



Submission on the Public
Consultation of the River Basin
Management Plan 2022-2027

30th March 2022

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List of Abbreviations

ACP	Agricultural Catchments Programme
ASSAP	Agricultural Sustainability Support and Advisory Programme
CAP	Common Agricultural Policy
CARO	Climate Action Regional Offices
DAFM	Department of Agriculture, Food and the Marine
DAS	Dumping At Sea
DWWTS	Domestic Wastewater Treatment Systems
DHLGH	Department of Housing, Local Government and Heritage
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESRI	Economic and Social Research Institute
EU	European Union
FILLM	Framework for Integrated Land and Landscape Management
GAP	Good Agricultural Practice
GHG	Greenhouse Gases
HMWB	Heavily Modified Water Bodies
ICW	Integrated Constructed Wetlands
IAS	Invasive Alien Species
IFI	Inland Fisheries Ireland
IPA	Institute of Public Administration
IPCC	Intergovernmental Panel on Climate Change
IW	Irish Water
KPIs	Key Performance Indicators
LAESNTG	Local Authority Environmental Services National Training Group
LAWPRO	Local Authority Waters Program
MSFD	Marine Strategy Framework Directive
NBS	Nature-based Solutions
NCMC	National Co-ordination and Management Committee
NHA	Natural Heritage Areas
NIP	National Inspection Plan
NPWS	National Parks and Wildlife
NTIG	national Technical Implementation Group
NWRM	Nature-Based Water Retention Measures
OCED	Organisation for Economic Co-operation and Development
OPW	Office of Public Works
PAA	Priority Areas for Action
PIP	Pollution Impact Potential
PPN	Public Participation Networks
RBMP	River Basin Management Plan
RMCEI	Recommended Minimum Criteria for Environmental Inspections
SAC	Special Areas of Conservation
SWMI	Significant Water Management Issues
TOR	Terms of Reference
UN	United Nations
WFD	Water Framework Directive (2000/60/EC)
WPAC	Water Policy Advisory Committee

Executive Summary

The River Basin Management Plan (RBMP) is an essential national policy setting out the measures necessary to protect and restore the quality of Ireland's waters. The overall aim of the RBMP is to develop and implement measures to ensure Ireland meets its legal requirements under the European Water Framework Directive (WFD). The Water Forum welcomes the opportunity to respond to the public consultation of the draft River Basin Management Plan (RBMP) 2022 – 2027.

An outcomes-based approach

One of the most significant recommendations made by the Forum for the third RBMP is the need for an outcomes-based approach with targeted measures, metrics and key performance indicators to be included for every water body. Under the Water Framework Directive, each water body in Ireland has an associated WFD objective to achieve by 2027, therefore details are required of targeted measures to either protect water bodies from deterioration, or to restore water bodies to at least good status. Expected timelines for achieving their WFD objective, along with interim milestones will also be essential to ensure progress of the third cycle can be tracked. This outcomes-based approach would ensure effective and efficient planning and implementation of the plan, along with transparent monitoring of progress by the Department, agencies and key stakeholders. This outcomes-based approach will target and strengthen efforts to reduce each of the pressures outlined in the RBMP.

Governance

In relation to governance of the third RBMP, the Forum recommends there should be a full-time project management secretariat, in line with recommendations made by the Institution of Public Administration. This would ensure successful implementation and monitoring of the Plan and support the required engagement and cooperation between the different tiers of governance. It would also ensure there is continuous engagement within and between government departments to ensure policy coherence and alignment with national and EU policies. The Forum calls for increased transparency and accountability of the implementation bodies of the RBMP and recommends for structured engagement between all tiers. Finally, there should also be opportunities for engagement between the Forum and all tiers of governance to allow for stakeholder input into the implementation of the RBMP. The Forum recommends an urgent commitment to complete the proposed interdepartmental group to develop a comprehensive financing strategy to support the implementation of measures to deliver on the ambitious Water, Climate and Biodiversity objectives. Adequate resourcing will be essential to the successful implementation and progress of the third RBMP.

Public Participation

The overall level of meaningful public and stakeholder engagement in the implementation of the WFD needs to radically improve. A new national approach to public participation needs to be developed that includes a vision and action plan for meaningful public engagement in the 46 catchment areas. The Forum recommends that a phased approach should be taken in a number of pilot catchments to test various approaches, to improving public engagement, contributing to the development of a new national approach. These pilots should take place very early in the 3rd cycle so that more effective and more meaningful public engagement processes are in place for the remainder of the 3rd cycle. A framework will have to be developed to support the development and implementation of public participation dialogues, community action planning and project co-creation within and between Local Authority areas and within and between state agencies with responsibilities for water, climate and biodiversity. There needs to be consistent, ongoing and informed discussion at local level that

facilitates the co-creation of solutions and action (agency, community and individual) to protect our natural resources and build truly resilient communities across Ireland.

Pressures

In relation to individual pressures affecting WFD status of water bodies, the Forum emphasises the need for alignment of policies and strategies from different sectors with the objectives of WFD. Furthermore, the Forum recommends increased accountability of different Government departments and state bodies for reducing their key pressures and highlights the need for WFD assessments for many sectoral activities impacting the aquatic environment. Training in WFD and catchment management is recommended for staff within Government departments, state bodies and agencies to improve licence application processes, along with targeting of inspections, for better alignment with the WFD 'protect' or 'restore' objectives. Emphasis will also need to be placed on building relationships with landowners (farmers, peatlands, forestry), facilitating training and knowledge exchange to ensure they can take ownership over the protection of water, climate and nature.

Introduction to the Water Forum

The Water Forum (An Fóram Uisce) was established in June 2018 in accordance with the provisions of Part 5 of the Water Services Act 2017. The Water Forum is the national statutory body representative of all stakeholders with an interest in the quality of Ireland's water bodies. The Water Forum consists of 25 members including representatives from a wide range of organisations with direct connections to issues relating to water quality and public water consumers. Approximately 50 different organisations were involved in the nomination of members.

The role of the Forum is that of a strong independent stakeholder body contributing to water policy, which supports public and stakeholder engagement on all matters relevant to water. One of the strategic themes of the Forum is reviewing and advising on the implementation of Ireland's River Basin Management Plan, which sets out Ireland's requirements and objectives to meet the EU Water Framework Directive.

1. Introduction

We are facing into an environmental crisis where climate change has emerged as an overwhelming global threat. According to the UN Sixth IPCC report¹, climate change is intensifying the water cycle and affecting precipitation patterns with more intense rainfall events resulting in flooding or extended droughts. Heavier rainfall and flooding can overwhelm sewage systems while also washing more soil and contaminants into our waters and increasing the risk from floods and pollution. The ability to produce food relies on the water, soils and pollination provided by a healthy natural world, and the IPCC report indicates that protection of wild places and wildlife is fundamental to coping with the climate crisis. We live in an interconnected world. All the components of our natural environment – air, water, ecosystems, soils, rocks, land and landscapes - are interrelated and interlinked. Therefore, management of these components must be undertaken in a cohesive, holistic and integrated manner². with water, climate and environmental policies properly coordinated and aligned to be effective, despite being carried out across different areas and levels of government, and with the participation of many stakeholders.

The River Basin Management Plan (RBMP) is an essential national policy setting out the measures necessary to protect and restore the quality of Ireland’s waters. The overall aim of the RBMP is to develop and implement measures to ensure Ireland meets its legal requirements under the European Water Framework Directive (WFD), whereby all waters (rivers, lakes, groundwater, estuaries, coastal water, canals and reservoirs) are protected and that measures are put in place to ensure quality of these waters is restored to at least ‘good’ status or good potential (with some narrow exceptions) by 2027, at the latest. While the RBMP has a clear focus on protecting and restoring water bodies, we can no longer work in siloes to tackle the water, climate and nature crises separately. The Forum is supportive that one of the themes for the third RBMP is to capture multiple benefits to also contribute to climate change mitigation and to enhancing biodiversity, as many of the necessary measures required for one component of the environment will have co-benefits for other components due to the connectedness of nature. There is an opportunity, and necessity, to adopt a systems approach to environmental management, where Government departments, state bodies, agencies, non-government organisations and communities will have to work together in an integrated manner to deliver effective and efficient outcomes for the environment and Irish society. The RBMP should therefore be aligned with key national and international environmental policies, such as Ireland’s Climate Action Plan, coordinating efforts to maximise the capacity and impact of these key legislations.

In 2020 the Water Forum adopted the Framework for Integrated Land and Landscape Management (FILLM)² as the overarching framework for not only catchment management, but also environmental management. The FILLM requires multidisciplinary and multi-organisational approaches, as well as environmental policy coherence, integration and implementation. The Forum welcomes the inclusion of the FILLM approach in the draft RBMP.

¹ [AR6 Climate Change 2021: The Physical Science Basis — IPCC](#)

² [The Water Forum, A Framework for Integrated Land and Landscape Management](#)

2. Scope of the submission

The Water Forum welcomes the opportunity to respond to the public consultation of the draft River Basin Management Plan (RBMP) 2022 – 2027. Members of the Forum had extensive dialogue and engagement during the development of this submission, bringing a range of interests and different perspectives together. Dialogue was not only based on the array of knowledge and expertise between the Forum members, it was also supported by scientific research, including that commissioned by the Water Forum. Enhanced dialogue between science and policy between the range of stakeholders represented on the Forum is a key attribute to the Forum's contribution to this RBMP.

The Forum acknowledges the engagement between the Water Advisory Unit from the Department of Housing, Local Government and Heritage (DHLGH) and the Forum members during the six-month consultation of the draft Plan. The Forum is also appreciative of the engagement with other agencies during these briefings, including the Environmental Protection Agency (EPA), the Local Authorities Waters Programme (LAWPRO), the Department of Agriculture Food and Marine (DAFM), the Agricultural Sustainability Support and Advisory Programme (ASSAP), the Agricultural Catchments Programme (ACP), Irish Water, the Forestry Service, Coillte, the Blue Dot Programme and the Waters of LIFE Programme.

The Forum supports the proposed themes for the third cycle (Pg. 22 of the draft RBMP) and many of the key recommendations presented in this submission aim to strengthen them;

1. A high level of ambition encompassing all water bodies with clear strategies for both protection and restoration of water bodies
2. Integrated Catchment Planning where catchment plans will be put in place for each of the 46 hydrometric catchments as sub-plans to the national Plan
3. Capture multiple benefits for water, nature, air quality and climate change
4. An increased level of coordination and collaborative work by all implementing bodies at national, regional and catchment levels.

The Forum have placed specific attention to the following aspects of the draft RBMP;

- An outcomes-based approach for water bodies
- Enhanced governance of the third RBMP
- Public participation during the implementation of the RBMP and the 46 catchment plans
- Key recommendations for individual pressures

The following submission is an agreed position of the 25 Members of the Water Forum, which is a considerable achievement considering the range of stakeholders represented on the Forum.

3. An outcomes-based approach with timelines.

3.1 Using water body outcomes as the focus

Water bodies are the management units for the WFD. The WFD requires that specific objectives are met for each water body by 2027 unless an alternative objective can be justified. The Forum therefore recommends that each water body is considered separately with an associated RBMP outcome and that the means and timing of achieving these outcomes are clearly stated. In this manner, targets, metrics and key performance indicators (KPIs) should be developed. Once the WFD objective has been defined for each water body, they can then be categorised into either 'Restore' or 'Protect' before developing the associated measures and actions required. A framework for considering each water body is presented in Figure 1;

- For 'Protect' water bodies, the measures/actions required to maintain the existing status should be set out, together with the dates by which the new measures/actions, if needed, will be in place.
- For 'Restore' water bodies, the measures/actions required should be set out, together with dates of establishment (where there are new measures/actions), with the anticipated dates for achieving the WFD objective and any intermediate dates that measure improvement.
- For 'Protect & ongoing assessment' water bodies, where the status category is unknown and the risk category is *Review*, that the work required to determine whether it is a 'Protect' or 'Restore' water bodies should be outlined with timelines.

