river catchment.



Darragh O'Brien, T.D.

Minister for Housing,
Local Government and
Heritage



Minister of State for Nature, Heritage and Electoral Reform

Malcolm Noonan, T.D.

Table of Contents

CHAPTER 1 - THE IMPORTANCE OF PROTECTING OUR NATURAL WATERS	5
CHAPTER 2 - STATUS OF IRELAND'S WATER BODIES	12
CHAPTER 3 - SETTING ENVIRONMENTAL OBJECTIVES	28
CHAPTER 4 - MEASURES REQUIRED	44
CHAPTER 5 - PROGRAMME OF MEASURES TO 2027	51
CHAPTER 6 - IMPLEMENTATION AND GOVERNANCE	74
CHAPTER 7 - PUBLIC AND STAKEHOLDER ENGAGEMENT	88
CHAPTER 8 - ECONOMIC ANALYSIS OF WATER USE	101
CHAPTER 9 - LIST OF ACTIONS	110

Images of River Gods sculptures from Custom House, Custom House Quay, Dublin 1 used with permission of the Office of Public Works. Visit the Custom House Visitor Centre webpage for further information: https://heritageireland.ie/places-to-visit/custom-house-visitor-centre/

*[CABL #] Where stated in the text this is a reference to an indicated action in the 2022 Citizen's Assembly on Biodiversity Loss report recommendations



The Importance of Protecting Our Natural Waters

The Government is committed to protecting and restoring Ireland's natural waters by complying fully with the requirements of the Water Framework Directive. This Water Action Plan will accelerate the identification and implementation of the right measures in the right places to both restore and protect all water bodies.

The importance of protecting our natural waters

Access to sufficient, clean water is essential for human life and is the foundation of all urban and rural society. Ireland has abundant natural water resources. Nevertheless, freshwater for human use is a relatively scarce and limited resource that needs protection. Well-managed and protected water catchments provide vital public goods: reliable, clean water to drink; sanitation; protection against flooding; support for biodiverse ecosystems and climate mitigation. Protecting water is a multifaceted problem and so needs a holistic management approach where all stakeholders are involved. This third-cycle plan sets out how Ireland will manage its water resources and catchments up to 2027.

After many years of steady improvement up to 2012, Ireland is experiencing a sustained decline in water quality since that time as evidenced by the decreasing number of high status water bodies, and the increasing number of moderate and poor status water bodies. Enhanced measures are now required in response to protect water from further declines and to restore water quality. In addition to restoring water quality, sustainable water management is important to address and adapt to Ireland's changing climate. Protecting and restoring water quality in Ireland requires enhanced measures to address the loss of excessive nutrients from land to water; measures to re-establish natural conditions of our rivers: and continued investment to improve wastewater treatment infrastructure. There will be an increasing demand on our urban and rural water and wastewater services due to population and economic growth, all set against a backdrop of widespread, rapid, and intensifying climate change.

Ireland has abundant natural water resources in rivers, lakes and groundwater. These water resources have an inherent and indisputable value themselves, but also provide very significant ecosystem services to our lives and businesses. Ireland's drinking water supplies rely primarily on surface water – rivers and lakes, but smaller schemes in rural areas are often supplied by groundwater. Sources of drinking water are considered for additional monitoring and protection from potential risks such as pesticides, excess nitrogen and from discharges of pollutants of concern (including micro-pollutants). Groundwater must be protected from chemical pollution and especially from excess nitrates.

Our food industry trades on Ireland's image as a clean and green source of sustainable food production. Ireland's tourism industry relies on our image as a green island with well-stocked, healthy fisheries; with unpolluted estuaries without excessive algae or algal blooms; and with clean beaches next to good quality

bathing waters. Each of these requires our water catchments to be well protected.

The Water Policy Landscape

United Nations and Global Water Policy

In 2023, the United Nations held a historic conference on water, the first in a generation. This conference marks a watershed moment in putting the global water crisis on the international agenda alongside climate change and biodiversity loss. At present, humanity is facing a future without water security. A quarter of the global population (2 billion people) rely on unsafe drinking water sources, while 3.6 billion people live without safely managed sanitation. The Conference was a comprehensive review of the 'International Decade for Action'. World leaders, civic society, business and academics focused on a common goal of getting the world on track to meeting Sustainable Development Goal 6 - On Clean Water and Sanitation. The outcome of the conference is a Water Action Agenda (non-binding commitments); included putting water back on the UN Agenda by considering the appointment of a Special Envoy on Water.

Water action has, or will feature, at a number of key Summits: the SDG Summit during the UN General Assembly held in September 2023, the Summit of the Future in 2024, the World Social Summit in 2025, and through the annual High-Level political forum on sustainable development, the Conference of Parties.

United Nations Sustainable Development Goals

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet. At its heart are the 17 integrated Sustainable Development Goals (SDGs). SDG 6 is to 'ensure availability and sustainable management of water and sanitation for all'. To achieve this goal, the UN has set the following targets by 2030:

- Achieve universal and equitable access to safe and affordable drinking water for all
- Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and

substantially increasing recycling and safe reuse globally

- Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

The UN has also included targets to expand international cooperation and capacity-building support to developing countries in water as well as to support and strengthen the participation of local communities in improving water and sanitation management.

European Union Policy

In its 2019 policy roadmap, 'the European Green Deal', the European Union has recognised that climate change and environmental degradation is an existential threat to Europe and to the world. In 2020, the EU agreed a recast Directive on Drinking Water, recently transposed by the European Union (Drinking Water) Regulations 2023. As part of the European Green Deal, the EU Commission is also reviewing water legislation including its directives on urban wastewater, bathing water, environmental quality standards for water, industrial emissions, and sewage sludge.

Ireland

The 2020 Programme for Government contains an ambitious programme for the environment. Under the 'Green New Deal' mission a comprehensive range of actions is outlined including for water, for natural heritage and biodiversity, climate, and environmental emissions. The need for an integrated approach to these issues is recognised, including the potential to deliver integrated measures, which benefit all environmental objectives.

Most recently, the report of the Citizen's Assembly on Biodiversity Loss contained recommendations on freshwater and called for prompt, decisive and urgent action by the State to address biodiversity loss and restoration and to provide leadership in protecting Ireland's biodiversity for future generations.

A Water Action Plan for Ireland

The Water Action Plan 2024 is Ireland's third River Basin Management Plan and it outlines the measures the Government and other sectors are taking to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters, and provide sustainable management of our water resources (as specified under SDG 6). This Water Action Plan enhances and builds upon the work of the first and second-cycle plans. Where necessary, this plan addresses the shortcomings experienced during the implementation of previous plans. The responses to shortcomings addressed include, for example, strengthing the incorporation of the integrated catchment management approach, improving the environmental ambition, improving the evidence base for 'targeting the right measures in the right place' and securing dedicated resources to deliver these, increasing environmental enforcement and compliance, and strengthening the governance structures. The Environmental Protection Agency ('EPA') reports that water quality in Ireland has made some improvements but these are being offset by declines in water quality elsewhere. Just over half of surface waters (rivers, lakes, estuaries and coastal waters) are in satisfactory condition (that is they are achieving good or better ecological status).

Working together

Meeting the challenge of protecting and improving Ireland's water quality will continue to be a complex undertaking. There is also a significant challenge in cross-sectoral coordination. Close coordination is needed to identify and exploit any potential opportunity and co-benefits for mitigating and adapting to climate change as well as for biodiversity protection. In this cycle there will be an emphasis on collective efforts and space given to collaborative activities to encourage collaboration and coordination through the governance structures.

Building on the work of the second-cycle River Basin Management Plan, this plan will again describe the main pressures and activities affecting water status and set out the environmental objectives to be achieved up to 2027 and identify the measures needed to achieve these objectives. Implementing these policies and measures will require ongoing collaborative participation of stakeholders at national, regional, sectoral and community levels.

Mission Statement

To take action to protect and improve all of Ireland's water bodies by implementing the right measure in the right place, at the right time, with the objective of reaching as close to full compliance with the Water Framework Directive by 2027 as possible, and closing any remaining gaps as quickly as possible, thereafter, subject to the rules of the directive.

What is the Water Framework Directive?

The Water Framework Directive¹ ('the **Directive**') was adopted by member states across Europe in 2000. It requires an integrated and harmonised approach to water policy, protection and management across Europe. The Directive sets our consistent management units for all natural waters:

- River basin districts
- · Individual water bodies
- a combined approach to water pollution and a common approach to priority substances

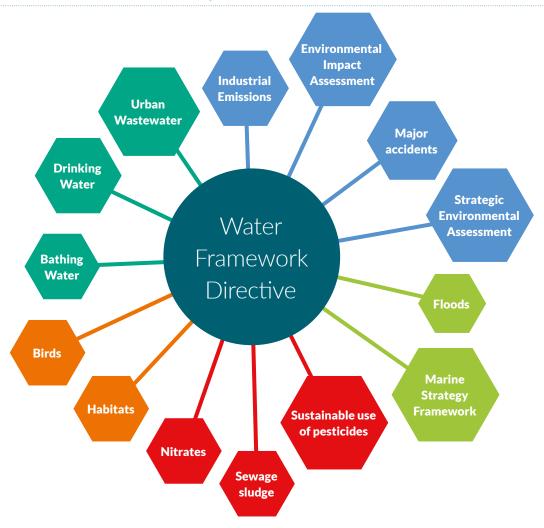
In summary terms, all waters (rivers, lakes, groundwater, estuaries, coastal waters, canals and reservoirs) are protected and measures must be put in place to ensure quality of these waters is restored to at least 'good' status or good potential (with some exceptions) by 2027 at the latest. The Directive applies to all activities that may have an impact on this objective or on the quality or quantity of water.

The Directive requires an integrated approach to water protection and restoration across all policy sectors, including, for example, agriculture, industry, spatial planning policy.

The Water Framework Directive requires that a River Basin Management Plan is published to set out the measures necessary to protect and improve the quality of our waters (See Appendix 3 for details of the elements to be covered in river basin management plans as per Annex VII of the Directive). These plans are prepared in 6-year cycles, during which a programme of measures must be implemented to achieve water quality objectives.

The Directive is linked to, and reinforces, other EU environmental directives including directives relating to the protection of biodiversity (the Birds and Habitats Directives), directives related to specific uses of waters (drinking water, bathing waters, shellfish waters and urban wastewater directives) and to directives concerned with the regulation of activities undertaken in the environment (Industrial Emissions

Figure 1: WFD interaction with other EU legislation



¹ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

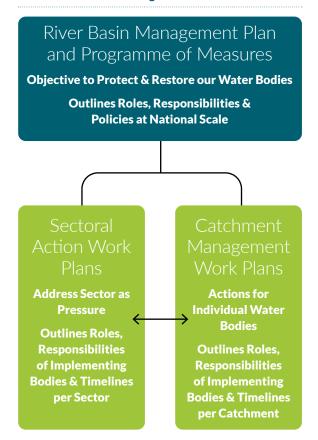
and Environmental Impact Assessment directives). The Nitrates Directive also forms an integral part of the Directive and is one of the key instruments in the protection of waters against agricultural pressures.

Integrated Catchment Management

A water catchment (or 'river basin') is the entire area of land from which surface water run-off flows until it reaches a river, lake, groundwater or the coast. There are various catchment types and sizes. In Ireland the development and implementation of the Water Action Plan 2024 follows an 'Integrated Catchment Management' approach. Catchment, sub-catchments and water bodies are used as management units to examine the pressures on our water resources at an appropriate scale. It is also used as a means to communicate issues and actions when bringing together public bodies, communities and businesses that have a connection with these catchments.

This approach uses the catchment, sub-catchments and water bodies as the functional areas and units of the plan. Integrated catchment management will be further strengthened through the development and use of 46 Catchment Management Work Plans and by supporting Sectoral Action Work Plans. The relationship between the national Water Action Plan, the Sectoral Action Work Plans and 46 Catchment Management Work Plans are illustrated in Figure 2. Integrated catchment management approaches will be used to identify and decide on further specific measures for each water body, where they are required in addition to those set in this plan. These will be included in the 46 Catchment Management Work Plans, which will be used to locate measures within each catchment. The co-benefits of waterfocused measures on climate and biodiversity should also be identified. Sectoral Action Work Plans will be developed by each of the sectors who are responsible for a specific pressure, for example; Agriculture, Forestry, Urban Wastewater. These Sectoral Action Work Plans will follow a standard template which is aligned with the WFD, and which links specific actions to pressures. The objective of all the Sectoral Action Work Plans will be to ensure the sector will no longer be a significant pressure on water status, and will include information on how the sector will address all water bodies at risk from that pressure with a plan to develop evidence-based targeted restoration measures. These plans will also identify protection measures to ensure that no additional water bodies are put at risk from that sector. Where the sector is the sole pressure, clear reasoning for where the required objective of water bodies cannot reasonably be achieved by 2027 will also be included, as required by Article 4; Section 4 of the WFD.

Figure 2: The relationship between the national Water Action Plan, the Sectoral Action Work Plans and 46 Catchment Management Work Plans



These Catchment Management Work Plans and supporting Sectoral Action Work Plans will be developed with an increased level of public participation through new Catchment Community Fora. These fora will be structured public gatherings to allow communities to engage with and understand what is happening in their local water body or catchment, and to work collaboratively with relevant stakeholders. The objective of the Fora is to involve community representatives and other stakeholders who will help to identify and implement measures in their local catchment. Fora establishment, structure and role will be developed by the Local Authorities Waters Programme (LAWPRO) in five pilot catchments in order to develop a framework for a model on a national scale.

The integrated catchment management process involves:

- Gathering the best available information to understand the catchment - where the water comes from, how it flows through the landscape and the activities that may be causing pollution.
- Looking at all the uses of water drinking, agricultural, industrial and recreational, and the ecosystems that depend on water to survive.
- c. Engaging local communities and involving them in the management of their catchment.

- d. Adopting appropriate measures to ensure that activities that represent a significant threat to water resources are effectively managed.
- e. Applying the scientific and local knowledge of how the catchment operates to protect and improve water, providing a healthy, resilient, productive and valued resource that supports vibrant communities.
- f. Review and repeating the process in a cycle of continual improvement.

Water Outcomes

The Water Action Plan includes targeted measures for all water bodies, with the objective of either protecting water bodies at good or high status or restoring water bodies to at least good status.

Where further specific measures are needed in addition to those set in this plan, integrated catchment planning approaches will be used to identify and decide on further specific measures for each water body. This will be reported in 46 Catchment Management Work Plans. These will be used to locate measures within each catchment.

The list of water bodies and their associated status, significant pressures/issues and targeted measures, which are to be included in the Catchment Management Work Plans, will include targets for the third-cycle, along with Key Performance Indicators to monitor progress and outcomes.

Connection to other Plans and Programmes

Ensuring consistent policy integration between the Water Action Plan 2024 and other national and local plans is a continuous process as plans are developed, reviewed and revised. The Strategic Environmental Assessment process has identified the foremost policy papers; plans; and programmes that have an interaction with this plan. The most relevant policy areas include: land use and spatial planning; climate change; flooding protection; water services policy; waste management; food, agriculture and fisheries; forestry; and peatlands.

During the consultation process and policy development dialogue some external stakeholders expressed a view that policy coherence is a priority issue for them and in their view is key to protecting water quality. Building on the strong commitment to the environment which is set out in the Programme for Government, Our Shared Future, the Minister for the Environment, Climate and Communications is set to publish an overarching national statement of environment policy. This policy will result in better coordination between different policy areas and a more effective implementation process.

Ireland's water policy regulations require that every public authority exercise its functions in a manner which is consistent with the provisions of the Water Framework Directive and to secure compliance with the Directive and with the provisions of any river basin management plan. The water objectives of this plan will be integrated into future policy statements. This includes for example climate adaptation plans, marine spatial planning, flood risk management plans, biodiversity plans, agricultural policy, and into spatial plans. One of the aims of this policy integration is to ensure that the opportunities for multiple environmental co-benefits are identified and assessed across inter-related policy areas (See Section 'Other Plans and Programmes' in Chapter 6 for further details). The UN recognises that there are significant co-benefits to managing environmental problems in a more coordinated and sustainable manner². Solutions for addressing the above integrated challenges are available and are being implemented by an increasing number of countries and international river basin authorities.

As highlighted by An Fóram Uisce it is clear that many of the necessary measures and actions undertaken or planned for one component of the environment have co-benefits for other components because of the connectedness of nature. Furthermore, positive intervention in one environmental sphere (e.g. land, water or air) can have positive consequences in each of the others³. The Table below prepared by An Fóram Uisce illustrates how different farming and forestry practices can deliver a range of environmental benefits.

² Climate Change and Water UN-Water Policy Brief. September 2019.

³ A Framework for Integrated Land and Landscape Management (FILLM) Protecting and Enhancing Our Environment. An Fóram Uisce. March 2021

Table 1: Illustration of range of environmental benefits provided by different farming and forestry practices within the Framework for Integrated Land and Landscape Management

Management option to address pressures	Water quality	Biodiversity	Flood mitigation	Soil conservation	Landscape	Climate Change Mitigation	Climate Change Adaptation
Creation of buffer strips, e.g. riparian zones, grass margins.	0	0	0	0	0		0
Planting of clover and multi-species grasses	0	0	_	0	_	0	_
Planting hedges alongside watercourses & across slopes			0		0		0
Liming of mineral soil to ensure optimum pH		_	_		_		0
Agroforestry			0		0		0
Planting with native woodlands				_	0		0
Interception ponds and constructed wetlands			0	0			
Rewetting peatlands			0	_	0		

Management option contributes directly to an environmental benefit

Management option contributes indirectly to an environment benefit

Action 1.1: Integrated catchment management approaches will be used to identify and decide on further specific measures for each water body, where they are required in addition to those set in this plan. These will be included in the 46 Catchment Management Work Plans, which will be used to locate measures within each catchment. The co-benefits of water-focused measures on climate and biodiversity will also be identified.

Action 1.2: The Catchment Management Work Plans will include the list of water bodies, their associated status, significant pressures/issues and targeted measures, along with outcomesbased targets for the third-cycle and key performance indicators to monitor progress and outcomes. Justification for water bodies not meeting their WFD objective by 2027 should also be included in catchment management work plans, in line with Article 4 of the WFD.

Action 1.3: Sectoral Action Work Plans will be developed. They will set out the actions to be taken by the relevant authorities in line with their legally binding general duties under Article 3(1) of the 2003 Water Policy Regulations (SI 722 of 2003).

Action 1.4: When developing new policy, Government Departments will have regard to the OECD principles⁴ for policy coherence to consider cross-cutting issues; trade-offs and synergies with other key policy objectives (Timeline: Ongoing).

⁴ OECD (2019), Recommendation of the Council on Policy Coherence for Sustainable Development, OECD, Paris.



Status of Ireland's Water Bodies

Ireland's river basin management planning process is based on a single national River Basin District that also incorporates two international River Basin Districts, the North Western and the Neagh Bann, which are shared with Northern Ireland.

Description of Ireland's River Basin District

This section sets out a general description of the characteristics of the river basin district. The river basin covers an area of 70,273 km2 and is broken down into 46 catchment management units. The 46 catchment management units based on main river catchments and these catchments are further broken down into 583 sub-catchments. These 583 sub-catchments contain a total of 4,842 water bodies, ranging from 3 to 15 water bodies in each sub-catchment.

Monitoring Programme

The main purpose of Ireland's National Water Quality Monitoring Programme 2022-2027 is to provide a comprehensive national overview of the ecological and chemical status of surface waters and the quantitative and chemical status of groundwaters. The information is used to track progress towards the achievement of the environmental objectives required by the Water Framework Directive, and those set out in the River Basin Management Plan. The programme is comprised of 2,899 surface and groundwater bodies representing 60% of the total number of national water bodies, covering 2,429 river water bodies, 224 lakes, 80 transitional water bodies, 45 coastal waters, 16 canals and 121 groundwater bodies. The programme is operated by the Environmental Protection Agency, Marine Institute, Inland Fisheries Ireland, Waterways Ireland, National Parks and Wildlife Service and Local Authorities.

Figure 3: Map of Groundwater Monitoring Programme (2022 - 2027)

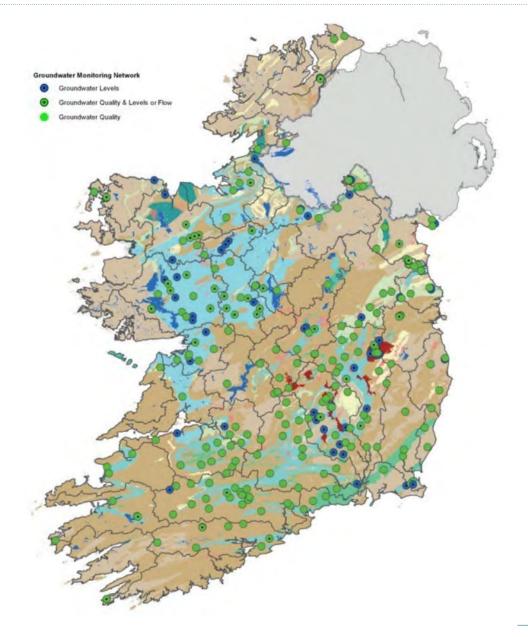
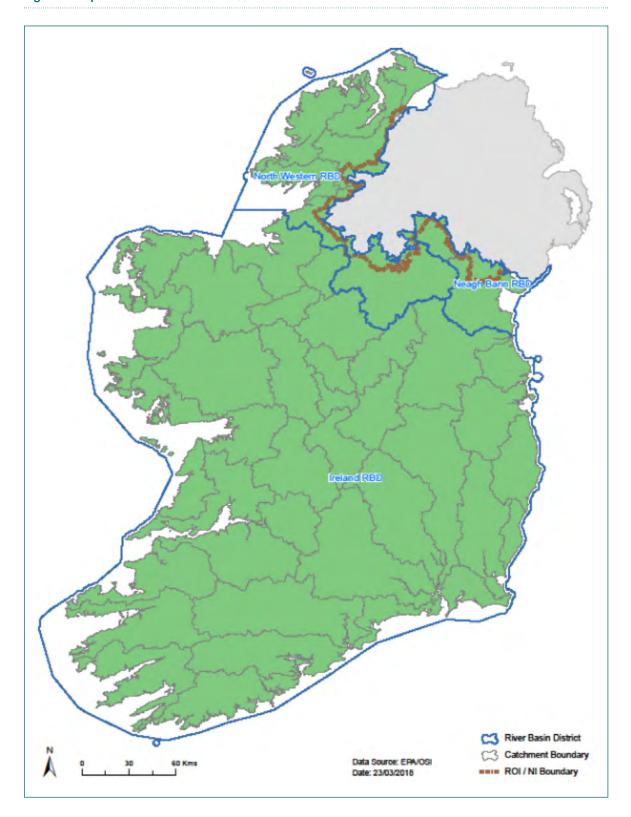


Figure 4: Map of Ireland's River Basin District



What is a "water body"?

A water body is an individual unit of a water feature used for monitoring and planning purposes. For example, in groundwater this is part of an aquifer. For surface water, this is a discrete and significant element of surface water: such as a lake, part of a stream, river or canal, a transitional water or a defined area of coastal water. There are various types including a body of surface water, a body of groundwater and artificial water bodies, which is a body of surface water which has been created in a location where no water body existed before. Finally, there is a particular type of water body called a 'heavily modified water body' (HMWB) which is a surface water which has been significantly altered from its natural state by human activity to serve a specified beneficial use. HMWBs cannot achieve good ecological status due to their alterations, and so must be considered in a different way to an 'unmodified' water body.

Figure 5: Ireland's Catchment Management Units

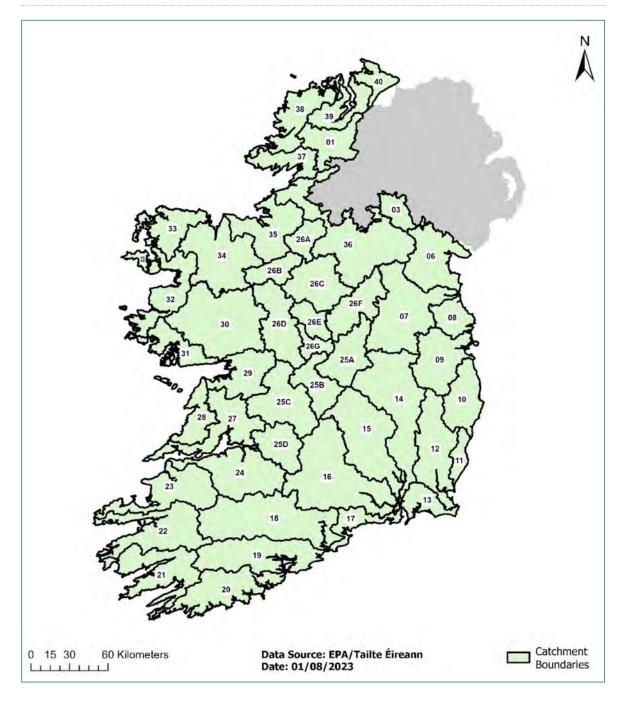


Figure 6: List of Ireland's Catchment Management Units

Catchment No.	Name	Catchment No.	Name
01	Foyle	25C	Lower Shannon
03	Lough Neagh & Lower Bann	25D	Lower Shannon
06	Newry, Fane, Glyde and Dee	26A	Upper Shannon
07	Boyne	26B	Upper Shannon
08	Nanny-Delvin	26C	Upper Shannon
09	Liffey and Dublin Bay	26D	Upper Shannon
10	Avoca-Vartry	26E	Upper Shannon
11	Owenavarragh	26F	Upper Shannon
12	Slaney & Wexford Harbour	26G	Upper Shannon
13	Ballyteigue-Bannow	27	Shannon Estuary North
14	Barrow	28	Mal Bay
15	Nore	29	Galway Bay South East
16	Suir	30	Corrib
17	Colligan-Mahon	31	Galway Bay North
18	Blackwater (Munster)	32	Erriff-Clew Bay
19	Lee Cork Harbour and Youghal Bay	33	Blacksod-Broadhaven
20	Bandon-llen	34	Moy & Kilala Bay
21	Dunmanus-Bantry-Kenmare	35	Sligo Bay
22	Laune-Maine-Dingle Bay	36	Erne
23	Tralee Bay-Feale	37	Donegal Bay North
24	Shannon Estuary South	38	Gweebarra-Sheephaven
25A	Lower Shannon	39	Lough Swily
25B	Lower Shannon	40	Donagh-Moville

These 4,842 water bodies are made up of six water body types: rivers account for 66% of all water bodies, lakes (17%), groundwater (11%), transitional water bodies (4%), coastal water bodies (2%) and canals (<1%).

Catchments data website

Full details, background data, and supporting information for this River Basin Management Plan in relation to each water body and maps of their location within Ireland's River Basin District is available at the catchments.ie website. This site provides substantial background information for this plan and the most current and up-to-date information on the status of your local rivers, lakes and water bodies. Information on how these valuable resources are being used and the environmental pressures they are subject to, is also provided through specific Catchment Assessments that are available for download on the site.

There were 33 water bodies designated as heavily modified in the first and second-cycle plans. Further details on these water bodies and the technical designation review that was carried out for the third-cycle are outlined in Chapter 3. A final public consultation on proposed designations is currently being undertaken by DHLGH. Any new designations will be appended to this River Basin Management Plan for the third-cycle.

Table 2: Breakdown and number of water body types

Water body type	Number of water bodies
River	3,192
Canal	16
Lake	812
Coastal waters	112
Transitional waters	196
Groundwater	514
Total	4,842

Transitional and Coastal Operational Surveillance Lakes Operational Surveillance River Operational Surveillance ber CYALS(265)32 @ Ordnamo: Survey Ireland/Government of Ireland

Figure 7: Map of EPA Monitoring Network 2022 - 2027

Definition of types:

Rivers: Article 2 of the Water Framework Directive defines a 'River' as a body of inland water flowing for the most part on the surface of the land but which may flow underground for part of its course. Ireland has over 84,400km of river channels comprising streams, rivers and tributaries, with 3,192 defined river water bodies.

Canals: Canals are artificial water bodies that are used primarily for recreation and navigation and are part of a wider network that includes feeder streams that supply canals with water. Waterways Ireland

is responsible for the monitoring and assessment of water quality in our canals, including the Grand Canal, the Royal Canal and the canalised section of the Shannon-Erne waterway. The canals traverse 8 catchments across Ireland and are divided into 16 water bodies for the canal monitoring programme.

Lakes: There are an estimated 12,000 lakes in Ireland covering an area of 1,200km². 812 lakes are designated as Water Framework Directive water bodies. Ireland's water bodies includes all lakes that are more than 5 ha in size comprising 206 lakes. For other lakes less than 5 ha in size, then the water

bodies include those in protected areas or those otherwise having a significant value.

Coastal waters: Waters that extend one nautical mile from a baseline defined by the land points where territorial waters are measured and which otherwise have not been designated as transitional waters. Coastal waters cover an area of 13,325km² and incorporate 112 water bodies.

Transitional waters: Transitional waters cover an area of 844 km² over 196 water bodies, and is the term used to describe estuaries and coastal lagoons.

Groundwater: Subdivisions of large geographical areas of aquifers so that they can be effectively managed in order to protect the groundwater and linked surface waters. In practical terms, a groundwater body is that water that is in the saturated zone below the water table down to the level that could be exploited for human activities or support surface flows and ecosystems (default values are used where local data is not readily available). The upper extent of the groundwater body is the water table or where the water table cannot be determined, then the upper extent can be considered as ground level.

Description of International/ Shared Waters

Under the WFD, the Republic of Ireland and Northern Ireland are required to co-ordinate efforts in relation to the two international river basin districts. While the withdrawal of the United Kingdom from the European Union has changed the legal status under the Water Framework Directive, for practical purposes, the institutional arrangements remain unchanged. During this cycle (2022-2027) the North/South Water Framework Directive Coordination Group established under the North/South Ministerial Council (a body established under the Good Friday Agreement) will continue to oversee the ongoing co-ordination across the Island of Ireland between implementing authorities. The areas for cooperation include the environment generally and specifically environmental protection, pollution and water-quality management.

Each jurisdiction continues to carry full responsibility for ensuring implementation of all the River Basin Management Plans and Programmes of Measures in their national territory, including any part of an International River Basin District that lies within their national territory. Two river basins districts are shared with Northern Ireland. The Neagh Bann International RBD has 35 shared water bodies from a total of 407. The North Western International RBD has 85 shared water bodies from a total of 1,232.

The rivers and lakes of the island of Ireland are designated as being within a single eco-region (eco-region 17), requiring a high degree of co-ordination between the authorities in both jurisdictions to ensure consistent management of the entire aquatic environment.

All coastal and transitional waters surrounding the island of Ireland are also included in one eco-region (eco-region 1), and their management must be closely co-ordinated.

A collaborative 'Shared Waters' document is being published following publication of the River Basin Management Plans of the Republic of Ireland and Northern Ireland. The 'Shared Waters' document will outline the coordination that is working towards protecting and enhancing the water bodies that are part of the International River Basin Districts, and will also include the ecological status for surface water bodies and the overall status for groundwater bodies.

Following public consultation in 2003 in relation to the international river basin districts, administrative arrangements for implementation of the WFD were put in place and remain unchanged for this cycle. These include:

- Co-ordination arrangements established by Ministers in both jurisdictions
- The establishment of the North/South Water Framework Directive Co-ordination Group under the auspices of the North/South Working Group on Water Quality
- The establishment of various technical working groups with joint representation from technical experts within state bodies (North-South rivers and lakes group, UKTAG and support groups)
- Cross-representation on respective national and RBD level groups

The North/South Water Framework Directive Coordination Group will continue to oversee the ongoing co-ordination between the national authorities.

Action 2.1: The DHLGH shall continue to engage with counterparts in Northern Ireland *via* the North/South Water Framework Directive Co-ordination Group as is necessary to ensure coordination of programmes of measures across the whole of shared river basin districts (Timeline: Ongoing).

Action 2.2: A collaborative 'Shared Waters' document will be published following publication of the River Basin Management Plans of the Republic of Ireland and Northern Ireland.

Description of the land use

The most significant influence on water quality management, and any risk to water status, is the land use within the water catchment. Land use across Ireland's River Basin District is dominated by agriculture – 55% pastures, 7% principally agricultural land, 5% arable land and 1% complex cultivation. Forestry accounts for 6% of land use. Compared to many other European countries, Ireland also has a high proportion of our population living in rural areas. A breakdown of the types of land use seen in Ireland is outlined in Figure 8.

According to the 2022 Census, Ireland's population was 5.14 million. Under most projected scenarios this is expected to grow up to 2051, leading to increased demands on Ireland's water resources. Figure 9 below illustrates the projected population at 5 year intervals using a moderate scenario from 2016 – 2051 and shows a population increase of 1,290,900 (+27.2%) over the period to 6.03 million persons, equivalent to a 0.69 per cent annual average increase.

Figure 8: Land Use in Ireland [Socio-Economic Dimensions of Land Use 2023, Land Use Review, CORINE dataset of land cover Ireland 2018.

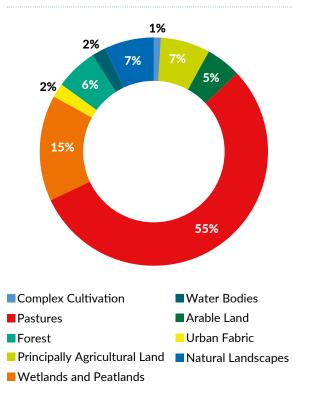
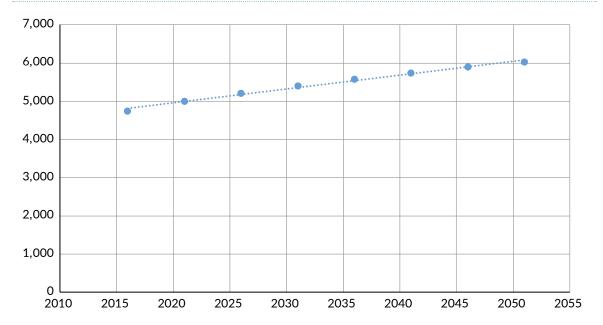


Figure 9: Projected Population, 2016 - 2051 [Central Statistics Office, M2F2 projection scenario]



Where we stand now - Ireland's Water Quality

The current condition of our waters is assessed against the standards and environmental objectives set out in the Water Framework Directive and other water-related EU legislation. In total the EPA assesses over 4,000 surface water bodies for ecological status and 514 groundwater bodies are assessed for groundwater status. The monitoring programme is carried out over a 6-year period. The following analysis is based on the most recent assessment of water bodies over the period 2016-2021.

Surface waters are classified by their ecological status (biology, water quality and hydromorphology combined) and chemical status (level of harmful chemicals in the water). Hydromorphology is not a widely recognised characteristic of natural water waters. It is essentially the flow, form and function of natural surface water bodies. Groundwaters are classified according to their chemical status and quantitative status (the amount of water present). This information is combined to provide an overall status of surface waters and groundwater. The element with the lowest status in each step of the

process determines the overall classification, and is referred to as the 'one out, all out' principle.⁵

Surface Water and Groundwater Status

The numbers of surface water bodies achieving high, good, moderate, poor and bad ecological status in each water body type are outlined in Table 3 below. The location of these water bodies and their corresponding status can also be seen in Figure 10.

Groundwater status is determined using five chemical and four groundwater quantitative tests, resulting in either a classification of good or poor status. The numbers of groundwater bodies achieving good or poor status is also outlined in Table 3 below.

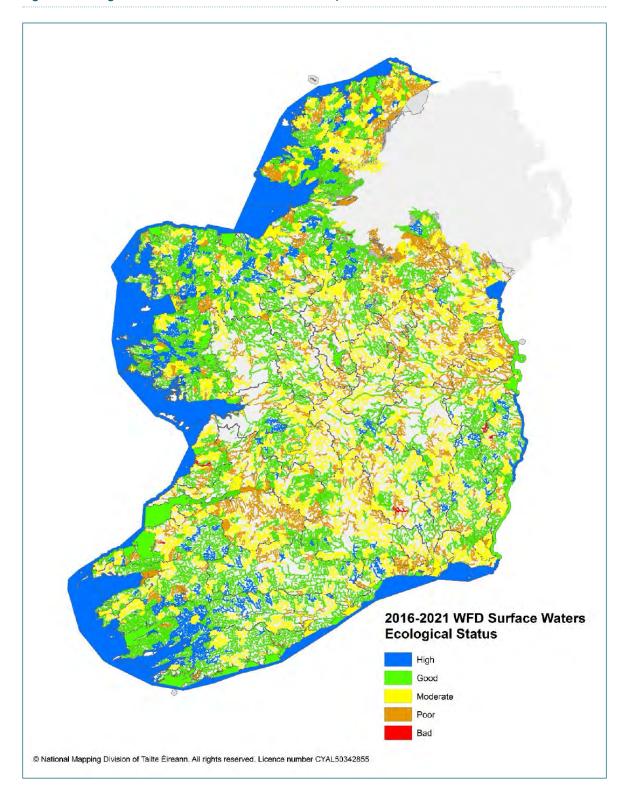
Overall, 54% of surface waters are in good or high ecological status while the remaining 46% are in unsatisfactory ecological status. For groundwater bodies, 91% are in good chemical and quantitative status. Figure 10 shows the national distribution of the surface water status classes and Figure 11 outlines the percentage breakdown of status for each water body type for the period 2016-2021. The next status reporting period will be based on data from 2019-2024 and will be published in 2025.

Table 3: Summary of status for each water body type

Туре	High	Good	Moderate	Poor	Bad	Unassigned	Total
River	257	1,345	1,028	554	5	3	3,192
Canal*	-	16	-	-	-		16
Lake	251	306	168	79	8		812
Transitional	28	27	79	18	4		156
Coastal	44	35	16	1	1		97
Groundwater	-	470	-	44	-		514
Total	580	2,199	1,291	696	18	3	4,787

^{*}ecological potential for canals

Figure 10: Ecological status of surface water bodies for the period 2016-2021.



River (n=3192) 35 1,028 554 Canal (n=16) 251 Lake (n=812) 168 Transitional (n=156) 28 79 44 Coastal (n=98) Groundwater (n=514) 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Poor Bad High Good Moderate Unassigned

Figure 11: The percentage of water bodies (numbers also indicated) achieving each status class for each water body type for the period 2016-2021.