While the draft RBMP have acknowledged the need for 'right measure right place', this will need to be directly applied to the development of targeted mitigation / protection measures for every water body. These targeted measures should be developed with a focus on the impact for every water body, i.e. protect or restore. The Forum recommends there is transparency in the development of these targeted measures and the decision-making around how they can be implemented. The draft RBMP lacks details about how many At Risk waterbodies will be included in the proposed Priority Areas for Action. The Forum is of the view that targeted restoration measures will be required in the 1603 At Risk water bodies, along with the resources for their implementation if we are to see significant improvements in the next cycle. To support the development of targeted measures, the Forum recommends that training on EPA Pollution Impact Potential (PIP) maps³ should be provided by the EPA to all implementation bodies (state bodies, agencies) of the RBMP, which should outline the basis and value of EPA PIP maps as a guidance tool to support decision-making and development of targeted measures.

³ [Water Quality and Agriculture: Pollution Impact Potential Maps – A tool to guide resources into areas for further investigation - Catchments.ie - Catchments.ie](#)

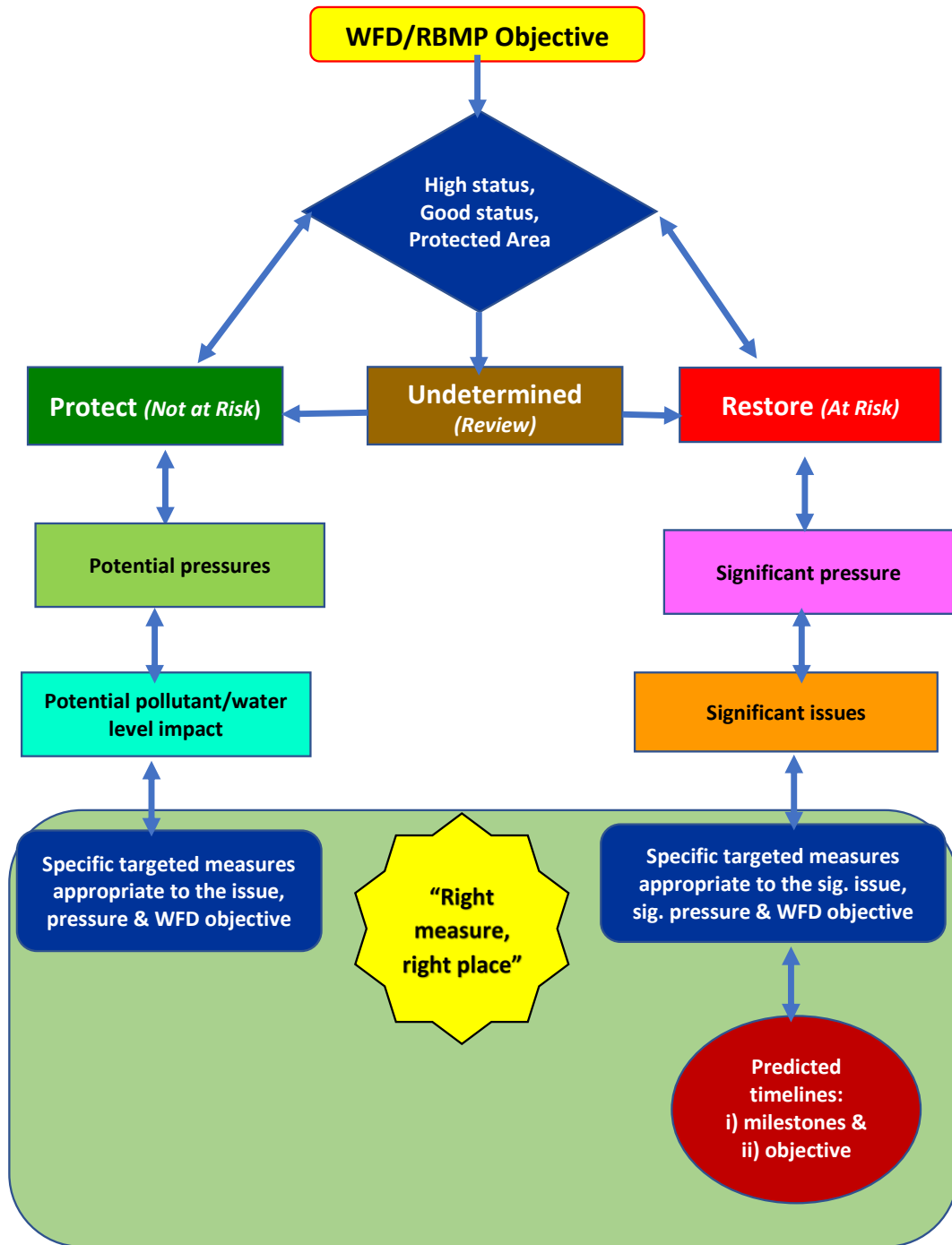


Figure 1: A possible framework for considering the measures/actions required to achieve the WFD objectives for each water body and the timelines for achieving the WFD objectives.

BOX 1

The Forum recommends that a table is generated where information for each of the 4,842 water bodies are outlined under headings, such as the following:

- ◆ Water body number/name
- ◆ Water body objective
- ◆ Current status situation
- ◆ Current risk situation
- ◆ Resulting measures/actions type required – Restore, Protect, Protect & ongoing assessment
- ◆ Significant pressure or potential pressure
- ◆ Significant issue or potential pollutant or water level impact
- ◆ Targeted mitigation or protection measures/actions
- ◆ Timelines, including milestones for Restore water bodies that indicate improvements and the date the objective is set to be met
- ◆ Justification for any water body that is not expected to achieve its' WFD objective by 2027

The Forum recommends that specific tables for relevant water bodies should be included in the proposed 46 Catchment Plans.

3.2 Estimating timelines for reaching WFD objectives

Estimating the time delay for improvement for water bodies (where restoration is required) and expected timelines to achieve their WFD objective is essential to ensure transparency and accountability for the 3rd cycle of the RBMP. It will also highlight any key dependencies for their success, such as gaps in policies and insufficient resources. It can therefore be used as a tool for the request of additional resources or identifying where trade-offs may be necessary.

In general terms, there are three groups of components influencing the time delays for improvement: i) policy factors (policy development and implementation); ii) time lag factors associated with the pressures, the land and landscape, and the water environment; and iii) measurement factors. For further information, see Briefing Note 'Achieving Water Framework Directive Objectives – The Issue of Time Delays' (Daly, 2020) on the Forum website⁴. This Briefing Note provides a recommended framework and approach which, in the absence of any alternative, can be used to provide the information in the requested table.

⁴ [Achieving WFD objectives: The issue of time delays - An Foram Uisce \(thewaterforum.ie\)](https://www.thewaterforum.ie/)

The length of time for improvement includes six components, which are illustrated in Figure 2:

1. Satisfactory policies in place and, if necessary, further policy development.
2. Policy implementation/adoption of measures.
3. Time lag for reduction in source load.
4. Time lag due to relevant pathway elements:
 - Transport time along pathway.
 - Attenuation along pathway.
 - Pathway interception.
5. Receptor (in-stream) time lag:
 - Particulate phosphorus.
 - Biological response to pollutants.
6. Measurement component.

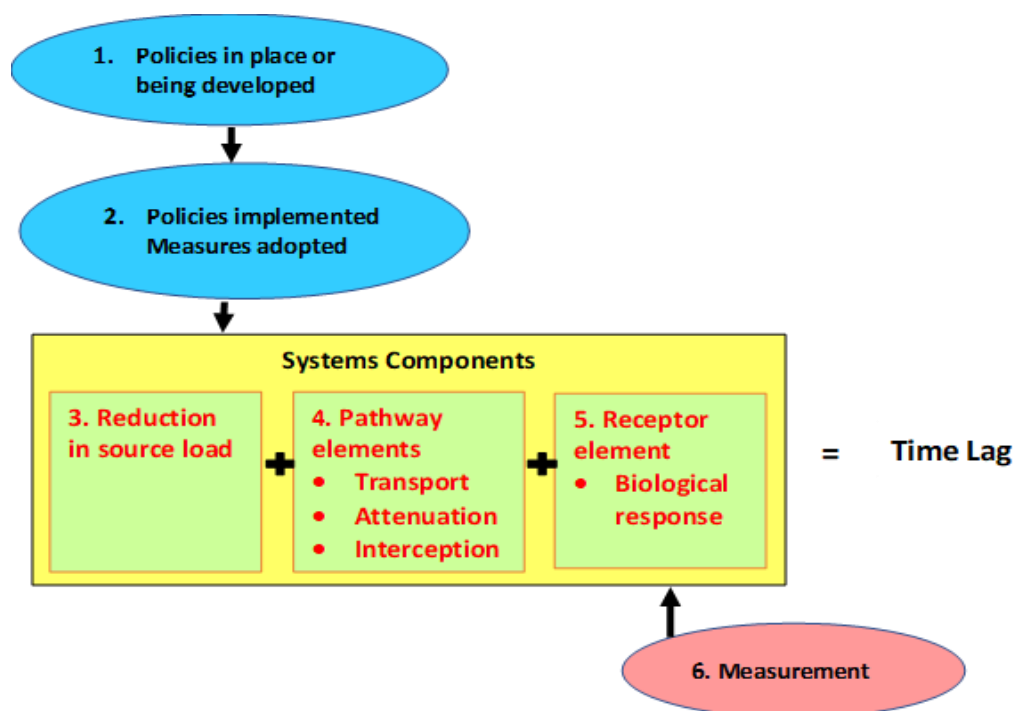


Figure 2: Schematic showing the major elements of the potential time delay for water quality improvement, including policy development and implementation component, catchment time lag components and the time needed to undertake monitoring.

While the Forum is of the view that there are uncontrollable time lags within a catchment (e.g. improvements in water quality after removal of significant issue, biological response), any delays due to gaps in policy or inadequate implementation of existing policies, are not acceptable as justification for not expecting to meet WFD targets.

Along with inclusion in the 46 Catchment Plans, the proposed table (Box 1) should be made publicly available through catchments.ie. Water quality and pressures information should be made available in graphical and map-based formats, allowing active catchment groups and stakeholders to have up to date information on water bodies and catchments. The Forum would welcome future engagement with Department and the EPA to address optimal accessibility and transparency of water body and pressures information. For example, the Forum is of the view that access to the WFD App should be

made available to all key stakeholders (including the Executive of the Forum and Forum members) to increase transparency in the data available and allow full stakeholder engagement in the process.

The Forum considers that this focus on targets and associated metrics for every water body will help ensure effective and efficient planning and implementation of the plan and will allow for transparent monitoring of progress by the Department, agencies and key stakeholders. The proposed outcomes-based approach would therefore ensure transparency and accountability for the 3rd cycle RBMP, along with realistic expectations of what can be achieved.

Key Recommendations – An Outcomes-Based Approach

1. The Forum recommends an increased focus on the planned and projected WFD outcomes for the next cycle of the RBMP, where each water body is considered separately with an associated RBMP outcome and that the means and timing of achieving these outcomes are clearly stated.
2. The Forum recommends that the RBMP and the 46 Catchment Plans include targets, metrics and key performance indicators (KPIs) for each water body, grouped by sub-catchment (as proposed on Box 1).
3. The ‘right measure right place’ objective will need to be directly applied to the development of targeted protection / mitigation measures for every water body, focusing on the impact we want to have, i.e. protect or restore. Furthermore, there should be transparency in the development of these targeted measures and the decision-making around how they can be implemented.
4. To support the development and decision making of targeted measures, the Forum recommends that training on EPA PIP maps is provided by the EPA to all implementation bodies of the RBMP, which should outline the basis and value of EPA PIP maps as a guidance tool to support decision-making and development of targeted measures.
5. Along with estimating timelines for water bodies to achieve their WFD objectives, intermediate milestones which can indicate improvements and direction of travel should also be included. The proposed table (Box 1) would ensure transparency and accountability for the 3rd cycle RBMP, along with realistic expectations of what can be achieved. Clarity is also needed where exemptions apply for any water bodies.
6. Along with inclusion in the 46 Catchment Plans, the proposed table (Box 1) should be made publicly available through catchments.ie. Water quality and pressures information should be made available in graphical and map-based formats, allowing active catchment groups and stakeholders to have up to date information on water bodies and catchments.

3.3 Monitoring and evaluation

The Forum is concerned with the lack of detail in the draft plan as to how the 3rd cycle will be monitored and reviewed. The proposed measure for monitoring the RBMP states; *“the Department along with the governance groups (WPAC, NCMC, and NTIG) will continually review the progress in the implementation of the programme of measures and the distance to the 2027 target”*.

In the Forum’s SWMI submission⁵ the need for greater transparency in reporting of progress against RBMP measures and actions was highlighted. The Forum is of the view the process of monitoring the progress of the RBMP should not simply be focused on whether the proposed measures are being implemented (action-based) but should instead be focused on progress for each water body towards meeting the WFD objectives (outcomes-based). The proposed table as outlined in Box 1, would allow for more transparent and effective monitoring of the impact of the proposed measures on each water body.

The Forum recommends that while the proposed measures and actions could be monitored annually to assess implementation, the interim outcomes (such as water quality) for water bodies should be reviewed every two years to ensure we are seeing real progress towards meeting the WFD objectives. Where the estimated timelines for reaching WFD objectives are beyond 2027, intermediate milestones should be outlined, which would allow tracking of progress through the 3rd cycle. The Forum also recommends that there is transparency in the outcomes of these reviews, which should be made available to the public, for example through catchments.ie.

Key Recommendations – Monitoring and Evaluation

1. The Forum recommends that proposed measures and actions of the RBMP should be monitored annually to assess implementation, while the interim outcomes for water bodies (such as water quality) should be reviewed every two years to ensure we are seeing real progress towards meeting the WFD objectives
2. The Forum also recommends that there is transparency in the monitoring and evaluation of the RBMP, with the outcomes of these reviews made available to the public, for example through catchments.ie.

⁵ [Submission-to-DHPLG-on-SWMI-7th-August-2020.pdf \(thewaterforum.ie\)](#)

4. Governance

4.1 Implementation Bodies of the RBMP

Members of the Water Forum participated in a number of engagements around governance of the 3rd cycle, including a briefing with the Department and a workshop with the Institute of Public Administration (IPA) as part of their assessment of water governance in Ireland using the OECD Water Governance Indicator Framework to Review the Implementation of the River Basin Management Plan for Ireland 2018-2021⁶. Members of the Forum had further discussions around the optimum level of engagement between structures during the development of the Forum's Strategic Plan 2022-2027, in line with the Proposed Action of the draft RBMP (Page 56).

The Forum acknowledges that many of the governance structures established during the second cycle are still relatively new. The Forum agrees with a key finding of the IPA research that the structures put in place during the second cycle go a significant way towards achieving the objectives contained in the Water Governance Indicator Framework and are supportive of the IPA recommendation for the need for *“adapting and improving the operation of the existing arrangements”*. The Forum would like to emphasise the need for transparency across all levels of governance of the RBMP; for example in decision making on the RBMP, meetings and progress, monitoring and evaluation, access to data and documentation, which is currently not adequate. Where reviews or evaluations are carried out on various implementing bodies, these should be made publicly available, for example the review of LAWPRO, ASSAP or the upcoming review of Local Authority structures and resources to meet the requirements of the WFD. Furthermore, any planned reviews should be made known to allow stakeholder input into the process. In order to increase transparency and accountability in the different governance structures, the Forum recommends that a table is added to the final RBMP outlining who is represented on each governance body/committee, how often they meet, along with their roles and responsibilities. Furthermore, the Forum recommends there is a common repository for all reports and meeting minutes from the different implementation bodies to increase transparency and opportunities for knowledge sharing between the three tiers.

The Forum have reviewed the Terms of Reference (TOR) for the Water Policy Advisory Committee (WPAC), the National Co-ordination and Management Committee (NCMC) and the Water Forum, and have concerns these structures are not operating as outlined in the TORs. The Forum therefore recommends that a proposed measure should be added to the RBMP to provide oversight on the Governance structures to ensure they are operating as per TORs.

Despite the TORs indicating clear engagement between the Water Forum and WPAC, and also between the Water Forum and the NCMC; there has been little engagement between these structures during the second cycle. The TOR for the Water Forum indicates the Forum will *“submit reports and recommendations to WPAC and the NCMC in relation to national policy in order that these be considered by the relevant Department(s) with responses conveyed back to the Forum including, if possible, attendances at a meeting of the Forum”*. In order to achieve this engagement, the Forum recommends that structured engagement should be established between the Forum and WPAC so members receive updates on progress and priority work areas with WPAC, and also share stakeholders' perspectives and key issues raised by Forum members with WPAC to allow input into policy development. Furthermore, the TOR for the NCMC, indicates that the NCMC *“will report to the WPAC, and its work will be informed by, amongst other things, the work of the National Water Forum”*,

⁶ [EPA Report 373.pdf \(epa.ie\) Using an Experimental Governance Lens to Examine Governance of the RBMP](#)

yet there is no engagement between the Forum and the NCMC. The Forum recommends that structured engagement between the Forum and the NCMC is established to ensure alignment between the work of the Forum and the NCMC. The Forum Chair and Executive will engage with the Water Advisory Section of the DHLGH to agree the optimum level of engagement, to allow input into the implementation of the third cycle. The Forum recommends for continued engagement between the Forum and the Water Advisory Section beyond the public consultation with enhanced input into the implementation of the third cycle.

To further define the levels of engagement required between the governance structures, the Forum recommends that Figure 8 on Page 20 in the draft plan should be reviewed to account for the required engagement between the Water Forum and the NCMC, and the NCMC and WPAC (as outlined in the TORs). Furthermore, there should be opportunities for structured engagement between the Forum and all tiers of governance, where the Forum's Executive should have access to documentation (e.g. meeting agendas and minutes) to ensure the Forum members are kept up-to-date on the implementation of the 3rd cycle.

In order to improve the linkages between the regional committees and the other tiers of governance, as recommended by the IPA research, the Forum recommends that an additional arrow is added to highlight the need for engagement between the regional committees and the NCMC. This should be supported with active engagement between these structures to allow for updates and challenges at a regional/local level to be discussed at national level, through subsequent engagement between the NCMC, the Water Forum and WPAC. Additionally, it would be more transparent to include the Regional Operation Committees as a sub-group of the Regional Committee Structures along with details of their respective roles in catchment management. Furthermore, there should be structured engagement between the Regional Committees and the NCMC to share regional progress and challenges at a national level, with additional engagement established between the Water Forum and the Regional Committees (e.g. bi-annually) to allow stakeholder input to RBMP implementation.

One of the recommendations made by the IPA was that *"A full-time project management secretariat to support the governance arrangements should be considered, to focus on programme management, implementation, reporting, developing relationships with stakeholders, such as the Water Forum"*. The Forum is supportive of this recommendation and suggest that the Department add a proposed measure to the RBMP to establish this full-time project management secretariat for the successful implementation of the 3rd cycle. A full-time project manager would also support the Forum's recommendation to develop a table (Box 1) outlining targeted measures with associated timelines for water bodies reaching the WFD objectives, which will require engagement and cooperation between a number of different state bodies and agencies, such as the EPA and Irish Water. It would also ensure there is continuous engagement within and between government departments to ensure policy coherence, supporting Proposed Measure #11 (Appendix 2) to *"strengthening water provisions where necessary in relevant sectoral policies"*.

Key Recommendations – Governance

1. The Forum would like to emphasise the need for transparency across all levels of governance of the RBMP (decision making, meetings, monitoring and evaluation, access to data and documentation) which currently is not adequate.
2. The Forum recommends that a table should be added to the RBMP outlining who is represented on each governance body/committee, how often they meet, along with their roles and responsibilities.
3. Furthermore, there should be a common repository for all reports and meeting minutes from the different implementation bodies to increase transparency and opportunities for knowledge sharing between the three tiers.
4. The Forum recommends that structured engagement should be established between the Forum and WPAC, and also between the Forum and the NCMC, so members receive updates on progress and priority work areas with WPAC/NCMC, and also share stakeholders' perspectives and key issues raised by Forum members to allow input into policy development. Figure 8 on Page 20 in the draft plan should be reviewed to account for the required engagement between the Water Forum and the NCMC, and the NCMC and WPAC (as outlined in the TORs).
5. The Forum recommends for continued engagement between the Forum and the Water Advisory Section of the DHLGH beyond the public consultation, with enhanced input into the implementation of the third cycle.
6. There should be opportunities for structured engagement between the Forum and all tiers of governance, where the Forum's Executive should have access to documentation (e.g. meeting agendas and minutes) to ensure the Forum members are kept up-to-date on the implementation of the 3rd cycle.
7. The Regional Operational Committees should be included as a sub-group of the Regional Committee Structures (Figure 8), along with details of their respective roles in catchment management.
8. The linkages between the regional committees and the other tiers of governance should be improved, in line with the IPA research; there should be structured engagement between the Regional Committees and the NCMC to share regional progress and challenges at a national level. Furthermore, there should be opportunity for structured engagement between the Water Forum and the Regional Committees (e.g. bi-annually) to allow stakeholder input into implementation.
9. A proposed measure should be added to the RBMP to establish a full-time project management secretariat for the successful implementation of the 3rd cycle, in line with IPA research recommendations.