Further details on water body status can be found in the Water Quality in Ireland 2016-2021 report (https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/EPA_WaterQualityReport2016_2021.pdf)

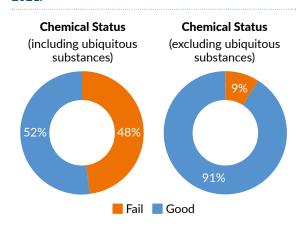
Chemical Status

The presence of chemical substances known as priority substances or priority hazardous substances in water bodies is of interest as these substances can be persistent is the environment, bio-accumulative and toxic. The concentrations of these substances in the water bodies are compared against Environmental Quality Standards (EQSs). These EQSs have been set to protect the most sensitive aquatic organisms and to protect those higher up the food chain (predators and humans) from their damaging effects. Where one or more of these substances are found at concentrations above an EQS, then the water body fails to achieve Good Chemical Status.

167 (48%) of the 349 Irish surface water bodies assessed failed to achieve Good Chemical Status. Many of these failures were due to substances, such as Mercury and Polycyclic Aromatic Hydrocarbons (PAHs), Poly-Chlorinated Biphenyls (PCBs) and Poly-Brominated Diphenyl Ethers (PBDEs). These substances are referred to as ubiquitous, as they are found in most water bodies across Europe. They originate from atmospheric deposition (e.g., Mercury and PAHs) as a result of the burning of fossil fuels or are a legacy from past industries (PCBs). When these substances are excluded from the assessment 30 (9%) of monitored water bodies failed to achieve Good Chemical Status. The non-ubiquitous failures were due to the insecticide Cypermethrin and some heavy metals such as Cadmium and Lead.

In presenting information on chemical status, results can be presented with or without ubiquitous substances (Figure 12). This is done to ensure that improvements achieved with other substances, which can be addressed through local and national programmes of measures, are not obscured by including ubiquitous substances, which also require longer term action at an international level.

Figure 12: Chemical status of surface waters 2016-2021.



Further information on the monitoring programme, which provides details on the monitoring undertaken to support the status assessment, is available at:

https://www.epa.ie/publications/monitoring-assessment/freshwater--marine/EPA_WFD_MonitoringProgramme_2019_2021-(1).pdf.

Change in status since the last assessment

A comparison of the changes in surface water status between the 2013-2018 assessment and the 2016-2021 assessment shows that while there have been improvements (443 water bodies) and declines (428 water bodies) in water quality across all classes⁶, there has been little net change in status overall, and a slight net decline in the number of water bodies that are meeting their environmental objectives. Indeed, the percentage of water bodies at good or better ecological status has decreased in each subsequent assessment period since the first baseline water status assessment was undertaken in 2007-2009 (Figure 13).

Characterisation

The catchment characterisation assessment focuses on identifying the water bodies that are 'At Risk' of not meeting the Water Framework Directive environmental objectives of achieving at least good status (Figure 14 15). Risk is assessed using the water quality monitoring data, the trends over time and the target objective. For water bodies that are 'At Risk', the assessment also identifies the significant

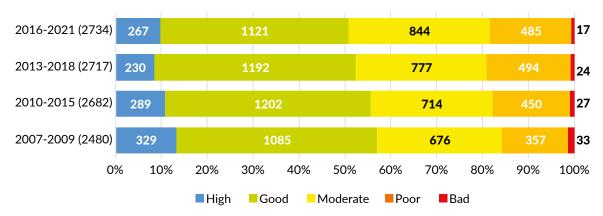
Table 4: Change in surface water (rivers, lakes, transitional and coastal) ecological status between 2013-2018 and 2016-2021.

Category	No Change	Declined	Improved	Net Change
Rivers	1,628	371	398	27
Lakes	167	29	28	-1
Transitional	40	19	11	-8
Coastal	27	9	6	-3
Total	1,862	428	443	15
Percentage	68.1 %	15.7 %	16.2 %	0.5 %

Figure 13: Ecological status of monitored surface water bodies across each of the main assessment periods from the first assessment in 2007-2009 to the present assessment period (number of water bodies indicated).

Surface Water Ecological Status

(Monitored Rivers, Lakes, Estuaries & Coastal)



Of the 500 river water bodies monitored in the designated Priority Areas for Action (PAAs) during 2019-2021, 314 remained stable with no change in ecological status. A total of 118 river water bodies showed improvements in status, while 68 declined, resulting in a net overall improvement in status class in 50 water bodies in the Priority Areas for Action. The net improvement in river water quality in PAAs is higher than the improvements seen nationally. This may indicate that when targeted action is taken improvements in water quality can be achieved. Nevertheless, a large number of river water bodies are still declining and unless this is addressed, sustained and progressive improvements in water quality will be difficult to achieve.

pressures impacting on the waters. Once pressures are determined, measures can then be identified and targeted specifically at these pressures. Local Catchment Assessments are an essential tool in helping to target resources and the selection and implementation of "the right measure in the right place".

The latest characterisation assessment was undertaken in 2023 by the EPA using monitoring and other data for the period up to, and including 2021. Input from the Local Authority Waters Programme/ Local Authorities and members organisations of the five Regional Operational Committees was also incorporated.

⁶ An improvement in status does not necessarily mean that the water body is meeting its environmental objective, it could, for example, have improved from poor to moderate status and still remain in unsatisfactory condition.

Risk

The outcomes of the latest characterisation assessment show that:

1,963 (41%) water bodies are within the 'Not at Risk' category; they are meeting their environmental objective of good or high-status.

1,649 (34%) water bodies are 'At Risk' of not meeting their environmental objective of good or high-status, significant pressures have been identified for these 'At Risk' water bodies.

1,230 (25%) water bodies are currently in 'Review', which means that either (1) the measure is in place but the water quality improvement has not yet been realised or that there is some improvement but not enough yet to put it at 'Not at Risk', or more commonly, (2) that there is currently inadequate evidence to determine whether or not the water body is 'At Risk' or 'Not at Risk'. Review of the available evidence, and collection of new evidence is ongoing, so this number will reduce over time.

A further breakdown of water bodies per risk category is outlines in Table 5.

Figure 14: Water bodies identified as "At Risk" of not achieving their water quality objectives

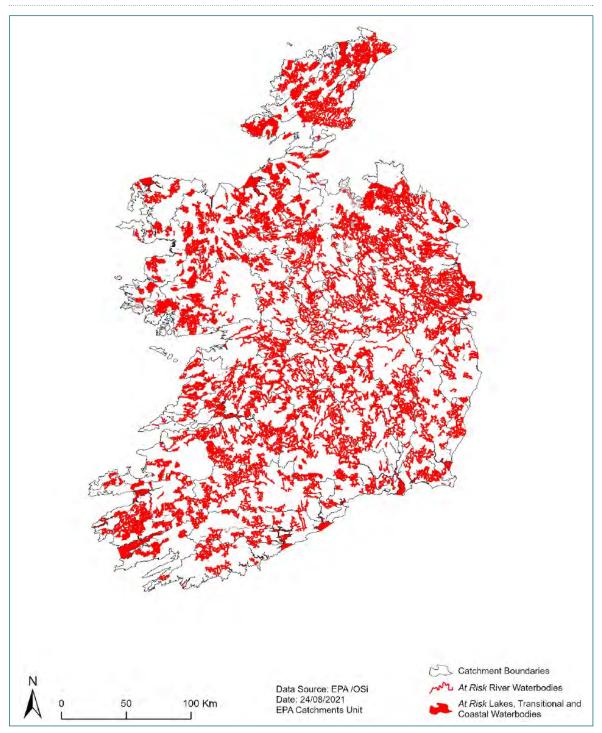
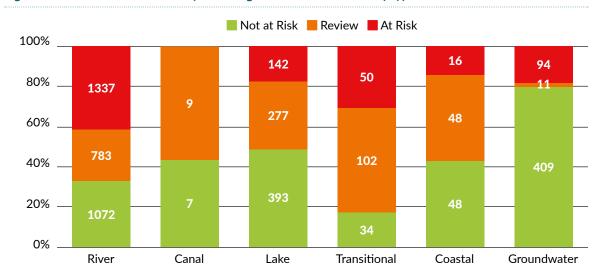


Table 5: Breakdown of Water Body Risk Categories

Water Body Type	Not at Risk	Review	At Risk	Total
River	1,072	783	1,337	3,192
Canal	7	9	-	16
Lake	393	277	142	812
Transitional	34	102	60	196
Coastal	48	48	16	112
Groundwater	409	11	94	514
Grand Total	1,963	1,230	1,649	4,842

Figure 15: Breakdown of water body risk categories for each water body type



Significant Pressures

Having identified those water bodies 'At Risk' of not meeting their environmental objectives, detailed assessments were undertaken to identify the significant pressures preventing the water bodies from achieving the required environmental objectives. Significant pressures are those that either cause or are likely to cause an unsatisfactory water body status and measures therefore need to be taken in order to mitigate the impact(s) of these pressures. These assessments are based on over 140 national datasets comprising information on pressures, impacts and physical settings and consider the linkages and dependencies between the sources of environmental pressures, and the pathways linking those pressures to the receptors, such as rivers, lakes or groundwater.

For the 1,649 'At Risk' water bodies the significant pressures have been broken down into 11 categories shown in Table 6, along with the number of water bodies in each water body by pressure type. The number of significant pressures impacting on water bodies is shown in Figure 16.

Of the 1,649 water bodies that are 'At Risk', 46% are impacted by a single significant pressure, while the remaining 54% are impacted by more than one significant pressure. The outcomes of the assessment are summarised as follows:

Agriculture is the most common significant pressure impacting 1,023 water bodies, followed by pressures on hydromorphology (physical changes to habitat conditions) (448), forestry (216) and urban wastewater (197).

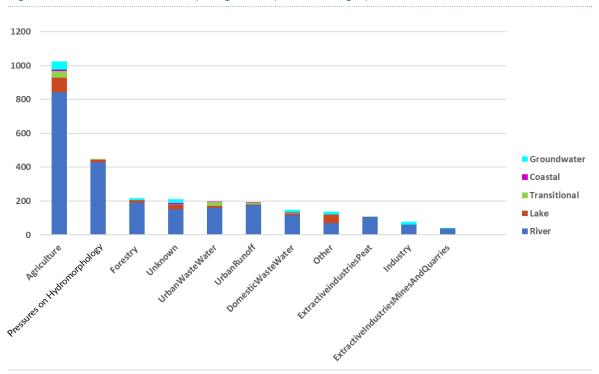
Since the last assessment, which was based on data up to and including 2018, there has been a slight reduction in the number of water bodies impacted by forestry, urban wastewater, domestic wastewater and industry, but little change in the other main pressure categories including agriculture, pressures on hydromorphology, peat, mines and quarries (Table 6). It must be noted that improvements in the assessment methodologies may have contributed to an apparent improvement in the impacts of domestic wastewater.

Table 6: Number of water bodies in each water body type per significant pressure category. (Note – Water Bodies may be impacted by more than one pressure)

Significant pressure	Water body Type							Previous
category	River	Canal	Lake	Transitional	Coastal	Groundwater	Total	assessment***
Agriculture	843	0	85	40	7	48	1,023	1,000
Pressures affecting Hydromorphology	428	0	15	5	0	0	448	442
Forestry	192	0	14	0	0	10	216	233
Urban Wastewater	161	0	10	22	4	0	197	208
Unknown*	151	0	26	4	6	25	212	164
Urban Run-off	177	0	3	10	4	0	194	196
Domestic Wastewater	117	0	9	6	3	13	148	188
Other**	69	0	50	2	0	15	136	139
Peat	103	0	2	0	0	1	106	106
Industry	61	0	1	0	0	17	79	89
Mines and Quarries	38	0	0	0	0	2	40	45

^{*}Unknown is where there is a known impact but further investigation is required to identify the significant pressure.

Figure 16: Number of water bodies per significant pressure category.



 $^{^{**}} Includes \ a \ range \ of \ other \ smaller \ pressures \ such \ as \ aquaculture, \ historically \ polluted \ sites \ and \ invasive \ species.$

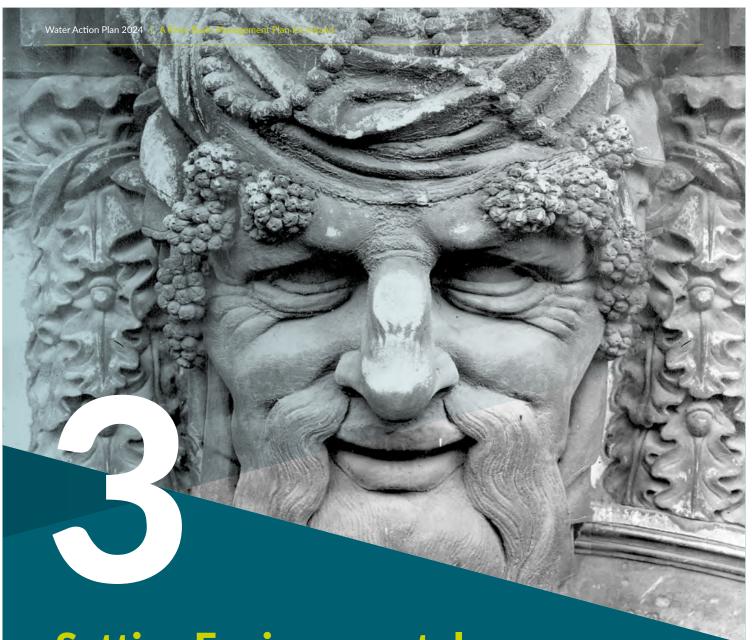
^{***} The previous assessment was based on data from the period up to and including 2018.

Water quality and nutrient concentrations in Irish waters

In June 2023 the EPA published the report *Water Quality in 2022 - An Indicators Report* which provided an update on the water quality of Ireland's rivers, lakes, estuaries, coastal and groundwaters for 2022. The report stated that one of the most significant stressors on water quality and ecosystem health is high nutrient levels, such as nitrogen and phosphorous, which enter our waters as a result of human activities such as agriculture, wastewater and forestry.

The EPA's assessment shows no significant improvement nationally in the biological quality of rivers and lakes in 2022, which is largely attributable to excess nitrogen and phosphorous.

Overall, nitrogen levels in rivers and groundwater increased between 2021 and 2022, with nitrogen being too high in 40 percent of river sites and in 20 percent of estuarine and coastal water bodies. In addition, phosphorus levels were highlighted as being too high in 28 percent of rivers and 36 percent of lakes.



Setting Environmental Objectives

The key objectives of the WFD are set out in Article 4 of the Directive. It requires Member States to use their River Basin Management Plans and the associated programmes of measures to protect and, where necessary, restore water bodies in order to reach good status, and to prevent deterioration. All of the basic measures will continue to apply and the supplementary measures⁷ included in the second-cycle plan will continue during this plan, unless they reach a conclusion. This third plan also includes additional supplementary measures considered to be necessary, following local investigation, for the purpose of achieving the objectives of the Water Framework Directive.

Where the environmental objectives of good or better status for water bodies have not been achieved by the end of Cycle 2 the deadline has been extended to 2027. In these cases all necessary improvements in the status of bodies of water cannot reasonably be achieved within the timescales available. The grounds for these extensions include (1) the scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility; (2) completing the improvements within the timescale would be disproportionately expensive; or (3) natural conditions do not allow for a timely improvement of the status of a body of water.

Analysis of the Gap to Achieving Water Framework Directive Environmental Objectives

The EPA has carried out an analysis of the likely water quality outcomes that may be achieved as a result of the measures outlined in the third-cycle River Basin Management Plan. The analysis forecasts the number of water bodies that are likely to achieve their 2027 status objectives, and those that are likely to show improvements, so that an assessment can be made of the gap to achieving Water Framework Directive (WFD) environmental objectives. The forecast analysis is a snapshot in time based on the best available information on the measures being implemented as at September 2023. It depends on assumptions being made about how the measures in the Plan will be implemented, for example, where measures are voluntary. Improved information on the measures being implemented will allow the forecasts to be further refined over time.

The 2021 characterisation assessment identified there were 2,610 water bodies, out of a total of 4,842 water bodies (54%), which had met their objectives. These water bodies require ongoing basic measures to protect water quality. Of the remainder, 1,649 (34% of the total) were categorised as being 'At Risk' of not achieving their objectives and had evidence available to determine the water quality issue(s) and the pressure(s) that needs to be addressed. These water bodies are prioritised in the Plan for measures to restore water quality. The other 583 water bodies are in 'Review', which means additional evidence is

required to confirm the nature of any water quality issues and the impacts from any relevant pressures.

This analysis highlights three types of gaps to achieving WFD water quality targets: the measures gap, the effectiveness gap, and the evidence gap.

1. The measures gap:

The measures gap applies where water bodies which are 'At Risk' do not have specific, targeted measures, either in place or planned, to address the pressures by 2027. Of the 1,649 water bodies that are 'At Risk', 864 (52%) are forecast to have not achieved the 2027 objectives due to this measures gap. The water body scale pressures without specific targeted measures include, for example, pressures on hydromorphology, urban-runoff pressures, urban wastewater and invasive species. **Note** that a water body can have more than one of these significant pressures.

2. The effectiveness gap:

The effectiveness gap occurs where a measure is planned, but it is not likely to be 100% effective to achieve the environmental objective in all water bodies where the pressure applies. This type of gap arises due to uncertainties about the level of uptake and implementation of the required measures, for example, where they are voluntary, or where there are other external factors governing their implementation.

The forecast for the effectiveness gap ranges from 0 to 690 'At Risk' water bodies, depending on the scenario and the assumptions about implementation that are selected. Five forecast scenarios were run based on a range of effectiveness rates from Low (10%) to 100%. Although there is a lack of information on the rate of effectiveness of many measure types, the medium (20%) and high (30%) effectiveness rates represent the most likely outcomes, based on the rates of improvements in water quality to date in response to the measures that are currently in place. These forecasts can be refined at the catchment scale as LAWPRO progress the development of the 46 Catchment Management Work Plans with the implementing bodies.

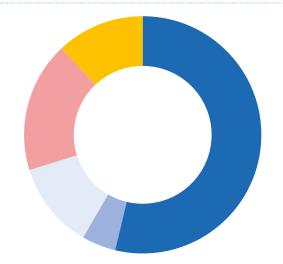
^{7 &#}x27;Basic measures' are the minimum requirements to be complied with. 'Supplementary measures' are those measures designed and implemented in addition to the basic measures, with the aim of achieving the objectives of the WFD.

3. The evidence gap:

The evidence gap applies to the 583 water bodies (12%) which are in 'Review' where further investigation is needed to confirm the water quality impacts, and the pressures, before the measures and their effectiveness can be assessed. The monitoring and assessment of the 'Review' water bodies is on-going to gather the evidence to determine the impacts, pressures and measures.

The outcomes of this assessment are that out of the 1,649 'At Risk' water bodies that have not met their objectives, between 150 and 300 water bodies are likely to meet their water quality targets by 2027 as a result of the Programme of Measures. A further 500-650 water bodies will have specific, targeted measures planned and may see some water quality improvements, even if that is not to the level required to meet the status objectives. Therefore, a total of approximately 800 'At Risk' water bodies have the potential for some water quality improvements. Just over 850 water bodies (864) are unlikely to have specific, targeted measures at water body level planned, and are therefore very unlikely to achieve their status objectives by 2027. The remaining 2,610 water bodies, of the total of 4,842 water bodies, had met their objectives in 2021. The analysis does not forecast which water bodies may decline in quality over the period and no longer meet their objective.

Figure 17: Approximate proportion of water bodies that are forecast to have achieved their WFD objectives by 2027.



- Achieved objectives by 2021 (2,610 water bodies)
- Will likely achieve objectives by 2027 (150-300 water bodies)
- Measures in place by 2027, improvements unknown (effectiveness gap; 500-650 water bodies)
- Pressures known, measures not in place by 2027 (measures gap; 864 water bodies)
- Pressures not known (evidence gap; 583 water bodies)

Note, for categories for which a range is forecast, the midpoint of the range has been selected for chart display purposes; the range is noted in the legend.

These forecasts can be refined at the catchment scale as the proposed catchment management plans are rolled out. Tracking and reporting on progress with measures implementation will be important during the third-cycle, so that water quality outcomes of the measures can be assessed, and assumptions about the effectiveness of measures can be further refined.

Figure 18: Distance to Target

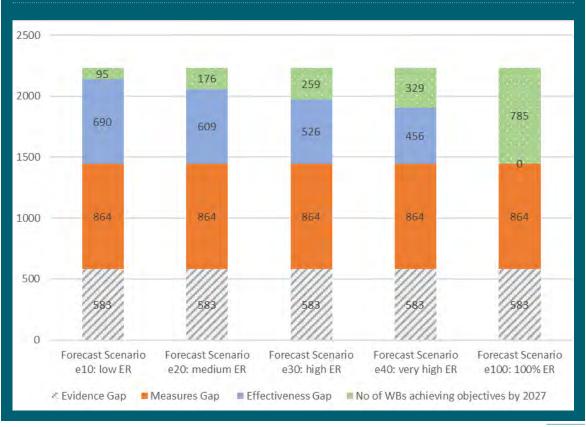
Distance to Target Analysis approach

A five-step framework has been developed by the EPA to assess what the actions in the plan are likely to achieve in terms of water body objectives by 2027, and what uncertainties may need to be reduced to strengthen the Programme of Measures. The detailed methodology and outcomes are contained in the EPA's background document "Targeting Measures for Water Quality Outcomes - Analysis of the Gap to Achieving Water Framework Directive Environmental Objectives".



The 5-steps to implementing the right measure in the right place for water quality outcomes.

Figure 19: Scenario results based on Low, Medium, High, Very High and 100% effectiveness rates (ER).



Progress in achieving environmental objectives by the end of the second-cycle (2021)

On the basis of the actions adopted in Cycle 2, it was expected that general water-quality improvements would be achieved in the 726 water bodies prioritised for action during that planning cycle (2018–2021). However, given the complexities involved and the known difficulty in achieving status improvements due to time lags in natural recovery and the interaction between multiple environmental pressures on water bodies, it was conservatively estimated that the actions in the second RBMP would likely result in some 152 additional water bodies showing improvement in status by 2021, with further improvements being made thereafter.

In reality, as reported in Chapter 2, nationally there were improvements in status in 443 water bodies. However, this unfortunately was offset by declines in another 428 water bodies. Improvements and declines occurred across all significant pressure types resulting in little net change for any sector between the 2018 and 2021 assessments. The reasons for the declines are not known at this stage. Overall, therefore, there was only a net improvement in status for 15 water bodies.

However, it is notable that in a subset of 500 water bodies located in Priority Areas for Action (PAAs) where local actions were targeted, 314 water bodies remained stable in status. 118 water bodies improved in status while 68 water bodies declined in status. Overall, therefore, there was a greater net improvement in status of 50 water bodies compared to the national trend. This suggests that the targeted approach for actions at local level may be more effective, *albeit*, the performance of targeted actions needs to be significantly increased in the third-cycle.

What we want to achieve and the deadline of 2027

This plan must aim to achieve the objective of at least good water status for surface water bodies by defining and implementing the necessary measures within integrated programmes of measures. Where good water status already exists, it should be maintained. For groundwater, in addition to the requirements of good status, any significant and sustained upward trend in the concentration of any pollutant should be identified and reversed. For Ireland, this requires a programme of measures aimed at protecting and where necessary restoring each one of the 4,842 bodies of water so that they are at least reaching 'good' status or 'good' potential by 2027 (with some exemptions provided for, including time extensions and less stringent objectives). In the

most recent assessment by the EPA, slightly more than half (54%) of Ireland's water bodies had met their mandatory environmental objectives in 2021, while the remainder need measures.

Where additional time is needed for water bodies to recover due to natural conditions the deadlines for achieving the environmental objectives can be extended beyond 2027 to allow for natural recovery following the implementation of measures (WFD Article 4(4)). The projected gap in achieving objectives by 2027 (moving from 54% compliance based on current conditions to 100% compliance) is extremely challenging. However, in keeping with the ambition of this plan the Government's objective will be to achieve as close to 100% of the water status objectives by 2027, as possible. Progress with the implementation of plan actions and the environmental objectives will be constantly monitored and reviewed in 2025.

It is unlikely that Ireland will achieve all of these objectives even with urgent, substantial and widely adopted measures. Measures have been put in place for all water bodies and a process has been initiated to put in place additional targeted midcycle measures, where necessary. Modelling and forecasting the effect of measures is challenging (especially for large-scale measures for diffuse pollution) in watercourses. There are many factors that will determine the speed and effectiveness of new mitigation measures such as the Water EIP project and national Barriers Mitigation Programme. Factors include, for example, technical capacity to deliver, time taken to complete statutory processes such as EIA, and recruitment of farmers into schemes. Reviewing progress will enable mitigation programmes to be assessed, modified and expanded to maximise the ambition for Cycle 3.

The necessary measures will be implemented, to the maximum extent possible, up to the end of 2027 and so it is expected that the improvements will only take place after 2027 and be measured during the next cycle monitoring programme. For these water bodies, the deadline will be extended to beyond 2027 to take account of the "natural conditions" and recovery processes as well as the monitoring process in the fourth-cycle (2027-2033). In addition, it is likely that the deadline for a proportion of water bodies to recover will need to be phased over a more sustainable timeframe of one or more river basin management cycles beyond 2027 because it would be technically infeasible and/or disproportionately expensive to achieve any sooner. Where it is clear that achievement of the environmental objectives by 2027 is not possible for these reasons these will be clearly identified and explained in accordance with Article 4(5) of the WFD in the fourth RBMP.

As stated, the Government's objective will be to achieve as close to 100% of the water status objectives by 2027, as possible. Progress with the implementation of planned actions and the environmental objectives will be constantly monitored and reviewed in 2025. The expected impact of the planned measures will be to improve 800 water bodies (49% of the 1,649 'At Risk' water bodies) in total. A conservative estimate suggests that of these 800 water bodies;

• 150 – 300 water bodies (or 9% - 18% of the 1,649 water bodies identified by the EPA as 'At Risk') will achieve their status objectives by 2027.

 500 – 650 water bodies (or 30% - 39% of the 1,649 water bodies identified by the EPA as 'At Risk') are expected to show improvements in individual Quality Elements (QE) but not to fully achieve their environmental objectives by 2027 based on the current planned actions for Cycle 3.

Action 3.1: DHLGH will arrange for the development and application of a methodology for the screening and application of WFD Article 4(5) exemptions, extending the deadline for compliance beyond 2027, where justified in accordance with the strict criteria stipulated within the Directive.

Table 7: Summary of Environmental Objectives for the Plan

Total water bodies (Surface waters and groundwater)	4,842
Water bodies that achieved their environmental objectives by 2021	2,610 (54%)
Water bodies expected to achieve their environmental objectives by 2027 based on the current planned Actions for Cycle 3	2,760 - 2,910 (57% - 60% of all 4,842 water bodies) (This is equivalent to improvements in 150 - 300 WBs or 9% - 18% of the 1,649 water bodies
	identified by the EPA as 'At Risk')
Water bodies expected to show improvements in individual Quality Elements (QE) but not to fully achieve their environmental objectives by 2027 based on the current planned Actions for Cycle 3	500 – 650 water bodies (or 30% - 39% of the 1,649 water bodies identified by the EPA as 'At Risk')
Remaining water bodies that in the 4th cycle, will either;	1,932 - 2,082
 require additional targeted actions during Cycle 3 with the aim of achieving their environmental objectives by 2027, or 	(40 - 43% of all 4,842 water bodies)
require an extension of time beyond 2027 due to the impact of 'natural conditions' on the rate of recovery, or	
3. require a phased recovery over a more sustainable timeframe of one or more river basin management cycles beyond 2027 because it would be technically infeasible and/or disproportionately expensive to achieve any sooner.	
(Note: this will be the subject of the interim review of progress in 2025)	
Less Stringent Objectives	9 (related to historic mines)

^{*}Good Status = Good ecological status/potential or better and good chemical status

According to the EPA, the principal causes of the decline in Ireland's water quality are the losses of excess nutrients (nitrogen and phosphorous) and sediment from farmland, forestry, inadequately treated wastewater, and physical impacts to habitat conditions in water bodies (for example, the interruption of river continuity due to river barriers, and drainage of lands and channelisation of rivers). Climate change and population growth are adding to the pressures on water resources and water services infrastructure. In many cases, specific and targeted action is now needed to protect water from further decline and to restore water quality where past activities have caused damage.

Much has been achieved during the second river basin planning cycle. In particular, the new governance and implementation structures have been maturing and will continue to evolve over the third-cycle. The establishment of Uisce Éireann, An Fóram Uisce, the Local Authority Waters Programme (LAWPRO) and the Agricultural Sustainability Support and Advisory Programme (ASSAP), represented innovative and significant steps forward in water management in Ireland. These enhanced arrangements will continue to strengthen over time as experience grows and needs change, with further improvements to the operation of these planned under the third-cycle and in the long-term. Furthermore, the research programmes led by the Institute of Public Administration (IPA) in relation to water governance and the Economic and Social Research Institute (ESRI) in relation to the impact of river basin management strategies on human attitudes and behaviours will help to draw lessons from our experience of implementation. This will inform the future evolution of water governance structures and the implementation of measures for the protection of waters.

A new enhanced legal regime for water abstractions (the Water Environment (Abstractions and Associated Impoundments) Act 2022) was signed into law by the President in December 2022, introducing controls and prior authorisation for abstractions and associated impoundments, via a licensing regime for environmentally significant abstractions. This regime will contribute to the achievement of the environmental objectives for our water bodies by mitigating the pressure from abstractions on our water environment.

All registered abstractions and associated water bodies will also be assessed to determine if they are meeting WFD objectives under Article (4). Some of these existing abstractions may be causing water bodies to not meet default WFD objectives but will need to be maintained because there are no alternative sources and due to the overriding public interest of the provision of drinking water. In these

instances, the setting of alternative objectives under Article (4) may be required to be applied. Several processes are underway which will inform the extent to which exemptions may be required for water bodies impacted by abstractions. These include the abstraction licensing process, the review of the heavily modified water body designation process, and the National Water Resources Plan.

DHLGH is preparing a proposal for enacting abstraction regulations. The target is the end of Q3, 2024. (See 'Other Pressures' Action 1 in the Programme of Measures)

Despite the fundamental changes made to the river basin management approach in Ireland, progress in restoring impacted waters and protecting waters from deterioration has been slow. This is due, in part, to the relatively short period for the outcomes of the second-cycle programme of measures to be reflected in the monitoring data, which was not helped by the interruptions due to Covid-19.

While existing water protection measures must continue to be implemented and accelerated, it is clear that new targeted and effective measures are also necessary. Many of these measures will deliver co-benefits for climate mitigation and will help to enhance biodiversity. Implementing these policies will require ongoing and adequate financing, resources and must be fully integrated across sectoral areas especially into land use management and in agriculture. This work will be reinforced by collaborative participation of stakeholders at national, regional and sectoral levels.

Specific Environmental Objectives for water bodies

Further information on specific environmental objectives for water bodies will be made available at the website www.catchments.ie. This is a collaboration between the Department of Housing, Local Government and Heritage, the EPA and LAWPRO. The website provides substantial background information and data is available on each of the 46 catchments, 583 sub-catchments and 4,842 water bodies. Regular updates and information will be made available in support of the implementation of this plan, including up-to-date information on the status of each water body and the environmental pressures they are subject to, alongside specific catchment and sub-catchment assessments.

Less Stringent Objectives

A less stringent objective exemption (Article 4(5)) allows member states to determine that 'Good Status' will not be achieved under any time scales, for reasons of technical feasibility and/or disproportionate costs. Article 4(5) has been

applied to nine water bodies (seven river and two groundwater bodies) that are impacted by historic mines at Avoca and Silvermines. Mitigation of these pressures is known to be technically very difficult, time consuming, costly and for parts of the pressures in both cases, technically infeasible.

Seven of these water bodies are achieving their less stringent objective, whereas two water bodies have deteriorated since the 2010-2015 cycle period and are now no longer achieving their less stringent objective of 'Moderate' ecological status.

New modifications to surface water bodies & groundwater levels and new sustainable human development activities

Article 4(7) states that Member States will not be in breach of the Directive where (1) failure to achieve good groundwater status, good ecological status, or, where relevant, good ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or (2) failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities. This is provided that four conditions are met, i.e. all practicable steps are taken to mitigate the impacts; the reasons for the modifications and alterations are clearly set out in the RBMP; the reasons are of overriding public interest and benefits outweigh the environmental outcomes; and the benefits cannot be achieved by other means for reasons of technical feasibility or disproportionate cost.

The WFD 2000/60/EC is given general effect in planning legislation as specified in Section 1(A) of the Planning and Development Act 2000, as amended. 2010 planning legislation has also improved how water management and the planning system are integrated by requiring development plans to support the protection and enhancement of water quality, particularly with regard to securing the objectives of the RBMPs. The legislation also required that the location of new development should be linked to existing wastewater treatment capacity and planned investment in capacity in the future. However, enhanced clarity was needed with respect to the practical steps, approaches and methodologies to be employed by the relevant authorities to give effect to these requirements.

DHLGH has developed detailed draft guidance to assist planners in their role, and also to assist developers and other stakeholders in making appropriate applications for planning permission. The new draft guidance provides for a formal assessment

of proposed new developments for the application of Article 4(7) exemptions and for a decision making process.

The impacts of Climate Change on river basin environmental objectives

While water is at the heart of adaptation to climate change, serving as the crucial link between the climate system, human society and the environment, it is a finite and irreplaceable resource. Only if well managed is water renewable. Managed efficiently, water can play a key role in strengthening the resilience of social, economic and environmental systems.

The hazards arising from a rapidly changing climate include water-related issues: extreme precipitation including cloudburst events; flooding (coastal, fluvial, pluvial and groundwater) and water stress and drought.

As we aim to achieve and maintain 'Good Status' or better for all our water bodies, new challenges in the form of impacts from climate change will emerge which will complicate the achievement of that objective. As outlined in the latest United Nations Intergovernmental Panel on Climate Change (IPCC) Report, climate change is already affecting every region on Earth, in multiple ways. But it not just about temperature. Climate change is bringing multiple different challenges - which will all increase with further warming. These include changes to wetness and dryness, to winds, snow and ice, coastal areas and oceans. In terms of water, while Ireland has abundant water resources, the impacts of climate change are already being felt and are expected to continue and intensify in the years and decades to come. This is in addition to the increasing demand on our water resources from population change and an economy which is expected to grow strongly over the coming

As seen in some of the responses to the consultation on the Significant Water Management Issues, while acknowledged as a significant issue, climate change should be considered one of the drivers of environmental factors that impact on water quality and quantity as opposed to a significant management issue itself.

An assessment of key future climate risks to the water quality and water services sectors is outlined in the Government's Climate Change Sectoral Adaptation Plan for the Water Quality and Water Services Infrastructure. Published by DHLGH in October 2019, the plan marked an important first step in climate change adaptation planning for Ireland's water industry, bringing together multiple sectors to develop a set of priority actions and adaptive

measures. The assessment showed that Ireland's future climate is expected to witness;

- Increasing temperature resulting in more heatwaves, more drought and fewer frost days
- Changes in precipitation levels, intensity and distribution (drier summers, wetter winters)
- Increase in intensity of storm events (including heavy precipitation, wind, hail, lightning)
- Increasing sea level rise and storm surge levels.

The challenges faced by water quality and water services Infrastructure due to this projected change in climate include;

Water Quality Impacts

- High rainfall and flooding leading to mobilisation of pollutants
- Reduced dilution of contaminants in water bodies at low flow
- Drying of peatland resulting in the reduction of natural filtration of pollutants
- Increased spread and viability of pathogens, such as livestock waste and slurry
- Changes in the distribution and viability of native, non-native and invasive flora and fauna

Water Services Infrastructure Impacts

- Increased surface and sewer flooding leading to pollution, water and wastewater service interruptions.
- Reduced availability of water resources.
- Hot weather increasing the demand for water.
- Increased drawdown from reservoirs in the autumn/winter to provide greater flood capacity, leading to resource management issues.
- Business continuity impacts or interruptions for water services providers.

The plan also outlines the adaptive measures available to build resilience to the effects of climate change and weather related events, and other Socio-Economic developments in both sectors. Many of the adaptation measures identified in the plan, which should be considered by organisations and stakeholders in their plan making processes, are already underway.

As a result of the potential impacts of climate change on water resources, the planning for droughts and water scarcity is increasingly crucial. In this regard Uisce Éireann has developed the National Water Resources Plan (NWRP). The NWRP outlines how Uisce Éireann will move towards a safe, secure, reliable and sustainable public water supply over a 25-year timeframe. Enabling Uisce Éireann to transform our water supplies at a national level, the plan will look for resilient solutions across all of our water supplies in terms of reducing leakage (lose less), promoting water conservation (use less) and developing resilient supplies (supply smarter).

To ensure our water resources remain resilient to the effects of climate change, they will also require investment. Supported through our National Development Plan, Ireland is currently providing an investment of approximately €12 billion in public water and wastewater infrastructure over a ten-year period up to 2027.

Critical to helping to improve the understanding of climate change impacts and the development of appropriate measures and solutions is research and innovation. For example, recent research carried out by the EPA (High-resolution Climate Projections for Ireland®) that attempts to localise global and regional climate models into a high resolution prediction for Ireland (at 4km grid resolution), will be an important input into our future policy work and identification of appropriate measures. A large-scale, EPA-funded research project called WaterFutures, which is being led by UCD, is also underway to examine how climate change is likely to affect Irish catchments and what the implications are for measures to protect water quality.

Geological Survey Ireland has installed a groundwater monitoring network that is designed to monitor climate change impacts on groundwater. The network comprises 20 locations specifically for groundwater flooding (turloughs of issue) and 13 groundwater borehole locations for both flooding and drought impacts. This information will help to identify more resilient or susceptible groundwater systems that can inform future sustainable abstractions (e.g. for drinking water), management of susceptible groundwater dependent ecosystems, and support better planning decisions (e.g., highlight likely groundwater flooding). The network will be increased by an additional c.20 boreholes by 2028. The network is complementary to the EPA's borehole network, which was designed for WFD monitoring rather than climate change purposes.

In terms of the programme of measures for the third-cycle plan, there is a need to consider the

^{8 (}High-resolution Climate Projections for Ireland – A Multi-model Ensemble Approach by Dr Paul Nolan & Dr Jason Flanagan http://www.epa.ie/pubs/reports/research/climate/researchreport339/)

possible effects of climate change when selecting and implementing measures. These measures will need to be resilient to climate change impacts, especially expensive and long-term investments such as large infrastructure projects. In addition, the River Basin Management Plan seeks to promote nature-based solutions wherever possible, both in the rural and urban setting.

As a result, a simplified climate change sensitivity analysis or "climate check" will be undertaken in line with EU Guidance during the third RBMP cycle. This will apply for all planned measures carried out under this plan to test their ability to perform under future climate conditions. This analysis will be undertaken at the level of the Catchment Management Work Plans and Sectoral Action Work Plans where the details of measures will become clearer. This is to ensure that the actions selected are effective, sustainable and cost efficient under changing conditions. The sensitivity analysis will also inform the setting of RBMP environmental objectives for the following Cycle 4.

Action 3.2: DHLGH will review and update the Climate Adaptation Plan for the Water Quality and Water Infrastructure Sectors (Timeline: 2024).

Action 3.3: LAWPRO will co-ordinate a simplified climate change sensitivity analysis or "climate check" which will be undertaken in line with EU Guidance during the third RBMP cycle at the level of Catchment Management Work Plans. The check will also inform the setting of RBMP environmental objectives for the following fourth-cycle. (Timeline: 2025).

Action 3.4: The EPA will review the national monitoring programme and integrate climate change considerations such as identifying water bodies likely to be most vulnerable to climate change and detecting the direct impacts of climate change. (Timeline: 2026).

Action 3.5: Support additional research and pilot projects in the area of climate change (impacts and adaptation). (Timeline: 2027)

Environmental Objectives for Protected Areas

Protected areas are areas that have been designated as requiring special protection because of their particular importance. The Water Framework Directive requires that, where more than one water status objective relates to a water body, the most stringent must apply. The protected areas include bathing waters, sources of drinking water, areas in which shellfish are grown or harvested, locations with sensitive habitats and species, or areas that are particularly affected by eutrophication due to excessive inputs of phosphorus and/or nitrogen from urban wastewater. Maps identifying the location of each of these areas are available online at www.catchments.ie. The water-related condition of these protected areas is set out below.

Bathing Waters

Designated bathing waters are designated where the local authority expects a large number of people to bathe.

Assessed under the 2008 Bathing Water Quality Regulations, the latest published Bathing Water Quality Report for 2022 identified 148 bathing waters across Ireland, an increase from 135 in 2011. 97% (144) of these met or exceeded the minimum required standard of 'Sufficient', with 92% (137) of bathing waters classified as either 'Excellent' or 'Good'. Only 3 bathing waters were classified as 'Poor'.

While improvements are continuing to be seen year on year, work is still required to ensure that issues at those bathing waters not meeting the required standard are addressed. Agriculture, urban wastewater and fouling from dogs on beaches all impacted on the quality of bathing waters. In terms of 'Poor' bathing waters, the pressures found to be impacting on these waters included urban wastewater, contaminated surface water streams and issues with faeces from dogs, birds and other animals.

Wild and open water swimming has enjoyed a surge in popularity in recent years. This increased interest has resulted in requests from some members of the public to extend the officially designated bathing season from the current dates of 01 June to 15 September.

In Ireland, the risk of illness from bathing between June and September is lower than other times of the year as bacteria is more likely to be killed by exposure to sunlight (higher intensity ultra-violet light) during this period, when compared to other times of the year. University College Cork is completing a research study on 'out of season' bathing on behalf of the National Bathing Water Expert Group. The findings

of this study will be used to inform 'out of season' bathing policy development to best protect bathers' health.

Action 3.6: The National Bathing Water Expert Group to undertake a research project to determine the most suitable approach to protecting bathers' health outside of the current bathing season.

Action 3.7: DHLGH will amend the existing Bathing Water Regulations (S.I. No. 79 of 2008) to facilitate local authorities defining the length of the "bathing season" on determining the bathing season for individual bathing waters in respect of the "bathing waters" within their jurisdiction. DHLGH will also consider the research outcomes and recommendations from the National Bathing Water Expert Group. The outcome of the EU regulatory fitness and performance programme (REFIT) review of the Bathing Water Directive will be assessed in due course.

Drinking Water Protected Areas

The WFD requires the identification of Drinking Water Protected Areas (DWPAs). These are surface waters and groundwater bodies from which water is abstracted for people to drink. In most cases this raw water is treated to the required drinking water standards.

The EPA reports on the quality of drinking water across >1,100 Public Water Supplies (Irish Water Supplies and Public Group Schemes) and >2,000 Private Water Supplies (Private Group Schemes and Small Private Supplies) for 2022, highlighted that 99.99% of samples in public supplies, while 95.5% of samples in small private supplies and 95.9% in private group schemes, were free of E. Coli, an indicator of pollution in the water supply and a harmful bacteria. However, in 2022, 14 private supplies, supplying over 5,500 people, failed the standard for E. Coli, showing 1 in 30 supplies failed to reach the standard, compared to 1 in 734 public supplies that failed to do

17 public supplies had samples that failed the pesticides standard. The main contaminant found was MCPA (2-methyl-4-chlorophenoxyacetic acid), a widely utilised herbicide that is used for rush control in grassland and for other weed control purposes.

45 public supplies and 16 public group schemes had samples exceeding the trihalomethanes (THMs) standard. THMs are chemical compounds that can occur when chlorine, which is used to disinfect the water, reacts with natural organic matter in the water.

Overall, the 2022 reports found that the quality of drinking water from public supplies remains very high, with over 99.7% of samples compliant with bacterial and chemical limits. Private supplies show lower levels of compliance and require further improvement in places.

Shellfish Waters

Although the Shellfish Waters Directive (SWD) has been superseded, the areas used for the production of shellfish that were designated under the SWD remain protected under the WFD as 'areas designated for the protection of economically significant aquatic species'. The requirement from a WFD perspective is to ensure that water quality does not impact on the quality of shellfish produced for human consumption. In Ireland, 64 areas have been designated as shellfish waters (S.I. No. 268 of 2006, S.I. No. 55 of 2009, S.I. 464 of 2009).

Water bodies containing designated shellfish waters are considered to be meeting their Protected Area objectives where a water quality parameter is below the concentrations given in the Regulations or where there is at least 75% compliance with the microbial guide value for shellfish based on quarterly sampling. Assessed by the Marine Institute, the average dissolved concentrations for metals in shellfish waters for the period 2016-2019 all complied with the environmental quality standards. In terms of the microbial quality in shellfish flesh against the guide E. coli value, the Marine Institute's assessment for 2018 indicated that 82.5% of shellfish waters were compliant. This was an improvement from 75% in 2015.

Water Dependent Habitats and Species

Many of the habitats and species listed for protection in both the Birds and Habitats Directives are water dependent. In total, approximately 88% or 385 of the 439 Special Areas of Conservation (SACs) have water dependent habitats or species, with 90% or 149 of the 165 Special Protection Areas (SPAs) having water dependent bird species.

While maintenance and restoration of these features to favourable conservation status is the responsibility of the National Parks and Wildlife Service, according to their obligations under the Habitats Directive, other consent and regulatory bodies also have statutory obligations to adhere to the requirements of the Habitats and Birds Directives. Under the second RBMP (2016-2021), water bodies have been assessed for their ecological status, which indicates the quality of the structure and functioning of an aquatic ecosystem.

Good ecological status of a surface water body indicates that the structure and functioning of an

aquatic ecosystem is in a favourable condition. However, species such as the Freshwater Pearl Mussel (FPM) have a complicated life-cycle, and are influenced by a variety of biological and environmental processes that cannot be explained by water quality alone.

Accordingly, the freshwater pearl mussel has additional requirements for supporting conditions, which are set out in the Freshwater Pearl Mussel Regulations (S.I. No 296 of 2009) and described in the relevant site-specific conservation objectives for the Special Area of Conservation (SAC) in question. The water-related requirements of water-dependant habitats and species, more generally, will be reviewed during the third RBMP cycle, taking account of the most recent scientific evidence and conservation measures implemented. If necessary, proposals for updating appropriate and relevant standards will also be considered. Results of the overall assessment are outlined in Table 8.

In addition to this, an assessment of the 97 river water bodies with designated FPM habitats finds that 20 (20.6%) had achieved the required water quality standards for the supporting conditions as set out in the 2009 FPM Regulations.

Action 3.8: The water-related requirements of water-dependant habitats and species will be reviewed by the Water Division, the National Parks and Wildlife Service and the EPA during the third RBMP cycle, taking account of the most recent scientific evidence. If necessary, proposals for updating the related water standards will be made and this will be integrated into the catchment management process.

Action 3.9: The National Parks and Wildlife Service and the Water Division, both of this Department, and other relevant stakeholders will continue to engage closely in the catchment management planning process as it relates to Freshwater Pearl Mussel to ensure conformity with the requirements of the Habitats Directive and the Water Framework Directive.

Nutrient Sensitive Areas

EU member states are required under the Urban Wastewater Treatment Directive (91/271/EEC) to identify nutrient-sensitive areas. These have been defined as "natural freshwater lakes, other freshwater bodies, estuaries and coastal waters which are found to be eutrophic or which in the near future may become eutrophic if protective action is not taken".

The EPA recently carried out a review of nutrient sensitive areas downstream of large urban wastewater discharges, with 76 wastewater discharges identified for assessment. On completion, a total of 66 areas downstream of 51 of these discharges were identified as nutrient sensitive. This is an increase from the previous assessment in 2016, which identified 64 nutrient sensitive areas downstream of 48 discharges.

Once a nutrient sensitive area is identified, additional nutrient removal must be applied (if not already applied) to wastewater treatment plants discharging to the sensitive area. 45 of the 51 discharges have nutrient removal in place.

Table 8: Assessment of whether the supporting water conditions are sufficient to support the structure and functioning of an aquatic ecosystem necessary for protected water dependent habitats and species. That is, the water objectives set out for the freshwater pearl mussel (S.I. No 296 of 2009) and Good Ecological Status in the case of all other protected water dependent habitats and species

Water Body Type	Total No.	Meeting the Requirements	Did not meet the Requirements	Unknown*
Lakes	435	407 (93.6%)	28 (6.4%)	0 (0%)
Rivers	1,199	669 (55.8%)	523 (43.6%)	7 (0.6%)
Transitional and Coastal	144	69 (47.9%)	50 (34.7%)	25 (17.4%)

^{*}Information not available.

Environmental Objectives for water bodies designated as Artificial or Heavily Modified water bodies

Artificial water bodies

Artificial water bodies are surface water bodies which have been created in a location where no water body existed before, and which have not been created by the physical alteration, movement or realignment of an existing water body. There are 16 artificial water bodies at present, all of which are canals. 15 canal water bodies are at 'Good' ecological potential based on the latest water quality assessment to 2021. The Shannon-Erne canal is at 'Moderate' status which has improved from 'Poor' status at the previous assessment. Canals are monitored and managed by Waterways Ireland.

Heavily modified water bodies

Heavily modified water bodies are natural bodies of water which have been substantially changed in physical character as a result of alterations by human activity for the purposes of a specified use. In this context, physical alterations mean changes to the hydromorphology of the water body, for example, the size, slope, form, shape and function of a river bed and its banks, and its flow or water level regime. The specified uses include water storage and regulation for drinking supply and power generation, navigation, flood protection, drainage for protection of agricultural lands, and urban development.

In heavily modified water bodies the hydromorphological or physical character of the water body cannot be restored sufficiently to support Ecological Status, without impacting on the specified use. As a result, these water bodies are set an alternative environmental objective of 'Good Ecological Potential', this is the best ecological condition they can achieve allowing for the fact that their hydromorphology has been modified to facilitate the specified use.

However, heavily modified water bodies are still expected to meet the required standards for all the other water quality elements, such as physicochemical conditions, nutrients, specified pollutants and chemicals. Typically, the ecology of a HMWB is altered because the physical habitat has changed significantly. For example, where a significant impoundment is constructed on a river the habitat upstream can be more similar to a lake or a pond. Therefore, the ecology changes in response. Measures are also required to mitigate the impacts on hydromorphology to the greatest extent possible given the specified use.

In the first and second-cycle river basin management plans, there were 33 water bodies designated as heavily modified based on the limited available information at the time (see Table 9). These included 4 river water bodies used for water storage and flood protection; 16 lakes used for water supply and power generation; and 12 transitional and coastal waters modified for urban development and ports or harbours. Of these, 7 have achieved 'Good Ecological Potential', 14 required additional measures, and there are insufficient monitoring data available to determine the condition of the remaining 12 water bodies.

Review of the heavily modified water body designations

The EPA has carried out a technical review of heavily modified water body designations based on improved methods of assessment and increased information and knowledge. 2,392 water bodies were considered by the EPA where *specified uses* are present. Through the application of the characterisation tests this was reduced to 466 proposed candidate heavily modified water bodies ('HMWB') (see Appendix 05). This includes 32 of the 33 HMWBs originally designated during Cycle 1 of river basin planning. One existing HMWB is proposed to be de-designated as it no longer meets the criteria for heavily modified. This is the Bregagh River in Kilkenny.

Table 9: Condition of the second-cycle heavily modified water bodies based on the 2016-2021 monitoring data

Water body type	At Good Ecological Potential	Less than Good Ecological Potential	No monitoring data	Total
River	1	3	0	4
Lake	11	9	0	20
Transitional and Coastal	2	5	2	9
Total	14	17	2	33

Five specified water uses were assessed in the review. These are:

- Water Storage & Regulation (rivers and lakes)
- Flood Protection (rivers)
- Urban land use (rivers and transitional waters)
- Navigation (navigable river and ports in transitional waters)
- Arterial drainage (rivers)

Following the technical review by the EPA which identified 466 potential candidates for designation, a ten week public consultation took place in March 2022. The EPA published a summary report based on the twenty submissions and made a number of recommendations to the Minister for Housing, Local Government and Heritage.⁹

DHLGH has examined the recommendations of the EPA HMWB review, particularly the steps involved in deciding whether designation as a Heavily Modified Water Body (HMWB) is appropriate (Steps 7 to 9).

The EPA recommendations to the Minister were as follows:

- The EPA would recommend that DHLGH carry out a wider national policy review of whether the specified uses are appropriate during the 3rd river basin management planning cycle.
- b. We recommend that water body specific designation tests, that are informed by the policy review, should be carried out in due course. Such assessments may be best carried out when there is more detailed water body specific information available, noting that designations can be reviewed with each RBMP cycle.
- c. A key consideration for the Agency is that there may be implications for abstraction licensing if water bodies with abstractions and associated significant impoundments are not designated as heavily modified and listed in the river basin management plan. This may make it difficult to license these abstractions where Good Ecological Status cannot be achieved. This concern was also raised by Irish Water (now Uisce Éireann) in our discussions with them during the review process. This point supports early designation of these candidate heavily modified water bodies.

Action 3.10: The Minister for Housing, Local Government and Heritage will undertake a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs. There were 466 water bodies, which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process.

The current policies in relation to specified uses is relevant to the decision, these are summarised below:

Water Storage & Regulation for the purpose of Water Supply and Hydropower – Maintaining existing impoundments for water supply is an important component of the Governments policy to ensure security of water supplies. Hydropower, while a small element of the Governments policy for renewable electricity, is nevertheless an important part of the mix of electricity generation sources and is important for overall grid stability and security.

Structural Flood Protection – the current policy in relation to flood protection is to implement the Floods Directive in full. This includes structural flood protection measures proposed for communities at significant flood risk, aimed at reducing the likelihood and/or degree of flooding, identified through the National Catchment Flood Risk Assessment and Management (CFRAM) Programme.

Urban Land Use – policy in relation to the impact of urban development on water is set out in the National Planning Framework (2018) under National Objective 57, which is to;

- Enhance water quality and resource management by ensuring flood risk management informs placemaking by avoiding inappropriate development in areas at risk of flooding in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities.
- Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process.
- Integrating sustainable water management solutions, such as Sustainable Urban Drainage (SUDS), non-porous surfacing and green roofs, to create safe places.

There is a priority in flood risk management to protect existing urban infrastructure and properties while mandating the incorporation of sustainable water management solutions within the constraints of urban areas. This is fully compatible with the designation of HMWBs in urbanised catchments.

⁹ Monitoring & Assessment: Freshwater & Marine Publications. Environmental Protection Agency (epa.ie)

Navigation (Inland navigable channels and coastal ports & navigation) – policy in relation to inland navigable channels in natural waters is set out in the National Planning Framework (2018). This includes the development of Blueways, which in turn involves the management, maintenance, development and restoration of specified inland navigable waterways, principally for recreational purposes led by Waterways Ireland.

Policy in relation to coastal ports and navigation are set out in the National Planning Framework (2018), which states that "Ireland's port and shipping services play an important role as enablers of economic growth. Irish ports are critical infrastructure for international trade, with over 90% of our international trade moving by sea. Ports also serve as logistics and distribution hubs." More recently, certain ports will play an important role in supporting the development and deployment of offshore renewable energy. The maintenance and sustainable growth of this infrastructure is a Government priority.

Arterial drainage - The Arterial Drainage Act (1945) is the primary policy instrument governing arterial drainage and is implemented by the Office of Public Works. The original purpose of the schemes carried out under the Act was to drain lands to improve agricultural production. The Arterial Drainage Maintenance service has developed and adheres to a suite of Environmental Management Protocols and Standard Operating Procedures, which minimise the potential environmental impact of operations. However, the future of arterial drainage policy now needs to be reviewed to enhance and update policy in this area. This is particularly pertinent to a number of cross cutting environmental objectives, including those of the Climate Action Plans, the WFD River Basin Management Plan and the National Biodiversity Action Plan.

The Government has mandated a national Land Use Review, which will trigger a review of future drainage needs and practices. The review is led jointly by the Department of Environment, Climate and Communications, the Department of Agriculture, Food and the Marine and the Department of Housing, Local Government and Heritage. The objective of the review is to;

"...undertake a national land-use review, including farmland, forests and peatlands, so that optimal land-use options inform all relevant government decisions."

Also;

"The review will balance environmental, social and economic considerations and involve a process of evaluation of the ecological characteristics of the land. It will include consideration of emissions to air and water, carbon sequestration and climate adaptation challenges."

Following the completion of Phase 1 of the Land Use Review, which focused on evidence, Phase 2 is now getting underway and is expected to take two years to complete.

Phase 2 will seek to optimise land use across key Government objectives such as improving (1) socioeconomic, (2) climate, (3) biodiversity, (4) water, and (5) air quality outcomes. The tasks include;

- Clarification of environmental and socioeconomic objectives and data improvement
- Identification of land-use scenarios to achieve environmental and socioeconomic objectives
- 3. Setting out potential policy options

The Land Use Review provides an opportunity to identify the existing and future requirements for agricultural land drainage having regard to potential flood risks

In addition to the national Land Use Review, the proposed EU Nature Restoration Regulation (2022/0195) which is a significant component of the Biodiversity Strategy 2020 aims to restore ecosystems (including wetlands and rivers) in need and preserve the ones that are still in good condition.

Action 3.11: A review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in order to inform future land use policy decisions arising out of the Land Use Review and to support the preparations for the implementation of the new Nature Restoration Law and the Heavily Modified Water Body review process.

The review will be supported by the OPW and other key stakeholders. Specific tasks will include;

- Assessing and advising on the implications of different land use policy options, arising out of the Land Use Review, on arterial drainage requirements and the consequential impacts (both positive and negative) on socioeconomic, climate, biodiversity and water status objectives and outcomes.
- Assessing and advising on the legislative changes to the Arterial Drainage Act necessary to (1) support the national land use policy objectives arising out of the Review and (2) ensure that future arterial drainage practices are sustainable and compliant with the environmental objectives set out in the 2021 Climate Action Plan, the WFD, River Basin Management Plan and the National Biodiversity Action Plan, as well as flood risk management objectives.

The Minister for Housing, Local Government and Heritage is considering designating proposed drained water bodies as HMWBs for Cycle 3 while the review takes place, subject to meeting all other designation criteria. This will provide certainty regarding objectives during the cycle. Designations will then be reviewed again for Cycle 4 once land use policy and drainage policy are clarified.

Next steps:

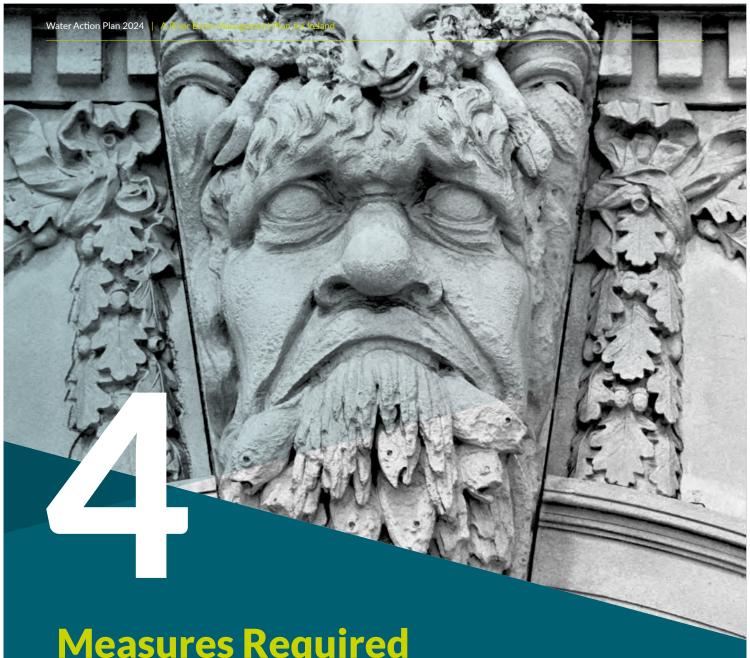
Following the outcome of the technical review of water bodies impacted by specified uses, including; Water Storage & Regulation (impoundments for water sources and hydropower), Flood Protection, Urban land use, Navigation (inland navigation and ports) and Arterial Drainage, the 466 water bodies satisfying the criteria for HMWB designation, are under consideration by the Minister for designation as HMWBs for the purposes of Cycle 3. This is so that the environmental objectives applying to the related water bodies are clear and unambiguous.

Following the EPA's technical review, DHLGH has engaged with the 'specified use owners' to collate the information necessary to decide on whether to designate water bodies as HMWBs for Cycle 3, based on the designation test criteria. The information included; (1) the effect of full water body restoration on the specified use and or the wider environment and (2) whether or not there is better environmental option available in the area.

Based on the information received from the 'specified use owners' and following consideration of the criteria for designation (Steps 7 to 9) water bodies have been assigned into one of the following four categories:

- 1. Proposed as heavily modified because of the significant adverse effect on a specified water use or the wider environment that full restoration would entail and the fact that there are no obvious better environmental alternatives available in the area.
- 2. Those water bodies that require further site-specific studies during the third-cycle to assess whether there is a significantly better environmental option that is not technically infeasible or disproportionately expensive before deciding whether to designate or not. These water bodies should be designated for Cycle 3 so that there is certainty regarding objectives. However, they should be reviewed for Cycle 4 based on the further site-specific studies.
- Water bodies that should not be designated as heavily modified because full restoration will not have a significant adverse effect on a specified water use or the wider environment and/or there are better environmental alternatives available in the area.
- Other case-by-case considerations, e.g. insufficient information available.

A final public consultation is currently underway before a final decision is made by the Minister. Once decisions are made on the designations these shall apply for the third RBMP cycle. It is expected that the consultations and designation decisions will be concluded by the end of 2024.



Measures Required

The previous chapter set out the environmental objectives of this river basin management plan. This chapter describes the actions (known as the programme of measures) that will aim to ensure these objectives are achieved in practice. The programme will include both basic and supplementary measures.

Basic measures

The first (and minimum) element of the programme will be the basic measures to implement existing water protection directives in full, for example, the Urban Wastewater Treatment, Nitrates, Bathing Waters, Habitats and Pesticides.

The 11 key EU Directives which form a key element of the Basic Measures

Bathing Waters Directive

Birds Directive

Habitats Directive

Drinking Waters Directive

Major Accidents and Emergencies Directive

Environmental Impact Assessment Directive

Sewage Sludge Directive

Urban Wastewater Treatment Directive

Plant Protection Products Directive

Nitrates Directive

Industrial Emissions Directive

The existing regulatory controls are not sufficient to deliver improved comprehensive protection for all waters, as envisaged by the Water Framework Directive. Consequently, the basic measures also include additional controls introduced for specified activities. Such actions include updated pollution controls (such as Codes of Good Agricultural Practice), new systems of authorisation (for abstractions, physical modifications or dangerous substances), plus general binding rules related to on-site systems and forestry.

Supplementary measures

The programme of measures can also include supplementary measures that augment basic actions to achieve water objectives. These include codes of practice, voluntary agreements, demand reduction, education, rehabilitation or research programmes and legal, administrative and economic instruments. These actions have been considered (either nationally or locally) on the basis of current monitoring and detailed technical evidence that provide a clearer picture of the scale and nature of water problems.

Progress in implementing measures during Cycle 2 (2018-2021)

In July 2010, the first-cycle River Basin Management Plans (RBMPs) for Ireland were published, covering the period up to 2015. Moving away from multiple River Basin Districts to just one National River Basin District, the second RBMP process was radically different to the first RBMP.

The second-cycle plan should have been finalised by December 2015, covering the period 2016-2021. However, delays in preparation of the second-cycle plan occurred due to the extent of reforms in the water services sector in Ireland at the time. As a result, Ireland was two years behind the timelines stipulated in the WFD for delivering the second-cycle of RBMPs. The second-cycle plan was finally published in April 2018 and covers the period 2018-2021.

Building on the lessons learned from the first planning cycle, the second plan delivered new approaches to governance, river basin management planning and catchment management. It put in place a muchimproved evidence base to underpin the decision-making both nationally and locally, along with a stronger and more integrated approach to public consultation and engagement. It set out a strong suite of both national measures, and prioritised supporting local measures, all of which are having a significant effect on the management and protection of water resources.

The Plan's key measures included:

- Investment of €1.7bn by Irish Water (now Uisce Éireann) in wastewater projects and improvements to collection systems over the period 2017-2021.
- Water Conservation and leakage reduction:
 Aiming to achieve sustainable and efficient use of
 water by addressing (i) the high levels of leakage
 in water distribution networks and the associated
 unaccounted-for water and (ii) the very high
 levels of water use by the top 1% of domestic
 users (16%).
- New legislation and improved controls for the management of water abstractions: A water abstractions authorisation system to be established.
- Extension of Domestic Wastewater Treatment Systems grant scheme to assist with costs of domestic wastewater treatment system / septic tank remediation in high-status water areas and in Priority Areas for Action where defective systems are posing a risk to waters.

- Deployment of 38 specialist local authority investigative assessment personnel, under the expanded work programme of the Local Authorities Waters Programme (LAWPRO), to carry out scientific assessments of water bodies and drive the implementation of measures at a local level.
- A new collaborative Agricultural Sustainability Support and Advisory Programme (ASSAP) between the State and the dairy industry, consisting of 30 Sustainability Advisers promoting best agricultural and environmental practices in the 190 'areas for action'.
- The development of water and planning guidance for local authorities to help with the consideration of risks to river basin objectives in planning and development decision-making.
- The development of a collaborative approach to protecting drinking water sources between stakeholders to effectively manage and protect drinking water sources at risk from activities in the catchment area.
- Protection of high-status waters: the creation of a 'Blue Dot catchments programme' for the protection of high-status objective water bodies, which will focus attention and resources across agencies.
- A Community Water Development Fund to enable and support community water initiatives. This entails a commitment of €500,000 per annum.

Overall, the second-cycle plan contained some 86 individual measures. Every one of these measures is either completed or is currently in progress (Table 10). However, it must be recognised that water quality and the status of water bodies has not improved at the anticipated rate. While improvements are recorded by the EPA, these have been overshadowed by declines in other areas.

Table 10: Assessment (end of 2021) of the Outcomes from the Second RBMP.

	255	Urban wastewater treatment projects progressed	135 of the 255 projects were completed by the end of 2021. A further 81 were at construction or advanced planning stage. Upon completion of feasibility studies, a further 2 were deemed not to be required. The remaining 37 were put on hold to be reviewed as part of the next investment cycle.
	€73 m	Invested to reduce water leakage by 61 million m³ per annum. Reduce leakage from 45% to 38%	Totalling 46% in 2018, Irish Water's (now Uisce Éireann) rate of leakage nationally was reduced to 38% nationally by 2021. This reduced leakage rate equates to a saving of 153 million litres of water per day.
✓	30	Sustainability advisors in place to deliver the Agricultural Sustainability Support and Advisory Programme	33 ASSAP Advisors in place by end 2021.
✓	43	Technical personnel deployed to regionally based Local Authority Water support and Advisory Teams	Following staffing review, a need for 38 positions was identified: 30 catchment scientists, 5 catchment managers, 1 Blue Dot scientist, 1 programme lead & 1 admin. Staff currently in place as part of LAWPRO's Catchment Assessment Team.
	23,000	18,000 Farmers will receive sustainability advice through the Dairy Sustainability Initiative (DSI) and 5,000 Farmers under the Agricultural Sustainability Support and Advisory Programme (ASSAP)	 2,500 farm visits by ASSAP advisers, and 550 follow up visits by end 2021¹⁰ 16,000 engagements with dairy farmers through Teagasc/DSI initiatives. DSI's SWITCH programme and other advisory services providing 18,000 farmers with information on good practices and sustainable dairying.
~	4,000	Inspections under the National Inspection Plan for Domestic Wastewater Treatment Systems	>4300 inspections completed.
	3,000+	Water abstractions registered and an authorisation system implemented	1,723 registered abstractions by February 2022, including all public abstractions. New Water Environment (Abstractions and Associated Impoundments) Act 2022 now in place to provide for the registration and licensing of water abstractions.
	1	Guidance for planning authorities on physical planning and the Water Framework Directive	Public consultation on the draft guidance is expected in 2024.
	721	Water bodies to achieve general water quality improvements	Net decline nationally of 179 water bodies (3.7%).

 $^{10 \}qquad \text{https://www.teagasc.ie/media/website/publications/2022/ASSAP-Update.pdf} \\$

Table 11: Water quality outcomes between the first and second-cycle plans. Note that 2 indicates an increase in water bodies achieving environmental objectives, while 2 denotes a deterioration. Slight differences in the sites included in monitoring programme between the two periods mean that not all of the water bodies can be compared.

Water body	Total number of water bodies	Achieving objectives in 2015	Achieving obje	Net change	
type			Still achieving since 2010- 2015	Now achieving since 2010- 2015	
Rivers	3,192	1,235	852	215	↓168
Canals	16	12	12	2	↑2
Lakes	812	92	69	20	↓3
Transitional	156	23	7	5	↓11
Coastal	97	25	16	7	↓2
Groundwater	514	470	461	11	↑2
Total	4,787	1,857	1,417	260	↓180
Water bodies in Cycle 2 Priority Areas for Action	721	14	6	122	↑114

While there was an overall slight improvement in water quality between 2015 and 2021 (i.e. a further 260 water bodies had achieved their environmental objective by the end of the second-cycle), this was offset by 439 water bodies deteriorating, resulting in a net decline of 3.7% (Table 11). However, out of the 721 water bodies within the Prioritised Areas for Action identified for the second-cycle, there was a net improvement of 16% water bodies.

Implementing measures in Cycle 3 (up to 2027)

Measures commenced in Cycles 1 and 2 will continue to be implemented. However, improved technical evidence indicates that all water bodies require further, more targeted actions. Some water bodies require measures to ensure they are protected and do not deteriorate, some require more robust restoration measures to achieve at least good status, while a significant proportion of water bodies require further assessment to determine what the next steps are in terms of implementing measures. A breakdown of the number of water bodies where these different measure types are needed is provided in Table 12 and Figure 20 and summarised as follows:

Where a water body is 'At Risk', restoration measures addressing the significant pressures outlined above will be required to ensure that the water body achieves its environmental objectives. This type of measure will be required in the 1,649 water bodies identified as 'At Risk'.

Measures to protect a water body from deteriorating will also be required for the 1,963 water bodies that are currently 'Not at Risk'.

For the 1,230 water bodies that are currently in 'Review', these water bodies require further assessment. There are two components to this category in terms of action and measures as follows:

In approximately 21% of water bodies in 'Review', measures are in place but the water quality improvement has not yet been realised, or there has been some slight indication of improvement but not enough yet to categorise them as 'Not at Risk'. Therefore, these water bodies require further monitoring and assessment and this action is already accounted for in the EPA monitoring programme.

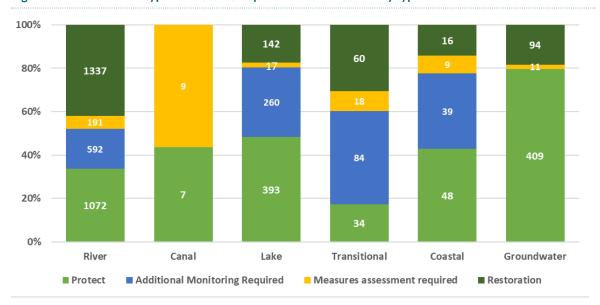
In the remaining 79% of water bodies in 'Review', there is currently inadequate evidence to determine whether or not the water body is 'At Risk' and measures should be put in place to ensure this additional evidence can be obtained.

Action 4.1: The EPA and LAWPRO, with the support of the implementing bodies and other stakeholders, will continue to assess the impacts of pressures on waters to inform the measures that are needed. (Timeline: Ongoing).

Table 12: Breakdown of type of measures required for each water body type.

		Ту			
Water body Type	Protect	Additional Evidence Required	Measures Assessment Required	Restoration	Total
River	1,072	592	191	1,337	3,192
Canal	7	0	9	0	16
Lake	393	260	17	142	812
Transitional	34	84	18	60	196
Coastal	48	39	9	16	112
Groundwater	409	0	11	94	514
Total	1,963	975	255	1,649	4,842

Figure 20: Breakdown of type of measures required for each water body type.

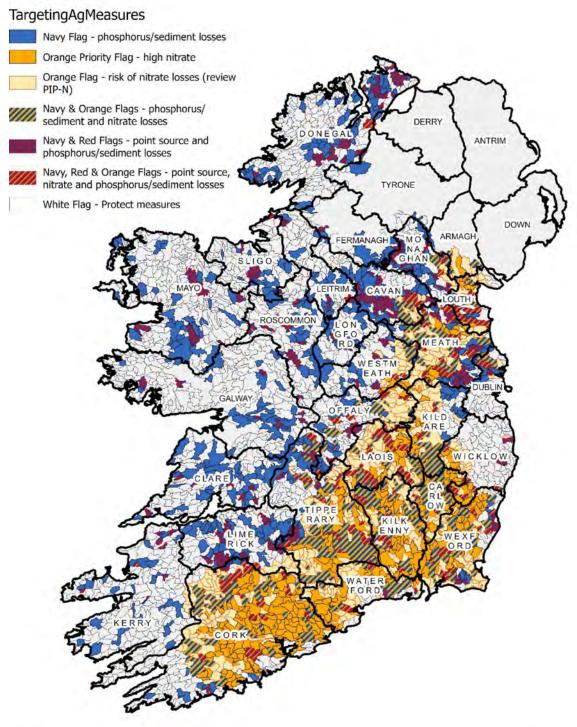


Targeting measures - the right measure in the right place

Recent advances in the development of the evidence base mean that measures can now be much more targeted to the specific water quality issues and risks within catchments. For example, the areas impacted by nitrogen (N), phosphorus (P) and organic pollution from agriculture vary across the country, and so a different approach to measures may be required for specific areas to address the relevant issues (Figure 21).

Figure 21: Map showing where agricultural measures need to be targeted to address different water quality issues. Navy flags are for measures to address impacts from phosphorus and sediment runoff; red flags are for measures to address organic pollution, especially from point sources; and orange flags are for measures to reduce nitrogen leaching.

Targeting Agricultural Measures (2023 R2)



Date: 01/08/2023 EPA Catchments (EM) Licence Number CYAL50265032 © Ordnance Survey Ireland/Government of Ireland



Programme of Measures to 2027

In addition to continuing to implement measures already commenced in Cycles 1 and 2, Ireland needs to take significant additional measures to return all water bodies to 'Good Ecological Status' (or good ecological potential). The scale of the change needed is considerable and so is the effort and time needed to implement measures. Natural systems will also take time to recover and then be measured by the WFD monitoring programme.

Our programme of measures has three strategic aims:

- Reduce the diffuse loss and direct discharge of nitrogen and phosphorus compounds into waterways and groundwater.
- Restoring continuity and the natural functions of rivers.
- Targeting specific pressures (such as building or upgrading wastewater treatment plants).
- Other pressure are diffused across the landscape of each catchment and involve multiple private organisations and individuals. These are much more complex to address. The additional vulnerability of our water catchment to humaninduced climate change and the consequential increased mobility of some pollutants further complicates the timescales to achieve the original objectives of the water framework directive.

How We Protect and Restore Water

Management measures are required to protect and restore natural waters. These measures are many and diverse. They include the implementation of eleven existing EU Directives such as the Nitrates Directive and the Urban Wastewater Treatment Directive. The Water Framework Directive also introduced new mandatory measures, including the control of water abstractions, the control of engineered alterations to natural waters (hydromorphological changes) and the protection of vulnerable catchments from which drinking water is sourced.

With regard to the implementation of regulatory regimes arising out of the existing EU Directives, continual efforts to secure full environmental compliance and to increase enforcement, where necessary, is essential. This is one of the key goals of the proposed 2022-2027 programme of measures. In addition, a number of new management regimes are in the process of being introduced to strengthen controls on water abstractions and engineered alterations to natural waters. The transposition of the new 2020 Drinking Water Directive has also provided the opportunity to implement a more comprehensive and robust approach to drinking water source protection.

In addition, to the measures mentioned above a number of 'supplementary measures' have been put in place during the second river basin planning cycle. These were judged to be necessary to drive water quality improvements and protection in a coherent manner following extensive consultations. They included, for instance, new governance and

implementation structures (such as LAWPRO and ASSAP), additional water protection measures under CAP, additional investment in public wastewater infrastructure and the remediation of domestic wastewater treatment systems. The supplementary measures also included further technical research and development to improve our knowledge of environmental pressures on water and how to address them effectively.

The characterisation process led by the EPA and supported by a broad range of stakeholders is particularly important for identifying the types and location of risk and impacts on waters. The recent technical advances mean that a more comprehensive, robust and streamlined management regime can now be designed and implemented. We have a clearer view of what mitigation measures are required and where those measures need to be implemented locally to improve the status of natural waters, in other words, 'putting the right measure in the right place'.

The proposed new and enhanced measures contained in this plan reflect the additional measures considered necessary to deliver the objectives of the WFD in full and to contribute co-benefits to other environmental priorities including biodiversity and climate mitigation and adaptation (see Appendix 2 for the full list of measures).

The additional and enhanced measures proposed in this plan take into account;

- The high level of environmental ambition committed to in the Programme for Government.
- Where possible, set quantitative targets for the deployment of measures.
- The updated characterisation / risk assessment outcomes.
- Lessons from the implementation of measures to date.
- Feedback from a wide range of stakeholders, including 170 submissions during the consultations on Significant Water Management Issues as well as over 1,850 submissions received by DHLGH and through LAWPRO, in response to the draft River Basin Management Plan.
- The scientific evidence for the purpose of targeting 'the right measure in the right place'.
- The goal of delivering integrated, multiple co-benefits for water, biodiversity and climate, wherever possible.¹¹

¹¹ The integrated approach reflected throughout this draft river basin management plan aligns with the Framework for Integrated Land and Landscape Management (FILLM) proposed by An Fóram Uisce. FILLM builds on and is a reframing of the Integrated Catchment Management (ICM) approach used in water resources management. However, it broadens it to include the other components of our natural environment, while retaining catchments as the appropriate landscape units. The development of the 46 Catchment Management Work Plans will reflect this approach.