4.2 Reviewing the role of the Local Authorities in the RBMP

The Local Authorities play a significant role in Ireland's River Basin Management Plan, and the Forum acknowledges and supports that there is currently a proposed measure in the draft Plan to *"carry out a review of Local Authority Resources to put in place appropriate resources to support individual local authorities in fulfilling their role in water quality protection and restoration."* However, there is a concern that this review will not be complete for a number of years and that the necessary resources will not be in place until late in the 3rd cycle. The EPA Report 'Focus on Local Authority Environmental Enforcement, Activity Report 2020'⁷ outlined that *"Water and Air/Noise enforcement are insufficiently resourced. The provision of more resources including shared services is required to increase capacity of local authorities in these areas."*

The 2020 EPA Report on Environmental Enforcement outlines that Local Authorities have a significant role in the enforcement of environmental legislation, with a key role in compliance with Water Quality Legislation, including compliance of agricultural activities with the Good Agricultural Practice (GAP) Regulations, licensing and enforcement of effluent discharges from factories and hotels, and inspection of septic tanks. The draft RBMP states there is a *"need to increase environmental enforcement and compliance"* (Pg 50) into the next cycle, with a proposed measure *"to ensure there is an appropriate balance in the third cycle to ensure greater emphasis on compliance assurance activity"* (Appendix 2, #26). The Forum is of the view that in order to maximise the impact of enforcement and compliance to support WFD objectives, there should be better alignment between the inspection regime of Local Authorities and the overall WFD objectives. The Local Authorities have a regulatory role with specified numbers of annual inspections (e.g. farms, septic tanks) set out by the EPA in the Recommended Minimum Criteria for Environmental Inspections (RMCEI). The 2020 EPA Report on Environmental Enforcement states that local authorities must *"implement better targeting of water enforcement activities in 'at-risk' areas and follow up on non-compliances they are detecting, especially those relating to agriculture and septic tanks."* The Forum is supportive of this statement and are of the view that it is particularly relevant to the RBMP, targeting enforcement activities to water bodies that are most at-risk from a particular pressure. The Forum recommends that a proposed measure is added to the RBMP to outline this requirement, where Local Authorities should plan their annual inspection regime, targeting inspections to significant issues/pollutants of different water bodies. Furthermore, the Forum recommends that a section is included in the RBMP (for example in Section 2.3), outlining the roles and responsibilities of the different sections within the Local Authorities in relation to water quality protection and restoration. This will be key for Local Authority staff to understand their role, along with transparency and accountability for various aspects of plan implementation and achieving WFD objectives. The Forum will present additional specific recommendations around farm inspections within the section on agriculture, on septic tanks in the section on domestic wastewater, and on additional Local Authority roles in the public participation section.

The Local Authorities also have a role in relation to planning applications as a protection measure to ensure future developments do not pose a risk to water bodies. The draft RBMP states that *"a key protect measure is the contribution of the Local Authority's planning and development system"* (Pg. 51). Currently there is no planning guidance for Local Authorities regarding WFD concerns and consequently decisions are being made within a knowledge deficit. The Forum acknowledges there is an associated proposed measure in the draft Plan where the National Technical Implementation Group (NTIG) will *"examine the implementation of current legislation governing activities which pose a risk to waters and to identify opportunities to improve compliance with it."* (#23, Appendix 2). The

⁷ [LA Activities Performance Report 2020.pdf \(epa.ie\)](#)

Forum recommends urgency in implementing the upcoming Planning Guidelines on the WFD and recommends training for relevant staff and decision makers involved in planning and WFD implementation.

In a study carried out by the ESRI assessing 'Knowledge and awareness of water quality protection issues within Local Authorities', Grilli and Curtis (2021)⁸ found that staff are knowledgeable about high level issues and policy, including institutions responsible for water management, awareness of WFD and river basin management plans, while knowledge and awareness levels are considerably lower on more specific details, including on water quality status and protection measures being implemented within their jurisdictional areas. Overall, the study suggests that there is considerable scope for improvement in knowledge and awareness, and it is essential that knowledge and awareness of water management is effectively transferred through the hierarchical structure to the staff responsible for day-to-day activities (Grilli and Curtis, 2021). The Forum recommends there is mandatory training on relevant aspects of the WFD, such as catchment science and management, developed for Local Authority staff, across sections (environment, planning, roads, heritage, biodiversity, community and enterprise) to ensure that all activities that are carried out by the Local Authorities should support efforts to achieve the WFD protect objectives.

The Water Forum's policy Framework for Integrated Land and Landscape Management encourages multidisciplinary and multi-organisational approaches, as well as environmental policy coherence, policy integration and policy implementation. Within local authorities this will require cross-component planning where different sections will need to work together in a co-ordinated manner to achieve water, climate and nature targets. The Forum recommends that every Local Authority should appoint a WFD Officer who can co-ordinate the implementation of the RBMP and strengthen alignment between the Local Authority work programmes to the WFD objectives, while also considering multiple benefits, and identifying trade-offs where necessary.

⁸ [Knowledge and awareness of water quality protection issues within Local Authorities | ESRI](#)

Key Recommendations – Governance and Local Authorities

1. The Forum is of the view that in order to maximise the impact of enforcement and compliance to support WFD objectives, there should be better alignment between the inspection regime of Local Authorities and the WFD objectives. The Forum recommends that a proposed action should be added to the RBMP to target local authorities' inspection regime for water protection / restoration, where staff should plan their annual inspection regime by targeting inspections to significant issues/pollutants of different water bodies.
2. Every Local Authority should appoint a WFD Officer who can co-ordinate the implementation of the RBMP and strengthen alignment between the Local Authority work programmes to the WFD objectives.
3. To ensure transparency and accountability, the Forum recommends that a section should be included in the RBMP (for example in Section 2.3), outlining the roles and responsibilities of the different sections within the local authorities in relation to water quality protection and restoration
4. The Forum recommends urgency in implementing the upcoming Planning Guidelines on the WFD, while emphasising the need for stakeholder engagement as part of the process. Training on the new Planning Guidelines for the WFD should be provided for relevant staff and decision makers involved in planning and WFD implementation.
5. The Forum recommends mandatory training be developed for Local Authority staff, across sections (environment, planning, roads, heritage, biodiversity, community and enterprise) to ensure that all activities that are carried out by the Local Authorities should support efforts to achieve the WFD protect objectives.

4.3 Areas for Action

The Forum acknowledges the increase in Priority Areas for Action (PAAs) from 190 in the second cycle to 527 in the third cycle. The Forum recommends that more detail is included in the final RBMP on the number of different water bodies that will be included in the PAAs, such as how many At Risk water bodies will be included in the PAAs. The Forum also recommends for more detail to be included on the resourcing of the additional PAAs relative to the second cycle.

In relation to the third cycle Areas for Action (Figure 18, Page 53 of the draft RBMP), the Forum recommends more details are included as to how many areas are included in the different types of areas, in particular the Areas for Restoration / Protection lead by Local Authorities, and the Public Health Areas for Areas for Restoration / Protection. The Forum welcomes the new category on public health in these areas, particularly protecting and restoring drinking water source protection. Similar to the Forum's recommendations in adequately resourcing measures to protect high status water bodies, the Forum recommends that the need for adequately resourcing areas for action, including drinking water source protection, must be effectively communicated through Government. Furthermore, there will also need to be engagement and collaboration between the different agencies that have a role in these Areas for Action, and the Forum recommends that roles and responsibilities of these agencies are outlined in the final Plan.

In relation to drinking water source protection (Page 72 of the draft RBMP), the Forum is supportive of the proposed measure for an "Drinking Water Expert Group to make recommendations to the Minister regarding a new approach to drinking water source protection as part of the transposition of the recast Drinking Water Directive". The Forum would welcome engagement with this Expert Group in the future in relation to this process as it is directly linked to the Forum's Strategic Plan. The Forum highlights the need to promote synergies between the WFD and the Recast Drinking Water Directive, encouraging people and communities to make the link between their actions to the local environment and the quality of their drinking water.

Key Recommendations – Priority Areas for Action

1. The Forum recommends that more detail is included in the final RBMP on the number of different water bodies that will be included in the PAAs, such as how many At Risk water bodies will be included in the PAAs.
2. The Forum recommends that the need for adequately resourcing areas for action, including drinking water source protection, must be effectively communicated through Government.
3. The Forum is supportive of the proposed measure for in relation to the Drinking Water Expert Group and the recast Drinking Water Directive and would welcome engagement with this Expert Group in the future in relation to this process.

4.4 Financing strategy

The Forum has concerns that a discrepancy between ambitions and outcomes of this RBMP could result from insufficient financial resources for the implementation process or for the administrative costs at organisations/agencies for implementing the proposed measures. Both of these were reported as significant issues for the Swedish water governance system for the implementation of the Programmes of Measures of their RBMP (Soderberg, 2016). Furthermore, challenges in implementation process can occur due to the inability to apply or enforce measures that have been decided due to limited (financial and human) resources dedicated to control their application (Bondarouk & Mastenbroek, 2018; Hudson et al., 2019). The Forum therefore recommends that the significance of adequately resourcing this RBMP is effectively communicated within Government, highlighting the urgency of addressing the water crisis, alongside the climate and biodiversity crises.

The Forum acknowledges the proposed measure to “*Explore the feasibility of establishing a high-level interdepartmental group to develop a comprehensive financing strategy to support the implementation of measures to deliver on the ambitious Water, Climate and Biodiversity objectives committed to in the Programme for Government*”. This would be a significant step towards working in a holistic, integrated approach, and the Forum recommends that there is urgent commitment within Government to complete this Action. An international example of policy coherence is in Germany, who have created a “super ministry” for economics and climate protection, which can veto any legislation incompatible with the 2015 Paris Agreement (Maublanc, in prep). The initiation of this interdepartmental group would also allow for the identification of synergies in proposed measures across the different components, thereby avoiding duplication and making better use of resources. In contrast, it would also allow for the identification of trade-offs across the three components, where resources are insufficient to meet all objectives. The Forum recommends transparency in the political bargaining process of trade-offs both internally (within the DHLGH) and external (across government departments).

Key Recommendations – Financing

1. The Forum recommends that the significance of adequately resourcing this RBMP is effectively communicated within Government, highlighting the urgency of addressing the water crisis, alongside the climate and biodiversity crises.
2. The Forum recommends that there is an urgent commitment within Government to complete the proposed interdepartmental group to develop a comprehensive financing strategy to support the implementation of measures to deliver on the ambitious Water, Climate and Biodiversity objectives committed to in the Programme for Government.

5. Public Participation

Public participation is defined as engagement with communities, citizens, non-citizens and stakeholders and operates beyond the local scale⁹. It includes a commitment to *social transformation* that carries the potential for dissent and critique, but it can also facilitate enhanced ownership, equity and empowerment and lead to more just, equitable and sustainable decision-making. Including communities and individuals in procedures and decision-making around water resources from the beginning recognises the value of their knowledge early in the catchment management process. It also elicits concerns, connections, and expertise early on and, vitally, it builds trust. The draft plan states that the third cycle aims to have more consistent and meaningful engagement with the river basin management planning process. It is proposed that this will be achieved by the formation and capacity building of local fora to identify and implement the right measures.

The draft RBMP has proposed 5 Principal Actions in relation to public participation:

- Evaluate the outcome of the Resilience Project for Rivers Trusts to inform future community engagement initiatives (LAWPRO)
- Examine ways in which further support can be provided for the formation and capacity building of local fora to help identify and implement measures (LAWPRO)
- Increase the level of funding under the Community Water Development Fund (DHLGH)
- Explore opportunities for the development of a national citizen science programme (DHLGH)
- An Fóram Uisce to identify the optimum level of engagement with the implementation structures for the WFD as part of their strategic planning process.

Given that the objective of this plan is to restore good ecological status in 50% of Ireland's water bodies by 2027, and it is being developed against a backdrop of a climate emergency that requires greenhouse gas reductions of 50% by 2030, and biodiversity loss needs to be halted by 2030, the Water Forum believes that transformative change is required within society to achieve these targets.

The Water Forum's policy Framework for Integrated Land and Landscape Management recommends that integrated catchment management planning begins with a stakeholder 'vision' and that communities are engaged throughout the implementation of catchment management plans. The proposed development of 46 catchment plans in the 3rd cycle provides an excellent opportunity to engage meaningfully with communities and to empower them to take action for the positive environmental outcomes that are required to meet both EU and National legally binding targets.

Research commissioned by the Water Forum on Public Participation in Water Governance¹⁰ identified three principles for effective public engagement:

- address inequity and power imbalances between different individuals and stakeholder groups
- incorporate various forms of knowledge/expertise to recognise the value of lay knowledge as well as scientific expertise
- address issues of scale e.g. how pressures and processes that operate at national level circumscribe local decision-making regarding water management

⁹ [Webinar Report - Public Participation in Catchment Management March 2022](#)

¹⁰ [Bresnihan, P and Hesse, A. \(2019\). Public engagement in water governance. Report to An Fóram Uisce.](#)

Developing a collective vision and strategy in a multi-stakeholder catchment, while challenging, is critical to identifying and agreeing priorities and encouraging practice change at local level. Deep participation includes co-creation, co-design and co-decision making. Participative approaches recommend the inclusion of everyone, all ages, all social categories and all stakeholders. Such approaches need to be facilitated at the beginning of the policy cycle and continue through to evaluation of the plan. Realising this vision requires an engagement process based on the principles such as trust, respect and open communication. The objectives of the participation need to be clearly outlined, such as who is participating in the process, what the process involves, the expected outcomes and the next steps⁹. People are more likely to engage if it is directly relevant to them (local level), but engagement requires holistic collaboration of disciplines, sectors, different stakeholders and methods of engagement. In the first instance therefore, it will be particularly important that statutory agencies, each of whom has a particular and distinctive role, work and communicate more closely with one another in *formulating a joint agenda to support such community engagement processes* in the context of an integrated approach to catchment management.

Truly effective public participation that includes all stakeholders, will bring the social (including political), wellbeing (physical and mental), cultural and economic dimensions to integrated catchment management. Communities engage in catchment management for a myriad of different reasons such as angling, forestry, heritage, biodiversity protection, recreation, therefore it is essential that a wide range of experts are available to facilitate informed, fact-based discussions. The objective of the engagement is the creation of a 'catchment vision or plan' to achieve the necessary environmental objectives for water but this is very likely to include actions that reflect the interests of all the participants and organisations. Along with the key local networks and groups such as tidy towns, heritage groups, angling and sports clubs, catchment associations, volunteer centres, it is essential to engage with social inclusion networks within the Public Participation Networks (PPN) to reach and include hard-to-reach groups. Engaging hard-to-reach groups can be a challenge but working with local community organisations such as Group Water Schemes or Catchment Associations who have built up local trust and mutual respect is essential in this regard.

When engaging with communities in public participatory processes, agencies and stakeholder groups need to identify themselves to ensure equity¹⁰. The role of the agencies is to provide facts and expert advice, along with facilitating informed discussion. *Training in facilitation and information dissemination will be required for providers and flexibility and reflective practice are essential*¹¹.

Community engagement outcomes such as plans of action, need to be embedded in a wider democratic system to support implementation. This can be limited by resources but following on from engagement any community recommendations should be evaluated and the community needs to be informed of what is actionable and achievable along with explanations and the reasoning for these decisions. Structures and resources need to be put in place for scientists, agencies and policy makers to work alongside the people who live and work in the catchment¹² to create a mutual vision, and to develop and agree local catchment action plans. The purpose being to be "of the community" as opposed to imposing "on the community" thereby developing collective ownership and generational stewardship of our rivers and lakes

¹¹ [EPA Research Report 406 Sharing Lessons Learned from Water Governance](#)

¹² [Case Studies on Local Catchment Groups in Ireland, 2018-2020](#)

Agencies (e.g. Local Authorities, Inland Fisheries Ireland (IFI), National Parks and Wildlife (NPWS), Climate Action Regional Offices (CARO)) should work with participants to identify and agree what actions are achievable, expected timelines, responsibilities (community, individual and agency), reasons need to be provided for the decisions made, and a final plan can be ratified by the whole group (**agencies and communities co-creating catchment plans together**) for the water body. Participants need to be informed of progress and included in regular updates on the plan implementation, even if it is negative progress.

Delivering such an approach will require a fundamental change in how public participation is undertaken. A **framework** will have to be developed to allow agencies to work together to support the development and implementation of public participation dialogues, community action planning and project co-creation. **Structures and resources** need to be put in place to develop and deliver specific, measurable, actionable, reasonable and timebound actions plans that are prioritised to deliver positive environmental outcomes for nature, water, climate and community resilience.

The Forum recommends that a phased approach, with catchment-based pilots being started immediately, to identify best approaches and refine options for wider implementation during the third cycle. The aim should be that over the course of this RBMP cycle that the **framework, procedures and resources** are fine-tuned and in place to support the development and implementation of integrated land and landscape management plans for all water bodies and catchments so that communities, businesses and individuals are empowered to take the necessary actions to contribute to Ireland meeting its objectives for water, biodiversity and climate mitigation.

The Water Forum believes such engagement is a priority and that clear proposals to enable this as part of a national programme of public participation should be outlined in the RBMP. Structures and frameworks to support the development and delivery of community catchment objectives and actions need to be put in place so that communities have the ongoing support of statutory bodies to deliver the desired actions and practice change outcomes required to achieve Ireland's environmental objectives.

Finally, the Forum supports the development of a national citizen science programmes proposed in the draft Plan as this is a great opportunity to engage communities and improve water literacy and data on local water quality but would like to recommend that a central repository for all such databases is made publicly available so that access to the outcomes of data collection is accessible to all. If such a repository included information and resources to support citizen science participation (identification guides, methodologies etc) this would potentially increase levels of engagement and enhance equality of access as groups and individuals could find out how to become involved in local water body recording and monitoring.

Key Recommendations – Public Participation

1. The overall level of meaningful public and stakeholder engagement in the implementation of the WFD needs to radically improve. A **new national approach** to public participation needs to be developed that includes a vision and action plan for public engagement in the 46 catchment areas that encompasses the principles and recommendations set out in the Water Forum Briefing Note on public participation.
2. A phased approach be taken in a number of pilot catchments to test various approaches to improving public engagement, contributing to the development of a new national approach. The Forum would welcome future engagement with the Department, Local Authorities and LAWPRO in the design and implementation of these pilots. These pilots should take place very early in the 3rd cycle so that more effective and more meaningful public engagement processes are in place for the remainder of the 3rd cycle.
3. A **framework** will have to be developed to support the development and implementation of public participation dialogues, community action planning and project co-creation within and between Local Authority areas and within and between state agencies with responsibilities for water, climate and biodiversity.
4. **Structures and resources (personnel, training and funding)** need to be put in place to develop and deliver specific, measurable, actionable, reasonable and timebound actions plans that are prioritised by the public participatory process to deliver positive environmental outcomes for nature, water, climate and community resilience.
5. There needs to be **consistent, ongoing and informed discussion** at local level that facilitates the co-creation of solutions and action (agency, community and individual) to protect our natural resources and build truly resilient communities across Ireland.

Specific Actions required to achieve the public participation recommendations

National level

- A review of climate, biodiversity and water funding streams needs to take place (inter-departmental level) so that adequate funding is given to each sphere and active community organisations can be resourced financially to participate in catchment management and deliver on the agreed and prioritised catchment actions for water, biodiversity and climate.
- The current review of the Local Authority sector should include an assessment of the additional staffing requirements (and training) needed to provide for meaningful public participation in catchment management for water, biodiversity and climate, that should include providing ongoing expert support to communities delivering actions.

Regional Structures

- A Framework need to be put in place so that agencies and organisations with statutory responsibility for water, climate and biodiversity can work together at local level for efficient and effective outcomes in all realms, possibly local operational groups (catchment-based) that would feed into the regional operational committees already in place.
- Establishment of regional stakeholder fora of key stakeholders including Rivers Trust, Catchment Associations, Group Water Schemes, and other relevant groups and individuals. The National Water Forum model can be used to establish a strategy for this, local fora could then be formed at catchment level.
- These regional stakeholder fora should engage with the Regional Structures such as the Operational Committees and Regional Committees. Community Water Officers should have a key role in developing and supporting these regional fora.

Local Authority Structures

- Facilitating multi-stakeholder public participation requires the support of all sectors of the Local Authority; biodiversity, climate, environmental, tourism, heritage, tidy towns and PPN coordinators.
- Every Local Authority should create a plan identifying how they will integrate public participation outcomes across their work programmes and possibly lead or collaborate in project co-creation, planning and implementation.
- Every Local Authority should establish a working group, ideally under the supervision of a Director of Service reporting to the Regional Committee, that includes their biodiversity, climate, environmental, and liaising with LAWPRO community water officers where water, climate and biodiversity as seen as equal pillars to prioritise actions for optimum outcomes in all spheres.
- These Local Authority working groups continue to provide support to communities to deliver actions on the ground for water, biodiversity and climate through the provision of scientific data and expert advice to facilitate effective plan implementation at community level and improved water literacy.

Specific Actions required to achieve the public participation recommendations

Local Authority Structures (cont.)

- Training needs to be provided to Local Authority and agency staff in community facilitation, participative and deliberative democracy approaches (e.g. Rivers Trust Ripple Process and Deliberative Democracy tools²) and as well as action planning and project implementation for positive environmental outcomes for biodiversity, water and climate.
- Training needs to be provided to Local Authority and relevant agency staff responsible for the assessment of funding applications for water, biodiversity and climate projects so that the project achieves positive environmental objectives and that it is financially reasonable.
- Training needs to be provided in stakeholder mapping and best practice in community engagement processes as identified in the Public Participation Policy Briefing Note prepared by the Water Forum¹.
- Expand the team of community water officers to a minimum of one per catchment area to support the work of community groups and act as a focal point for these groups to facilitate addressing of local issues and brokering liaison with relevant agencies when water quality or status issues arise.

Community level

- Adequate funding and resources need to be provided to active catchment groups giving them the capacity to develop projects and deliver actions on the ground and to facilitate participation.
- There needs to be better integration of funding streams available to community groups for action on the ground and it needs to be easily accessible without onerous administration.

6. Pressures

6.1 Agriculture

Agriculture is the largest significant pressure on water quality impacting 1,000 water bodies, where the number has increased by 223 since the start of the second cycle. The draft RBMP states that *“this represents the greatest increase in any individual significant pressure type”*, illustrating the urgency in addressing this pressure in the third cycle. While the Forum is supportive of the Principal Actions outlined in the draft RBMP, it is concerned that the focus and implementation of the Actions will not achieve the required results in a timely manner and have a number of recommendations for additional actions.

Putting the receptor at the centre of decision-making and actions

The Actions in the draft RBMP focus largely on the pressures, such as agriculture. However, as outlined in Box 1 Section 3, the Forum advocates an outcomes-based emphasis with water body requirements as the starting point. This applies in particular to agriculture as it is a potential pressure in 65% of the country. The protection measures where a water body is achieving the WFD objective and the mitigation measures where the water body is not achieving the WFD objective will vary depending on, for instance:

- The water body type, e.g. river, coastal, groundwater.
- The particular WFD objective, e.g. high status.
- The land and landscape setting.
- The farming pressure, e.g. intensive or extensive, tillage or grassland, farmyard, diffuse runoff.
- The potential pollutant, e.g. phosphate, nitrate, MCPA, and the environmental quality standards for each potential pollutant.