- The evolving governance and implementation structural needs for the next cycle.
- The need to increase environmental enforcement and compliance.
- Opportunities to strengthen links between the WFD and other regulatory processes.
- The need to replace outdated and deficient regulatory regimes with more comprehensive, robust and streamlined management regimes.

In addition to the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes that have been applied to this high level plan, all measures and projects arising during the third-cycle RBMP will be subject to further environmental assessments at the appropriate level, as required. A full list of mitigation measures taken from the SEA and Natura Impact Statement (NIS) that apply to the Programme of Measures can be found in the accompanying appendices to the plan. In completing any required assessment, the responsible agency and/or project partners should ensure the utilisation of the appropriate tools available, such as the EPA's Environmental Sensitivity Mapping Tool (https://enviromap.ie/).

Any proposed measures must demonstrate that they can be implemented without adverse effects on the integrity of Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). Where adverse effects from proposals remain following mitigation, in line with Habitats Directive Article 6(3), consent for the proposals cannot be granted unless the prerequisites set by Article 6(4) are met. This will require that alternatives have been considered.

Action 5.1: The Department of Housing, Local Government and Heritage will oversee an independent review of progress with the implementation of the Programme of Measures.

The review will be carried out with the assistance of the WFD Implementation Structures. Reviews will be undertaken on an annual basis. Progress will be tracked, lessons learned and measures adapted with the aim of accelerating the rate of progress, as quickly as possible. Progress results will be published.

Based on annual reviews and as more data becomes available, there will be a mid-term progress review by 2025 for the identification of additional, evidence based measures where gaps exist. There will be a plan for their implementation as soon as possible within the period of the plan or beyond, where justified under Article 4 of the WFD.

Protection of Water Bodies from deterioration

Restoring water quality to 'good' or 'high status' and ensuring that water quality does not deteriorate, are both equal requirements of the Water Framework Directive.

Recent EPA water quality reports show some successes in restoring the quality of water bodies, but these improvements have been overshadowed by an overall net decline in the status of our water bodies. This highlights the need for a greater focus on the protection of water quality.

The reasons for these deteriorations are not always clear. They can include pollution incidents, land development and changes in land use or in the activities that take place on land. Protection of water quality will, therefore, require all stakeholders whose activities may impact on waters working together to achieve this goal.

There are three key elements to ensuring no deterioration:

- Ensure that statutory, regulatory measures are implemented in all areas, prioritised based on risk to water quality. A strong enforcement regime must be in place to support this.
 Enforcement also needs to be underpinned by strong advisory and educational supports to ensure that practices and behaviours are modified to maximise compliance with environmental laws.
- Ensure that new development and changes in existing land use or in the activities that take place on land are appropriately assessed and appropriate mitigation measures are put in place, so that they do not adversely impact on water quality.
 - Rigorous assessment of statutory measures is required to ensure that they are adequate to protect water quality. Where they are not, consideration should be given to making certain voluntary measures mandatory.
- 3. A key protect measure is the contribution of the local authority's planning and development system. This ensures transparency for the public where development with the potential to impact on water quality and the wider environment, is publicly advertised and offers opportunities for the public to contribute to the assessment process. Robust environmental assessment of the potential impacts of proposed development on water quality is critical. The introduction of new guidelines on water and planning will greatly assist in this process.

The third-cycle Plan aims to improve how regulation (including enforcement) and collaboration work most effectively together to deliver significant environmental improvements. As the key body for the enforcement of water protection legislation, such as the Good Agriculture Practice for the Protection of Water Quality Regulations and the Water Pollutions Acts, local authorities need the appropriate resources and support to perform this function effectively.

In preparation for the third-cycle plan, and any additional functions assigned to them, local authorities through the County and City Management Association (CCMA) are working together with DHLGH to further consider the role of local authorities in this area and the resources required to support them. This work will examine the full breadth of local authority/LAWPRO integrated catchment management functions at Tier 3 of the governance structure, including the restore and protect functions of local authorities and their regulatory and collaborative roles.

The National Technical Implementation Group, chaired by the EPA, will examine issues which are preventing water quality objectives from being achieved and will identify any evidence, legislative, policy or implementation gaps which need to be addressed with the aim of enhancing the protection of water quality and preventing declines. The focus will be on protecting water bodies from pressures and activities which are resulting in deterioration of water quality.

Action 5.2: The National Technical Implementation Group will identify the issues preventing water quality objectives from being achieved and will identify any further evidence, legislative, policy or implementation gaps that need to be addressed (Timeline 2024).

Water body areas for Targeted Action (Areas for Action)

This section outlines the Areas for Action that have been selected for inclusion in the third-cycle River Basin Management Plan (RBMP). The approach to selection expands on that taken for the second-cycle where Priority Areas for Action were managed by the Local Authority Waters Programme (LAWPRO). The third-cycle approach is designed to provide 'a place in the plan for everyone' by including a wider selection of Areas for Action incorporating Areas for Protection, Areas for Restoration and Areas for Catchment Projects. Further details of this framework are outlined in Figure 22.

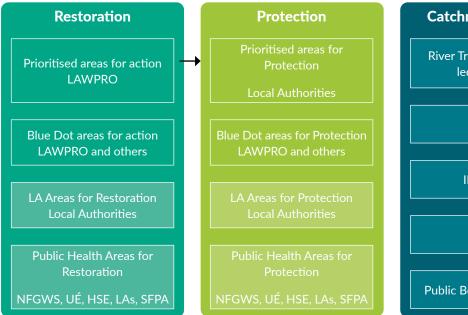
Areas for Restoration

Areas for Restoration are undertaken to target 'At Risk', and sometimes 'Review' water bodies. In the second-cycle RBMP, focus was on supplementary measures within Priority Areas for Action (PAAs). LAWPRO was assigned a further characterisation function and in areas where agriculture was a significant pressure, the Agricultural Sustainability,

Figure 22: Third-Cycle Areas for Action Framework

Third-Cycle Areas for Action:

Process evolved to also capture on-going work that's not in the second-cycle RBMP





Support and Advisory Programme (ASSAP) was responsible for working with landowners to implement supplementary mitigation measures.

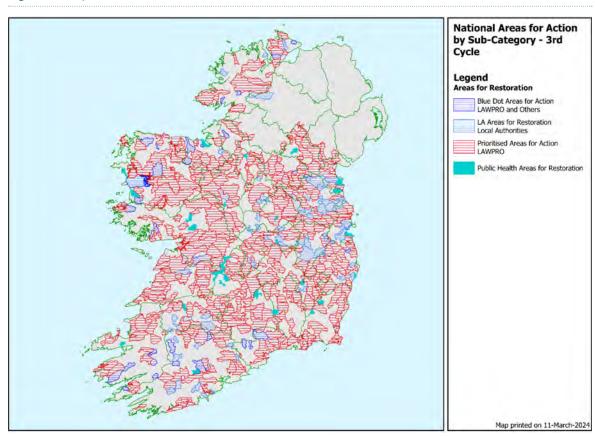
A key tool in the third-cycle is the ongoing work of the Local Authority Waters Programme (LAWPRO), which will prioritise its third-cycle catchment work in 343 of the areas for action. LAWPRO's catchment assessment process is carried out in two phases. In the first phase, catchment scientists study all the available information on the catchment from various sources such as local authorities, EPA etc. LAWPRO also meets with the public and local farmers to advise them of the work to be carried out and to seek their local knowledge of the catchment. In the second phase, LAWPRO samples and examines the water bodies in detail on the ground. Catchment scientists analyse the results of that work to determine what the water problems are, and they recommend where measures should be targeted. LAWPRO then works with the relevant bodies to drive and encourage implementation of those measures, both basic and supplementary.

The learnings from LAWPRO's work in the PAAs informs work in other Areas for Action and highlights best catchment management practice to be applied in all water bodies across the country.

Local authorities are also undertaking restore activities, through application of basic measures, as part of their work programmes. All local authorities have statutory obligations with respect to water. The Local Authority Performance Framework is implemented by the EPA to coordinate and focus the environmental enforcement activity of the 31 local authorities to better align with achieving environmental outcomes under set national enforcement priorities. Some Local Authorities will also be leading on defined Areas for Restoration in the third-cycle. These activities include, for example, Section 4 licence inspections under the Local Government (Water Pollution) Acts; agricultural inspections under the EU (Good Agricultural Practice for Protection of Waters) Regulations, and domestic wastewater treatment system inspections under the Water Services Act.

Multiple organisations undertake restore activities to improve, for example, drinking waters and bathing waters, and again these activities are captured in the RBMP. The new Water EIP project led by LAWPRO will provide the opportunity to resource mitigation actions on approximately 15,000 farms.

Figure 23: Map of Areas for Restoration



Areas for Protection

The Areas for Protection category covers activities being undertaken in line with legislative requirements referred to as basic measures and captured under Recommended Minimum Criteria for Environmental Inspection (RMCEI) planning. It also includes the source catchments of several Group Water Schemes, with these areas being led by the National Federation of Group Water Schemes. The addition of this category in the third-cycle affords the opportunity to account for a proportion of this existing current resource, to target the effort into Areas for Protection.

Catchment Projects

Catchment Projects refer to areas where there are existing projects ongoing at a catchment scale, led by various bodies, that will continue into the third-cycle, or where funding has been committed and plans are in place for projects, research or community-led initiatives (e.g., Rivers Trusts), to begin during the third-cycle. LAWPRO and/or the relevant local authorities will act as a support for many of these projects to guide the project teams on the Area for Action process. The number of catchment projects is expected to grow during the lifetime of the plan, and new projects will be captured in implemention tracking e.g Wild Atlantic Nature and Waters of LIFE Integrated Projects.

Figure 24: Map of Areas for Protection

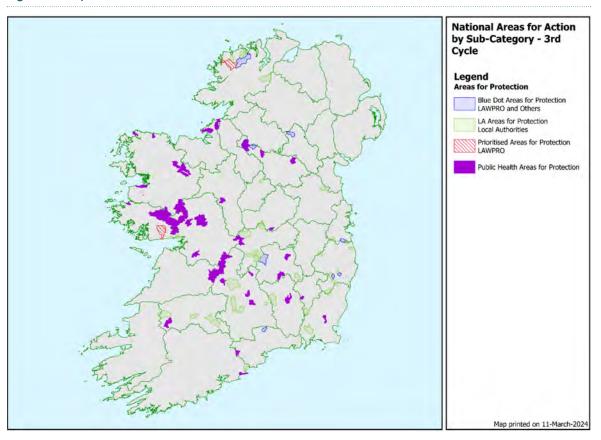
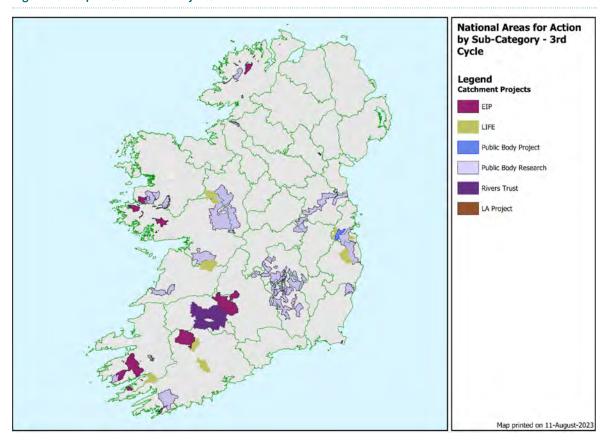


Figure 25: Map of Catchment Projects



High Status objective water bodies (Blue Dot Areas for Action and the Waters of LIFE project)

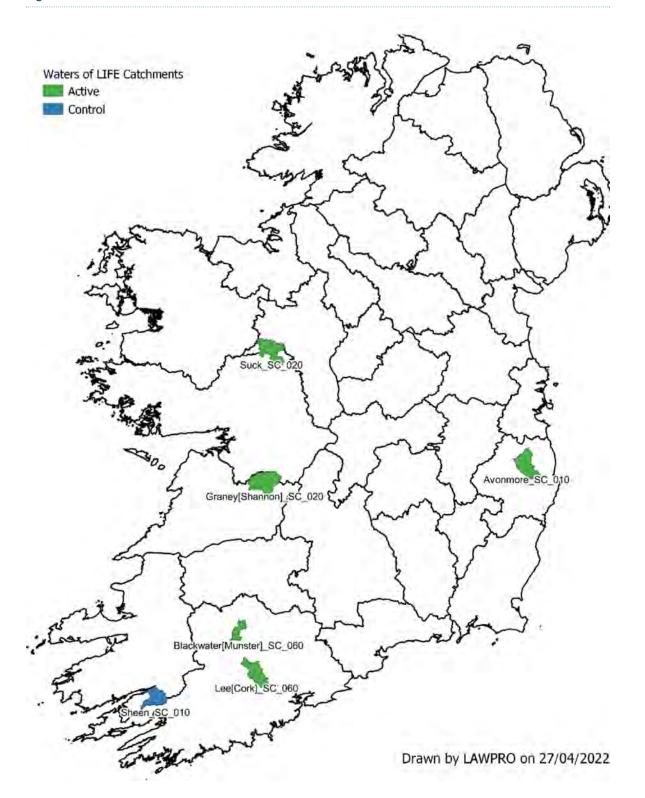
Blue Dot water bodies are those which have been assigned a high status objective because they are achieving high status, or did achieve high status in the recent past, and Ireland's ambition is to preserve and protect them or to restore them where necessary. There are 402 Blue Dot water bodies nationally and 244 of them are within Areas for Action or Catchment Project areas in the third-cycle. The Blue Dot Catchments Programme, which is a collaborative programme between local authorities and implementing bodies, will continue its work towards ensuring that all Blue Dot waters continue to meet their high-status objective or improve to high status in the third-cycle.

In support of the Blue Dots Catchment Programme an application was made for funding under the EU LIFE programme. In 2020, the EU Commission awarded LIFE co-funding for the 'Waters of LIFE' integrated project. This project, with an overall investment of €20 million focuses on reversing the long-term trend of decline in the number of high-status river waters bodies.

The Waters of LIFE project is a collaboration between the following partners:

- Department of Housing, Local Government and Heritage, which is the lead partner
- Department of Agriculture, Food and the Marine
- Teagasc
- The Local Authority Waters Programme
- Environmental Protection Agency
- The Forest Service
- Coillte
- Several local development companies

Figure 26: Waters of LIFE Demonstration and Control Catchments



The project, which will run until early 2028, aims to build technical understanding and capacity in relation to the drivers of status change in high status objective rivers and the design and implementation of measures for their protection and restoration. There will also be a strong emphasis on promoting community and landowner ownership of the actions and on building capacity. The project will operate in five demonstration catchments with a sixth catchment acting as a control (Figure 26). These demonstration catchments represent a variety of hydrogeological and hydrological settings and encompass the range of pressures acting on high status objective rivers, including drainage, agriculture, forestry and extractive industries.

A key element of the project will be the development of a pilot results based payments scheme (RBPS) for landowners in the demonstration catchments, which will focus primarily on water quality. The RBPS will be developed through a co-creation process with relevant stakeholders and will build on the knowledge and experience gained through previous schemes such as that implemented by the Pearl Mussel Project and others.

Learnings from the project will be used on an ongoing basis to tackle relevant sectoral pressures where they are impacting on high status objective water bodies. An important objective of the project is to inform the development of future agri-environment and forestry policies and provide for the long-term sustainable management of high-status objective areas.

Implementing Areas for Action during the third-cycle

The Areas for Action captures the full extent of the work being undertaken in catchments that contributes to achieving water quality outcomes, by a range of other stakeholders, not just LAWPRO. The areas for inclusion were agreed by each of the five Regional Operational Committees and five Regional Management Committees.

In total, 517 areas have been selected for focused attention in the third-cycle based on risk. A map of the third-cycle Areas for Action is displayed in Figure 27, with a full list of areas outlined in Appendix 4.

428 of these areas require restoration as they are not currently meeting their environmental objectives.

89 areas are meeting their environmental objectives but require dedicated protection measures to ensure their water quality does not deteriorate from identified risks.

In addition, 17 areas are the subject of other catchment projects/initiatives by stakeholders (e.g.

community groups, EIP projects, LIFE projects, etc.), which aim to improve water quality.

Each area for action has a designated lead such as LAWPRO, a local authority, the National Federation of Group Water Schemes, Inland Fisheries Ireland, etc. With this approach we aim to capture all the water quality improvement work that is happening across the country. This will also align actions being carried out for other purposes with the objectives of the RBMP, where possible, so that synergies can be identified, and multiple benefits can be achieved.

The areas were selected through a collaborative workshop process at each Regional Operational Committee. LAWPRO and the EPA led out on the process, in which all public bodies with water quality responsibilities participated. As part of the process, priority was given to areas that linked with those outlined in the second-cycle plan, areas with a high-status objective and protected areas, such as bathing waters, shellfish waters and drinking water supply sources. The following additional principles were also considered:

- selecting areas for action at a sub-catchment scale where practical,
- addressing water bodies in the headwaters first,
- addressing multiple pressures on water quality together,
- building on existing programmes including second-cycle Priority Areas for Action and community group initiatives,
- building on existing momentum delivering improvements in water quality,
- aiming to ensure a fair distribution of tasks between pressure owners, pressure types, biogeophysical settings and regionally, and
- ensuring the areas included a mix of known, fixable issues and longer-term challenges.

All other water bodies will benefit from the implementation of existing regulatory basic measures (e.g. implementation of the EIA Directive, Nitrates Directive and the Urban Wastewater Treatment Directive), as part of each organisation's annual work programmes.

This implementation process will facilitate a collaborative approach across agencies, where activities are being undertaken in line with the integrated catchment management approach and it will present opportunities for agencies to learn from one another. This will allow for the development of an evidence base on approaches and actions that are successful in restoring and protecting water quality.

The learnings from LAWPRO's work in the PAAs informs work in other Areas for Action and highlight

best catchment management practice to be applied in all water bodies across the country.

As part of the public consultation process on the draft River Basin Management Plan, the public was asked their views on the PAAs selected for focused action. This resulted in additional water bodies being included, and these are identified in Appendix 4. With an increased number of areas for action, completion of the local catchment assessment work programme will rely on adequate resourcing and it is recognised that some of the work programme is likely to roll over into the following cycle.

The National Federation of Group Water Schemes has made some minor amendments to its list of Areas for Action. The identified sustainable long term option for a small number of Group Water Schemes involves either amalgamation with neighbouring Group Water Schemes or being taken-in-charge by Uisce Éireann.

The Blue Dot Catchments Programme will continue its work towards ensuring that all Blue Dot waters continue to meet their high-status objective or improve to high status in the third-cycle. The Programme will draft a detailed work plan in relation to these water bodies, with a view to them forming part of the 46 Catchment Management Work Plans. The monitoring and evaluation of progress will still be carried out by the Blue Dot Steering Group. The Programme will be supported by the Waters of LIFE Project. The Department of Agriculture, Food and the Marine (DAFM) has facilitated priority access to the new Agri-Climate Rural Environment Scheme (ACRES) under the CAP Strategic Plan for many farmers located within catchments with a high status objective. A high proportion of high status objective water bodies (70%) were included in these the ACRES Cooperation Project Areas where an enhance agrienvironment and climate measure will apply.

The National Blue Dot Steering Committee will continue its programme of work to highlight the importance of Ireland's high-status waters and to work with the various implementing bodies, landowners, and the public to ensure that high status waters are protected and restored where necessary. LAWPRO's work in the catchments will help to identify work practices that advance this objective and can be applied across the country.

Response to consultation on Areas for Action

As part of the public consultation process on the draft River Basin Management Plan, the public was asked their views on the areas for action selected for focused action. This resulted in an additional 72 water bodies being included. With an increased number of areas for action, completion of the local catchment assessment work programme will rely on adequate resourcing, and it is recognised that some of the work programme is likely to roll over into the following cycle.

You can view the full list of water bodies in Areas for Action on the www.lawaters.ie website.

Action 5.3: LAWPRO will confirm significant pressures and work with implementing bodies and stakeholders to promote the implementation of appropriate restoration measures in each Area for Action (restoration) where environmental objectives are not being met. (Timescale: Ongoing).

Action 5.4: LAWPRO will confirm significant pressures and work with implementing bodies and stakeholders to progress the implementation of appropriate protection measures in areas that are meeting their environmental objectives but require protection to ensure that water quality does not deteriorate. (Timescale: Ongoing).

Action 5.5: LAWPRO, in cooperation with the EU LIFE IP Waters of LIFE project team, will publish a new Blue Dot Programme work plan for waters with a High Status Objective (Timescale: 2024).

Action 5.6: Catchment projects aimed at improving water quality to be advanced in 15 areas (including community initiatives, River Trusts, EIPs, PEACE+).

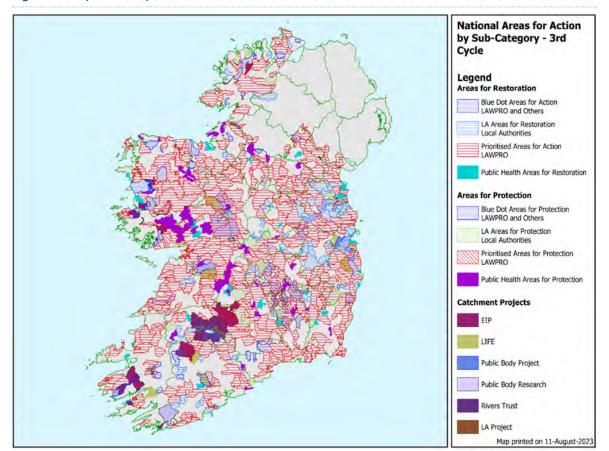


Figure 27: Map of third-cycle Areas for Action

Environmental Measures

The following sections provide a summary of the main environmental measures that address the significant environmental pressures on water. These include both basic and supplementary measures. These measures include those applied at a general scale and specific measures applied to certain catchments or subcatchments (or at water body scale) as is necessary to meet the specific environmental objectives.

The measures are set out below primarily by the sector driving the impact. This is where the measures will be taken. For example, individual water bodies may have nutrient impacts from various sources (wastewater, farming and urban run-off). The target reductions are set by sector and the individual actors from within the sectors will drive the measures required. More detailed information on measures are provided in the supporting Programme of Measures document contained in Appendix 1.

Summary of the main measures within the Programme of Measures

The following table provides a guide to where to find further detailed information on measures aimed at addressing the most significant pressures/issues affecting waters. The actions under each pressure/issue have been extracted and provided below.

Table 13: Index to further information on the Programme of Measures (Separate document)

Significant pressures/ issues that require additional new measures	Category of Measure	Relevant Section in the Programme of Measures document
Agriculture	Address pressures from rural diffuse & point sources.	1
Physical modifications to the flow, form or function of natural surface water bodies (Pressures on Hydromorphology)	Improve physical condition of the water environment and prevent deterioration through regulation and enforcement.	2
Forestry	Address pressures from forestry.	3
Urban Wastewater	Address pressures from urban wastewater.	4
Urban Runoff	Address pressures from urban runoff.	5
Domestic Wastewater Discharges (Septic Tanks)	Address pressures from rural diffuse & point sources.	6
Unknown Pressures	Some water bodies require further monitoring, investigation and characterisation as the causes of impacts are still uncertain.	7
Other Pressures	Some pressures/activities impact a relatively small number of water bodies and have been grouped together. They include; historically polluted sites, and waste. Aquaculture and Invasive Alien Species have been addressed separately because of feedback from public consultations.	8
Peatlands	Address pressures from harvesting of peat.	9
Industry, Mines and Quarries	Pressures include Integrated Pollution Control (IPC) and Industrial Emissions (IE) facilities licensed by the EPA and industries with Section 4 Discharge to Water licences issued by local authorities.	10
Drinking Water Source Protection	Address pressures from rural diffuse & point sources impacting on the quality of drinking water sources.	11
Invasive Alien Species	Protect water bodies from invasive species.	12
Hazardous Chemicals in the Aquatic Environment	Address sources of hazardous chemicals to eliminate their presence in waters.	13
Aquaculture	Address impacts on water bodies such as; water quality, biodiversity, the condition of the local habitats, risks from the use of pesticides and threats from the introduction of non-native species.	14
Land Use Planning	Address potential impacts from future development by ensuring that that risk is avoided in the first instance and through the inclusion of appropriate conditions in planning permissions for new development.	15

Actions under each of the most significant pressures/issues

1. Agriculture

Actions contributing to a stronger and more targeted Nitrates Action Programme

Agri 1: DHLGH and DAFM will oversee the implementation of the <u>stronger and more targeted</u> <u>Nitrates Action Programme</u>. The Fifth Nitrates Action Programme (2022-2025) retains and strengthens the existing controls from agricultural nutrient impacts on water and will implement tighter controls on nitrogen and phosphorus inputs by:

- Stipulating tighter controls on the timing and methods of application of chemical nitrogen fertilisers and slurry. [Timeframe – In place]
- Reducing the annual maximum fertilisation rate of nitrogen on grassland by 10% in 2022 with potential for a further reduction of, at least, 5% in 2024 following the Interim Review in 2023 [Timeframe 2024]
- 3. Reduction in the maximum derogation stocking rate on farms in water bodies where there is, or a risk of, declining water quality [Timeframe 2024]
- Implementing a livestock excretion banding system from Q1 2023 to more accurately reflect the different rates of organic nitrogen loading from different sized animals in the maximum stocking rate calculations [Timeframe 2023]
- 5. Establishing a national fertiliser sales database for farmers [Timeframe 2023]

Agri 2: Local Authorities will strengthen the inspection and enforcement relating to agricultural diffuse pollution. A total of 57 new Inspectors in local authorities have been allocated for the National Agricultural Inspection Programme (NAIP) and five new staff have been allocated to the EPA to oversee the programme. An additional four staff have been allocated to LAWPRO to help in co-ordinating the activity and avoiding duplication where possible. Inspections will be targeted and risk-based using all the available evidence, including water quality data, the EPA's PIP Maps and the Targeting Agricultural Measures Map on up to 4,500 farms per annum during the lifetime of the Nitrate Action Programme. DAFM will undertake 500-1,000 inspections per year under the GAP Regulations focused in Q1 where risk of nutrient impact on water quality is high. DAFM has increased their derogation inspections from 5% to 10% of all derogation farms per year and will undertake approximately 700 inspections per annum. [Timeframe 2022 - 2024]

Measures in Ireland's CAP Strategic Plan contributing towards water quality

Agri 3: DAFM will implement Ireland's CAP Strategic Plan with a strong emphasis on the achievement of a higher level of environmental ambition. This includes implementing the new Green Architecture of (1) Conditionality, (2) Pillar I Eco-Schemes and (3) the Pillar II Interventions such as ACRES and the new Water EIP. [Timeframe 2023 - 2027]

Agri 4: Eco-scheme measures will contribute to the protection of water quality. DAFM will promote and target the uptake of these measures in locations at farm level where they will maximise water protection. This will be achieved through training and farm advisory services and by using the Pollution Impact Potential (PIP) maps generated by the EPA.

Agri 5: The Water EIP project led by LAWPRO, in partnership with Teagasc and Dairy Industries Ireland will focus on reducing losses of phosphorus, nitrogen, sediment and, where relevant, pesticides to water from agricultural lands by promoting the adoption of innovative best practice in nutrient management, the application of nature-based solutions and other suitable measures. The project will aim to support up to 15,000 farmers in implementing on-farm water protection and mitigation measures.

Additional Measures

Agri 6: DHLGH and DAFM will put arrangements in place to ensure independent assessments and reviews of the efficacy of the Nitrates Action Programme (NAP), the CAP Strategic Plan and the Water EIP (and other relevant measures) to bring the 1,000 water bodies impacted by agriculture up to good status and to prevent deterioration. They will identify additional measures, where necessary, which will be implemented during the lifetime of the plan or beyond, where justified under Article 4 of the WFD.

Mechanisms for review will include; DHLGH monitoring & assessment of progress with the programme of measures, EPA's statutory role in assessing the NAP, EPA research projects and the CAP Strategic Plan Performance Monitoring and Evaluation Framework (PMEF)

[Timeframe - Ongoing, Q4 2025 for mid-term review]

Agri 7: In support of the Catchment Management Work Plans, the Department of Agriculture, Food and the Marine will publish an Agricultural Sectoral Action Work Plan to reduce nitrogen losses to waters in areas where levels are increasing or are too high, and to bring nitrogen, phosphorous and sediment losses to water from agricultural sources within sustainable levels by 2027.

The Sectoral Action Work Plan for Agriculture will include targeted measures to address the 1,000 water bodies at risk from agriculture during the third-cycle, along with protection measures needed to prevent further deterioration. The aim of the plan will be a rapid graduated reduction of nitrogen, phosphorous and sediment losses to water bodies with a target to reach sustainable use and discharges in all catchments of concern by 2027. [Timeframe 2024]

Agri 8: Online Farm Sustainability Planning: Teagasc will develop an online Farm Sustainability Plan for farmers complementing existing Nutrient Management Planning online tool to support the wider Agricultural Knowledge and Information Systems (AKIS) programme. [Timeframe 2024]

Agri 9: Extend and expand the local authorities' water protection office. LAWPRO will be extended for the full duration of Cycle 3 up to 2027. The CCMA will identify the appropriate level of resources and involvement of LAWPRO to meet WFD objectives up to 2027 and beyond in future RBMPs.

Agri 10: Provide free on-farm advice to farmers The sustainability advisory service (ASSAP) will be extended for the full duration of Cycle 3. The dairy industry has increased the number of advisors involved in ASSAP by six for the period 2022 to 2027.

Agri 11: To support the goal of targeting the right measure in the right place all farm advisers involved in the 'Farming for Water' Agri-EIP, will be provided with ongoing professional development, including an appropriate level of catchment science training to ensure that measures are sufficiently targeted.

In addition, these farm advisers will be made aware of the various other relevant funding schemes available to farmers to support the right measure in the right place.

Agri 12: Upskill farmers and advisors to ensure they have the knowledge and tools to implement appropriate measures to reduce the impact on water quality from farming practices.

2. Physical modifications to the flow, form or function of natural surface water bodies (Pressures on Hydromorphology)

Hymo 1: A Hydromorphology Expert Group will be established to support the new National Hydromorphology Programme. This Expert Group will identify interim measures which will be readily implemented during the third RBMP cycle to assist in removing pressures on hydromorphology.

Hymo 2: DHLGH will lead the development of a new enhanced and consolidated legislative regime to address pressures on the physical condition of waters. [Timeframe 2026].

Hymo 3: IFI will establish a restoration programme to mitigate the negative impact of past construction in or near water bodies.

Hymo 4: A Sectoral Action Work Plan for Hydromorphology will be developed, which will include measures and plans to address the 448 water bodies at risk from pressures on hydromorphology, including barriers, channelization, drainage, sediment and flood protection. It will be led and coordinated by DHLGH with supporting bodies IFI, DAFM, Forestry, OPW and DECC. [Timeframe Q4 2024]

Hymo 5: It is proposed that the IFI will lead a multiagency whole of catchment pilot project on the River Dodder from source to sea with the aim of examining the feasibility of opening up this heavily urbanised catchment to migratory fish species by mitigating the five most significant barriers in the lower reaches and progressing to the next stage, as appropriate. [Timeframe 2024 to 2027].

Hymo 6: IFI will lead a pilot project to be undertaken for the Annacotty Weir in County Limerick. The project will provide an opportunity to test a collaborative and ecology focussed design approach. It will also test enhanced community engagement opportunities that go beyond the standard consultation practices involved in the planning process, thereby assisting with the design and implementation of the national restoration programme. The pilot project is initially examining the feasibility of mitigation and will progress to the next stages, as appropriate.

Hymo 7: Implementation of the roadmap of actions, including the use of state-of-the-art technical solutions, to improve fish migration in the lower Shannon at the Hydroelectric scheme located around Parteen and Ardnacrusha. The pilot project will initially examine the feasibility of mitigation and will progress to the next stages, as appropriate.

Hymo 8: A proposed pilot project on the Slaney River at Clohamon will aim to improve fish passage at a medium scale hydroelectric scheme through a state and community collaborative initiative. The pilot project will initially examine the feasibility of mitigation and will progress to the next stages, as appropriate.

Hymo 9: In addition to river barrier removal and mitigation other restoration and mitigation work will be developed. This will be partly guided by the framework for prioritising measures for both river restoration and Nature-based Catchment Management prepared by the EPA. [Timeline: 2026, onwards].

Action 3.10 (Repeated from Chapter 3 for completeness): The Minister for Housing, Local Government and Heritage will undertake a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs. There were 466 water bodies which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process. [Timeframe Q2-Q3 2024].

Action 3.11 (Repeated from Chapter 3 for completeness): A review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in order to inform future land use policy decisions arising out of the Land Use Review and to support the preparations for the implementation of the new Nature Restoration Law and the Heavily Modified Water Body review process.

The review will be supported by the OPW and other key stakeholders. Specific tasks will include:

- Assessing and advising on the implications of different land use policy options in the future, arising out of the Land Use Review, on arterial drainage requirements and the consequential impacts (both positive and negative) on social, economic, climate, biodiversity and water status objectives and outcomes, and
- 2. Assessing and advising on the legislative changes to the Arterial Drainage Act necessary to (1) support the national land use policy objectives arising out of the Land Use Review, and (2) ensure that future arterial drainage practices are sustainable and support the environmental objectives set out in the 2021 Climate Action Plan, the WFD River Basin Management Plan, the National Biodiversity Action Plan and the related Nature Restoration Law, as well as flood risk management objectives.

3. Forestry

Forestry 1: In support of the Catchment Management Work Plans, the Department of Agriculture, Food and the Marine will publish a Sectoral Action Work Plan. DAFM will update the 2018 document "Forests and Water: Achieving Objectives under Ireland's River Basin Management Plan 2018-2021" as the Forestry Sectoral Action Work Plan supporting the third RBMP.

The updated Forests & Water document will include:

- an assessment of the changes in water bodies identified as being at risk from forestry during the second-cycle.
- tabulated actions proposed for the 216 water bodies at risk from forestry, identifying those activities most likely to be the cause of the significant pressure
- details of the assessment and enforcement process that applies to all applications for forest licences (with or without grant aid). This includes: (i) an overview of the detailed level of ecological assessment now applied by c.27 FTE Ecologists, which contributes significantly to the protection of water, through licence conditionality; and (ii) the range of robust standardised requirements applied to all projects, which provide consistency and clarity to foresters and a robust baseline level of protection. In addition;
 - » A number of existing and new restrictions under the new Forestry Programme 2023-2027 now rule out afforestation on a wide range of site types and situations.
 - » DAFM's policy on permanent forest removal is set out in the document Felling & Reforestation Policy, May, 2017. Forest removal is considered where overriding environmental concerns exist that cannot be addressed adequately through restructuring at reforestation.

- Where evidence shows that additional, targeted measures beyond standard requirements are needed to address pressures fully, these will be identified and implemented, through licensing.
- The new Forestry Programme includes a number of schemes that can be used within these sub-basins (and elsewhere) to fund changes that protect and enhance water quality. Key among these are schemes funding native woodland creation and continuous cover forestry. In addition,
 - » DAFM is compiling an exhaustive suite of effective mitigation in relation to felling, reforestation and forest roading, to be applied through licensing.
 - » DAFM is working with Waters of LIFE IP partners in trialling various approaches to forestry operations within selected subbasins of high status water bodies, where forestry is a significant pressure. Experiences from this project and from KerryLIFE, will inform DAFM's ongoing approach.
 - » DAFM is undertaking water monitoring in several heavily-forested catchments, to check the efficacy of various mitigations incorporated into forest management upstream.

[Timescale: 2024 and ongoing, thereafter].

Forestry 2: DAFM recognises the key recommendation from the HYDROFOR Project (2016) to "cease afforestation on peat soils in acid-sensitive headwater catchments", and is applying various water and non-water related policies, procedures and protocols that combine to rule out afforestation on such sites, or to limit it to appropriate multi-benefit native woodland.

Due to a multitude of environmental factors relating to water, biodiversity, carbon, landscape and amenity, and forest operational issues relating to productivity, access and the risk of windblow, DAFM's policy and scheme structure have led to a consistent reduction in the level of afforestation undertaken on peat soils in acid-sensitive headwater catchments over the last 20+ years.

Key elements that ensure that afforestation will continue to move away from such landscapes include various policies now underpinning the Forestry Programme 2023-2027, such as:

 soil-type requirements that rule afforestation ineligible on a wide range of peat site types, driven primarily by carbon budget considerations;

- site fertility requirements, which push afforestation further away from nutrient-poor land; and
- biodiversity-related requirements that overlap strongly with these acid-sensitive headwater catchments, including exclusions relating to SPAs, defined wetland habitats and within 1.5 km of known curlew nesting sites, and procedures regarding sites within the Irish Wetland Survey, sites important for other wader species, and high nature value farmland.

Existing procedures also restrict afforestation within these catchments. First and foremost is the Acid Sensitivity Protocol that rules out commercial afforestation from areas of the country designed by the EPA and others as being acid sensitive. This protocol is based on project-level prescribed water sampling and analyses. Also, of particular relevance is the Habitats Directive Appropriate Assessment Procedure applied to all forestry applications, supported by c.27 FTE Ecologists within the Forestry Inspectorate. While focusing on possible impacts on SACs and SPAs, the process can often rule out afforestation, or severely restrict it, with these catchments, due to the preponderance of hydrological connectivity across the land.

As described, numerous policies and procedures are in place, driven by concerns regarding water, biodiversity, carbon, landscape and other sensitivities, that severely limit afforestation on peat soils in acid sensitive headwater catchments, and these will remain in place throughout the current Forestry Programme. However, DAFM does not pursue a zero afforestation policy in these areas, to allow certain types of afforestation – in particular, native woodland creation – to play a positive role in protecting a multitude of environmental sensitivities within these areas, including water. [Timescale: Ongoing].

Forestry 3: DAFM to increase the area of forests with appropriate water setbacks through the ongoing restructuring of existing forest stands at clearfell / reforestation stage. [Timescale: Ongoing].

Forestry 4: DAFM to ensure the application of water setbacks and other water-based protection during the creation of new forests, principally realised with support under the 2023 – 2027 Afforestation Scheme. [Timescale: Ongoing].

Forestry 5: DAFM to manage the application of support measures that have a clear role in relation to the protection of water, including: the Continuous Cover Forestry Scheme; the various native woodland and agro-forestry options under the Afforestation Scheme, the Native Woodland Conservation Scheme, and the Reforestation for Climate Resilience Scheme. [Timescale: Ongoing].