By taking account of these factors in an integrated manner, it provides a risk-based approach encompassed within the general source-pathway-receptor (SPR) framework for decisions on measures. Consequently, for measures to be effective and efficient, account must be taken of these factors in the catchment areas of water bodies, particularly those *At Risk* of not meeting the WFD objectives. While these factors and the approach are of course known to the authors of the draft RBMP, the Forum recommends that the final RBMP includes the context for decision-making on the required targeted measures and actions should be provided in the form of an explanatory outline of source-pathway-receptor characterisation where the receptor and its requirements is at the core of the process. Providing transparency in the decision-making process in deriving Actions for agriculture is required to provide an explanatory context for all stakeholders.

The draft RBMP proposes six Principal Actions with regard to agricultural pressures for the third cycle (Page 60 of the draft RBMP). The first principal action is related to the GAP Regulations, where the Nitrates Expert Group *“is working on the development of the new Nitrates Action Programme, which will be implemented by the regulations”*, where *“it is expected the new NAP will retain the existing controls on Nitrogen and Phosphorus from agriculture”* and *“implement tighter controls on Nitrogen and Phosphorus inputs”*. This action is somewhat less descriptive (or ambitious) than the proposed mitigation measures outlined as key actions for delivering the increased level of ambition, on Page 22 of the draft RBMP, which calls for; *“at least 50% reduction in nitrogen losses to waters from agriculture”*. The Forum recommends that the measure to reduce Nitrogen losses by 50% is included

in the final list of Proposed Measures, and that more detail is added to the final RBMP, outlining how the NAP and the RBMP will meet this 50% Nitrogen reduction target. Furthermore, the Forum recommends that an independent review of the final NAP is carried out, to assess how capable this tool will be for meeting WFD water quality objectives.

A second key mitigation measure is outlined on Page 22 of the draft RBMP, highlighting the need for “2500km of riverside interception measures”; a measure which was also not subsequently included as a Principal Action for Agriculture. The Forum therefore recommends that this mitigation measure to establish 2500km of riverside interception measures, is included as an additional Principal Action in the final RBMP, along with details as to how it will be implemented.

Buffer zones are one of the most common interception measures used to mitigate impacts of farming on water quality from a large range of pollutants and significant issues such as phosphate, total phosphorus, sediment, nitrate, ammonium, pesticides and microbial pathogens¹³, with multiple co-benefits such as enhanced aquatic and terrestrial biodiversity. It is important however, to consider that effectiveness of buffer zones for mitigating impacts on water quality will be dependent on the permeability of the soil, subsoil and bedrock, and on the topography. Therefore, the Forum recommends that greater consideration be given to requiring spatially targeted extended buffer zones, particularly in poorly draining areas which enable interception of runoff and therefore pollutants. Positioning buffer zones to the water and pollutant flow delivery paths and zones (which will depend on local topography), will ensure optimum water quality protection. Utilisation of the EPA PIP maps would aid location of the flow delivery paths and points. In the Forum’s submission on the CAP Strategic Plan¹⁴, the Forum recommended that the Irish Government should supplement CAP payments to ensure sufficient coverage of spatially targeted buffer zones to ensure sufficient coverage in critical source areas, which should be considered as a cost-effective policy tool of the RBMP for achieving WFD objectives.

Compliance Assurance

In relation to compliance assurance, the draft RBMP has a Principal Action; “*Local authorities and the EPA, through the NIECE network, will ensure that compliance assurance (including enforcement) actions for agricultural activities will be further enhanced and ensure that there is an increased targeting of inspections by local authorities based on water quality results, critical source areas and the EPA’s PIP Maps*”. The Forum is supportive of the need for targeting of inspections; as outlined in the section on Governance, the Forum recommends that there is a need to better align the Local Authority inspection regime and the requirements of the WFD. While the requirement to ensure compliance with the GAP regulations is important, these regulations do not encompass the ‘right measure in the right place’ approach, required to sufficiently deal with diffuse losses of nutrients from agriculture. Therefore, there is a current need to strengthen the inspection regime to ensure that the primary focus is to achieve environmental outcomes, primarily to protect or improve water quality. This approach would encourage a focus more on the effectiveness of inspections rather than solely on numbers undertaken.

The Forum recommends that an Action is added to the RBMP for the Department, with support from the EPA and LAWPRO, to develop a targeted farm compliance assurance regime for DAFM and local authorities that is based on characterisation of the catchment areas of relevant water bodies. This characterisation should be completed prior to choosing the farms for inspection and the farm visit. For instance, a number of different inspection sheet templates might be developed depending on the

¹³ <https://nfgws.ie/nfgws-source-protection-publications/>

¹⁴ [Water-Forum-Submission-on-CAP-Public-Consultation.pdf \(thewaterforum.ie\)](#)

significant issue (for example a different inspection sheet for nitrogen, phosphorus or sediment). If local authorities have access to a list of water bodies in their county, with the corresponding WFD objective and significant issues (in line with the Forum's recommendation outlined in Box 1), then the appropriate farm inspection template could be selected, which will be targeted to specific local conditions, i.e. right measure right place.

Furthermore, targeted inspections should lead to targeted mitigation measures to reduce the pressure of a significant issue on a farm, supporting the 'right measure right place' objective. Due to the myriad of challenges farmers are facing to meet objectives of water, climate and biodiversity, the communication of mitigation measures between Local Authority staff and/or advisors to the farmers, should highlight the range of co-benefits that various measures will have for water, climate and biodiversity.

Training for Local Authority and DAFM Staff

To support a targeted inspection regime, Local Authority and DAFM staff will require catchment management training to have sufficient knowledge and understanding of the main receptors (type of water body, SAC, etc), WFD objectives, main pollutants and their pathways and targeted mitigation measures. Training should also be provided on the WFD App, Critical Source Areas and EPA PIP maps to support staff in targeting their inspections to specific water bodies for either restoration or protection measures. Furthermore, specific training on targeting farm inspections should be provided to support this measure.

The Forum recommends that an action is added to the RBMP to develop mandatory training in catchment management and targeting farm inspections to strengthen the Local Authority and DAFM inspection regime and align it with the WFD requirements.

Training for Farmers and Contractors

In its submission on the public consultation of the Nitrates Action Programme¹⁵, the Forum made recommendations around increased training opportunities for farmers, including;

- General water quality, biodiversity and climate issues
- Nutrient management planning (which includes environmental factors)
- EPA PIP maps and critical source areas
- Communication and awareness to all rural dwellers on the GAP regulations, local pressures and solutions.
- The impact of fertiliser on water quality and how to reduce its use
- Social learning, knowledge exchange events for farmers and co-design of solutions

The Forum is of the view that training should be considered a key tool for addressing agriculture in the RBMP, which should emphasise knowledge exchange whereby farmers contribute to the solutions in a two-way process. In a presentation made by ASSAP to the Forum members, the lack of knowledge / awareness of WFD requirements and water protection measures among contractors was highlighted. Training in WFD requirements and best practice in water quality issues and fertiliser spreading should therefore be provided to contractors who spread organic and inorganic fertilisers on

¹⁵ [AFU-Submission-Nitrates-Action-Programme-Stage-2-Public-Consultation.pdf \(thewaterforum.ie\)](#)

farms (as recommended in the Forum's submission on the NAP). ASSAP are proposing to develop a sticker to promote precision agriculture for tractors, to highlight buffer distances, growth rates, application rates and soil conditions, an initiative that was welcomed by Forum members who believe it should be expanded to all contractors.

The Forum recommends that the DHLGH and DAFM allocate sufficient resources to support the training requirements for both farmers and contractors to support knowledge exchange and the implementation of the RBMP measures to meet WFD requirements.

Review of CAP

While the Forum acknowledges that the new CAP Strategic Plan is listed as a key tool for addressing the impacts of agriculture on water quality, the Forum is concerned that the final CAP Plan will be agreed and finalised by the DAFM and it may not sufficiently address the requirements to protect or restore water bodies to meet their WFD objectives. In a presentation by ASSAP to members of the Forum, the need for financial support, external to ASSAP, was highlighted to ensure farmers are supported to implement the targeted mitigation measures. The Forum recommends an action is added to the final RBMP to do an independent review of the final CAP (both Pillar 1 and Pillar 2) to assess its strengths and weaknesses to meet the WFD objectives. This review of CAP should be carried out by an independent organisation with both ecological and legal knowledge, for example the EPA, to fully assess the Strategy. Where weaknesses are highlighted, the Department should outline how it will supplement the CAP to protect and restore water bodies.

In the Forum's submission on the CAP Strategic Plan, the Forum raised concerns over the limit of 50,000 farmers being eligible for Pillar 2 Agri-Environment Scheme (AEEM). DAFM's recent Results-Based Environment Agri Pilot Project (REAP) received applications from five times the limit of participants, illustrating the willingness of the farming communities to transition to sustainable farming. The Forum recommended that applications should be assessed giving priority to farmers in PAAs or At-Risk water bodies, with an aim to increase the impact that CAP could have on water quality. It is likely, however, that the Irish Government will have to supplement CAP to support water quality protection/mitigation measures, for example to establish the 2500km of riverside interception measures outlined on Page 22 as being required. As outlined in the Forum's submission on the Food Wise 2030¹⁶, a new level of funding for the protection of public goods (water, air, soil and biodiversity), under the principle of public money for public goods, would be required to support the implementation and associated socio-economic impacts of the environmental actions outlined in Mission 1 of the Food Wise 2030 Strategy. Transitioning from chemical-based agriculture to more environmentally sustainable agriculture (as required by the EU Green Deal), could also be considered for the Government's Just Transition Fund, whose objective is to support innovative projects that contribute to the economic, social and environmental sustainability.

¹⁶ [FINAL_Submission-Agri-Food-Stratefy-2030_An-Foram-Uisce.pdf \(thewaterforum.ie\)](#)

ASSAP

There is a proposed action in the draft RBMP; *“Consideration will be given to extending and expanding LAWPRO and ASSAP to support the implementation of the new CAP Strategic Plan. There will be an increased focus on sustainability across the entire farm advisory service (both Teagasc and private advisory services). This may include a role in the preparation of Farm Sustainability Plans.”*

Farm advisors play a central role in communicating with farmers and facilitating them to address key challenges facing the agri-food sector, as well as assisting in the implementation of mitigation / protection measures. The Forum acknowledges that reviews of ASSAP’s work have shown that farmers are receptive to the proposed measures to improve water quality in their river catchments. To date, the work of ASSAP has been concentrated within the Priority Areas for Action (PAA) and the Forum would recommend that efforts are expanded to include all deteriorating and at-risk water bodies. Any efforts to expand ASSAP must be accompanied by a major enhancement and refocusing of mainstream advisory services with a key focus on sustainability. The Forum recommends that an Action is added to the final RBMP to address the need for knowledge-transfer between ASSAP advisors and other farm advisors, in order to mainstream the work of ASSAP to include all deteriorating or at-risk water bodies. In a presentation by the ACP to Forum members, tailored advice on local conditions (e.g. soil drainage), weather and farm practices was highlighted as being essential. The Forum supports the need to expand ASSAP but recommends that ASSAP must expand in parallel with a corresponding increase in catchment scientists, to ensure the ASSAP team have the necessary scientific data and evidence to develop effective farm actions. The Forum emphasises the need for close cooperation and collaboration between LAWPRO and ASSAP, where both agencies are working in a fully integrated manner to achieve water quality objectives. Furthermore, an expansion of Local Authority staff will also be required to characterise the sub-catchments, identify pollution sources and recommend solutions that achieve the ‘right measure in the right place’.