Forestry 6: DAFM to encourage the uptake of Forest Type 3 under the Afforestation Scheme, aimed at funding native woodland creation on public land, specifically to deliver woodland-based solutions for the protection of drinking water sources and water in general [Timescale: Ongoing].

Forestry 7: DAFM to launch the new Forests for Water option (Forest Type 2) under the Afforestation Scheme, which offers added incentives to farmers and other landowners to promote the creation of new native forests specifically to provide water services, including improvements to water quality, drinking water source protection, natural water retention, the improvement of aquatic and riparian habitats, and the expansion of alluvial woodland. [Timescale: 2024].

Forestry 8: DAFM to continue to address all forestry related water incidents, as identified by DAFM Inspectors and LAWPRO or reported to DAFM Forestry by foresters, water agencies, environmental NGOs and members of the public. (Timescale: Ongoing).

Forestry 9: DAFM to train Registered Foresters, Consultant Ecologists and machine operators, in relation to the design, and implementation of forestry projects, from the perspective of protecting and enhancing receiving waterways. [Timescale: commence from Q3 2024, onwards].

Forestry 10: Continue to seek improvements to the licence applications process for key forestry activities.

4. Urban Wastewater

UWW 1: Uisce Éireann will continue investment in wastewater infrastructure investing over €2.3bn over the period 2020-2024. This includes 108 wastewater treatment plants and 77 collection networks at an estimated cost of €1.542bn and 92 national programmes at an estimated cost of €780m.

UWW 2: Uisce Éireann will deliver infrastructure projects as set out in the Appendices for the next RBMP third-cycle (2022-2027). [CABL #93]

UWW 3: Uisce Éireann will assess urban wastewater requirements for the 197 Water Bodies where Urban Wastewater has been identified as a significant pressure by 2027, including any new significant pressure water bodies identified by LAWPRO. [CABL #93]

UWW 4: Uisce Éireann will apply for reviews of Wastewater Discharge Authorisations, where required. The applications shall be in a timeframe that is appropriate to the delivery programme and agreed with the EPA.

UWW 5: DHLGH will deliver a multi-annual investment programme to provide wastewater infrastructure for villages not served by public wastewater collection systems.

UWW 6: Uisce Éireann's River Basin Management Plan – Enhanced Ambition Programme will deliver at least 10 new wastewater treatment plant upgrades not funded under the current investment plan where discharges have been identified as being significant pressures on water bodies and impacting on WFD objectives **[CABL #93]**

UWW 7: Uisce Éireann will continue investment in storm water overflows with a minimum of 139 upgrades over the period 2022-2027.

UWW 8: Following the completion of negotiations, DHLGH will undertake transposition into Irish law of the recast Urban Wastewater Treatment Directive.

UWW 9: Following the expected recast Urban Wastewater Treatment Directive the DHLGH will update the criteria for the performance of Combined Storm Water Overflows.

UWW 10: Uisce Éireann will put in place a Research and Innovation Programme on nature-based solutions for small wastewater treatment plants.

UWW 11: As part of the distance to target analysis process led by the EPA, the impact of Sectoral Action Work Plans, including that for urban wastewater discharges, will be assessed as part of the preparation of the 46 Catchment Management Work Plans. Uisce Éireann will publish a Sectoral Action Work Plan. The Sectoral Action Work Plan for urban wastewater discharges will include further detailed information on the targeting of measures to address the 197 water bodies at risk from urban wastewater discharges during the third-cycle.

Where the EPA Distance to target analysis indicates that the achievement of WFD objectives in individual water bodies is not possible by 2027 for reasons of technical feasibility and/ or disproportionate costs of delivering urban wastewater treatment improvements, extensions of time may be considered, subject to meeting the relevant criteria in Article 4 of the WFD. The impact of urban wastewater discharges in the vicinity of bathing waters, shellfish waters and designated pearl mussel habitats are being assessed to determine if they are contributing to failures and whether more stringent wastewater treatment standards are required. Uisce Éireann will provide a timeline for both the assessments and the required treatment for all bathing waters, shellfish waters and designated pearl mussel habitats in its Sectoral Action Work Plan. [Timeframe 2024]

UWW 12: Uisce Éireann will engage with LAWPRO with the data required for their work in compiling the 46 catchment work plans and also trialling the Catchment Management Work Plans template in the 5 pilot catchments.

UWW 13: Continue to develop and update the distance to target/Gap Analysis as a tool to reflect Uisce Éireann's understanding of future needs, and consequent investment requirements.

UWW 14: Update the Nutrient Sensitive Areas designations under the Urban Wastewater Treatment Directive.

5. Urban Runoff

Urban Runoff 1: LAWPRO in conjunction with DHLGH to develop recommendations for an implementation strategy for nature-based Sustainable Urban Drainage Systems on a national scale. **[CABL #100]**

Urban Runoff 2: DHLGH to provide interim guidance documentation to the Local and Planning Authorities on measures to be implemented to support the delivery of a greater focus on nature-based solutions in advance of a national implementation strategy. [Note: The interim guidance was delivered in Q4 2021].

Urban Runoff 3: Develop a National Implementation Strategy for Nature-based Sustainable Urban Drainage Systems on a national scale

Urban Runoff 4: DHLGH to establish a pilot project to investigate solutions to urban runoff using Nature-based Solutions.

Urban Runoff 5: Additional resources will be provided to LAWPRO to provide specialist support to local authorities in adopting international best practice on nature-based surface water management within planning and infrastructure project delivery. (Two staff members by 2025. Cross reference to action under 'Governance/ Implementation' measures on local authority resources)

Urban Runoff 6: The DHLGH will work with NIEA to seek Peace Plus funding projects, which will trial Nature-based Solution measures and sustainable technologies.

Urban Runoff 7: Review of outcomes of the Dublin Urban Rivers Life project.

Urban Runoff 8: Oversee the preparation of integrated urban drainage management plans.

6. Domestic Wastewater Discharges (Septic Tanks)

Domestic WW 1: DHLGH will continue to promote and monitor the uptake of the new grant schemes to ensure adequate numbers of people are availing of this measure. A research project will be initiated under the ESRI Research Programme on behaviours and attitudes to assess the level of uptake, impediments to uptake and to make recommendations for improving uptake. (Timescale 2024).

Domestic WW 2: A review of the National Inspection Plan (NIP) 2018-2021 was completed, with the outcome informing the next NIP for the period 2022-2027. An objective of these plans is to prioritise inspections to areas of greatest environmental and public health risk and secure upgrading works where required.

Domestic WW 3: Local authorities to engage with householders to improve general awareness of septic tank maintenance requirements, and to address any failing septic tanks

Domestic WW 4: Local authorities to complete 5,800 inspections between 2022 and 2026 under the National Inspection Programme.

Domestic WW 5: The Department of Housing, Local Government and Heritage to issue a policy direction to Local Authorities regarding Advisory Notices and Local Authorities to enforce advisory notices under the National Inspection Plan.

Domestic WW 6: DHLGH to consider the outcomes of the research project into the application of zero discharge nature-based solutions and their applicability or not within Ireland's climatic conditions.

Domestic WW 7: Review the outcomes of the pilot projects under the first multi-annual Developer-Provided Water Services Infrastructure Resolution Programme to inform future policy considerations on resolving sub-standard developer provided infrastructure with sustainable solutions.

7. Unknown Pressures

Unknown 1: The Local Authority Waters Programme (LAWPRO) will conduct assessments of water bodies in Priority Areas for Action where the pressures are unknown to identify the specific issues and actions that are required to protect or restore water quality as necessary.

Unknown 2: Each local authority supported by LAWPRO will conduct assessments of other water bodies where the pressures are unknown (which are not within priority areas for action) to identify the specific issues and actions that are required to protect or restore water quality as necessary.

Unknown 3: The Local Authority Services National Training Group (LASNTG) will provide appropriate training programmes including on Catchment assessment, Integrated Catchment Management, and farm inspections for the staff of local authorities and all implementing bodies.

8. Other Pressures

Other 1: DHLGH will prepare a proposal for enacting abstraction regulations. (Target: End of Q2 2024)

Other 2: The EPA, as competent authority will work with stakeholders to identify mitigation measures for abstractions determined to be significant pressures, and through the abstraction licensing process, require the implementation of relevant mitigation measures.

Other 3: The need for exemptions will be reviewed as the abstraction licensing process is rolled out.

9. Peatlands

Peat 1: Measures set out in the National Peatlands Strategy to be updated into a new Implementation Plan by NPWS.

Peat 2: In support of the Catchment Management Work Plans, the NPWS will publish a Sectoral Action Work Plan. Measures set out in the National Peatlands Strategy to be updated into the Sectoral Action Work Plan Plan by NPWS.

Peat 3: Continuation and expansion of NPWS national programme of peatland restoration on SAC and NHA raised bogs, blanket bogs and fens.

Peat 4: Bord na Móna to oversee the EU LIFE Integrated Project "Peatlands and People".

Peat 5: NPWS and Geological Survey Ireland to fund an investigation into the causes of blanket bog landslides that occurred across Ireland in 2020, and the vulnerability of other at-risk areas to future failures.

Peat 6: DAFM to oversee the implementation of sustainable management practices developed through the Blackstairs Mountains and Wicklow Mountains EIP projects within the ACRES East/South East Cooperation Project zone.

Peat 7: Continuation of the Bord na Móna operated Enhanced Decommissioning, Rehabilitation and Restoration Scheme (EDRRS) to H2 2026.

Peat 8: Continuation of NPWS-led EU LIFE IP Wild Atlantic Nature programme, including the development of complementary projects such as enhancing restoration capacity through building projects such as *Natura Communities*, retrofitting programmes to reduce turf cutting in the Natura 2000 network of sites and development of a nature restoration programme compatible with Ireland's CAP Strategic Plan.

10. Industry, Mines and Quarries

IMQ 1: DHLGH will examine opportunities to further support businesses in taking on a water stewardship approach in their operations.

Action 5.2 (Repeated from Chapter 5 for completeness): The National Technical Implementation Group will identify the issues preventing water quality objectives from being achieved and will identify any further evidence, legislative, policy or implementation gaps that need to be addressed.

11. Drinking Water Source Protection

Drinking Water 1: Development of Drinking Water Source Protection Framework and Guidelines to meet the requirements of the recast Drinking Water Directive, and incorporating the application of abstraction controls under the implementing regulations for the Water Environment (Abstractions and Associated Impoundments) Act 2022.

Drinking Water 2: A Sectoral Action Work Plan for Drinking Water will include measures and plans to address the source protection actions proposed under the Drinking Water Regulations. It will be coordinated by the DW Expert Group with support from Uisce Eireann, NFGWS and LAs.

12. Invasive Alien Species

Invasive 1: Finalise legislation for the implementation of the EU Invasive Alien Species (IAS) Regulation (Timeframe – 2024).

Invasive 2: Implementation of existing management plans and Priority Pathway Action Plans (PPAP) for priority invasive species, and drafting of a new PPAP for Soils and Spoil [see www.invasives.ie].

Invasive 3: In support of the Catchment Management Work Plans, the NPWS will publish a Sectoral Action Work Plan, which will include for the implementation of existing management plans and Priority Pathway Action Plans (PPAP) for priority invasive species, and drafting of a new PPAP for Soils and Spoil.

Invasive 4: Complete negotiations on the recruitment of additional Biodiversity Officers.

The Programme for Government includes a commitment to ensure that each Local Authority has a sufficient number of Biodiversity Officers and Heritage Officers among their staff complement. The Biodiversity Officer Programme is being delivered by the Heritage Council, which is funded by the National Parks and Wildlife Service. There are currently 24 Biodiversity Officers in place in 20 local authorities, of which 16 are under the Heritage Council programme. A further five Biodiversity Officers will start under the Heritage Council programme in early 2024 with plans to have a Biodiversity Officer in each Local Authority by the end of 2024.

Invasive 5: Include action on Invasive Alien Species (IAS) as a priority under the Local Authority Biodiversity Grant Scheme. The Local Biodiversity Action Fund provides Local Authorities with funding to target actions in the National Biodiversity Action Plan. Projects that include the mapping and appropriate treatment of IAS are listed as priorities within this funding stream.

Invasive 6: Develop a National Management Plan for Invasive Alien Species, and bring to public consultation in early 2024.

13. Hazardous Chemicals in the Aquatic Environment

HazChem 1: DHLGH will amend the EQS Regulations to take account of the assessment of River Basin Specific Pollutants (RBSPs) by the National Aquatic Environmental Chemistry Group (NAECG)

HazChem 2: DHLGH and EPA will input into the recently commenced EU work to revise the list of Priority Substances and Priority Hazardous Substances. This will include liaison with the EU Commission in relation to the proposed amendments to the EQS Directive.

HazChem 3: Teagasc, ASSAP and DAFM, with support from LAWPRO, will implement specific actions in high risk catchments to protect water quality from toxic impacts arising from the handling, use and disposal of sheep dip.

14. Aquaculture

Aqua 1: Review of consents causing impacts: DAFM will conduct a periodic review, and where necessary, update of controls contained in aquaculture consents. [Timeframe – 2024]

Aqua 2: Enhanced integration of WFD into Aquaculture Consents: DAFM to enhance links between the aquaculture authorisation and the objectives of the Water Framework Directive. [Timeframe – 2024]

Aqua 3: Online Aquaculture licensing: To encourage the active involvement of all interested parties DAFM is to launch an online mapping viewer of licensed aquaculture sites in Ireland including access to licence and licence application information [Timeframe – 2024]

Aqua 4: Enhanced Protection for Designated Shellfish Production Areas: DHLGH will examine the need for amendments to legislation and whether a new management framework for shellfish waters in Ireland is needed. [Timeframe – 2026]

Aqua 5: Complete the National Strategic Plan for Sustainable Aquaculture, including water quality measures.

15. Land Use Planning

Land-Use 1: Finalise guidelines for the incorporation of the Water Framework Directive considerations into the planning system and roll out of training on the new water and planning guidelines to practitioners.

Land-Use 2: Legislative provision to give effect to the new Water and Planning Guidance to be progressed

Coastal and Transitional Waters - How measures will contribute to their protection and restoration

Protecting and restoring Estuarine and coastal waters

Ireland's coastal and marine areas provide us with vital environmental, recreational, cultural and economic goods and services. Our actions, both positive and negative, can impact on the wellbeing of these important ecosystems. According to the EPA12 approximately 40% of the Irish population lives within 5 kilometres of the coast. Our marine ecosystems can be damaged by human-induced pressures and pollution, which can be of both global (e.g. climate change, marine litter, fisheries) and local (e.g. industry, agriculture, domestic wastewater) origin. Although Ireland's offshore waters can be considered relatively clean in terms of eutrophication and contaminants (however biodiversity is not good), our nearshore coastal systems are less so largely due to land based activities. Therefore, addressing water quality issues in our marine and coastal water bodies is reliant on improved management on land.

The Marine Strategy Framework Directive (MSFD) has similar aims to the WFD for the protection of the marine environment beyond the areas considered under the WFD. It requires the application of an ecosystem-based approach to the management of human activities, enabling a sustainable use of marine goods and services. It requires Ireland to describe, monitor and assess what are clean, healthy and productive seas, i.e. *Good Environmental Status* (GES), and ensure that appropriate action is taken by 2020 to maintain or achieve this status. The Department of Housing, Local Government and Heritage is the lead body for the implementation of the MSFD and the WFD. It is supported by a number of other departments and state agencies.

Ireland's Marine Strategy Part 1 (2020) identified the status of Ireland's marine environment and the gaps to achieving GES. To close the gaps, Ireland has revised its Marine Strategy Part 3: Programme of Measures (PoMs); first developed in 2015. The updated PoMs includes 153 measures, reflecting the consolidation of 227 existing measures brought forward from 2015 to 112, the modification of 28 measures and development of 12 new measures. A 12-week public consultation on these measures was conducted in 2022, with specific focus on the measures Ireland intends to put in place to achieve GES. For the first time, the updated PoMs includes consideration of climate change through the development of Nature-based Solutions and Marine Protected Areas which will both consider carbon storage and the resilience of ecosystems to climate change and ocean acidification.

One of the key measures within the new MSFD PoMs (M011) is the Water Framework Directive (2000/60/EC) River Basin Management Plan, in which it acknowledges the measures contained within the plan, which aim for the achievement of Good Ecological Status of coastal and transitional water bodies. There are also other common areas of interest and associated measures between the MSFD PoMs and the RBMP in the following areas:

- Agriculture (specific references to the Nitrates Action Programme, CAP Strategic Plan, Rural Development Programme and Green Low-Carbon Agri-Environment Scheme, pesticide control in MSFD PoMs);
- Urban Wastewater;
- Urban Runoff Pressures (specific reference to Nature-based Solutions and CSOs in MSFD PoMs);
- Invasive Alien Species; and
- Aquaculture.

All RBMP measures for these pressures will both directly and indirectly benefit the marine environment as upstream mitigation measures facilitate the protection of transitional and coastal water bodies downstream.

Ireland has made a commitment under the MSFD PoMs to develop Nature-based Solutions for sequestering nutrients. By 2028, Ireland will develop nature-based solutions to reinstate and safeguard the natural capacity of ecosystems to supply regulating ecosystem services including the sequestration of nutrients. This will be undertaken through a regional approach under OSPAR Objective S106. The roadmap to developing these solutions will include three steps: improving the knowledge base, identifying suitable habitats for protection and restoration, and augmenting implementation. This action was launched with a national workshop in

January 2023 and will be undertaken in support of the RBMP in suitable coastal ecosystems.

Ireland's marine plan, the National Marine Planning Framework (NMPF)¹³, was established on a statutory basis in 2021. The NMPF fulfils Ireland's commitments under EU Directive 2014/89/EU, the Maritime Spatial Planning Directive (MSPD). The NMPF includes all of Ireland's maritime area, beginning at the high tide limit, including estuaries. Aligned with the MSFD and the WFD, marine planning in undertaken incorporating an ecosystembased approach. The parts of the NMPF focussing most strongly on environmental matters, chapters under "Environmental – Ocean Health", are structured to reflect and support activity under the MSFD with content aligned with GES descriptors.

The MSFD, the NMPF and RBMP support the actions within the National Biodiversity Action Plan and the Climate Action Plan.

Integrated Catchment Planning and the collaborative implementation

Many of the measures outlined in this River Basin Management Plan are designed to benefit estuarine and coastal waters as well as inland waters. The integrated catchment management based approach considers all waters together from source to sea, as they are ultimately connected (groundwater, rivers, lakes, estuaries and coastal waters). The preparation of the 46 Catchment Management Work Plans includes consideration of all pressures in a catchment area impacting on the status of all receiving waters, including downstream estuaries and coastal water.

The revised River Basin Management governance structures arising from cycles 1 and 2 have significantly improved the level of coordination and collaborative work over time by all implementing bodies at national, regional and catchment levels, making optimal use of existing and enhanced governance structures and resources. Local government has a key leadership role in the stewardship of water catchments and of particular importance is clarity about the respective roles of local government and other authorities. There is considerable overlap in the stakeholders involved in monitoring, assessing and managing inland waters and coastal waters.

Tackling eutrophication

The increase in excess nutrient pollution (phosphorus and nitrogen) in our rivers and lakes has led to a subsequent increase in the nutrients flowing into our marine environment. Over the last decade, the amounts of nitrogen, in particular, and phosphorus flowing into estuaries have increased by 20% and 37%, respectively. The ecology of estuaries, particularly in the south and southeast, is being damaged by these high nutrient inputs.

Measures planned under agriculture will be critical to reversing this trend in the third-cycle. These include tighter restrictions on nitrogen inputs to agricultural systems and enhanced environmental enforcement under the Good Agricultural Practices Regulations. There are also significant new measures provided for under the new Common Agricultural Policy Strategic Plan designed to support and incentivise farmers to take voluntary enhanced environmental measures beyond mandatory requirements. Uisce Éireann will continue its high rate of investment in wastewater infrastructure which will contribute to achieving full compliance with the Urban Wastewater Treatment Directive and the consequent reduction in pollutant loads to marine waters. This investment includes approximately €2.3bn over the period 2020-2024. This includes 108 wastewater treatment plants and 77 collection networks at an estimated cost of €1.542bn and 92 national programmes at an estimated cost of €780m. Planned infrastructure projects are set out in Appendix 6 for the next RBMP cycle (2022-2027).

Managing other pressures on estuaries and coastal waters

Other activities potentially posing environmental pressures on marine waters within the one nautical mile off shore limit of the WFD include near and on shore physical development and fin-fish aquaculture.

In line with the requirements of EU Directive 2014/89/EU (Maritime Spatial Planning Directive), the Minister for Housing, Local Government and Heritage formally established the National Marine Planning Framework (NMPF) in 2021. Under Part 2 of the Maritime Area Planning Act 2021 (as amended), the Minister for Housing, Local Government and Heritage is the competent authority for the purposes of the Directive and, by extension, for purposes of preparing Ireland's first marine spatial plan. The NMPF brings together all marine-based human activities for the first time, outlining the Government's vision, objectives and marine planning policies for each marine activity.

¹³ National Marine Planning Framework: https://www.gov.ie/en/publication/60e57-national-marine-planning-framework/; MarinePlan.ie – A digital tool for navigating the NMPF, its policies and spatial data: https://marineplan.ie/.

Marine Spatial Planning (MSP) forms the basis of a new, plan-led way to manage the maritime area and to plan how best to use resources into the future. MSP will enable balancing of different demands for using the sea including the need to protect the marine environment. It involves planning when, where and how human activities take place at sea. It's about ensuring these activities are as efficient and sustainable as possible. Marine spatial planning involves stakeholders in a transparent way in the planning of maritime activities. The NMPF recognises the importance of and role of RBMPs with numerous references and ensures consideration of them e.g. citing RBMPs in policies related to Wastewater Treatment and Disposal.

Fin-fish aquaculture is a significant water management issue in terms of its potential impacts on water quality. The potential impacts from finfish farming, can include impacts on water quality, biodiversity, the condition of the local habitats, risks from the use of pesticides and threats from the introduction of non-native species, if not management effectively. Aquaculture is licenced under the Fisheries (Amendment) Act, 1997, the Foreshore Act 1933 and applicable National and EU legislation, including EU environment protection Directives. Concerns relating to the effectiveness of the overall licensing process in assessing the impact of aquaculture activities on the water environment were raised by a number of stakeholders during the RBMP consultation phases. The section on Aquaculture in this plan sets out the actions to undertaken to ensure that fin fish aquaculture is managed sustainably.

Coastal waters contain a number of protected areas types, including; bathing waters, shellfish waters and areas protected under the Birds and Habitats Directives. These protected interests have legal requirements for protection measures in their own right. However, the river basin management process provides the opportunity to introduce a more comprehensive and integrated approach to their effective management.

In December 2022 government approved the General Scheme of stand-alone Marine Protected Areas Bill.

Coastal Action 1: Marine Protected Areas (MPAs) which are within the areas covered by the WFD (up to one nautical mile off shore) will be incorporated into the register of protected areas under the WFD, once the legislation is enacted.

The water status objectives of all protected areas are included in the river basin planning process. They will be incorporated into the appropriate plans for each of the 46 Catchment Management Work Plans for the purpose of managing the environmental pressures impacting on their water quality requirements.

Maritime Area Regulatory Authority (MARA)

The Maritime Area Regulatory Authority (MARA) is a new state agency that was established in July 2023, under the aegis of the Department of Housing, Local Government and Heritage. It's functions are set out in the Marine Area Planning Acts 2021 and 2022, and it will have a key role in the new streamlined consenting system for the maritime area, including:

- Granting all Maritime Area Consents (MACs) for the maritime area;
- Granting marine licensing for specified activities;
- Compliance and enforcement of MACs, licences and offshore development consents;
- Investigations and prosecutions;
- Administration of the existing Foreshore consent portfolio; and
- Fostering and promoting co-operation between regulators of the maritime area.



Implementation and Governance

Governance

The OECD Principles on Water Governance highlights three mutually reinforcing and complementary parts to water governance, which are intended to contribute to tangible and outcome-orientated public policies, and to improve the 'Water Governance Cycle' from policy design to implementation.¹⁴

Effectiveness relates to the contribution of governance to define clear sustainable water policy goals and targets at all levels of government, to implement those policy goals, and to meet expected targets.

Efficiency relates to the contribution of governance to maximise the benefits of sustainable water management and welfare at the least cost to society.

Trust and Engagement relate to the contribution of governance to building public confidence and ensuring inclusiveness of stakeholders through democratic legitimacy and fairness to society at large.

The work of the implementation structures will be underpinned by these principles and will adopt the concept of an evolutionary form of governance that will review and adapt its roles and functions in response to the changing dynamics and pressures that may emerge over the third-cycle.

The second RBMP cycle entailed a complete change of approach to the overall river basin management planning process compared to the first-cycle. In basic terms the following three-tier structure (Figure 28) was adopted across the relevant implementation bodies.

While the working arrangements are set out formally, the successful implementation of the plan will require integrated and co-operative working relationships between stakeholders. During the third-cycle, the implementation structures will be developed to build on what has been learned during the previous two cycles. Figure 29 shows the enhanced working arrangements and roles for the third-cycle.

Figure 28: High Level Implementation Structures

Tier 1 National Management and Oversight	Minister for Housing, Local Government and Heritage	Policy, necessary legislation and ensuring appropriate resourcing of the Plan across Government Departments. Supported by the cross-government Water Policy Advisory Committee established to advise the Minister.
Tier 2 Technical implementation and reporting	Environmental Protection Agency (EPA)	The catchment characterisation process, overseeing the national monitoring programme, chairing the National Technical Implementation Group and assisting and advising the Minister.
Tier 3 Regional Implementation	Local authorities	Each local authority with the support of the LAWPRO shared service is responsible for co-ordinating the implementation of measures within its functional area. This includes the direction of implementing bodies.

Figure 29: WFD Implementation Structures and their Interactions

An Foram Uisce - The Water Forum Water Policy Advisory Committee **Focus Focus** Provision of advice on water related · High level policy advice on RBMP Report from NCMC on implementation of RBMP Development of future plans (when required) Wider water resource issues Chair • DHLGH - Assistant Sec. **National Technical Implementation National Coordination and Management** Group **Committee Focus Focus** Examining technical issues from Oversight of implementation stakeholders on implementation of Quarterly report from EPA/PDO measures / developing solutions at a on implementation of high level national level measures Chair Quarterly report from Regional Management Committees on • EPA - Programme Manager implementation of water body level measures Issues from NTIG Chair • DHLGH -Principal Adviser /PDO Regional Management Committees (×5) **Focus** Stakeholders / Implementing Bodies • Tracking implementation of **Focus** measures on Regional CIM · Identifying issues and **Programmes or Catchment** implementation of measures Management Work Plans Chair • Local Authority - Chief Executive **Regional Operating Committees (x5) Catchment Fora Focus Focus** Knowledge transfer / identification • Link with public on the of regional issues and solutions implementation of measures in catchments. Public participation • Local Authority - Director of Service element to be agreed To be confirmed

The Water Policy Advisory Committee (WPAC) provides high-level policy advice on the direction and oversight of implementation of the River Basin Management Plan. The WPAC also advises the Minister with regard both to progress of the plan and to the preparation of programmes of measures necessary to achieve the environmental objectives, while also examining wider water resource issues. The WPAC is chaired by a representative of the Minister. During the third-cycle a standing item on the WPAC agenda will be regular reporting from the National Co-ordination and Management Committee on the implementation of the RBMP measures. WPAC will meet at least three times per annum.

An Fóram Uisce (the Water Forum), established in 2017, is an independent entity with broad functions that include advising the WPAC in relation to river basin management plans, on matters pertaining to the objectives of the WFD, and on related matters concerning the management of Ireland's water resources. The Forum provides an interface between science, citizen/stakeholder engagement and water policy. As part of the enhanced governance structures under the third-cycle the Forum will have increased engagement opportunities with WPAC through the ex-offico participation of the Forum's Chairperson at WPAC meetings. The Forum will also have an increased engagement with the regional structures, specifically with the regional management committees. The Forum will also identify and advise on the optimum level of engagement with the implementation bodies, agencies and structures for the WFD to support implementation of the thirdcycle.

A National Co-ordination and Management Committee (NCMC) has been set up to ensure that the measures necessary to achieve the Plan's objectives are implemented in an efficient, effective and co-ordinated way. The NCMC provides the necessary interface between science, policy and programme delivery. It was established to oversee the overall work programmes and report to the WPAC on progress. The NCMC is chaired by the DHLGH and comprises representatives of the DHLGH, the Environmental Protection Agency (EPA) and the chairs of the regional committees. In the third-cycle, NCMC will be chaired by the Programme Delivery Office lead. Standing items on the NCMC meeting agendas will be reports from the Programme Delivery Office, LAWPRO and the EPA through the National Technical Implementation Group on the implementation of measures, and reporting from the Regional Management Committees to focus on tracking of the implementation of measures through regional programmes or the new Catchment Management Work Plans.

A National Technical Implementation Group (NTIG) provides a forum for all relevant State actors to coordinate, share knowledge on, and resolve technical issues arising with the implementation of measures under the Plan. It also addresses any operational barriers to implementation that may arise. Chaired by the EPA, the membership includes all the relevant implementation bodies for the WFD. Updates on the implementation and effectiveness of measures, or issues arising are provided to the NCMC and WPAC as necessary. The NTIG group will continue to have the structures and resources of NIECE (Network for Ireland's Environment Compliance and Enforcement) available to it.

The Environmental Protection Agency is the body that is statutorily responsible for reporting on the WFD. The EPA co-ordinates the ongoing tracking of the implementation of actions and, in conjunction with others and by means of the monitoring programme, undertakes the assessment of the effectiveness of those actions in terms of water quality outcomes. The NTIG group will continue to have the structures and resources of NIECE (Network for Ireland's Environment Compliance and Enforcement) available to it, as well as the Catchment Management Network.

Local authorities are key implementing bodies for the Water Framework Directive in Ireland and each local authority has a duty to exercise its functions in a manner which is consistent with the provisions of the Directive, and which achieves or promotes compliance with the requirements of the Directive. Each authority must also take such actions as may be appropriate in the context of its functions to secure compliance with the Directive, and with the provisions of this river basin management plan and the programme of measures established.

To assist each individual local authority meet its statutory duty, local authorities have agreed cooperative regional and national structures. This includes five local authority regional committees, to set priorities and drive delivery of supporting measures at local authority level.

This work is further supported by the Local Authority Waters Programme (LAWPRO). The five Regional Committees are chaired at Chief Executive level, with active participation and technical advice from the EPA. Each committee is supported by an Operational Committee with membership drawn from all the relevant public and implementing bodies and chaired at Director of Service level. The local authority structures are central to tracking the progress and effectiveness of implemented measures and have a vital role in supporting national policy development and implementation through their participation in the WPAC and the NCMC. The review of the Local

Authority resources and governance structures that is being undertaken will determine the future appropriate resources and structures to be put in place to support individual local authorities in fulfilling their role in water quality protection and restoration. The role and responsibilities of the Local Authorities and other implementing bodies will be further clarified in the individual 46 Catchment Management Work Plans.

LAWPRO has an important role to facilitate and ensure public participation in the implementation of measures at a local level. LAWPRO also provides localised scientific analysis of pressures in the priority areas for action. LAWPRO will also prepare the template for the 46 Catchment Management Work Plans and coordinate the delivery of measures identified in these Plans.

Catchment Management Work Plans & Sectoral Action Work Plans

The purpose of the Catchment Management Work Plans will be to share information on catchment characteristics, current water quality issues and pressures, while also setting out the actions identified by implementing bodies required for the water bodies in the catchment. The Catchment Management Work Plans will outline the objectives and specific actions for each of the catchments, while also confirming roles and responsibilities for the implementation of the measures and providing scientific evidence at a water body scale.

The catchment scale plans are dynamic management tools and will evolve with increasing detail, commencing at the catchment level. The catchment plans will have multiple aims, including making a direct link between the RBMP and its Programme of Measures, thereby drawing from the strategic objective of protecting and restoring our water bodies. There will also be a direct connection with the Sectoral Action Work Plans, whose aim is to address the negative effects of individual pressures on water quality. The measures outlined in the Sectoral Action Work Plans will support, and will be incorporated into the Catchment Management Work Plans, to ensure an integrated catchment management approach and ensure effective management of actions across each of the responsible implementing bodies.

Figure 30: Relationship between RBMP and Sectoral Action Work Plans and Catchment Management Work Plans



LAWPRO is overseeing their development and implementation and will prepare a template for the Catchment Management Work Plans by Q2 2024. LAWPRO is trialling a template in five catchments, one in each of the five LAWPRO regions (Border, Midlands & East, South East, South West and West). The core aim of the five pilot catchments is to trial a formal method for the gathering and dissemination of information on the catchment characteristics and water quality issues, with a system for tracking actions and activities, by implementing bodies and the community, to protect and improve water quality. The pilot process will help develop the Catchment Management Work Plan framework and will also include developing the data capture requirements. This will ultimately inform the template for the Catchment Management Work Plans. The Catchment Management Work Plans will include the list of water bodies, their associated status, significant pressures/ issues and targeted measures, along with outcomesbased targets for the third-cycle and key performance indicators to monitor progress and outcomes. Justification for water bodies not meeting their WFD objective by 2027 will also be included in Catchment Management Work Plans, in line with Article 4 of the WFD.

Action 6.1: LAWPRO will oversee the development of the template for the 46 Catchment Management Work Plans by Q2 2024.

Action 6.2: Implementing Bodies to engage with LAWPRO with the data required for their work in compiling the 46 Catchment Work Plans and also trialling the CMWP template in the 5 pilot catchments.

Sectoral Action Work Plans

In addition to the Catchment Management Work Plans, there will be Sectoral Action Work Plans developed for the key sectors. Each Sectoral Action Work Plan will be a fundamental aspect of the Catchment Management Work Plans and set out the relevant actions to be tracked both in terms of activity and on the ground implementation of measures.

Sectoral Action Work Plans will be developed using a consistent template, which will be delivered by Q3 2024, and which is aligned with the WFD, the objectives of the RBMP and which links specific actions to pressures. The development of the template will be a collaboration between DHLGH and LAWPRO, involving bi-lateral meetings with stakeholders early in 2024. The objective of all Sectoral Action Work Plans will be to ensure the sector will no longer be a significant pressure on water status. Each Sectoral Action Work Plan will include information on how the sector will address all water bodies at risk from that pressure with a plan to develop evidence-based targeted restoration measures. The plans will also identify protection measures to ensure no additional water bodies are put at risk from that sector. The objectives and actions of each Sectoral Action Work Plan will contribute to the development and implementation of objectives and actions at a catchment scale through the Catchment Management Work Plans.

Where the sector is the sole pressure, clear reasoning for where the required objective of water bodies cannot reasonably be achieved by 2027, for example due to technical infeasibility or data/assessment requirements, will also be included (as required by Article 4, Section 4 of the WFD). Sectoral Action Work Plans will comply with the legally binding general duties on public authorities under Article 3(1) of the 2003 Water Policy Regulations (SI 722 of 2003). LAWPRO is overseeing the development and implementation of the Sectoral Action Work Plans, with the aim of producing a plan for each sector as outlined in Table 14.

Data Management and Reporting

The Water Framework Directive application – the WFD App – has been developed by the EPA to facilitate the sharing and reporting of environmental data collection by the organisations involved in the national monitoring programme. For this cycle, the application will be enhanced to allow the tracking of implementation, including both protection and improvement actions, as this is central to the CMWP framework. Any actions undertaken by communities will also be recorded where these are reported to local authorities. This data system will centralise all relevant information from implementation bodies on the measures planned, underway and complete.

The EPA will aim to improve access to information on progress with the implementation of measures through the reporting of Key Performance Indicators (KPIs) and targets in the programme of measures in the third River Basin Management Plan cycle. Regional Committees and the NCMC will evaluate implementation performance on an ongoing basis. The EPA will continue to report on water quality and water quality trends, and will review data on the WFD App to improve the accessibility and visibility of water body level data on monitoring and actions to the public through the catchments.ie website. The EPA will work with interested stakeholders to optimise access to catchment datasets.

Each sector will report on implementation at site or water body scale. Sectoral Action Work Plans will be developed for the following key sectors, to start with:

Table 14: List of Sectoral Action Work Plans

Sector	Lead authority	Publication Date
Agriculture	DAFM, Teagasc	Q1 2025
Hydromorphology	DHLGH, IFI, OPW, DAFM	Q1 2025
Forestry	DAFM - Forest Service	Q1 2025
Urban Wastewater	Uisce Éireann	Q1 2025
Peat	NPWS, Bord na Móna, Local Authorities	Q1 2025
Drinking Water Source Protection	NFGWS, Uisce Éireann, Local Authorities	Q1 2025
Invasive Alien Species	NPWS, Local Authorities	Q1 2025

Further Enhancements to the Water Sector Governance

The Institute of Public Administration has conducted a series of research reports under the EPA's research programme, including an assessment of water governance in Ireland. This research used the Water Governance Indicator Framework (Using the OECD Water Governance Indicator Framework to Review the Implementation of the River Basin Management Plan for Ireland 2018–2021¹⁵), a tool developed by the Organisation for Economic Co-operation and Development (OECD). The OECD produced this tool in 2018 to assist countries in assessing their progress towards the WFD goals. The IPA report puts a particular emphasis on informing future policy and practice to help inform policy decisions on the governance arrangements for the third-cycle plan.

This formed a key part of a two year research programme on experimental governance and water governance (Water Governance in Ireland: Towards the Third-Cycle River Basin Management Plan, 2022-2027¹⁶), that was aimed at drawing out wider learning from the study of water governance and is of relevance to the development of policy and practice in other areas of public reform.

These reports and three further complementary reports are available on EPA.ie: one examining Ireland's water governance arrangements using an experimental governance lens (Using an Experimental Governance Lens to Examine Governance of the River Basin Management Plan for Ireland 2018–2021¹⁷), another studying two local case studies of local water catchment groups (Case Studies on Local Catchment Groups in Ireland, 2018–2020¹⁸) and a final one investigating the operation of the Water Forum (An Fóram Uisce) (An Fóram Uisce (The Water Forum) as an Example of Stakeholder Engagement in Governance¹⁹).

The OECD Water Governance Indicator Framework seeks to enable a transparent, neutral, open, inclusive and forward-looking dialogue across stakeholders on what does and does not work, what should be improved and who can do what. The IPA study finds that the new governance structures put in place under the second-cycle RBMP go a significant way towards achieving the objectives contained in the Water Governance Indicator Framework. There

is considerable reassurance for those involved that the structures put in place in Ireland around water governance are appropriate and that there are no significant gaps or omissions. Having said that, the IPA is making specific recommendations for improvements in Irish water governance arrangements for each of the principles.