Key Recommendations – Agriculture

1. The Forum recommends that the context for decision-making on the required targeted measures and actions should be provided in the form of an explanatory outline of source-pathway-receptor characterisation where the receptor and its requirements is at the core of the process.
2. The Forum recommends that the measure to reduce Nitrogen losses by 50% is included in the final list of Proposed Measures, and that more detail is added to the final RBMP, outlining how the NAP and the RBMP will meet this 50% Nitrogen reduction target.
3. The Forum recommends that an independent review of the final NAP is carried out to assess how capable this tool will be for meeting WFD water quality objectives.
4. The Forum recommends that the mitigation measure to establish 2500km of riverside interception measures is included as an additional Principal Action in the final RBMP, along with details as to how it will be implemented.
5. In relation to interception measures, the Forum recommends that greater consideration be given to requiring spatially targeted extended buffer zones, particularly in poorly draining areas which enable interception of runoff and therefore pollutants.
6. The Irish Government should supplement CAP payments to ensure sufficient coverage of spatially targeted buffer zones to ensure sufficient coverage in critical source areas; these should be considered as a cost-effective policy tool of the RBMP for achieving WFD objectives.
7. An Action should be added to the Plan for the Department, with support from the EPA and LAWPRO, to develop a targeted farm compliance assurance regime for DAFM and local authorities that is based on characterisation of the catchment areas of relevant water bodies prior to choosing the farms for inspection and the farm visit.
8. An action should be added to the RBMP to develop mandatory training in catchment management and targeting farm inspections to strengthen the inspection regime and align it with the WFD requirements.
9. Targeted inspections should lead to targeted mitigation measures, and the communication of mitigation measures between Local Authority staff and/or advisors to the farmers, should highlight the range of co-benefits that various measures will have for water, climate and biodiversity.
10. DHLGH and DAFM should allocate sufficient resources to support the training requirements for both farmers and contractors to support the implementation of the RBMP measures to meet WFD requirements.
11. An action should be added to the final RBMP to do an independent review of the final CAP to assess its strengths and weaknesses to meet the WFD objectives. Where weaknesses are highlighted, the Department should outline how it will supplement the CAP to protect and restore water bodies.
12. The work of farm advisors should be expanded to include all deteriorating and *At Risk* water bodies, and an Action should be added to the final RBMP to address the need for knowledge-transfer between ASSAP advisors and other farm advisors in order to mainstream the work of ASSAP to include all deteriorating or *At Risk* water bodies.
13. The Forum supports the need to expand ASSAP but recommends ASSAP expands in parallel with increased catchment scientists, to ensure the ASSAP team have the necessary catchment characterisation understanding and evidence to develop effective farm actions.
14. The Forum emphasises the need for close cooperation and collaboration between LAWPRO and ASSAP, where both agencies are working in a fully integrated manner to achieve water quality objectives.

6.2 Hydromorphology

Hydromorphology is the second biggest pressure on all at-risk water bodies and is the most significant pressure on high status water bodies. In all surface water bodies, drainage schemes have the most impact causing channelisation (deepening and straightening channels that results in a loss of natural habitats for biodiversity), dams and weirs are the second largest impact as they impede flow, while land drainage is the third largest impact, again causing channelisation and hastening the flow resulting in sedimentation of streams.

Our knowledge of how catchments, river systems, soils and landscapes function has developed enormously in the past number of years, while we also have excellent data with open access to databases such as Corine Landcover maps, Geological Survey of Ireland Groundwater and Geotechnical maps and EPA Pollution Impact Potential maps. This data along with Integrated Catchment Management approaches allows for more integrated and holistic approaches to land drainage and landscape management for flood attenuation. Currently, 11,500 km of Ireland's waterways are managed under the 1945 Arterial Drainage Act that statutorily obliges the OPW to maintain all these water bodies and embankments so that they are free flowing to reduce flood risk and provide adequate outfall for land drainage and urban flood defences. While much of this work may be necessary, the last review of land drainage policy was carried out by the ESRI in 1982, 40 years ago. The Water Forum believes it is essential that the Department carry out a review of the Arterial Drainage Act and its associated works to assess the impact on the ecological potential of catchments and to assess its alignment with the objectives of the Water Framework Directive. This review should also consider the opportunities for the development and implementation of alternative nature-based catchment management options for flood risk management.

The Forum would like to acknowledge the progress made during the second cycle such as the development of:

1. Improved assessment and monitoring tools
2. National inventory of barriers (IFI)
3. Roadmap for improving fish migration
4. Statutory water and planning guidelines that will be out for public consultation (May 2022)
5. Review of drainage legislation

There are four Proposed Measures for Hydromorphology in the draft RBMP;

- DHLGH to develop a new Controlled Activities for the Protection of Waters regime to address pressures on the physical condition of waters.
- DHLGH to establish a restoration programme to mitigate the negative impact of past construction in or near water bodies.
- A pilot project will be undertaken for the Annacotty weir in County Limerick to assist with the design and implementation of the national restoration programme.
- DHLGH to oversee the implementation of the roadmap of actions to improve fish migration in the lower Shannon at the Hydroelectric scheme located around Parteen and Ardnacrusha.

The Forum has concerns over the time it will take to develop the required legislation to address hydromorphological pressures within this cycle, including; the New Controlled Activities for the Protection of Water regime, the development of the new regulatory framework, the administrative system and the establishment of an expert group to steer this process. The Forum recommends the

Department add urgency to the development of this legislation while also ensuring significant public consultation that includes a real effort to engage with all stakeholders.

The Forum recommends that the Water and Planning guidelines, which were an outcome to be delivered in the 2nd cycle, should be expedited as they are essential so that WFD objectives are incorporated into all planning decisions. Furthermore, WFD-specific assessments (similar to EIA) should be carried out in advance of all developments impacting water bodies, e.g. dredging, drainage, river maintenance, flood protection, and training should be provided to all planners and drainage contractors on the requirements.

Land management practice such as land drainage, river bank erosion and over-grazing all contribute significantly to hydromorphological pressures. The Forum recommends that a proposed measure is added to the RBMP for the delivery of an awareness campaign to provide guidance to land-owners on land management practice to prevent any of these outcomes. Better land management is needed to reduce sedimentation and to slow the flow as this will increase flood attenuation and build resilience to climate change impacts. The Forum recommends that measures to slow the flow to retain water within the landscape for water quality, quantity, biodiversity and climate mitigation outcomes should also be incorporated into solutions for protection and restoration of water bodies (multispecies swards, retaining and re-establishing hedgerows, retaining natural channel perturbations and wetland habitats). The Forum recommends that the final plan should promote natural water retention measures as an option for catchment-scale flood mitigation and habitat restoration using international best practice and guidelines, along with learnings from projects such as SLOWWATERS and the recommendations from the Natural Water Retention Measures (NWRM) working group¹⁷.

Dumping At Sea (DAS) permits not only legislate the dumping, but also the loading of the material to be dumped. This is usually dredged material from harbours and ports so almost every permit is related to hydromorphological alterations to water bodies that are within the boundaries of the WFD, even though the dump site may actually be outside the boundary of the WFD. The Forum recommends that any permits granted by the EPA under the Dumping at Sea Act are assessed for compliance with the WFD.

The Water Forum welcomes the technical review of Heavily Modified Water Bodies (HMWB), i.e. water bodies whose physical characteristics and or hydromorphological conditions has been modified by engineering works. All of these HMWB will need to achieve good ecological potential within the 3rd cycle. This review has resulted in a significant increase in the number of water bodies designated at HMWB status from 33 in the first RBMP cycle to 466 in the 3rd cycle. Additional EU guidance and new hydromorphological tools for assessing water bodies have led to this increase in designation, to just less than 10% of all water bodies. The Forum will participate in the public consultation of this process in April 2022.

¹⁷ [WFD Natural Water Retention Measures Working Group - Catchments.ie - Catchments.ie](https://www.catchments.ie/catchments/water-forum/natural-water-retention-measures-working-group)

Key Recommendations – Hydromorphology

1. The Water Forum recommends that the necessary legislation for the Controlled Activities for the Protection of Water regime (legislation, regulation, administration and communications) is put in place as soon as possible following significant consultation with all stakeholders.
2. The Arterial Drainage Act 1945 needs to be reviewed to assess its alignment with the objectives of the WFD, while opportunities for the implementation of alternative nature-based catchment management options for flood risk management should be considered.
3. The Planning Guidelines proposed in the 2nd cycle need to be urgently implemented, where WFD-specific assessments (similar to EIA) should be carried out in advance of all developments impacting water bodies, e.g. dredging, drainage, river maintenance, flood protection. Training should also be provided to all planners and works contractors on the requirements.
4. The development of a national framework and guidance for river restoration that includes nature-based catchment management solutions (NWRM) as recommended by the NWRM working group needs to be included in the plan.
5. The Forum recommends that a proposed measure is added to the RBMP for the delivery of an awareness campaign to provide guidance to land-owners on land management practice.

6.3 Forestry

Forestry is the third significant pressure on water bodies in Ireland, with 223 water bodies currently impacted by pressures from the forestry sector. These include the physical alteration to habitats, excessive nutrients and sediment, and changes in water level and/or flow.

The second RBMP (2018-2021) proposed a number of principal actions to address forestry pressures on water quality. Furthermore, the DAFM document 'Forestry and Water: Achieving the Objectives and Priorities under Ireland's River Basin Management Plan 2018-2021' also outlined key measures to address water quality issues. In the 2018-2021 RBMP, forestry was identified as a significant pressure in 238 (16%) water bodies identified as At Risk and that the pressure was 'largely associated with sediment from clear felling, drainage, and planting and establishment.....and predominantly located in catchment headwaters...coincident with catchment boundaries'. While forestry was identified in the second cycle as the fourth most common pressure on all water bodies, it was the most significant pressure on high status waters, impacting 51 (41%) of these extremely precious water bodies. The draft third RBMP lacks details as to how effective the second cycle proposed measures were at reducing the threat from Forestry. The Forum therefore recommends that the 2022-2027 RBMP contains a summary of the status of these 238 and 51 high status water bodies, comparing their quality and status at the commencement of the second cycle, with their current status now that the 2018-2021 RBMP has come to an end. This will provide clarity as to the relative success of the measures for the 2018-2021 period and will serve as a useful benchmark from which to plan measures for the forestry sector at national, sub-catchment and water body level for the 2022-2027 Plan.

In line with the Forum's recommendation for an outcomes-based approach for the RBMP, with details of targeted measures and timelines for achieving WFD objectives for all water bodies, the Forum

recommends that for the 233 water bodies where forestry has been identified as the significant pressure in the 3rd RBMP, that targeted measures (either restore / protect measures) are included to indicate how the RBMP will reduce the forestry pressure from these water bodies. Timelines should also be included, both interim timelines to indicate progress during the 3rd cycle, and the date expected for each water body to achieve its WFD objective.

The second RBMP provided detail on the range of relevant forestry policies, schemes and projects which were relevant to reduce the pressures from forestry on water bodies. The Forum is of the view that the third RBMP should also include details of the relevant policies and projects which will impact or support the required implementation measures in the final plan. Furthermore, a table should be added to the RBMP outlining the roles and responsibilities of different government departments, state bodies and agencies which have a role in forestry related activities, to ensure transparency and accountability in the different groups. A number of key forestry legislations such as the new Forestry Strategy and the next Forestry Programme are currently in preparation with engagement and consultation on-going. According to the Forestry Service (in a presentation to the Forum members), these aim to consider the wider role of forestry in relation to ecosystem services, including water protection. The Forum recommends that details are added to the final RBMP on how these policy documents will align with the requirements of the WFD. Furthermore, the Forum recommends that as part of this process the Forestry Service should outline how much land is available for different types of afforestation (i.e. the right places). While this might be addressed as part of the Land Use Review, it is relevant to both the Forestry Programme and the RBMP as a means to identify the extent and location of different types of suitable soils. These sensitivity maps would be a proactive measure for the protection of water from future afforestation activities.