The research finds that benefits may be achieved by the different elements of the governance structures reviewing their terms of reference in the second-cycle RBMP and refreshing their approach.

As part of the evolution of the governance structures during the third-cycle, a review of the Terms of Reference of WPAC and the NCMC will be undertaken to refocus their objectives and purpose and to ensure the successful roll-out and implementation of the integrated Catchment Plans by providing clarity on roles and responsibilities throughout the governance tiers. As outlined earlier the relationship between WPAC and An Forúm Uisce will also be further enhanced through attendance by the Chairperson of the Forum at WPAC meetings and through the agreement of a Memorandum of Understanding between the two bodies. In addition, more robust monitoring of and reporting on progress in respect of the implementation of the RBMP is identified as a key finding.

Programme Delivery Office

To ensure ownership of the RBMP and to develop more effective communication across the governance structures, a newly formed section within DHLGH's Water Division, the Programme Delivery Office (PDO) will support the implementation of the next River Basin Management Plan across Departments, Local Authorities, EPA and other key agencies and stakeholders, and will provide clarity and direction to the various implementation bodies responsible for ensuring the protection and restoration of our waters to good ecological status.

The Programme Delivery Office will support the existing structures to oversee and coordinate the implementation of actions contained in the Programme of Measures where each action will be assigned a lead body responsible for their implementation and an agreed date of delivery. The Programme Delivery Office will engage with

Using the OECD Water Governance Indicator Framework to Review the Implementation of the River Basin Management Plan for Ireland 2018-2021. https://www.epa.ie/publications/research/water/Research_Report_372.pdf

Water Governance in Ireland: Towards the Third-Cycle River Basin Management Plan, 2022-2027. https://www.ipa.ie/_fileUpload/Documents/EPA_WATERGOVERNANCE_FINAL.pdf

¹⁷ Using an Experimental Governance Lens to Examine Governance of the River Basin Management Plan for Ire-land 2018–2021 https://www.epa.ie/publications/research/water/Research_Report_373.pdf

¹⁸ Case Studies on Local Catchment Groups in Ireland, 2018–2020 https://www.ipa.ie/_fileUpload/Documents/Local_ Catchment_Groups_in_Ireland_May2021.pdf

¹⁹ An Fóram Uisce (The Water Forum) as an Example of Stakeholder Engagement in Governance https://www.ipa.ie/_fileUpload/ Documents/EPAIPA%20Water%20Forum%20Report%20Web.pdf

the implementing bodies on an ongoing basis, documenting the engagement to allow for progress, and any potential issues arising, to be highlighted through the agreed structures. A significant function of the office will be to facilitate continuous engagement between the different strands of the RBMP implementation process, and it will look to increase communication between the various implementation bodies who will contribute to the delivery of the required measures.

The Programme Delivery Office will also coordinate publication of progress reports, to ensure effective implementation of these actions, which will clearly and comprehensively set out performance against targets, to allow for increased stakeholder engagement. The publication of these reports will be managed by the Programme Delivery Office through a dedicated Campaign Site (www.gov.ie/RBMP), and will also be used to facilitate communications and stakeholder engagement on issues regarding the RBMP and water quality.

Ultimately the role of the Programme Delivery Office will be to facilitate a more strategic approach to the communication efforts surrounding the RBMP, by having a very clear understanding of what communication opportunities exist and afford the opportunity to engage with the relevant stakeholders in a timely manner. The office will also act as a means for increased transparency and accountability regarding the delivery of the RBMP through the publication of regular progress reports, which will operate alongside the continuous review of the progress of the implementation of measures by WPAC, NCMC and the Regional Committees.

Governance measures to be undertaken in the third-cycle include:

- The roles and responsibilities of the various implementation bodies to be clarified, with the committees at all three tiers of governance shifting emphasis from the sharing of information and the provision of updates to a more focused provision of high-level policy direction, monitoring implementation of the Plan, and project management. This will also involve a review, and if necessary, the agreement of new terms of reference for the implementation bodies.
- An enhanced programme of formal and scheduled monitoring and reporting of progress in respect of the implementation of the RBMP will be put in place. This will be assisted with the implementation of the 46 Catchment Management Work Plans and supporting Sectoral Action Work Plans, as sub-plans to the national plan.
- There will be a continued emphasis on the full range of the regulatory mix, from awareness and

- education, through to norms and enforcement. As part of this, the balance in the third-cycle will be reviewed to ensure a greater emphasis on compliance assurance activity.
- There will be a specific capacity building programme of work put in place to encourage the transfer of learning and knowledge about how to make improvements locally, regionally or nationally.
- There will be a further activation, development and support of local level initiatives (rivers trusts, catchment partnerships).
- The Government has committed to a collaborative approach to the development of the third-cycle Plan and so the Department has discussed the findings of the research with key stakeholders. On publication of the IPA research findings, the research team, the EPA and the Department hosted two workshops: first with government bodies and the second with An Fóram Uisce. The objective of the workshops was to confirm with participants where improvements in governance arrangements are required and to identify ways forward.

Action 6.3: DHLGH will establish a Programme Delivery Office to oversee and co-ordinate the many relevant bodies that manage, implement, and enforce legislation and policies relevant to the Water Framework Directive. [CABL #92 + AFU].

Action 6.4: DHLGH will review the roles and responsibilities of implementation bodies, shifting emphasis from the sharing of information and the provision of updates to a more focused provision of high-level policy direction, monitoring implementation of the Plan, and project management.

Action 6.5: An enhanced programme of formal and scheduled monitoring and reporting of progress in respect of the implementation of the RBMP will be put in place.

Action 6.6: National Oversight and Audit Commission (NOAC) will include appropriate water quality metrics in Key Performance Indicators for local authorities during the next review of indicators.

Action 6.7: Provide a continued emphasis on the full range of the regulatory mix, from awareness and education, through to norms and enforcement, with a review undertaken to ensure there is an appropriate balance in the third-cycle to ensure a greater emphasis on compliance assurance activity.

Action 6.8: Specific capacity building programmes of work to be put in place to encourage the transfer of learning and knowledge.

Action 6.9: Ensure further activation, development and support of local level initiatives (rivers trusts, catchment partnerships) in support of the delivery of the RBMP.

Action 6.10: The Water Forum to identify and advise the Water Policy Advisory Committee (WPAC) and Minister on the optimum level of engagement with the implementation bodies, agencies and structures for the WFD to support implementation of the third-cycle, in accordance with its functions under Article 26 of the 2017 Water Services Act (Number 29).

Public Participation

A key element of the Water Framework Directive, Article 14 requires member states to encourage the active involvement of all those with a connection to our water bodies in its implementation. Crucial to achieving many of the objectives of the WFD is the participation of all stakeholders, and particularly the public, in the development and implementation of River Basin Management Plans.

The second-cycle saw the formation of a new National Water Forum (An Fóram Uisce). This forum was established to facilitate better engagement with a wider range of stakeholders. The forum as a whole and many of the constituent members have been closely involved throughout the policy formation process. The forum has been providing commentary on the draft River Basin Management Plan and the programme of measures as these have been developed.

The third-cycle will include actions and measures to continue and encourage these enhanced opportunities for public participation. This will contribute to better water management. The principles followed for this cycle will build on the learned experience of previous cycles and on international best practice, including the OECD's Water Governance. The focus at both national,

local and sectoral level will be on: communication, collaboration and capacity building.

The Department provides funding to build capacity to effectively participate in the water dialog process among stakeholders. This includes increasing funding to An Fóram Uisce, increasing funding to SWAN – the Sustainable Water Action Network and increasing funding to the Community Water Development Fund.

Many stakeholder groups, communities and individuals are already actively engaged in the river basin management planning process in Ireland, to help improve our water environment. This involvement will continue and will be increased during the thirdcycle and in the preparation of future river basin management plans. This view was shared across a number of responses to the Significant Water Management Issues consultation. Many recognised that good work is already under way and that good arrangements are in place. However, a common theme running through the majority of the responses was the need to further improve communications and education programmes and to ensure that the right message is getting to the right people, particularly at the community level.

An Fóram Uisce and the Local Authority Waters Programme (LAWPRO), two initiatives put in place to address the concerns raised in the first-cycle plans, continue to facilitate stakeholder engagement in the development of national policies and to also ensure engagement on implementation at a regional and local level. However, it is clear that there is still an appetite among the general public for more consistent and meaningful engagement with the river basin management planning process.

Prior to the publication of the third-cycle plan, DHLGH had already sought to improve our engagements with stakeholders by hosting a number of bilateral meetings with An Fóram Uisce, environmental NGOs and others during the plan making process. Such engagement was invaluable in helping to explore how public participation in the river basin management planning process will expand during the third-cycle.

Central to the success of the River Basin Management Plan will be the reporting of its progress. The delivery of the third-cycle River Basin Management Plan will be reported on through a dedicated Campaign Site (www.gov.ie/RBMP) which will be managed by the Programme Delivery Office run through the Department. This will be a dedicated single web portal to direct people to information on water quality and the relevant agencies that will be working to implement the plan's objectives, and will work alongside other existing sources of information such as Catchments.ie and the LAWPRO website (lawaters.ie). The Campaign Site will also

act as a communications portal by providing regular updates on issues regarding water quality and public engagement events around the country, leading to the publication of quarterly updates on high level measures. The Campaign Site will assist in increasing public awareness around water quality issues and be a central point of information on the progress of the implementation of the plan.

Funding has been provided to LAWPRO to support the Irish River Trust's Resilience Pilot Project. A three year project, the funding is assisting the establishment phase for two Irish Rivers Trusts (Inishowen and Maigue) to enable them to become self-sufficient. The pilot offers the possibility of supporting community-based groups working actively on the ground across the country to form the backbone of continuing water quality actors into the longer term. This pilot project will evaluate the potential future role of the River Trusts as a model for public participation. In this way, it will inform future community engagement initiatives.

Although national measures are integral to the success of the Plan, the identification and implementation of "the right measure, in the right place" is a key driver in shaping the way we protect our water bodies. To achieve this we need the help of communities. During the third-cycle we will examine ways in which we can further support the formation and capacity building of local forums in the Catchment Management Work Plans to help identify and implement the right measures.

LAWPRO will undertake a scoping exercise and coordinated a series of workshops in early 2024 to examine the proposed membership of the Catchment Community Forum, its role and objectives, how it will operate and what funding supports will be needed. The scoping exercise will allow for the examination of the potential synergies and possible dependencies on existing structures and proposed new ones, such as the PPNs, County Biodiversity Fora, and Climate Fora, to be examined in detail so that there is no duplication of effort. It will harness the experience, views, and differences in the community landscape in five catchments across Ireland.

The workshops will be held in early 2024 and will provide learnings and recommendations for the development of a framework for the rollout of a pilot fora method.

As part of the effectiveness and efficiency review of LAWPRO (see next section - Continued Monitoring, Evaluation and Review), consideration will be given to the resources required to fully support and strengthen their community engagement activities as part of the wider process of increasing the role and resources provided to LAWPRO.

A commitment in the Programme for Government, the Community Water Development Fund, which is managed by LAWPRO, and oversubscribed with applications, will be expanded. The Fund will be further developed and expanded during the thirdcycle in recognition of the benefit of increased participation of the public in helping to implement the RBMP. The assessment undertaken by the ESRI of the impact of the Fund will help to inform the future shape of the Fund. It is recognised that initiatives to influence behavioural change are most effective at local community level and the research conducted by the ESRI showed that there is clear evidence that CWDF funding is associated with better public engagement on water management issues. The DHLGH will continue to review the operation and effectiveness of the current programme to identify learnings from the second-cycle and progress areas for improvement over the life span of the third-cycle.

Action 6.11: Building on the excellent work already undertaken by the EPA, LAWPRO and various other bodies, DHLGH will provide further supports for the development of a National Water focused Citizen Science Strategy for the monitoring of water quality.

This will involve the rollout of the national macroinvertebrate citizen science process developed in the second-cycle and development and production of training and citizen science support materials, both of which will be led by LAWPRO. By engaging and involving the public in these science initiatives will provide increased knowledge and understanding about water quality in local communities.

Action 6.12: LAWPRO to evaluate the outcome of the Resilience Project for Rivers Trusts to inform future community engagement initiatives, including on citizen science.

Action 6.13: LAWPRO to examine ways in which further support can be provided for the formation and capacity building of local forums to help identify and implement measures.

Action 6.14: LAWPRO and DHLGH to review the operation of the Community Water Development Fund with a view to strengthening it. [CABL 99.]

The State must increase support for community groups and NGOs that are working on key projects to improve freshwater systems – e.g. support for Irish Rivers Trusts, group water schemes, angling and community groups.]

Action 6.15: LAWPRO will facilitate public participation in the development of the Catchment Management Work Plans through workshops for the 5 pilot catchments. This will inform the development and implementation of a national approach to public participation to deliver outcomes for water, climate and nature.

As part of this initiative LAWPRO will work with public bodies with responsibility for water related environmental enforcement to improve public awareness of public body responsibilities and reporting procedures for pollution incidents.

Action 6.16: The public participation pilots will provide learnings (which will then be implemented) on how agencies, local authorities, communities and landowners can work together to support action planning and project co-creation for a combined top-down bottom-up approach to the development and implementation of the 46 Catchment Management Work Plans.

Continued Monitoring, Evaluation and Review

As part of the ongoing monitoring, evaluation and review of measures contained in the second-cycle Plan, the following review processes have been initiated to learn from implementation and to identify ways to strengthen the current implementation structures. These processes will be continued into the third-cycle.

ESRI Joint Research Programme on Water

Funded by the Department of Housing, Local Government and Heritage, the Economic and Social Research Institute (ESRI) was engaged to undertake a joint research programme on water. With a focus on behavioural and attitudinal change towards Ireland's water resources, the aim of the research programme is to support implementation of the WFD and associated activities.

Governed by a steering group that is made up of representatives from various implementation bodies, the programme commenced work in May 2020. Conducted as a research programme, as opposed to a research project, this research involves a series of projects on a related theme carried out over a period of time. To date the research team has progressed work on the following topics;

 An evaluation of public initiatives to change behaviours that affect water quality: Evaluation of LAWPRO community engagements – This

- project looked to understand whether community engagement activities lead to more sustainable practices.
- Knowledge and Attitudes of Public Authorities towards Water Quality – This project considered the dissemination of good practice within Local Authority public services by the WFD implementation structures.
- Agricultural Sustainability Support and Advice Programme (ASSAP): An evaluation of the impact of tailored farm advisory service
- Community Water Development Initiatives an assessment of impact
- Identifying behavioural/attitudinal issues related to water quality among farmers
- Impact of environmental subsidies on farming practices
- Farm Discussion Groups a framework for behavioural change
- Identifying behavioural/attitudinal issues related to domestic wastewater treatment systems and the applications for grants

Review of the Local Authority Waters Programme and Wider Local Authority Structures

As mentioned previously, the Local Authority Waters Programme (LAWPRO) has a vital role in the implementation of the WFD in Ireland. In preparation for the third-cycle Plan, the Minister for Housing, Local Government and Heritage initiated a review of the LAWPRO operation to consider its effectiveness in delivering on its objectives and to identify opportunities for improving its operation during the next Plan, taking into account the wider policy development in relation to the water environment and the role of local government.

Carried out by Dr. Matt Crowe, former director in the EPA, the review concluded that LAWPRO was a successful initiative and should be continued. Effective in catchment assessments and collaboration with implementing bodies, LAWPRO also effectively supports communities to engage with their local water bodies and participating in the WFD process. The key conclusions and recommendations from this review, including a further efficiency and effectiveness review of LAWPRO's resources and structures, is currently being progressed in preparation for the third plan.

It was also recognised that LAWPRO and indeed the wider environmental function within local authorities needed to evolve to a more strategic leadership and coordination role – helping all local authorities and local communities do a better job at protecting and improving water quality. On this basis, and following

engagement with the County and City Management Association (CCMA), a review of the wider local authority structures is now under way to inform this evolution and identify the appropriate level of resources and involvement required from the sector to meet WFD objectives.

Action 6.17: A review of the wider local authority structures will be progressed to inform future needs in the water area and to identify the appropriate level of resources and involvement required from the sector to meet WFD objectives.

IPA Governance Research

Commissioned by the Environmental Protection Agency, the Institute of Public Administration (IPA) was engaged in a two-year research programme to review Ireland's water governance arrangements. The aim of this research is to inform preparations for the third-cycle Plan and also to share lessons learned from water governance with other policy areas.

Published by the EPA, a number of substantive papers have been developed by the research team. Acknowledging the significant progress made under the second-cycle Plan, the research makes a series of recommendations to support those involved, both in consolidating aspects of governance where there has been strong progress and in addressing areas of limited progress.

Review of the Agricultural Sustainability Support and Advisory Programme (ASSAP)

The Agricultural Sustainability Support and Advisory Programme (ASSAP) was introduced as part of the suite of measures in the second-cycle plan. This was a key measure and represented a move away from a largely regulatory-based 'one size fits all' approach towards one that also includes significant collaboration.

Through state and industry collaboration, the programme provides an evidence-based approach to pressure identification and farmer-focussed advice in the 190 priority areas for action (PAA's). Funding from DAFM and DHLGH has enabled Teagasc to provide 20 advisors and funding from the Dairy Processing Co-ops have provided 10 advisors as part of the Dairy Sustainability Initiative (DSI).

Launched in 2018, this new and innovative approach to improving water quality required the establishment of new methodologies, structures and systems to implement the programme. In many cases these were newly conceived and required time to develop. Some unforeseen obstacles, including the COVID

pandemic, have impacted on the level of farm visits undertaken by the programme. However, as seen from their interim report [https://www.teagasc.ie/publications/2020/assap-interim-report-1.php], strong collaborative relationships have been established between the ASSAP advisors, Teagasc, the dairy processing co-ops and LAWPRO, with a substantial amount of progress being made.

However, with a commitment in the Programme for Government to expand this programme, to build on the work to date, clarity is needed on the future role and scope of ASSAP. As a result, an assessment of the programme was carried out by a panel of external experts and concluded in Q4 2021.

The External Expert Assessment of the Agricultural Sustainability Support and Advisory Programme (ASSAP) was completed in Q4 2021. The review concluded that "ASSAP has a key role in improving water quality in Irish agriculture. The variety of farm conditions and the complexity of water movement means that 'one size fits all' policies, with general recommendations and rules, may struggle to be effective. The need for contextualised action is captured in the principle: the 'right action in the right place'. This requires engagement with farmers and others. This is part of an emerging system of experimental governance in the management of water and agriculture. ASSAP should be further developed under the 3rd RBMP, expanding as additional Areas for Action are selected, with appropriate scientific support." The Expert Group made 10 recommendations, namely;

- Develop and expand ASSAP: ASSAP should be further developed under the 3rd RBMP, expanding as additional PAAs are selected, with appropriate scientific support. Communications expertise should be engaged to consider naming, branding and promotional issues.
- 2. ASSAP should continue to focus primarily on water quality in the PAAs: Its objectives should be simplified to focus more on supporting farmers' implementation of the right actions in the right place and demonstration of their impact on water quality.
- 3. Funding to support farmers' implementation of Actions: Financial support, external to the ASSAP, needs to be available to enable farmers implement agreed actions recommended by ASSAP advisors.

- 4. Enhance the mainstream advisory services:
 The further development of ASSAP needs be accompanied by an accelerated enhancement and refocusing of the mainstream advisory services (both public and private) with a stronger focus on sustainability (economic, social and environmental) and on-farm and action-based engagement.
- 5. Continuous diagnostic review: the diagnostic flow-chart, designed jointly by ASSAP and LAWPRO staff, should be adopted formally as a tool for short-cycle assessment, review of progress in a PAA and identification of necessary network partners.
- Spatial recording of recommendations and actions: ASSAP, supported by its partner organisations, should complete the move towards spatial recording of recommendations and actions taken.
- 7. Safe spaces to enhance transparency of the right actions in the right place and their impact: Use selected water bodies as a safe space to explore and refine demonstration of the right actions in the right place and their impact on water quality.
- 8. Catchment-scale engagement, capacity building and planning: work to enhance the strength and capacity of catchment-level networks, so that catchment protection and management becomes embedded.
- 9. Funding of ASSAP: maintain the balance of funding from government and industry as ASSAP expands, keeping the relative contribution of each under review.
- 10. Demonstrating impact, informing policy and research: ASSAP should work with partner organisations to inform policy learning and research projects that are appropriate to experimental governance, linking iterative monitoring and review to higher-order long-term validation of the cumulative results of the overall approach to water governance.

These recommendations are being implemented during the third-cycle. The ASSAP has been extended for the third-cycle and the required additional resources to support the expanded Areas for Action are being examined. A national scale European Innovation Partnership (EIP) project, the Water EIP, has been commissioned to support farmers' implementation of actions. A budget of €60 million has been committed for the third-cycle.

Further details regarding the proposed measures that have been influenced by the outcomes and recommendations of these reviews are detailed in Appendix 1 - Programme of Measures.

Action 6.18: The Research Programme on Water will be continued into the third-cycle with an emphasis on studies on water governance, economics and behavioural aspects of water protection.

Action 6.19: Review to be undertaken of the Local Authority Waters Programme to identify necessary resources for the third-cycle and beyond to deliver the commitments under the WFD and future RBMPs.

Separately, a review of the wider Local Authority Structures is underway led by the CCMA. This is to inform the continuing evolution of local authority structures in catchment management and to identify the appropriate level of resources and involvement required from the sector to meet WFD objectives.

Action 6.20: Review the outcomes of the IPA Governance Research programme on Ireland's water governance arrangements and implement their recommendations where appropriate.

Action 6.21: Implement the recommendations of the External Expert assessment of the Agricultural Sustainability Support and Advisory Programme (ASSAP) during the third-cycle.

The new Water EIP will provide an important mechanism for implementing many of these recommendations.

Other plans and programmes

In addition to the existing policies and plans in the water sector, such as the Water Services Policy Statement (2024-2030) and Uisce Éireann's Water Services Strategic Plan that are to be reviewed, an important part of developing the RBMP has been to identify and understand the links to other policy areas across government, and the key plans and programmes either currently in place or planned. This has been informed by the Strategic Environmental Assessment (SEA) process, which details the plans and programmes that interact with and influence the river basin management planning process. The relevant policy areas include, land use and spatial planning, climate change, flooding protection, water services policy, waste management, agriculture, fisheries, forestry and peatlands.

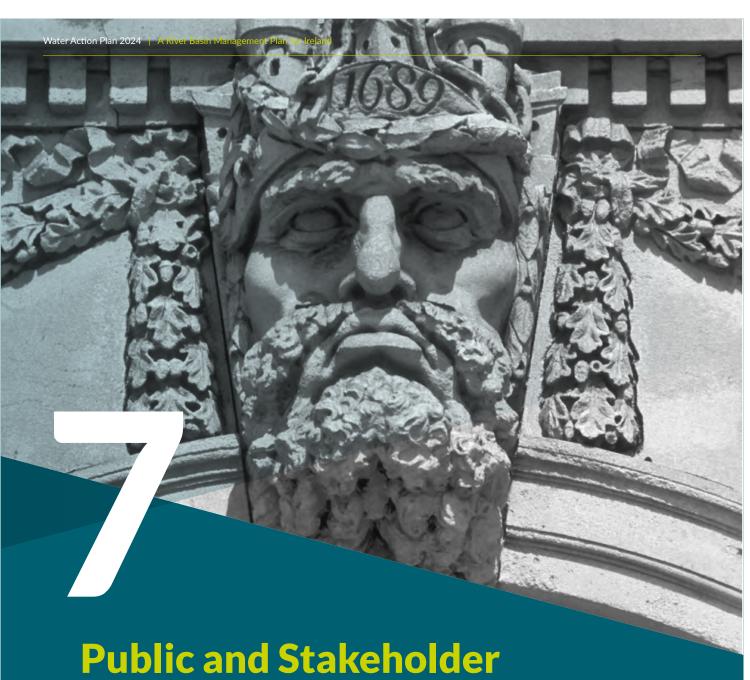
Ensuring consistent policy integration between the RBMP process and other national and local plans is an ongoing issue and is one, which has been identified by external stakeholders as a priority. Forging consistent and robust linkages between different

policy areas is a continuing challenge, whether it is in an environmental, economic or social context. This is a challenge that we are addressing in the third-cycle Plan. This involves linking the third-cycle plan objectives with the Climate Adaptation Plans, Marine Spatial Planning, Flood Risk Management Plans, Biodiversity Action Plans objectives and also seeking to have WFD objectives included in future plans as they are developed. It also includes links to agricultural policy, spatial planning policy, etc. In this way it will help us to gain multiple benefits from the measures implemented under all inter-related policy areas.

Action 6.22: Water protection provisions in relevant sectoral policies will be strengthened, where necessary. These include; water services policy, spatial planning policy, agricultural policy and aquaculture policy.

A number of sectoral policies are being reviewed to more closely align with and support the objectives of the National River Basin Management Plan.

Action 6.23: Measures that will deliver multiple policy objectives (e.g. water, biodiversity and climate adaptation/mitigation) will be identified and embedded into sectoral policies.



Public and Stakeholder Engagement

Consultation Responses

Public consultation on the Draft River Basin Management Plan for Ireland 2022-2027

The public consultation process in relation to the draft River Basin Management Plan 2022-2027 commenced upon its publication in September 2021. Building upon earlier consultation phases the purpose of this consultation processes was to gather the views of the public and stakeholders to outline what should be addressed in the final River Basin Management Plan. This process involved two distinct elements with local public consultation undertaken by LAWPRO, and a national public consultation campaign launched by the Department of Housing, Local Government and Heritage.

Local Engagement by LAWPRO

Context

The Local Authority Waters Programme (LAWPRO) delivered local level public consultation on the draft RBMP to support the national public consultation process. The main objectives were to raise awareness of the draft RBMP and water policy implementation structures, better understand the public's perceptions and experience relevant to water quality management, facilitate discussions on local water bodies, and encourage active involvement in the public consultation.

Covid-19 restrictions on public gatherings affected the opportunity to host in-person public meetings. In response, LAWPRO adopted online and digital technologies to provide public access to relevant information and opportunities for local communities to participate in the consultation process.

This approach increased public knowledge and understanding of river basin management planning in Ireland, leading to informed discussions at county and Municipal District level meetings. The LAWPRO process included accessible methods for public submissions on the draft RBMP. Local knowledge gathered in this way, together with expert knowledge, resulted in a broader understanding of local water quality issues. In parallel with the above public consultation process, LAWPRO engaged with relevant stakeholders and implementing bodies, including through the regional Water Framework governance committees to encourage deeper participation by all sectors and encourage informed submissions on the draft RBMP. This included support for Local Authority staff in their engagements with elected members.

Consultation Process

Online and digital methods

LAWPRO developed a Virtual Consultation Room (VCR) to exhibit key contents from the draft RBMP in bite-sized format using videos, maps, and information boards. The room also had links to the draft RBMP and a local submission survey form, which posed five questions. This facilitated 24-7 access to information and involvement in the consultation process, during the Covid-19 pandemic. The VCR went live on 28th October 2021 and remained live up to the close of the consultation period.

LAWPRO utilised video conferencing technologies to host online public meetings in every county. Evening meetings were facilitated by LAWPRO staff and promoted widely at local and national levels to raise awareness of local water quality issues and the opportunity to participate in the consultation process. Two different meeting formats were provided:

County level: 30 meetings in collaboration with the Public Participation Networks targeted both the Environmental and Community & Voluntary sectors. This resulted in well-informed discussions on local water quality issues and potential solutions. LAWPRO staff documented the meeting discussions to ensure issues discussed were brought forward for consideration in the consultation process.

Municipal District level: 63 public meetings at a local level were delivered by LAWPRO, supported by Local Authority staff and Elected Members. These meetings focussed on Municipal District boundaries to mobilise local communities in their local areas. This approach facilitated local involvement in a national consultation process.

Media and digital marketing

LAWPRO ran a media campaign across local and regional press and radio to circulate water quality information and promote the local public meetings. Emails and phone calls to elected representatives, local stakeholders, and community groups strengthened that approach. Messaging was informed by science and evidence in the draft RBMP. For example, county and MD scale maps showing water bodies 'At Risk' were used to make national messaging relevant and meaningful to local communities. This included the presentation of significant pressures and the water bodies "at risk" maps at county level geographic scales for each (half page) local newspaper advertisement, so as to increase the reach of basic water quality relevant information to as wide an audience as possible.

Two separate social media campaigns were delivered: one to promote the VCR, and one to promote the local public meetings. This involved a combination of LAWPRO generated content and 'paid for' promoted content. Both campaigns achieved objectives for raising awareness of the consultation process and specific ways through which people could get involved. Analytics and insights from the campaigns show that LAWPRO reached a wide and varied audience across all counties.

A dedicated page on LAWPRO's website provided a schedule of online public meetings in all counties, with links to registration pages. It also provided a link to the VCR and a draft RBMP consultation submission form designed to facilitate submission with a local context, the draft RBMP itself and the associated submission form on gov.ie. Thus, ensuring multiple ways for public participation in the consultation process. The draft RBMP consultation submission form contained a list of questions to generate a profile of those who engaged with the process and their relationship with water. It included questions canvassing the public's views on local water quality issues, requirements to restore local water quality and experience making environmental complaints.

Local Consultation Findings and Outcomes

Engagement and reach

LAWPRO's ambition was to increase awareness of the draft RBMP and engagement in the consultation process. It achieved this, as evidenced by the social media campaigns generating a reach of over 1,130,000 social media accounts and 60,000 link clicks to the VCR and meeting registration pages. A specific aim was to reach new audiences and a younger age demographic. Data from the social media campaigns show significant reach in age brackets between 18–44 for both male and female account holders. The age demographic for those who completed the online submission/survey form matches the profile for the general population in Ireland, indicative of a representative sample.

Action 7.1: Create opportunities for young people to engage, upskill and use their voice for sustainable development, through youth-led and youth-focused groups, organisations and networks.

Attendances and submissions

LAWPRO successfully achieved its objective to engage local communities in the public consultation process. This is evidenced by 6,100 unique attendees in the VCR, 1,594 attendees at public meetings, and 450 local submissions, during a time of Covid-19 restrictions. Both the county level meetings organised with the PPNs and the Municipal District meetings had good attendances, providing for a broad spectrum of public participation and locally focused feedback at different scales. In addition, Community Water Officers commented that in almost all cases there were good numbers of attendees at meetings not previously known to them. When compared to the consultation process for the second-cycle RBMP, LAWPRO considers that there is now greater knowledge and understanding of water quality issues and policy objectives at a local level, as evident in the comments gathered at public meetings and feedback via local submissions. Some regional variation was noted with the public feedback, which may reflect to some degree increasing concerns regarding declining water quality trends across the country, especially the southeast.

Figure 31: Local Consultation interaction

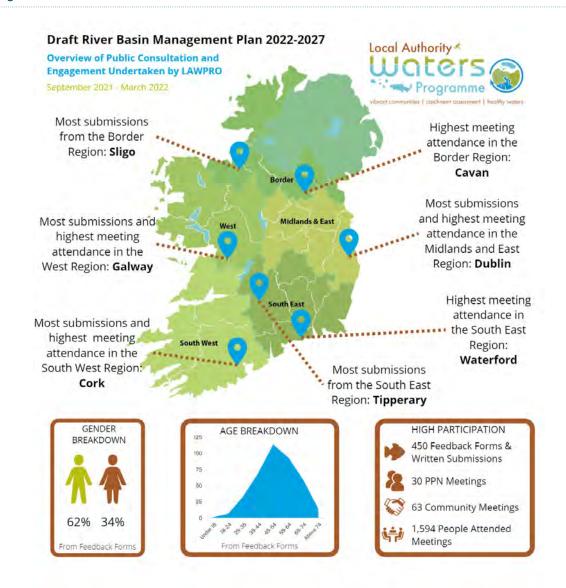


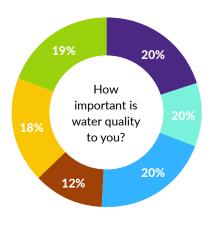
Figure 32: Social and digital media analytics

Icons	Channel	Stats	Rationale
	Local Press	64 Press Releases 41 Meeting adverts	Total Readership 1,851,676 people
	Local/regional radio	21 sets of radio adverts	Total audience 3,286,000
	Facebook and Instagram	Reach 79,141 Total clicks 14,264	Promotion of VCR and link to portal
	Facebook and Instagram	Reach 1,051,638 Total clicks 45,507	Promotion of local meeting and link ot registration page
	Virtual Consultation Room	6,100 unique visits	Public consultation and engagement during Covid-19 restrictions
	Online submission/survey form	450 local submissions	Ensure local input into decision making process

Public opinion on the importance of good water quality

The LAWPRO local consultation submission survey provided an opportunity to examine public opinion on the importance of good water quality (see Figure 33). The public place considerable weight on the importance on clean water to provide a range of services from drinking water, nature, health, the economy, jobs, and sport with recognition that clean water is important for future generations. Interestingly no one area dominates, showing that the public appreciate that water effectively touches on all aspects of our lives. This is consistent with the findings of the public consultation during the draft RBMP (2018-2021) where the public identified with clean water from a wide range of perspectives. Respondents to a poll during the "Stories from the Waterside" story writing initiative developed to engage with the public during the first Covid 19 lockdown in 2020 agreed that water quality was important to them (96%), with 50% stating that they would be interested in getting involved in local projects, 25% stating that they would be interested in getting involved in citizen science and 25% interested in public consultations on water management.

Figure 33: Important aspects of water quality per respondents



- Drinking Water
- Supporting Jobs (Manufacturing/Agriculture/ Tourism)
- Nature and Wildlife
- Sport and recreation
- Supporting health and welbeing
- For future generations to enjoy

Themes arising from public feedback

Public participants in the consultation process via the LAWPRO local submission form shared knowledge of issues pertaining to local water bodies. LAWPRO also compiled the comments gathered at the 93 public meetings. A list of the key themes emerged from recurring issues and concerns raised by local communities. These themes are presented in Table 15, with the top ten themes presented in Figure 34, which also shows their relative frequency of occurrence at the different consultation method.

Table 15: Themes from public feedback

Access to Waters	Climate Change	Forestry	Industry	Recreation
Access to Information	Consultation Process	Funding	Invasive Alien Species	Riparian Zones
Agency Related	Department Related	Flooding	Local Authority Related	Regulation and Enforcement
Agriculture	Domestic and Urban Wastewater	Heritage	Mines and Quarries	Water Quality
Biodiversity	Dumping and Litter	Hydromorphology	Peat	Urban Surface Water Run-off

0 50 100 150 200 250 300 350 Agriculture Urban Waste Water Access to Information Biodiversity Agency related (EPA, IW, NPWS, etc) Regulation/Enforcement LA related (matter for relevant LA) Hydromorphology Department related Planning

PPN Meetings

Figure 34: Analysis of themes by consultation method

Understanding the public's views on protecting water quality

The LAWPRO local consultation submission survey provided an opportunity to examine the public's views on risk to water quality and their views and experience engaging in water quality protection in a semi-quantitative fashion.

■ Community Meetings

Respondents were asked to rank six different water-related initiatives and actions, 'Protecting water quality as part of agricultural and land management activities' was ranked the most important. In addition, respondents had the choice of five options for protecting and restoring good water quality. Most respondents chose 'Greater enforcement of regulations (Prosecuting or penalising water polluters)' as the most important. Overall, respondents identified their main interests in water quality as: preventing pollution, preventing flooding, and climate change activism.

Public body procedures relating to the reporting of pollution incidents by the public have been an issue consistently raised to LAWPRO by members of the public with an interest in water quality. This relates to both the making of complaints and follow up action. The draft consultation presented an ideal opportunity to get a better understanding of the issues (below are the results from 415 participants who addressed this question)

■ Public Submissions

- 1. 61% of those surveyed stated they knew who to contact if they spot a pollution incident in their local waters, 38.6% did not know.
- 2. 34% of participants who had reported a pollution incident to a public body (n=149) indicated a satisfactory experience while 62% indicated an unsatisfactory experience. The satisfaction rate ranged significantly between (and across) local authorities, the EPA and Inland Fisheries Ireland.
- 33% of participants who had reported a pollution incident, identified more than one public body or did not specify a public body. The dissatisfaction rate among these cohorts was very high at 83% and 100%, respectively.
- 4. 53% of respondents did not know where to go to find out information about their local water quality.

40 35 30 25 20 15 10 5 0 **EPA** IFI **LAWPRO** More than 1 No Authority Local Other Authority Authority Specified Satisfactory Unsatisfactory ■ Satisfaction level not specified

Figure 35: Survey participants experience of incident handling

The overall findings suggests that public bodies need to work together to tease out difficulties to improve public stakeholder satisfaction.

Summary findings from the consultation undertaken by LAWPRO

Water Quality

- Participants demonstrated a good understanding of the key pressures impacting on water quality. This included a good understanding of pollutants, pollution pathways and the general complexity of our water quality problems.
- Participants see strong links between landscape features such as buffers, hedges and wetlands and water quality protection. This includes the recognition that continuing pressures from agriculture and development threaten such landscape features and therefore water quality.
- Participants see the benefits of landscape features to mitigate against the loss of nutrients and farm chemicals in agricultural runoff. However, concerns were expressed regarding unregulated land use changes.
- These natural landscape features are also appreciated for their value in supporting biodiversity and climate mitigation and adaptation.
- The challenge of both improving water quality and halting further decline, featured strongly. Many participants expressed a lack of confidence in current public body efforts to protect water quality.

Governance

- 1. Participants commented on the lack of clarity between the roles of the implementing bodies.
- It was generally recognised that both enforcement and education are required to effect change. Feedback indicate that the public perceive that neither enforcement nor education is being implemented effectively.
- Implementation and enforcement issues link closely with the theme of public body responsibility. Interestingly this theme scored highest in the responses to the question 'what will help restore local water quality?'.
- 4. Effective enforcement and better compliance are seen as part of the solution to water quality featuring high on the list of 'what will help restore local water quality?'.

Water Literacy and Communications

- Cross sectoral education, the promotion of the value of water and the need for a multi-agency approach all feature as part of the solution to current problems.
- Elements of water literacy feature strongly in response to 'what will help restore local water quality?" Participant views are not just about education and awareness but go deeper and identify the need to tap into the public's value system.
- Information about local waters, in 'plain English' appears to be lacking from a community perspective. Many practical suggestions were made to address this issue. Participants indicated that such information would be beneficial and promote more local 'ownership' and support community empowerment.
- 4. Better information, education and communication may also improve relationships

at the local level and contribute to water literacy across all sectors.

Community input

- Community reporting was another popular and interesting idea. This related to both citizen science and being able to report incidents or concerns. A common thread was that participants could see a more useful reporting role for the community, if they understood local data and reporting arrangements.
- There was evidence that there was a lack of trust between community and public bodies, and such relationships do not appear to be working well.
- Participants had detailed knowledge of many local problem areas and pressures, but in many of the instances described, they were unhappy with public body responses and follow up actions (if any).
- 4. Evidence of problems from wastewater sources were presented. Enforcement and investment needs were identified.
- Of note was the frequency of comment on problem septic tanks and small sewage systems.
 Poor septic tank grant uptake and the many associated legacy issues were recognised.

Local Consultation Recommendations

The overall aim of this LAWPRO online portal submissions subset analysis is to delve into the detail of participant's responses and obtain learnings, that can be brought forward for planning the third-cycle of the RBMP.

Better Governance

- There is a need for implementing bodies to have clear roles and responsibilities. They should be more accountable and their work more transparent to the general public.
- The issue of a lack of trust and a need to enhance relationships between the community and public bodies needs to be addressed. Local structures and processes need to be nurtured and opportunities within local democratic structures maximised.
- In terms of measures in the third-cycle RBMP, better enforcement should be complimented with a campaign around the value of our waters and access to tailored local information. These can be considered interdependent rather than stand-alone measures.
- 4. Enforcement involving courts (up to criminal prosecution) is onerous and can be a blunt instrument when dealing with individuals.

- 5. In terms of households with problem septic tanks a 'BER' style septic tank rating model attached to house value and sale might incentivise investment in upgrade works. This would also highlight the importance of ensuring that a septic tank is fit for purpose to potential buyers and current owners.
- Consideration needs to be given to the protection of existing water quality supporting landscape features and the enhancement of existing river corridors, vegetated buffers, hedges, and wetland features.

Enhanced Community Engagement and local initiatives

- Good news stories and examples of collaboration at the local level need to be collated and disseminated.
- 2. Case studies should be undertaken where community groups have reached a blockage to progress in their area. For example, when dealing with legacy issues or determining what are the 'next steps' to action recommendations once relevant investigations or studies have already been undertaken. A trusted intermediary, appropriate expert or interdisciplinary team could be utilised to assist this process.
- LAWPRO should seek to work with new local authority staff working in the climate, biodiversity, and community development areas. A collaborative approach to public engagement, promoting awareness and understanding, building group capacity and generally empowering groups should be examined.
- 4. Supporting environmental interest groups would make better use of local democracy structures. This could include examining ways to strengthen the environmental linkage groups to give a stronger voice at Strategic Policy Committees (SPC) and Local Community Development Committees (LCDC).

Water Literacy and Information needs

- Information about local waters, in 'plain English'
 is lacking from a community perspective. Citizen
 Science programmes (combining water and
 biodiversity techniques) should be promoted
 to help provide practical understandable
 local information. This would promote local
 involvement and capacity building. Citizen
 Science can provide a first step to further
 water literacy learning and a pathway to more
 concrete actions to protect and restore water
 quality.
- Better information, education and communications need to be developed to

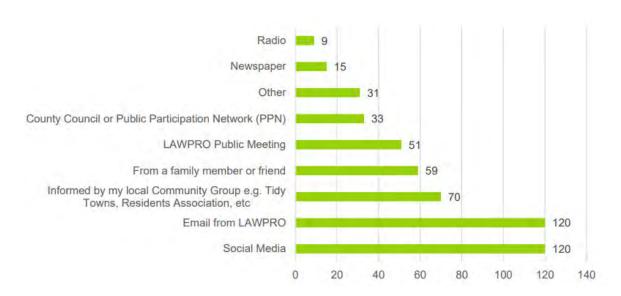
- contribute to water literacy improvements across all sectors.
- The River Basin Management Plan Regional Operational Committee members (implementing bodies) should play a stronger role in public information sharing and dissemination.
- 4. The proposed Catchment Stakeholder Fora agenda needs to incorporate community feedback. The findings and recommendations from this report require further deliberation at county and catchment scale.

The LAWPRO public consultation and local engagement reports on the draft RBMP is available online at the LAWPRO website www.lawaters.ie.

Figure 36: Overview of public consultation & engagement by LAWPRO

Draft River Basin Management Plan 2022-2027 Local Authority * Overview of Public Consultation and Engagement Undertaken by LAWPRO September 2021 - March 2022 **Key Themes** Good water quality - benefits Improvements to planning Enforcement and necessity regulations Pollution Role of communities and Ongoing engagement and individuals in stewardship of education for farmers Nature-based solutions waters Funding for agencies and local Improved wastewater Collaboration - relevant bodies, authorities treatment agencies and departments. Public education and Protecting fish from Negative impacts of some engagement on water quality infrastructure and dredging agricultural practices Calls For Action Needed Wastewater Treatment Increased Resources Regulation / Education for Aligned Planning / Regulation Citizen Science Agriculture Public Awareness Campaigns Increased Enforcement More Signage at Waterbodies

Figure 37: Breakdown of how respondents heard about public consultation



National Consultation Engagement

A six-month long national public consultation was undertaken in line with the requirements of the EU Water Framework Directive, inviting submissions, observations and comments on the draft RBMP.

The objective of the Department's media campaign was to encourage the public to participate in the public consultation on the draft River Basin Management Plan. While LAWPRO was engaging local groups and communities throughout the country, the aim of the Department's campaign was to generate awareness of the consultation at the national level, and more broadly on the importance of water to the nation, reflecting the Department's high ambitions to improve water quality.

Members of the public could participate in the consultation process between 27 September 2021 and 31 March 2022 through submission of a consultation in two ways: to LAWPRO, with their emphasis on engaging local communities in water issues, or directly to the Department. The campaign also sought to equal or better the number of consultations received compared to the previous consultation campaign run for the second-cycle RBMP in 2017, where approximately 1,000 submissions were made to LAWPRO and 600 directly to the Department. In total, 1,401 submissions were received into the Department with a further 450 received by LAWPRO.

Media and Digital Marketing

Advertisements were successfully run on the various websites and through social media sites such as Twitter, Facebook and Instagram to generate awareness of the public consultation campaign. Between 01 March 2022 and 27 March 2022 a total of almost 1.3 million impressions and 688 clicks were recorded as a result of the online campaign. On Twitter the department ran two animated videos, with the associated two tweets generating 250,100 impressions and 103,827 link clicks to the draft RBMP website.

Newspaper advertisements were also published in several mid-week and weekend publications including;

- Seachtain
- Sunday Business Post
- Sunday Independent
- · Irish Independent
- Irish Examiner
- Irish Times

Details of Submissions

A total of 1,401 submissions were received by the DHLGH through either the on-online survey or by direct email, and were initially categorised as submissions based on the:

- Consultation Response Questionnaire issued by the DHLGH which contained 26 questions (161 submissions);
- Template response (original emanating from the Sustainable Water Network (SWAN), a network of environmental NGOs) (1,172 submissions); and
- Individual 'free style' responses (68 submissions) from the following interest groups;
 - » Government Department/Agency/Body;
 - » Local Authority;
 - » Non Governmental Organisations (NGOs);
 - » Community Groups;
 - » Companies/Corporate;
 - » Public; and
 - » Political Party.

259 out of these 1,401 submissions were identified as being unique. Submissions were reviewed, key themes identified and a consultation report compiled to inform amendments to the draft RBMP prior to its finalisation.

As the submissions were reviewed, a key themes list was developed to identify recurring issues and the scope of concerns raised by stakeholders. Thirty-eight themes were subsequently identified across the 259 submissions reviewed (see Table 16).

Table 16: Key Themes List

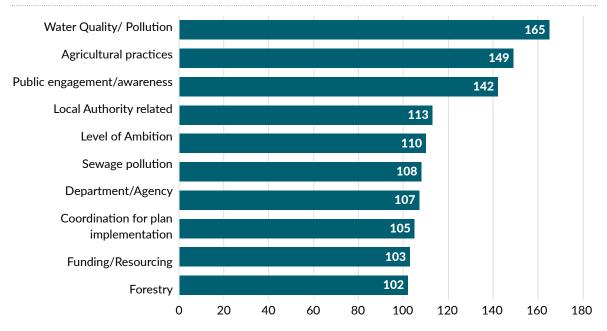
Water Quality/Pollution	Affordability and Prioritization		
Biodiversity Management	Abstraction and Flow		
Flooding	Climate		
Forestry	Coordination of plan implementation		
Hydromorphology	Education and/or training		
Recreation	Hazardous chemical		
Agricultural practices	Water and health		
Invasive Alien Species	Public engagement/ awareness		
Heritage	Wetland drainage		
Peat	Sewage pollution		
Mines and Quarries	Coastal Protection		
Industry related	Policy Coherence		
Department/ Agency related	Water Governance		
Local Authority related	Data sharing		
Funding/ Resourcing	SDGs and Nature Based Solutions		
Consultation process	Transboundary concerns		
Land use planning	Legislations		
Level of ambition	Aquaculture/ Fisheries		
Policy Regulation and Enforcement	Physical elements		

Significant Issues & Themes

Some of the significant issues raised within the ten most prominent key themes raised as part of the national public consultation processed are outlined in Figure 38.

- Water Quality / Pollution some of the issues raised included the need for clear water governance and adequate investment, a lack of specific measures to improve water quality in the plan, inefficient liaison with water stakeholders, and transparency from authorities working in the water sector.
- Agricultural Practices some of issues raised included the lack of recognition of the conflict between agriculture and WFD targets, the urgency related to nutrient pollution, the need for better incentives for farmers to promote good practices, and the need for stronger enforcement.
- Public Engagement and Awareness some of the issues raised included the inadequate public participation measures in the draft plan, alongside the need for a comprehensive, transparent, and participative public engagement programme, and greater community involvement.
- Local Authority issues highlighted in relation to the Local Authorities including lack of funding and adequate resourcing, and the availability of training to deliver necessary measures. The role of Local Authorities to sustain, drive, fund, and coordinate community involvement, along with the development and implementation of the proposed Catchment Management Work Plans were also raised.

Figure 38: Top Ten Themes Raised Across Consultation Submissions [based on 259 unique submissions sent to RPS]



- Level of ambition issues highlighted was that the level of ambitions in the draft plan was considered inadequate, and that there is a need for measures to be more targeted, measurable, timebound and based on more Key Performance Indicators (KPIs).
- Sewage Pollution issues raised included the difficult nature of the grant application process for domestic wastewater treatment system (DWWTS), while more investment and inspectors for proper inspection of all the malfunctioning DWWTS was noted. Other issues raised was the need for the Irish Water (now Uisce Éireann) Investment Plan to end sewage pollution from all the wastewater treatment plants identified as the main pollution source, and the urgent need for upgrade or replacement of specific WWTP.
- Department / Agency needs identified included for every department/agency to carry out an internal review in respect of its role under the RBMP, that the RBMP must ensure that a joined-up approach is taken to the preservation of water quality and wastewater management, and that a single lead agency must be identified and resourced adequately to monitor and uphold key performance metrics for successful implementation of the plan.
- Co-ordination highlighted was the need for greater coordination among the implementation bodies in particular Local Authorities and the Department of Agriculture, Food and the Marine (DAFM), better policy coherence between water, climate and biodiversity plans and measures, and clarity on the responsibilities of different stakeholders towards the improvement of water quality.
- Funding highlighting the significant need for appropriate funding and resourcing to deliver necessary measures.
- Forestry issues include the requirement for WFD specific assessment and site-specific conditions for all planting and felling licences in the forestry sector.

A copy of the report detailing the findings of the national consultation engagement is available online at https://www.gov.ie/en/publication/56b71-third-cycle-draft-river-basin-management-plan-2022-2027-consultation-report/

Findings and Analysis

Overall, submissions criticised the level of ambition with the plan and the slow progress to date, calling for measures to be more targeted, measurable and time bound. Feedback from this consultation highlighted a need for greater transparency, sharing of information and tracking of measures, with a requirement for a better implementation process and improved governance. Among other issues, respondents also called for greater coordination among the implementation bodies and for policy coherence between water, climate and biodiversity plans and measures.

Response

To address these concerns, DHLGH are seeking to strengthen the existing governance structures around the implementation of the plan's programme of measures, to provide a more robust monitoring and reporting system over the duration of the next plan. This will include the development and implementation of the Catchment Management Work Plans for the 46 catchments across Ireland, and a dedicated Programme Delivery Office which will oversee and report on the implementation and delivery of the programme of measures, and work to enhance co-ordination between the implementing bodies and stakeholders. Catchment Management Work Plans will be dynamic plans that will develop and evolve with increasing detail over the thirdcycle. The engagement of all implementation bodies in this process, including clarifying their roles and responsibilities where required, will be key to the successful implementation of measures and providing the joined up thinking to deliver Water Framework Directive objectives and those for climate change and biodiversity. Further review of the success of the implementation of the programme of measures will be factored into the third-cycle of the RBMP, with increased public participation over time beginning with research into the establishment of Catchment Community Fora by LAWPRO, with the objective of co-designing a framework, which will scope different engagement methods for the proposed establishment of 46 Community Fora during the lifetime of the thirdcycle. These Fora will build further on the capacity within communities to identify and implement measures, with the objective to produce a Community Action Plan.

Bilateral Consultations and Engagements

As a requirement of Article 14 of the Water Framework Directive (WFD), it is necessary to encourage the active involvement of all interested parties in the implementation of the WFD, in particular in relation to the production, review and updating of River Basin Management Plans. As part of the development of the River Basin Management Plan, DHLGH conducted numerous consultations and bilateral engagements with other agencies, departments and organisations to assist in the development of the Programme of Measures. The engagement process commenced with the Significant Water Management Issues (SWMI) consultation which influenced the development of the draft River Basin Management Plan.

The extent, depth and complexity of discussions on measures for inclusion in the third RBMP are significant. With this in mind a small team of representatives from the then DHPLG, the EPA and local authorities (drawn from LAWPRO), who represent the three lead authorities responsible for the preparation and implementation of the RBMP, was assembled. This Programme of Measures Development Team scheduled and engaged in bilateral discussions with key stakeholders on the issues identified through the SWMI consultation process. These bilateral engagements were an important step in the overall process, providing organisations with the opportunity to contribute to the development of new approaches to address the significant water management issues in Ireland, by enabling discussion on options around what should be done, and by whom, so that the best outcomes are achieved. As part of this bilateral process, and to seek feedback on the development of the programme of measures, the DHLGH has met with An Fóram Uisce over 16 times since 2020. The intention with this process was to reach agreement on proposals for where additional effort and resources will be directed during the third RBMP cycle, as the measures will play a key role in ensuring that progress towards achieving the environmental objectives by the 2027 deadline is maximised.



Economic Analysis of Water Use

Update and review of the Economic Analysis

This section sets out the approach in Ireland to the analysis and recovery of costs for water services and the contribution made by the various water users to the recovery of water services. Water resources need to be protected and used sustainably, if we are to maintain sufficient water resources for nature and for society.

The main challenges in the third-cycle for water services will be achieving quality and environmental compliance; incorporating population change (both population growth and urbanisation); supporting economic growth (especially in agriculture and waterusing industries); and the additional pressures arising from climate change.

The most recent commentary from the Central Bank of Ireland²⁰ is that the outlook for domestic growth over the coming quarters is more challenging than previously expected, against a background of energy-driven inflation remaining prominent. While the labour market remains tight following the postpandemic recovery, significantly higher consumer prices and business costs are creating a drag on household spending and business investment in the near term. Inflationary pressures are forecast to ease through 2024, allowing domestic growth to pick up again over the year. Inflation is expected to moderate to below 3 per cent over 2024, albeit, that fossil fuel prices may stay elevated over the medium term. However, the economic outlook remains highly uncertain, with the baseline forecast predicated on current market expectations for energy prices, which have been volatile.

Ireland's spatial development and planning policy is set out in Project Ireland 2040 {https://www.gov.ie/ en/campaigns/09022006-project-ireland-2040/}. This is the framework for social, economic and cultural development of Ireland. The CSO has reported an overall increase in the population of 55,900 (1.1%) in the year to April 2020. This compares to an increase of 64,500 for the year to April 2019 and brings the population estimate to 4.98 million in April 2020. This is in line with the expectations of the Project Ireland 2040 strategy. The Plan is based on an anticipation that by 2040 there will be an additional one million people living in Ireland. There is a need for 500,000 new homes to accommodate this growth. Covid-19 has resulted in new trends in work and living demands. While it remains to be seen if these patterns endure, there is a Government commitment to develop a Town Centre First policy, to implement a strategic approach to town centre regeneration by reusing and refurbishing existing buildings and unused lands for new development to promote residential occupancy in our rural towns and villages.

Existing water uses, impacts and pressures

The preceding chapters of this plan have set out the identification of significant water management issues and pressures including water uses. Based on the data gathered by the abstractions register that was put in place in 2018, energy generation, drinking water supply, quarries / mining and industrial processing are the sectors abstracting the most water. The provision of public drinking water supply is the predominant abstraction risk within this cohort. Public water supply is the source of drinking water for roughly 80% of the population and also provides water for many of our larger services and industry. The Water Environment (Abstractions and Associated Impoundments) which was signed into law in late 2022 will put in place a new and enhanced authorisation regime for water abstractions.

Application of Article 9 (Recovery of Costs)

Ireland is required to ensure that there is an adequate contribution of the different water user from industry, households and agriculture, to the recovery of the costs of water services. The cost of providing water services and the current policy of recovering those costs has been subject of significant public discussion and debate. The policy in relation to the funding of water services in Ireland is now well developed.

The Commission for Regulation of Utilities (CRU), is the economic regulator for public water services (water and wastewater). Ireland modernised and updated its water charging regime. The CRU approved the introduction of Uisce Éireann's Connection Charging Policy that contains a national set of charges for connections to the Uisce Éireann water and wastewater networks. Non-domestic tariffs for the provision of water and wastewater services have also been standardised, reforming the myriad of local authority charges into one standardised national charging system. The introduction of domestic user excessive use charges for public water services is now approved (by the CRU, July 2019) and will be implemented once the legal framework, including matters relating to an application for, and confirming continued entitlement to, an exemption from excess use charges on medical grounds, is in place.

Domestic customers will be charged for water and/or wastewater services when the individual use of water puts the objectives of the Directive at risk. Ireland has legislation which sets out a reasonable use allowance for households each year. Following a period of time

to address leaks and/or reduce demand, anyone that uses water above this annual allowance will be charged for water and/or wastewater services. The allowance has been set at 1.7 times the average rate of water demand for Uisce Éireann's domestic customers. This rate was recommended by the CRU and provided in its advice to the Minister. This rate may be changed by the Minister following receipt of further reports from the CRU recommending an amended 'average rate'.

This policy ensures and encourages households to conserve water and, where possible, to identify and to fix leaks in the water supply at their property. Excess use charges, when implemented, will promote conservation and responsibility for water use. This is to help ensure that Ireland meets in full the requirements of the Water Framework Directive, and especially Article 9 of the Directive. The household water allowance is 213,000 litres per year for up to four occupants, rising for higher occupancy. Household usage up to this level will be funded by the public through general taxation. Households using more than their allowance will be charged for use over this allowance. There will be some additional allowances or exemptions for particular humanitarian and/or hardship cases (for example: medical card holders). Uisce Éireann will inform domestic customers if they are using water above the annual household allowance. The CRU and Uisce Éireann estimate that approximately 10% of customers will pay the excess charge. A notice will be issued by Uisce Éireann to customers who exceed their household allowance over a 12-month period.

Up to 1st April 2019, new connections to the Uisce Éireann water and wastewater networks were charged at the rates applied by the local authorities as at 31st December 2013. There were c. 57 different charging regimes with different methodologies and levels of service and, as a national utility, Uisce Éireann recognised that this situation was inconsistent, unfair and overly complex. The CRU also recognised the inconsistency and unfairness of the charging model and asked Uisce Éireann to submit a proposal for a new Connection Charging Policy which would be simple, fair, and transparent for customers across the country. The CRU published its decision on Uisce Éireann's proposals in December 2018 and the new Connection Charging Policy is live since 1st April 2019.

All business customers (or 'non-domestic' such as agriculture, energy, services and industrial consumers) of Uisce Éireann pay charges for water, wastewater and trade effluent services. This includes the non-domestic charging arrangements applied to the commercial portion of 'mixed use' customers

who use water and wastewater services for both household and business purposes on the same supply (for example agricultural enterprises with private households). Prior to 1st October 2021, Uisce Éireann continued to charge business customers on the same basis as determined under relevant Government policy and applied by local authorities as of 31st December 2013. Non-domestic charges were previously determined and charged by 34 individual local authorities and 10 town councils. This resulted in a wide range of pricing levels, categories, methodologies, and billing arrangements. Following a review of the existing charges, and extensive publication consultation, the CRU approved the harmonisation of 500 separate charges into a single new Non-Domestic Tariff Framework. The new Framework came into effect from 1st October 2021. This established a single national approach to charging non-domestic customers for water and wastewater services provided by Uisce Éireann, which is benefitting business customers in terms of transparency, simplicity and equity. In December 2023, the CRU launched a public consultation on Uisce Éireann's proposals to update the existing Non-Domestic Tariff Framework for purposes of generating new non-domestic water and wastewater tariffs (to reflect updated revenue and customer input data) and also proposals to establish new harmonised national Trade Effluent Charging arrangements and importantly integrate these into the Non-Domestic Tariff Framework. The CRU's decision will be available in 2024.

The Programme for Government has committed to retaining Uisce Éireann in public ownership as a national, standalone, regulated utility. The Programme has also committed the Government to ensuring that Uisce Éireann is sufficiently funded to make the necessary investment in drinking water and wastewater infrastructure.

Uisce Éireann has also been tasked to develop plans to ensure security of supply and sufficient capacity in drinking and wastewater networks to allow for balanced regional development. Uisce Éireann funding is subject to a number of formal steps. The Minister prepares a Water Services Policy Statement²¹. This sets out Government water policy objectives and priorities. Uisce Éireann prepares a Water Services Strategic Plan²² for a 25 year period. Uisce Éireann prepares a Strategic Funding Plan. This outlines implementation of the Water Services Policy Statement. The Minister decides to approve or not approve the Strategic Funding Plan. If not approved, Uisce Éireann must re-submit the Strategic Funding Plan. The CRU conducts its normal revenue control process and decides the level of revenue Uisce

²¹ Water Services Policy Statement - https://www.gov.ie/en/publication/49364-water-services-policy-statement-2018-2025/

²² Uisce Éireann's Water Services Strategic Plan - https://www.water.ie/projects/strategic-plans/water-services-strategic/

Éireann is allowed for the revenue control period. Uisce Éireann prepares a Water Charges Plan. This sets out the charges for water services and the costs that it expects to incur in delivering water services. The Department of Finance allocates the allowed funds to Uisce Éireann through the annual budgetary process.

While some actions may be subject to adjustment pending the outcome of the proposed development of an overall financing strategy, the following actions will be undertaken during the third-cycle RBMP.

Water Re-Use

EU Regulation 2020/741 on minimum requirements for water reuse encourages a circular approach to water reuse in agriculture. At the moment there are no municipal water reuse projects in Ireland. The reuse of treated urban wastewater for agricultural irrigation is a market-driven action, based on the demands and needs of the agricultural sector where there are water resource shortages. Water scarcity is not a strong driver for reuse in Ireland and the demand for irrigation water is relatively low in comparison to other parts of Europe. This is due to the agriculture type in Ireland and our temperate maritime climate. Ireland has abundant water resources due to our mild and wet climate and does not suffer from the same wide extremes of temperature as parts of the European mainland.

However, climate change is impacting on the weather in Ireland resulting in changing rainfall patterns with projected increased rainfall in autumn and winter and reduced spring and summer rainfall. This change will increase the pressure on water resources particularly in the summer period as experienced in 2018, in 2020 and most recently during July and August 2022. In the future, these factors may result in a greater interest and demand for the reuse of water in Ireland particularly during the summer period. The reuse of water will be facilitated if the pressures of the status of surface and groundwater increase to a point where the environmental and resource costs of using reclaimed water in the geographical and climate context of Ireland justifies pursuing these projects.

Production and supply of reclaimed water for agricultural irrigation will therefore only be permitted if a market demand for the reuse of water emerges during the six-year cycle of this River Basin Management Plan. This position will be reviewed prior to 2027 and reported in the next river basin management plans.

Econ 1: The DHLGH to undertake an evaluation including a stakeholder consultation of the appropriateness of water reuse for agricultural purposes within Ireland and report findings in the next River Basin Management Plan.

Funding the Programme of Measures

The expenditure on measures to fully implement the River Basin Management Plan and Programme of Measures is difficult to fully describe as many of the measures, particularly the expenditure relating to the mandatory basic measures are inextricably embedded with other expenditure in the public sector (For example, the administrative costs relating to the enforcement of the Good Agricultural Practices Regulations). However, in the case of new, additional supplementary measures it is possible to provide a minimum, conservative estimate of the investment as these were explicitly established to respond to the requirements of the River Basin Management Plan objectives, where it was judged that the 'Basic' mandatory measures would not be sufficient on their own to achieve those objectives.

Tables 17 and 18 show conservative minimum estimates of major national expenditure on supplementary measures (1) during the second-cycle RBMP from 2016 to 2021 and (2) projected for the third-cycle RBMP from 2023 to 2027. Note that this does not incorporate additional expenditure on mandatory basic measures such as the increased resources within local authorities and the EPA to service the enhanced enforcement of the Nitrates Action Programme.

During the second-cycle, expenditure on additional supplementary measures was over €302million (2016-2021). Investment in Supplementary Measures were mainly focussed on the dominant pressures on surface waters to date. While the three dominant pressures for Ireland are agriculture, urban wastewater discharges and pressures on hydromorphology, the bulk of investment in supplementary measures in Cycle 2 were focussed on agriculture and urban wastewater treatment. In the case of pressures on hydromorphology, while a significant pressure, our knowledge and understanding of the ecological impact of this pressure and the required measures was not sufficiently robust during the second-cycle to commit significant funding for restoration measures. However, for Cycle 3 the investment in restoration/ mitigation will be significantly ramped up using the inventory of barriers generated by IFI. These will be a key focus for Ireland during the third-cycle RBMP (See Appendix 1 for further information). It will build on the hydromorphology research and development programme undertaken during the second-cycle.

The projected expenditure for the third-cycle RBMP from 2023 to 2027 is a conservative minimum of €716.5million. This is an increase of 137% on the estimated expenditure for Cycle 2 (2015-2021). However, this investment may be increased by government as a more precise picture emerges at the local level through the 46 Catchment Management Work Plans regarding the measures needed and as more accurate estimates of the cost of measures are made. This plan commits to review progress with the implementation of measures and to reapply the Distance to Target Analysis.

In Chapter 5 (Programme of Measures) there is a commitment to carry out a mid-term progress review of the Programme of Measures by 2025 for the identification of additional, evidence based measures where gaps exist. There will be a plan for their implementation as soon as possible within the period of the plan or beyond, where justified under Article 4 of the WFD. It is anticipated that the newly established Infrastructure, Climate and Nature Fund (ICNF, see Section below) will potentially be a significant source of funding for these additional, evidence based measures for bridging the gap in achieving fully WFD compliance.

A particular challenge in managing water resources effectively and sustainably into the future is incorporating the value of these resources effectively into economic decision making. In order to put a value on these resources, sectors must first understand and be aware of the services that catchments provide them with and the value that they obtain from these services. Therefore, the immediate task ahead for environmental authorities is to communicate and raise awareness of the services gained by society from catchments. The ongoing mapping of ecosystem services across the EU, including Ireland, should help to inform this awareness raising.

Econ 2: The cost effectiveness of new supplementary measures, such as the Water EIP and Barriers Mitigation Programme, will be analysed as soon as possible after they have been commenced and once there is sufficient progress made. The programmes will be modified, if and where necessary, to ensure that they are delivering value for money to the State.

Econ 3: The economic regulator of water services (the CRU) will continue to assess and approve Uisce Éireann's costs and investment plans. This will include an assessment of Uisce Éireann's investment decisions to ensure effectiveness, efficiency and value-for-money in Uisce Éireann's expenditure. The CRU will continue to monitor and report annually on Uisce Éireann's delivery and performance in that context.

Econ 4: Uisce Éireann to implement the National Water Resources Plan and associated regional plans and to maintain national water and wastewater capacity registers to ensure security of supply and sufficient capacity in drinking and wastewater networks to inform decisions on balanced regional development in line with the National Planning Framework.

Econ 5: When approved, Uisce Éireann to implement domestic excess use and nondomestic charging.

Econ 6: The Minister will publish a report based on an economic assessment on the potential for a natural capital / freshwater ecosystem services approach to protecting water resources, including the need for new economic instruments and protection of freshwater and marine ecosystem services.

Econ 7: The Minister will maintain a funding stream to upgrade and take in charge towns and villages without wastewater networks to improve the wastewater needs of rural villages that are outside of the current Uisce Éireann collection network.

Econ 8: Uisce Éireann will update the current Water Services Strategic Plan to cover the 25 year period of water services management up to 2050.

Econ 9: Finalise the review of rural water services and produce a rural water services strategic plan including a national rural water resources plan for the rural water sector.

Econ 10: Implement the policy as set out in "Irish Water – Towards a national, publicly-owned, regulated, water services utility" so that Uisce Éireann has integrated the day to day operation and delivery of water services into its own organisational structure, in place of the current Service Level Agreements, on a phased basis.

Future Ireland and Infrastructure, Climate and Nature Fund Act 2024

The Government enacted the Future Ireland and Infrastructure, Climate and Nature Fund Bill in March, 2024.

The Bill provides for the establishment of:

- 1. The Future Ireland Fund; and
- 2. The Infrastructure, Climate and Nature Fund.

The Bill will also provide for the funds to be owned by the Minister for Finance. They will be managed and invested by the National Treasury Management Agency (NTMA).

The Infrastructure, Climate and Nature Fund (ICNF)

In Ireland, fiscal policy has tended to be pro-cyclical and capital spending has been especially susceptible to pro-cyclicality. An adequately capitalised fund is an effective means to support counter-cyclical fiscal policy.

Of the total of €14 billion, €3.15 billion is available for designated environmental projects (projects that contribute directly or indirectly to the reduction of greenhouse gas emissions, an improvement in water quality or an improvement in nature and biodiversity objectives) between 2026 and 2030.

The allocation of funding to designated environmental projects will be subject to engagement between relevant Ministers and the Minister for Public Expenditure, NDP Delivery and Reform, in line with the standard Estimates process.

In each of the years from 2026 to 2030, the Minister for Public Expenditure, NDP Delivery and Reform, having consulted with the Minister for Finance, will recommend an amount to Government that he or she believes to be appropriate to drawdown from the ICN Fund, having regard to the total spend on designated environmental projects taking into account the annual limits of 22.5% of the Fund and the total expenditure on such projects not exceeding €3.15bn over the period 2026-2030.

Resourcing and drawdown from the ICNF to 2030

Each year €2 billion will be invested in the ICNF from 2024 to 2030, building a total contribution to the fund of €14 billion, with the €2 billion in 2024 coming from the dissolution of the National Reserve Fund. Any investment return will be retained within the Fund.

As outlined above it is intended to put in place triggers to allow the Minister for Finance to reduce contributions in part and in full to the Future Ireland Fund to deal with economic exigencies. Where contributions to the FIF are partially reduced it is intended to continue to the fund the ICNF with €2 billion per annum.

It is only where contributions to the FIF are stopped would contributions to the ICNF also be stopped. This is the trigger to allow for up to 25% of the ICNF to be deployed in the following fiscal year.

Econ 11: Where additional targeted measures are identified as necessary to address gaps in WFD environmental objectives for cycle 3, as part of the mid-term progress review of the Programme of Measures in 2025, DHLGH will oversee the preparation of project proposals for funding under the new Infrastructure, Climate and Nature Fund.

Table 17: Conservative minimum estimate of major national expenditure on second-cycle RBMP from 2016 to 2021

Supplementary Measure	Categories of supplementary measure	Pressure(s) addressed by measure	Responsible authority	Expenditure (2016-2021)
	(see WFD. Annex VI, Part B) #			(€)
Monitoring, assessment, reporting and regulation	(ii), (xv), (xvi)	All	Environmental Protection Agency	6,000,000
Local Authority Waters Programme	(ii), (iii), (xv), (xvi)	All	Local authorities	18,000,000
River Basin Management Plan specific agricultural measures under the Rural Development Programme		Agriculture		
Protection of Watercourses from Bovines	(iii)	Agriculture	Department of Agriculture, Food and the Marine	110,849,048
Riparian Margins	(iii)	Agriculture	Department of Agriculture, Food and the Marine	1,289,574
Agricultural Sustainability Support and Advice Programme (ASSAP)	(ii), (iv), (xv), (xvi)	Agriculture	Department of Agriculture, Food and the Marine; Department of Housing, Planning and Local Government; Dairy Industry	15,000,000
Public wastewater treatment infrastructure to achieve standards beyond those required by the Urban Wastewater Treatment Directive	(v), (xi)	Urban wastewater discharges	Irish Water (now Uisce Éireann) (national water services authority)	151,000,000
Total				302,138,622

Table 18: Conservative minimum projected estimate of major national expenditure on third-cycle RBMP from 2023 to 2027

Supplementary Measure	Categories of supplementary measure	Pressure(s) addressed by measure	Responsible authority	Expenditure (2023-2027)
	(see WFD. Annex VI, Part B) #			(€)
Monitoring, assessment, reporting and regulation	(ii), (xv), (xvi)	All	Environmental Protection Agency	6,000,000
Local Authority Waters Programme	(ii), (iii), (xv), (xvi)	All	Local authorities	18,000,000
River Basin Management Plan specific agricultural measures under the Rural Development Programme / CAP Strategic Plan		Agriculture		

Ecoscheme (€1.48 billion budget. Conservative estimate that 5% spent on measures benefitting water)	(iii)	Agriculture	Department of Agriculture, Food and the Marine	74,000,000
Acres Cooperation Projects (€740 million budget. Conservative estimate that 10% spent on measures benefitting water)	(iii)	Agriculture	Department of Agriculture, Food and the Marine	74,000,000
Acres General Scheme (€750 million budget. Conservative estimate that 5% spent on measures benefitting water)	(iii)	Agriculture	Department of Agriculture, Food and the Marine	37,500,000
Water EIP (€60 million budget. 100% of budget devoted to target water protection and restoration measures)	(iii)	Agriculture	Department of Agriculture, Food and the Marine and Department of Housing, Local Government & Heritage	60,000,000
Agricultural Sustainability Support and Advice Programme (ASSAP)	(ii), (iv), (xv), (xvi)	Agriculture	Department of Agriculture, Food and the Marine; Department of Housing, Local Government & Heritage; Dairy Industry	15,000,000
Waters of LIFE Integrated project (€20 million budget. 100% of budget devoted to target water protection and restoration measures))	(ii), (iii), (xv), (xvi)	All	Department of Housing, Local Government & Heritage	20,000,000
Public wastewater treatment infrastructure to achieve standards beyond those required by the Urban Wastewater Treatment Directive	(v), (xi)	Urban wastewater discharges	Uisce Éireann (national water services authority)	288,000,000
Hydromorphology restoration/mitigation programme (Minimum estimated budget of €50 million. 100% of budget devoted to target water protection and restoration measures))			Inland Fisheries Ireland	110,000,000
Hydromorphological improvements at public drinking water abstractions that are supported by instream structures		Pressures on Hydromorphology	Uisce Éireann	14,000,000

Table 19: List of Supplementary Measures categories referred to in Table 1 above

# List of Supplementary Measures categories in Annex VI (Part B) of the Water Framework Directive	
(i) legislative instruments	(x) efficiency and reuse measures, inter alia, promotion of water-efficient technologies in industry and water-saving irrigation techniques
(ii) administrative instruments	(xi) construction projects
(iii) economic or fiscal instruments	(xii) desalination plants
(iv) negotiated environmental agreements	(xiii) rehabilitation projects
(v) emission controls	(xiv) artificial recharge of aquifers
(vi) codes of good practice	(xv) educational projects
(vii) recreation and restoration of wetlands areas	(xvi) research, development and demonstration projects
(viii) abstraction controls	(xvii) other relevant measures
(ix) demand management measures, inter alia, promotion of adapted agricultural production such as low water requiring crops in areas affected by drought	



Ref	Action	Owner	Timescale
Action 1.1	Integrated catchment management approaches will be used to identify and decide on further specific measures for each water body, where they are required in addition to those set in this plan. These will be included in the 46 Catchment Management Work Plans, which will be used to locate measures within each catchment. The co-benefits of water-focused measures on climate and biodiversity will also be identified.	LAWPRO	Ongoing
Action 1.2	The Catchment Management Work Plans will include the list of water bodies, their associated status, significant pressures/issues and targeted measures, along with outcomes-based targets for the third-cycle and key performance indicators to monitor progress and outcomes. Justification for water bodies not meeting their WFD objective by 2027 should also be included in catchment management plans, in line with Article 4 of the WFD.	LAWPRO	Ongoing
Action 1.3	Sectoral Action Work Plans will be developed. They will set out the actions to be taken by the relevant authorities in line with their legally binding general duties under Article 3(1) of the 2003 Water Policy Regulations (SI 722 of 2003).	DHLGH	Q1 2025
Action 1.4	When developing new policy, Government Departments will have regard to the OECD principles for policy coherence to consider cross-cutting issues; trade-offs and synergies with other key policy objectives.	Whole of Govt	Ongoing
Action 2.1	The DHLGH shall continue to engage with counterparts in Northern Ireland via the North/South Water Framework Directive Co-ordination Group as is necessary to ensure coordination of programmes of measures across the whole of shared river basin districts.	DHLGH	Ongoing
Action 2.2	A collaborative 'Shared Waters' document will be published following publication of the River Basin Management Plans of the Republic of Ireland and Northern Ireland.	DHLGH (WAU)	Q3 2024
Action 3.1	DHLGH will arrange for the development and application of a methodology for the screening and application of WFD Article 4(5) exemptions, extending the deadline for compliance beyond 2027, where justified in accordance with the strict criteria stipulated within the Directive.	DHLGH	Q4 2024-Q4 2025
Action 3.2	DHLGH will review and update the Climate Adaptation Plan for the Water Quality and Water Infrastructure Sectors.	DHLGH (WAU)	Q4 2024
Action 3.3	LAWPRO will co-ordinate a simplified climate change sensitivity analysis or "climate check" which will be undertaken in line with EU Guidance during the third RBMP cycle at the level of the Catchment Management Work Plans. The check will also inform the setting of RBMP environmental objectives for the following fourth-cycle.	LAWPRO	2025

Ref	Action	Owner	Timescale
Action 3.4	The EPA will review the national monitoring programme and integrate climate change considerations such as identifying water bodies likely to be most vulnerable to climate change and detecting the direct impacts of climate change.	EPA	Q2 2026
Action 3.5	Support additional research and pilot projects in the area of climate change (impacts and adaptation).	DHLGH (WAU) / NFGWS	2022 - 2027
Action 3.6	The National Bathing Water Expert Group to undertake a research project to determine the most suitable approach to protecting bathers' health outside of the current bathing season.	DHLGH (WAU)	2024
Action 3.7	DHLGH will amend the existing Bathing Water Regulations (S.I. No. 79 of 2008) to facilitate local authorities defining the length of the "bathing season" on determining the bathing season for individual bathing waters in respect of the "bathing waters" within their jurisdiction. DHLGH will also consider the research outcomes and recommendations from the National Bathing Water Expert Group. The outcome of the EU regulatory fitness and performance programme (REFIT) review of the Bathing Water Directive will be assessed in due course.	DHLGH	Q4 2024
Action 3.8	The water-related requirements of water-dependant habitats and species will be reviewed by the Water Division, the National Parks and Wildlife Service and the EPA during the 3 rd RBMP cycle, taking account of the most recent scientific evidence. If necessary, proposals for updating the related water standards will be made and this will be integrated into the catchment management process.	DHLGH (NPWS & Water Division) and EPA	Q1-Q4 2025
Action 3.9	The National Parks and Wildlife Service and the Water Division, both of this Department, and other relevant stakeholders will continue to engage closely in the catchment management planning process as it relates to Freshwater Pearl Mussel to ensure conformity with the requirements of the Habitats Directive and the Water Framework Directive.	DHLGH / NPWS	Ongoing
Action 3.10	The Minister for Housing, Local Government and Heritage will undertake a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs. There were 466 water bodies, which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process.	DHLGH	Q4 2024
Action 3.11	A review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in order to inform future land use policy decisions arising out of the Land Use Review and to support the preparations for the implementation of the new Nature Restoration Law and the Heavily Modified Water Body review process.	DECC / DHLGH (Water Policy & WAU) / DAFM / OPW	ТВС

Ref	Action	Owner	Timescale
Action 4.1	The EPA and LAWPRO, with the support of the implementing bodies and other stakeholders, will continue to assess the impacts of pressures on waters to inform the measures that are needed.	EPA / LAWPRO	Ongoing
Action 5.1	The Department of Housing, Local Government and Heritage will oversee an independent review of progress with the implementation of the Programme of Measures.	DHLGH (WAU)	Q2 2025
Action 5.2	The National Technical Implementation Group will identify the issues preventing water quality objectives from being achieved and will identify any further evidence, legislative, policy or implementation gaps that need to be addressed.	EPA	Ongoing
Action 5.3	LAWPRO will confirm significant pressures and work with implementing bodies and stakeholders to promote the implementation of appropriate restoration measures in each Area for Action (restoration) where environmental objectives are not being met.	LAWPRO	Ongoing
Action 5.4	LAWPRO will confirm significant pressures and work with implementing bodies and stakeholders to progress the implementation of appropriate protection measures in areas that are meeting their environmental objectives but require protection to ensure that water quality does not deteriorate.	LAWPRO	Ongoing
Action 5.5	LAWPRO, in cooperation with the EU LIFE IP Waters of LIFE project team, will publish a new Blue Dot Programme work plan for waters with a High Status Objective.	LAWPRO	2024
Action 5.6	Catchment projects aimed at improving water quality to be advanced in 15 areas (including community initiatives, River Trusts, EIPs, PEACE+)	Catchment Project lead organisation	Ongoing

Ref	Action	Owner	Timescale
Agri 1	DHLGH and DAFM will oversee the implementation of the stronger and more targeted Nitrates Action Programme. The Fifth Nitrates Action Programme (2022-2025) retains and strengthens the existing controls from agricultural nutrient impacts on water and will implement tighter controls on nitrogen and phosphorus inputs by:	DHLGH (WAU)	2025
	1) Stipulating tighter controls on the timing and methods of application of chemical nitrogen fertilisers and slurry.		
	2) Reducing the annual maximum fertilisation rate of nitrogen on grassland by 10% in 2022 with potential for a further reduction of, at least, 5% in 2024 following the Interim Review in 2023.		
	3) Reduction in the maximum derogation stocking rate on farms in water bodies where there is, or a risk of, declining water quality.		
	4) Implementing a livestock excretion banding system from Q1 2023 to more accurately reflect the different rates of organic nitrogen loading from different sized animals in the maximum stocking rate calculations.		
	5) Establishing a national fertiliser sales database for farmers.		
Agri 2	Local Authorities will strengthen the inspection and enforcement relating to agricultural diffuse pollution.	EPA/NIECE	2022 - 2024
	A total of 57 new Inspectors in local authorities have been allocated for the National Agricultural Inspection Programme (NAIP) and five new staff have been allocated to the EPA to oversee the programme. An additional four staff have been allocated to LAWPRO to help in co-ordinating the activity and avoiding duplication where possible. Inspections will be targeted and risk-based using all the available evidence, including water quality data, the EPA's PIP Maps and the Targeting Agricultural Measures Map on up to 4,500 farms per annum during the lifetime of the Nitrate Action Programme.		
	DAFM will undertake 500-1,000 inspections per year under the GAP Regulations focused in Q1 where risk of nutrient impact on water quality is high. DAFM has increased their derogation inspections from 5% to 10% of all derogation farms per year and will undertake approximately 700 inspections per annum.		
Agri 3	DAFM will implement Ireland's CAP Strategic Plan with a strong emphasis on the achievement of a higher level of environmental ambition. This includes implementing the new Green Architecture of (1) Conditionality, (2) Pillar I Eco-Schemes and (3) the Pillar II Interventions such as ACRES and the new Water EIP.	DAFM	2023 - 2027

Ref	Action	Owner	Timescale
Agri 4	Eco-scheme measures will contribute to the protection of water quality. DAFM will promote and target the uptake of these measures in locations at farm level where they will maximise water protection. This will be achieved through training and farm advisory services and by using the Pollution Impact Potential (PIP) maps generated by the EPA.	DAFM	2027
Agri 5	The Water EIP project led by LAWPRO, in partnership with Teagasc and Dairy Industries Ireland will focus on reducing losses of phosphorus, nitrogen, sediment and, where relevant, pesticides to water from agricultural lands by promoting the adoption of innovative best practice in nutrient management, the application of Nature-based Solutions and other suitable measures. The project will aim to support up to 15,000 farmers in implementing on-farm water protection and mitigation measures.	LAWPRO	2027
Agri 6	DHLGH and DAFM will put arrangements in place to ensure independent assessments and reviews of the efficacy of the Nitrates Action Programme (NAP), the CAP Strategic Plan and the Water EIP (and other relevant measures) to bring the 1,000 water bodies impacted by agriculture up to good status and to prevent deterioration. They will identify additional measures, where necessary, which will be implemented during the lifetime of the plan or beyond, where justified under Article 4 of the WFD. Mechanisms for review will include; DHLGH monitoring & assessment of progress with the programme of	DHLGH	Q4 2025
	measures, EPA's statutory role in assessing the NAP, EPA research projects and the CAP Strategic Plan Performance Monitoring and Evaluation Framework (PMEF).		
Agri 7	In support of the Catchment Management Work Plans, the Department of Agriculture, Food and the Marine will publish an Agricultural Sectoral Action Work Plan to reduce nitrogen losses to waters in areas where levels are increasing or are too high, and to bring nitrogen, phosphorous and sediment losses to water from agricultural sources within sustainable levels by 2027.	DAFM	2024
Agri 8	Online Farm Sustainability Planning: Teagasc will develop an online Farm Sustainability Plan for farmers complementing existing Nutrient Management Planning online tool to support the wider Agricultural Knowledge and Information Systems (AKIS) programme.	Teagasc	2024
Agri 9	Extend and expand the local authorities' water protection office. LAWPRO will be extended for the full duration of Cycle 3 up to 2027. The CCMA will identify the appropriate level of resources and involvement of LAWPRO to meet WFD objectives up to 2027 and beyond in future RBMPs.	LAWPRO	Q4 2021

Ref	Action	Owner	Timescale
Agri 10	Provide free on-farm advice to farmers. The sustainability advisory service (ASSAP) will be extended for the full duration of Cycle 3. The dairy industry has increased the number of advisors involved in ASSAP by six for the period 2022 to 2027.	DHLGH / DAFM/ Dairy Industry	Q3 2023
Agri 11	To support the goal of targeting the right measure in the right place all farm advisers involved in the 'Farming for Water' Agri-EIP, will be provided with ongoing professional development, including an appropriate level of catchment science training to ensure that measures are sufficiently targeted.	LAWPRO / Teagasc	Ongoing
Agri 12	Upskill farmers and advisors to ensure they have the knowledge and tools to implement appropriate measures to reduce the impact on water quality and freshwater biodiversity from farming practices.	Teagasc / ACA / Farm Advisors	Ongoing
Hymo 1	A Hydromorphology Expert Group will be established to support the new National Hydromorphology Programme. This Expert Group will identify interim measures which will be readily implemented during the third RBMP cycle to assist in removing pressures on hydromorphology.	DHLGH (WAU)	2024
Hymo 2	DHLGH will lead the development of a new enhanced and consolidated legislative regime to address pressures on the physical condition of waters.	DHLGH (WAU)	2026
Hymo 3	IFI will establish a restoration programme to mitigate the negative impact of past construction in or near water bodies.	DHLGH / DECC / IFI	2027
Hymo 4	A Sectoral Action Work Plan for Hydromorphology will be developed, which will include measures and plans to address the 448 water bodies at risk from pressures from hydromorphology, including barriers, channelization, drainage, sediment and flood protection. It will be led and coordinated by DHLGH with supporting bodies IFI, DAFM, Forestry, OPW and DECC.	DHLGH	Q4 2024
Hymo 5	It is proposed that IFI will lead a multi-agency whole of catchment pilot project on the River Dodder from source to sea with the aim of examining the feasibility of opening up this heavily urbanised catchment to migratory fish species by mitigating the five most significant barriers in the lower reaches and progressing to the next stage, as appropriate.	IFI	2024 - 2027
Hymo 6	IFI will lead a pilot project to be undertaken for the Annacotty Weir in County Limerick. The project will provide an opportunity to test a collaborative and ecology focussed design approach. It will also test enhanced community engagement opportunities that go beyond the standard consultation practices involved in the planning process, thereby assisting with the design and implementation of the national restoration programme. The pilot project is initially examining the feasibility of mitigation and will progress to the next stages, as appropriate.	IFI	2025

Ref	Action	Owner	Timescale
Hymo 7	Implementation of the roadmap of actions, including the use of state-of-the-art technical solutions, to improve fish migration in the lower Shannon at the Hydroelectric scheme located around Parteen and Ardnacrusha. The pilot project will initially examine the feasibility of mitigation and will progress to the next stages, as appropriate.	DHLGH (WAU)	2027
Hymo 8	A proposed pilot project on the Slaney River at Clohamon will aim to improve fish passage at a medium scale hydroelectric scheme through a state and community collaborative initiative. The pilot project will initially examine the feasibility of mitigation and will progress to the next stages, as appropriate.	IFI	2024 - 2027
Hymo 9	In addition to river barrier removal and mitigation other restoration and mitigation work will be developed. This will be partly guided by the framework for prioritising measures for both river restoration and Nature-based Catchment Management prepared by the EPA.	DHLGH (WAU)	2026 onwards
Action 3.10 repeat	The Minister for Housing, Local Government and Heritage will undertake a short public consultation before deciding whether to designate or de-designate water bodies as HMWBs. There were 466 water bodies, which the EPA has found to meet the criteria for designation. The Minister will take into account the recommendations of the EPA and the key concerns raised in the submissions to the consultation process.	DHLGH	Q4 2024
Action 3.11 repeat	A review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in order to inform future land use policy decisions arising out of the Land Use Review and to support the preparations for the implementation of the new Nature Restoration Law and the Heavily Modified Water Body review process.	DECC / DHLGH (Water Policy & WAU) / DAFM / OPW	TBC
Forestry 1	In support of the Catchment Management Work Plans, the Department of Agriculture, Food and the Marine will publish a Sectoral Action Work Plan. DAFM will update the 2018 document "Forests and Water: Achieving Objectives under Ireland's River Basin Management Plan 2018-2021" as the Forestry Sectoral Action Work Plan supporting the third RBMP.	DAFM - Forestry Inspectorate	2024 and ongoing
Forestry 2	DAFM recognises the key recommendation from the HYDROFOR Project (2016) to "cease afforestation on peat soils in acid-sensitive headwater catchments", and is applying various water and non-water related policies, procedures and protocols that combine to rule out afforestation on such sites, or to limit it to appropriate multi-benefit native woodland.	DAFM - Forestry	Ongoing
Forestry 3	DAFM to increase the area of forests with appropriate water setbacks through the ongoing restructuring of existing forest stands at clearfell / reforestation stage.	DAFM - (Forestry Inspectorate and Forestry Division)	Ongoing

Ref	Action	Owner	Timescale
Forestry 4	DAFM to ensure the application of water setbacks and other water-based protection during the creation of new forests, principally realised with support under the 2023 – 2027 Afforestation Scheme.	DAFM - Forestry	Ongoing
Forestry 5	DAFM to manage the application of support measures that have a clear role in relation to the protection of water, including: the Continuous Cover Forestry Scheme; the various native woodland and agro-forestry options under the Afforestation Scheme, the Native Woodland Conservation Scheme, and the Reforestation for Climate Resilience Scheme.	DAFM - Forestry	Ongoing
Forestry 6	DAFM to encourage the uptake of Forest Type 3 under the Afforestation Scheme, aimed at funding native woodland creation on public land, specifically to deliver woodland-based solutions for the protection of drinking water sources and water in general.	DAFM - Forestry	Ongoing
Forestry 7	DAFM to launch the new Forests for Water option (Forest Type 2) under the Afforestation Scheme, which offers added incentives to farmers and other landowners to promote the creation of new native forests specifically to provide water services, including improvements to water quality, drinking water source protection, natural water retention, the improvement of aquatic and riparian habitats, and the expansion of alluvial woodland.	DAFM - Forestry	2024
Forestry 8	DAFM to continue to address all forestry-related water incidents, as identified by DAFM Inspectors and LAWPRO or reported to DAFM Forestry by foresters, water agencies, environmental NGOs and members of the public.	DAFM - Forestry Inspectorate	Ongoing
Forestry 9	DAFM to train Registered Foresters, Consultant Ecologists and machine operators, in relation to the design, and implementation of forestry projects, from the perspective of protecting and enhancing receiving waterways.	DAFM - Forestry	2027
Forestry 10	Continue to seek improvements to the licence applications process for key forestry activities.	DAFM - (Forestry Inspectorate and Forestry Division)	2027
UWW 1	Uisce Éireann will continue investment in wastewater infrastructure investing over €2.3bn over the period 2020 – 2024. This includes 108 wastewater treatment plants and 77 collection networks at an estimated cost of €1.542bn and 92 national programmes at an estimated cost of €780m.	Uisce Éireann	Q4 2024
UWW 2	Uisce Éireann will deliver infrastructure projects as set out in the Appendices for the next RBMP third-cycle (2022-2027).	Uisce Éireann	Q4 2027
UWW 3	Uisce Éireann will assess urban wastewater requirements for the 197 Water Bodies where Urban Wastewater has been identified as a significant pressure by 2027, including any new significant pressure water bodies identified by LAWPRO.	Uisce Éireann	Q4 2022 and reviewed every 2 years

Ref	Action	Owner	Timescale
UWW 4	Uisce Éireann will apply for reviews of Wastewater Discharge Authorisations, where required. The applications shall be in a timeframe that is appropriate to the delivery programme and agreed with the EPA.	Uisce Éireann	Ongoing
UWW 5	DHLGH will deliver a multi-annual investment programme to provide wastewater infrastructure for villages not served by public wastewater collection systems.	DHLGH (Rural Water	Q2 2022
UWW 6	Uisce Éireann's River Basin Management Plan – Enhanced Ambition Programme will deliver at least 10 new wastewater treatment plant upgrades not funded under the current investment plan where discharges have been identified as being significant pressures on water bodies and impacting on WFD objectives.	Uisce Éireann	Q3 2022
UWW 7	Uisce Éireann will continue investment in storm water overflows with a minimum of 139 upgrades over the period 2022-2027.	Uisce Éireann	2027
UWW 8	Following the completion of negotiations, DHLGH will undertake transposition into Irish law of the recast Urban Wastewater Treatment Directive.	DHLGH (WAU)	Q3 2022 to Q2 2027 (estimated)
UWW 9	Following the expected recast Urban Wastewater Treatment Directive the DHLGH will update the criteria for the performance of Combined Storm Water Overflows.	DHLGH (WAU)	Q2 2028 depending on revision of UWWTD
UWW 10	Uisce Éireann will put in place a Research & Innovation Programme on nature-based solutions for small wastewater treatment plants.	Uisce Éireann	Q4 2027
UWW 11	As part of the distance to target analysis process led by the EPA, the impact of Sectoral Action Work Plans, including that for urban wastewater discharges, will be assessed as part of the preparation of the 46 Catchment Management Work Plans. Uisce Éireann will publish a Sectoral Action Work Plan. The Sectoral Action Work Plan for urban wastewater discharges will include further detailed information on the targeting of measures to address the 197 water bodies at risk from urban wastewater discharges during the third-cycle.	Uisce Éireann	2024
UWW 12	Uisce Éireann will engage with LAWPRO with the data required for their work in compiling the 46 catchment work plans and also trialling the Catchment Management Work Plans template in the 5 pilot catchments.	LAWPRO	2027
UWW 13	Continue to develop and update the distance to target/Gap Analysis as a tool to reflect Uisce Éireann's understanding of future needs, and consequent investment requirements.	Uisce Éireann	Q4 2024 with regular subsequent updates, typically every 2 years
UWW 14	Update the Nutrient Sensitive Areas designations under the Urban Wastewater Treatment Directive.	DHLGH (WAU)	4 year cycle
Urban Runoff 1	LAWPRO in conjunction with DHLGH to develop recommendations for an implementation strategy for nature-based Sustainable Urban Drainage Systems on a national scale.	DHLGH (WAU)	Q4 2021

Ref	Action	Owner	Timescale
Urban Runoff 2	DHLGH to provide interim guidance documentation to the Local and Planning Authorities on measures to be implemented to support the delivery of a greater focus on nature-based solutions in advance of a national implementation strategy.	DHLGH (WAU)	Delivered Q4 2021
Urban Runoff 3	Develop a National Implementation Strategy for Nature-based Sustainable Urban Drainage Systems on a national scale.	DHLGH (WAU)	2027
Urban Runoff 4	DHLGH to establish a pilot project to investigate solutions to urban runoff using Nature-based Solutions.	Dublin City Council & Cork County Council	2027
Urban Runoff 5	Additional resources will be provided to LAWPRO to provide specialist support to local authorities in adopting international best practice on nature-based surface water management within planning and infrastructure project delivery.	CCMA	Q4 2023
Urban Runoff 6	The DHLGH will work with NIEA to seek Peace Plus funding projects, which will trial Nature-based Solution measures and sustainable technologies.	DHLGH and NIEA	2027
Urban Runoff 7	Review of outcomes of the Dublin Urban Rivers Life project.	DHLGH (WAU)	2026
Urban Runoff 8	Oversee the preparation of integrated urban drainage management plans.	Uisce Éireann	2027
Domestic WW 1	DHLGH will continue to promote and monitor the uptake of the new grant schemes to ensure adequate numbers of people are availing of this measure. A research project will be initiated under the ESRI Research Programme on behaviours and attitudes to assess the level of uptake, impediments to uptake and to make recommendations for improving uptake.	DHLGH (Rural Water)	2024
Domestic WW 2	A review of the National Inspection Plan (NIP) 2018- 2021 was completed, with the outcome informing the next NIP for the period 2022-2027. An objective of these plans is to prioritise inspections to areas of greatest environmental and public health risk and secure upgrading works where required.	EPA	Q4 2021
Domestic WW 3	Local Authorities to engage with householders to improve general awareness of septic tank maintenance requirements, and to address any failing septic tanks.	EPA and LA	Ongoing
Domestic WW 4	Local Authorities to complete 5,800 inspections between 2022 and 2026 under the National Inspection Programme.	EPA and LA	2026
Domestic WW 5	The Department of Housing, Local Government and Heritage to issue a policy direction to Local Authorities regarding Advisory Notices and Local Authorities to enforce advisory notices under the National Inspection Plan.	DHLGH (Rural Water)	Ongoing
Domestic WW 6	DHLGH to consider the outcomes of the research project into the application of zero discharge nature-based solutions and their applicability or not within Ireland's climatic conditions.	TCD / Leitrim County Council	Q2 2025

Ref	Action	Owner	Timescale
Domestic WW 7	Review the outcomes of the pilot projects under the first multi-annual Developer-Provided Water Services Infrastructure Resolution Programme to inform future policy considerations on resolving sub-standard developer provided infrastructure with sustainable solutions.	DHLGH (Rural Water)	Q3 2022
Unknown 1	The Local Authority Waters Programme (LAWPRO) will conduct assessments of water bodies in Priority Areas for Action where the pressures are unknown to identify the specific issues and actions that are required to protect or restore water quality as necessary.	LAWPRO	Q4 2027
Unknown 2	Each local authority supported by LAWPRO will conduct assessments of other water bodies where the pressures are unknown (which are not within priority areas for action) to identify the specific issues and actions that are required to protect or restore water quality as necessary.	Local Authorities	Q4 2027
Unknown 3	The Local Authority Services National Training Group (LASNTG) will provide appropriate training programmes including on Catchment assessment, Integrated Catchment Management, and farm inspections for the staff of local authorities and all implementing bodies.	LAWPRO	Ongoing
Other 1	DHLGH will prepare a proposal for enacting abstraction regulations.	DHLGH	Q2 2024
Other 2	The EPA, as competent authority will work with stakeholders to identify mitigation measures for abstractions determined to be significant pressures, and through the abstraction licensing process, require the implementation of relevant mitigation measures.	EPA (Regulator) and Uisce Éireann and/or Asset Owner where appropriate	Ongoing
Other 3	The need for exemptions will be reviewed as the abstraction licensing process is rolled out.	DHLGH (WAU)	Ongoing
Peat 1	Measures set out in the National Peatlands Strategy to be updated into a new Implementation Plan by NPWS.	NPWS	Q1 2023
Peat 2	In support of the Catchment Management Work Plans, the NPWS will publish a Sectoral Action Work Plan. Measures set out in the National Peatlands Strategy to be updated into the Sectoral Action Work Plan by NPWS.	NPWS	2024
Peat 3	Continuation and expansion of NPWS national programme of peatland restoration on SAC and NHA raised bogs, blanket bogs and fens.	NPWS	Ongoing
Peat 4	Bord na Móna to oversee the EU LIFE Integrated Project "Peatlands and People".	Bord na Móna	2021-2028
Peat 5	NPWS and Geological Survey Ireland to fund an investigation into the causes of blanket bog landslides that occurred across Ireland in 2020, and the vulnerability of other at-risk areas to future failures.	NPWS & GSI	By Q3 2022
Peat 6	DAFM to oversee the implementation of sustainable management practices developed through the Blackstairs Mountains and Wicklow Mountains EIP projects within the ACRES East/South East Cooperation Project zone.	DAFM	Ongoing

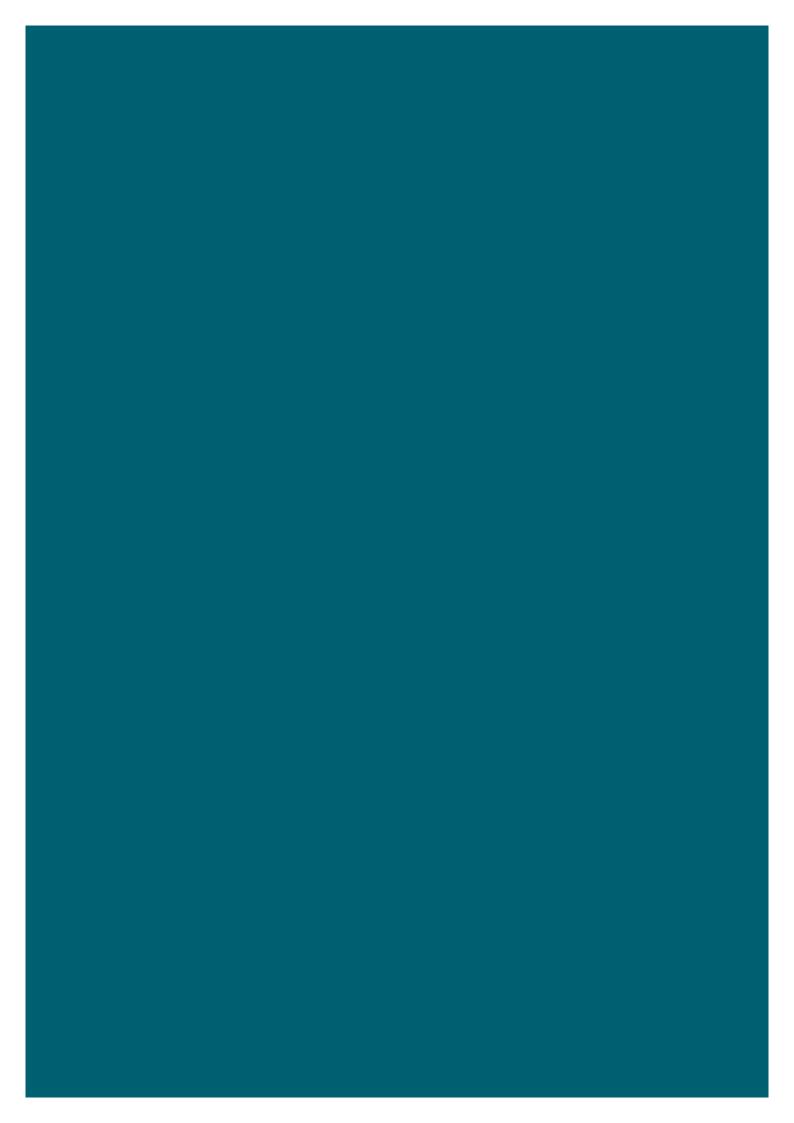
Ref	Action	Owner	Timescale
Peat 7	Continuation of the Bord na Móna operated Enhanced Decommissioning, Rehabilitation and Restoration Scheme (EDRRS) to H2 2026.	DECC / Bord na Móna	Q4 2026
Peat 8	Continuation of NPWS-led EU LIFE IP Wild Atlantic Nature programme, including the development of complementary projects such as enhancing restoration capacity through building projects such as Natura Communities, retrofitting programmes to reduce turf cutting in the Natura 2000 network of sites and development of a nature restoration programme compatible with Ireland's CAP Strategic Plan.	NPWS	2021-2029
IMQ 1	DHLGH will examine opportunities to further support businesses in taking on a water stewardship approach in their operations.	DHLGH (WAU)	Ongoing
Action 5.2 repeat	The National Technical Implementation Group will identify the issues preventing water quality objectives from being achieved and will identify any further evidence, legislative, policy or implementation gaps that need to be addressed.	EPA	Ongoing
Drinking Water 1	Development of Drinking Water Source Protection Framework and Guidelines to meet the requirements of the recast Drinking Water Directive, and incorporating the application of abstraction controls under the implementing regulations for the Water Environment (Abstractions and Associated Impoundments) Act 2022.	DHLGH (WAU)	2024
Drinking Water 2	A Sectoral Action Work Plan for Drinking Water will include measures and plans to address the source protection actions proposed under the Drinking Water Regulations. It will be coordinated by the DW Expert Group with support from Uisce Éireann, NFGWS and LAs.	DW Expert Group (DHLGH)	2024
Invasive 1	Finalise legislation for the implementation of the EU Invasive Alien Species (IAS) Regulation.	NPWS	2024
Invasive 2	Implementation of existing management plans and Priority Pathway Action Plans (PPAP) for priority invasive species, and drafting of a new PPAP for Soils and Spoil.	NPWS	Q2 2023
Invasive 3	In support of the Catchment Management Work Plans, the NPWS will publish a Sectoral Action Work Plan, which will include for the implementation of existing management plans and Priority Pathway Action Plans (PPAP) for priority invasive species, and drafting of a new PPAP for Soils and Spoil.	NPWS	2024
Invasive 4	Complete negotiations on the recruitment of additional Biodiversity Officers.	The Heritage Council	Q3 2023
Invasive 5	Include action on Invasive Alien Species (IAS) as a priority under Local Authority Biodiversity Grant Scheme. The Local Biodiversity Action Fund provides Local Authorities with funding to target actions in the National Biodiversity Action Plan. Projects that include the mapping and appropriate treatment of IAS are listed as priorities within this funding stream.	NPWS	Ongoing
Invasive 6	Develop a National Management Plan for Invasive Species, and bring to public consultation in early 2024.	NPWS	Q4 2024

Ref	Action	Owner	Timescale
HazChem 1	DHLGH will amend the EQS Regulations to take account of the assessment of River Basin Specific Pollutants (RBSPs) by the National Aquatic Environmental Chemistry Group (NAECG).	DHLGH (WAU) & EPA	Q4 2024
HazChem 2	DHLGH and EPA will input into the recently commenced EU work to revise the list of Priority Substances and Priority Hazardous Substances. This will include liaison with the EU Commission in relation to the proposed amendments to the EQS Directive.	DHLGH & EPA	2024
HazChem 3	Teagasc, ASSAP and DAFM, with support from LAWPRO, will implement specific actions in high risk catchments to protect water quality from toxic impacts arising from the handling, use and disposal of sheep dip.	DAFM / LAWPRO	ТВС
Aqua 1	Review of consents causing impacts: DAFM will conduct a periodic review, and where necessary, update of controls contained in aquaculture consents.	DAFM	Q4 2024
Aqua 2	Enhanced integration of WFD into Aquaculture Consents: DAFM to enhance links between the aquaculture authorisation and the objectives of the Water Framework Directive.	DAFM / DHLGH	Q4 2024
Aqua 3	Online Aquaculture licensing: To encourage the active involvement of all interested parties DAFM is to launch an online mapping viewer of licensed aquaculture sites in Ireland including access to licence and licence application information.	DAFM	2024
Aqua 4	Enhanced Protection for Designated Shellfish Production Areas: DHLGH will examine the need for amendments to legislation and whether a new management framework for shellfish waters in Ireland is needed.	DHLGH (WAU)	2026
Aqua 5	Complete the National Strategic Plan for Sustainable Aquaculture, including water quality measures.	BIM	Q1 2022
Land-Use 1	Finalise guidelines for the incorporation of the Water Framework Directive into the planning system and rollout of training on the new water and planning guidelines to practitioners.	DHLGH (WAU/EUIPR)	2025
Land-Use 2	Legislative provision to give effect to the new Water and Planning Guidance to be progressed.	DHLGH (EUIPR)	TBC
Coastal Action 1	Marine Protected Areas (MPAs) which are within the areas covered by the WFD (up to one nautical mile off shore) will be incorporated into the registered of protected areas under the WFD, once the legislation is enacted.	DHLGH	2024 - 2030
Action 6.1	LAWPRO will oversee the development of the template for the 46 Catchment Management Work Plans by Q2 2024.	LAWPRO	Q4 2024
Action 6.2	Implementing Bodies to engage with LAWPRO with the data required for their work in compiling the 46 Catchment Work Plans and also trialling the CMWP template in the 5 pilot catchments.	LAWPRO	Q3 2024
Action 6.3	DHLGH will establish a Programme Delivery Office to oversee and co-ordinate the many relevant bodies that manage, implement and enforce legislation and policies relevant to the Water Framework Directive.	DHLGH (WAU)	Ongoing

Ref	Action	Owner	Timescale
Action 6.4	DHLGH will review the roles and responsibilities of implementation bodies, shifting emphasis from the sharing of information and the provision of updates to a more focused provision of high-level policy direction, monitoring implementation of the Plan, and project management.	DHLGH (WAU)	Q3 2023
Action 6.5	An enhanced programme of formal and scheduled monitoring and reporting of progress in respect of the implementation of the RBMP will be put in place.	DHLGH (WAU)	Q3 2024
Action 6.6	National Oversight and Audit Commission (NOAC) will include appropriate water quality metrics in Key Performance Indicators for local authorities during the next review of indicators.	DHLGH (WAU)	Q4 2023
Action 6.7	Provide a continued emphasis on the full range of the regulatory mix, from awareness and education, through to norms and enforcement, with a review undertaken to ensure there is an appropriate balance in the third-cycle to ensure a greater emphasis on compliance assurance activity.	DHLGH (WAU)	Ongoing
Action 6.8	Specific capacity building programmes of work to be put in place to encourage the transfer of learning and knowledge.	LAWPRO	Ongoing
Action 6.9	Ensure further activation, development, and support of local level initiatives (rivers trusts, catchment partnerships) in support of the delivery of the RBMP.	LAWPRO	Q4 2023
Action 6.10	The Water Forum to identify and advise the Water Policy Advisory Committee (WPAC) and Minister on the optimum level of engagement with the implementation bodies, agencies and structures for the WFD to support implementation of the third-cycle, in accordance with its functions under Article 26 of the 2017 Water Services Act (Number 29).	DHLGH (WAU)	Ongoing
Action 6.11	Building on the excellent work already undertaken by the EPA, LAWPRO and various other bodies, DHLGH will provide further supports for the development of a National Water focused Citizen Science Strategy for the monitoring of water quality.	Citizen Science Coordination Committee / LAWPRO	Ongoing
Action 6.12	LAWPRO to evaluate the outcome of the Resilience Project for Rivers Trusts to inform future community engagement initiatives, including on citizen science.	LAWPRO	Q2 2023
Action 6.13	LAWPRO to examine ways in which further support can be provided for the formation and capacity building of local forums to help identify and implement measures.	LAWPRO	Q3 2024
Action 6.14	LAWPRO and DHLGH to review the operation of the Community Water Development Fund with a view to strengthening it.	DHLGH (WAU)	Ongoing
Action 6.15	LAWPRO will facilitate public participation in the development of the Catchment Management Work Plans through workshops for the 5 pilot catchments. This will inform the development and implementation of a national approach to public participation to deliver outcomes for water, climate and nature.	LAWPRO	Q2 2024

Ref	Action	Owner	Timescale
Action 6.16	The public participation pilots will provide learnings (which will then be implemented) on how agencies, local authorities, communities and landowners can work together to support action planning and project co-creation for a combined top-down bottom-up approach to the development and implementation of the 46 Catchment Management Work Plans.	LAWPRO	Q4 2024
Action 6.17	A review of the wider local authority structures will be progressed to inform future needs in the water area and to identify the appropriate level of resources and involvement required from the sector to meet WFD objectives.	CCMA	Q4 2023
Action 6.18	The Research Programme on Water will be continued into the third-cycle with an emphasis on water governance, economics and behavioural aspects of water protection.	DHLGH (WAU)	Ongoing
Action 6.19	Review to be undertaken of the Local Authority Waters Programme to identify necessary resources for the third-cycle and beyond to deliver the commitments under the WFD and future RBMPs.	LAWPRO	Q3 2021
Action 6.20	Review the outcomes of the IPA Governance Research programme on Ireland's water governance arrangements and implement their recommendations where appropriate.	DHLGH (WAU)	Ongoing
Action 6.21	Implement the recommendations of the External Expert assessment of the Agricultural Sustainability Support and Advisory Programme (ASSAP) during the third-cycle.	Teagasc	Ongoing
Action 6.22	Water protection provisions in relevant sectoral policies will be strengthened, where necessary. These include; water services policy, spatial planning policy, agricultural policy and aquaculture policy.	DHLGH (WAU)	Ongoing
Action 6.23	Measures that will deliver multiple policy objectives (e.g. water, biodiversity and climate adaptation/mitigation) will be identified and embedded into sectoral policies.	DHLGH (WAU)	Ongoing
Action 7.1	Create opportunities for young people to engage, upskill and use their voice for sustainable development, through youth-led and youth-focused groups, organisations and networks.	DHLGH / DFHERIS / DECC	Ongoing
Econ 1	The DHLGH to undertake an evaluation including a stakeholder consultation of the appropriateness of water reuse for agricultural purposes within Ireland and report findings in the next River Basin Management Plan.	DHLGH (WAU)	2026/2027
Econ 2	The cost effectiveness of new supplementary measures, such as the Water EIP and Barriers Mitigation Programme, will be analysed as soon as possible after they have been commenced and once there is sufficient progress made. The programmes will be modified, if and where necessary, to ensure that they are delivering value for money to the State.	DHLGH (WAU)	End of 2027

Ref	Action	Owner	Timescale
Econ 3	The economic regulator of water services (the CRU) will continue to assess and approve Uisce Éireann's costs and investment plans. This will include an assessment of Uisce Éireann's investment decisions to ensure effectiveness, efficiency and value-for-money in Uisce Éireann's expenditure. The CRU will continue to monitor and report annually on Uisce Éireann's delivery and performance in that context.	CRU	2025- 2029
Econ 4	Uisce Éireann to implement the National Water Resources Plan and associated regional plans and to maintain national water and wastewater capacity registers to ensure security of supply and sufficient capacity in drinking and wastewater networks to inform decisions on balanced regional development in line with the National Planning Framework.	Uisce Éireann	2023
Econ 5	When approved, Uisce Éireann to implement domestic excess use and non-domestic charging.	Uisce Éireann	TBD
Econ 6	The Minister will publish a report based on an economic assessment on the potential for a natural capital / freshwater ecosystem services approach to protecting water resources, including the need for new economic instruments and protection of freshwater and marine ecosystem services.	DHLGH (WAU)	End of 2027
Econ 7	The Minister will maintain a funding stream to upgrade and take in charge towns and villages without wastewater networks to improve the wastewater needs of rural villages that are outside of the current Uisce Éireann collection network.	DHLGH (Rural Water)	Ongoing
Econ 8	Uisce Éireann will update the current Water Services Strategic Plan to cover the 25 year period of water services management up to 2050.	Uisce Éireann	Q2 2024
Econ 9	Finalise the review of rural water services and produce a rural water services strategic plan including a national rural water resources plan for the rural water sector.	DHLGH (Rural Water)	Q3 2024
Econ 10	Implement the policy as set out in "Irish Water – Towards a national, publicly-owned, regulated, water services utility" so that Uisce Éireann has integrated the day to day operation and delivery of water services into its own organisational structure, in place of the current Service Level Agreements, on a phased basis.	Uisce Éireann	Ongoing
Econ 11	Where additional targeted measures are identified as necessary to address gaps in WFD environmental objectives for cycle 3, as part of the mid-term progress review of the Programme of Measures in 2025, DHLGH will oversee the preparation of project proposals for funding under the new Infrastructure, Climate and Nature Fund.	DHLGH (WAU)	Q1 2026



www.gov.ie/RBMP