The Forum acknowledges that national policy envisages a significant growth in new afforestation with a target of 8,000 hectares per annum set in the most recent Climate Action Plan. It is critical that all new afforestation on lands not previously used for this purpose be carried out according to the principle of the right trees in the right places for the right reasons and with the right management, and that all new afforestation is planned and managed in a way that will be of benefit to water quality, by either driving improvements in water quality or by providing protection to water bodies already at good status (i.e. in accordance with the WFD). While the Forum supports the principal action for *“Further engagement between DAFM and other parties on forestry-related issues, both within the existing WFD structures and forums, and bilaterally (e.g. with Inland Fisheries Ireland)”*, the Forum recommends that the RBMP should provide detail as to what these engagements are expected to achieve, increasing transparency and accountability for aligning forestry activities with the WFD.

The Forum is of the view that the first Principal Action for Forestry in the draft RBMP, for DAFM to *“Continue to seek improvements to the licence applications process for key forestry activities”*, is weak and should instead provide more direction for DAFM to ensure that their licence application process is aligned with the WFD. In particular, there should be specific WFD site assessments for licencing of all afforestation activities, including new planting, harvesting and on-going management and any other related activities that could have an impact on water quality. While there have been advancements made in regulatory framework in recent years, the Forum emphasise that catchment-scale, cumulative impacts of forestry should be assessed for all licence applications. DAFM will have to ensure that WFD assessments will not add any further delays to the licence process, which the Forum acknowledges is already protracted.

The Forum supports the developments that EPA PIP maps will now be used in licence assessments (as outlined in presentation by the Forestry Service to the Forum members). In relation to the final Principal Action for forestry, where DAFM will *“Deliver further training of Registered Foresters and*

Consultant Ecologists and of Department Forestry Inspectors and Ecologists, in relation to the design, assessment and implementation of forestry projects from the perspective of the protection environment, including water”, the Forum recommends that specific mandatory training on EPA PIP maps and associated characterisation and assessment science should be delivered by the EPA to all inspectors, to support the inclusion of these maps as a layer in the Forestry GIS based system that is used for licence assessments.

In 2013, the EPA and COFORD supported a multi-sector co-operative project called HYDROFOR¹⁸ (commissioned by DAFM) to investigate the impacts of forestry operations on Ireland's aquatic ecology. The HYDROFOR researchers' professions spanned the natural, engineering and social sciences, and the research presented significant policy recommendations in relation to forestry activities. The Forum is concerned over the lack of clarity by the DAFM as to what policy recommendations from the HYDROFOR report have been implemented. The Forum recommends that the RBMP includes an action for DAFM to implement the policy recommendations presented in the HYDROFOR report for the protection of the ecological quality of water. Where there are exceptional circumstances where DAFM cannot implement some of the recommendations, the Forum recommends that DAFM develop a summary report outlining the supporting justification as to why. This would ensure transparency and accountability in the decision-making process, along with challenges, for adopting the significant policy recommendations arising from this significant assessment of the impacts of forestry operations on the ecological quality of water. The Forum acknowledges that many pressures from forestry in Ireland are as a result of legacy forestry practices which were initiated decades ago without sufficient knowledge of the impacts it would have on water quality or biodiversity. The Forum is of the view that the draft RBMP lacks targeted measures to deal with the legacy forestry issues and their impacts on water quality and recommends that DAFM, with support of the DHLGH, outline key actions to tackle this issue at a national level and also at sub-catchment and water body level. This should include details to address legacy tunnelling issues and impacts on aquatic species. Targeting of measures at a water body and sub-catchment level will assist with this as many of the pressures from forestry exist in areas where legacy issues arise, for example, in catchment headwaters. The 2022-2027 RBMP should have a specific objective to have largely resolved the legacy issues with forestry by the end of the plan period.

The Waters of LIFE project, which has a role in supporting the implementation of measures to protect and enhance high status objective water bodies, are proposing to implement two pilot projects to focus on Forestry and water quality to develop and test approaches to safely remove legacy stands. The Forum recommends that an action is added to the RBMP to incorporate learnings on an on-going basis from these pilot projects to tackle legacy forestry issues where they are impacting on high status waters. The Forum emphasises that additional efforts to reduce legacy forestry issues in high status and other water bodies should proceed in parallel, to ensure that significant and measurable progress is made at reducing this pressure over the third cycle.

The Forum is supportive of the engagement between the Forestry Service and LAWPRO in relation to reducing the impacts of forestry in Areas for Action. The Forum recommends that this engagement is expanded to ensure that all water bodies 'at risk' from forestry are being addressed. This should also include the identification of protection measures for high-status water bodies.

¹⁸ [Water | Environmental Protection Agency \(epa.ie\)](https://www.epa.ie/research/169/HYDROFOR) Research 169: HYDROFOR: Assessment of the Impacts of Forest Operations on the Ecological Quality of Water

The Forum is aware that the new CAP Strategic Plan has included a number of tree planting activities in both Pillar 1 and Pillar payment schemes. The Forum strongly recommends that the Forestry Section (DAFM) and the Water Advisory Section (DHLGH) should have input in the delivery of these activities to ensure maximum outputs for water quality.

Key Recommendations – Forestry

1. The Forum recommends that the 2022-2027 RBMP contain a summary of the status of water bodies outlined in the second RBMP (238 at risk from forestry and 51 with high status objectives), comparing their quality and status at the commencement and end of the second cycle. This will provide clarity as to the relative success of the measures for the 2018-2021 period and will serve as a useful benchmark from which to plan measures for the forestry sector at national, sub-catchment and water body level for the 2022-2027 Plan.
2. The Forum recommends that for the 233 water bodies where forestry has been identified as the significant pressure, that targeted measures (either restore / protect measures) are included to indicate how the RBMP will reduce the forestry pressure from these water bodies. Timelines should also be included, both interim timelines to indicate progress during the 3rd cycle, and the date expected for each water body to achieve its WFD objective.
3. The Forum recommends that details of the relevant forestry policies and projects should be included in the final RBMP (similar to the format of the second RBMP), particularly those which will impact or support the required implementation measures in the final plan.
4. The Forum recommends that details are added to the final RBMP on how the new Forest Strategy and the next Forestry Programme will align with the requirements of the WFD. Furthermore, the Forum recommends that as part of this process the Forestry Service outline how much land is available for different types of afforestation (i.e. the right places). – These sensitivity maps would be a proactive measure for the protection of water from future afforestation activities.
5. The Forum recommends that the RBMP should provide detail on proposed engagement between the DAFM and other parties on forestry-related issues, as to what these engagements are expected to achieve, increasing transparency and accountability for aligning forestry activities with the WFD. Furthermore, a table should be added to the RBMP outlining the roles and responsibilities of the different Government departments, state bodies and agencies to ensure transparency and accountability in the third cycle.
6. The Forum recommends that the RBMP provides more direction for DAFM to ensure that their licence application process is aligned with the WFD. In particular, there should be specific WFD site assessments for licencing of all afforestation activities, including new planting, harvesting and on-going management and any other related activities that could have an impact on water quality. Catchment-scale, accumulative impacts of forestry should be included in these assessments.
7. The Forum recommends that all new afforestation on lands not previously used for this purpose be carried out according to the principle of the right trees in the right places for the right reasons and with the right management and in accordance with objectives of the WFD.

Key Recommendations – Forestry

8. The Forum recommends that specific mandatory training on EPA PIP maps and associated characterisation and assessment science should be delivered by the EPA to all inspectors, to support the Forestry GIS based system that is used for licence applications.
9. The Forum recommends that the RBMP includes an action for DAFM to implement the policy recommendations presented in the HYDROFOR report for the protection of the ecological quality of water. Where there are exceptional circumstances where DAFM cannot implement some of the recommendations, the Forum recommends that DAFM develop a summary report outlining the supporting justification as to why. This would ensure transparency and accountability in the decision-making process, along with challenges, for adopting the significant policy recommendations arising from an assessment of the impacts of forestry operations on the ecological quality of water.
10. The Forum is of the view that the draft RBMP lacks targeted measures to deal with the legacy forestry issues and their impacts on water quality and recommends that DAFM, with support of the DHLGH, outline key actions to tackle this issue at a national level and also at sub-catchment and water body level.
11. The Forum recommends that an action is added to the RBMP to incorporate learnings from the Waters of LIFE pilot projects (on an on-going basis) to tackle legacy forestry issues where they are impacting on high status waters.
12. The Forum recommends that the engagement between the Forestry Service and LAWPRO is expanded to ensure that all water bodies 'at risk' from forestry are being addressed. This should also include the identification of protection measures for high-status water bodies.
13. The Forum recommends that the Forestry Section (DAFM) and the Water Advisory Section (DHLGH) should have input in the delivery of the tree planting activities of the new CAP to ensure maximum outputs for water quality.

6.4 High Status Objective Water Bodies

Of the 4,842 water bodies in Ireland, only 230 are classified as High-status. This number has been steadily decreasing over the past two RBMP cycles; there were 290 high status sites at the start of the second cycle and 324 high status sites at the start of the first cycle. The EPA Ireland's Environment, An Integrated Assessment Report 2020¹⁹ noted "the dramatic reduction in the number of our most pristine rivers, which has fallen from over 500 sites to only 20 sites in 30 years". This catastrophic decline illustrates that urgent action is needed to halt and reverse this trend across all high-status objective water bodies. Addressing the decline in high status waters was a key objective of the second RBMP and it is very disappointing that the negative trend has continued during the plan period between 2018 and 2021.

The Forum considers the draft RBMP weak in its ambition regarding objectives for high status water bodies. The 2nd RBMP had a specific section titled 'Strategy and Actions to protect our high-status objective sites'. The Forum recommends that the 3rd RBMP also includes the same section, outlining the different measures that will be put in place to protect and restore high status objective sites, along with details of the supporting projects (Blue Dot, Waters of LIFE). The Forum recommends that this section should clarify the differences between water bodies already classified as high-status sites (therefore requiring protection) and those with high-status objectives, which could indicate they require either protection or restoration depending on their current status. The Forum recommends that an urgent action is added to the RBMP to develop a plan to urgently protect the 230 high status water bodies. Furthermore, the 20 remaining pristine water bodies should be included as a sub-group within this plan, with an emphasis on high-level protection of these water bodies.

Blue Dot water bodies are those which have, or have the capacity to have, the highest water quality and it is Ireland's ambition to preserve and protect them and to restore them where necessary. According to the draft RBMP (Pg. 54), there are 384 Blue Dot water bodies nationally and it is proposed to include 238 of them within Areas for Action in the third cycle. One of the proposed measures in the draft RBMP outlines "*The Blue Dot Programme to draft a detailed work plan for waters with a High-Status Objective, with a view to them forming part of the proposed local catchment plans*". The Forum has concerns that this measure only applies to water bodies within Areas of Action, i.e. this proposed measure applies to 238 of the 384 high status objective water bodies (only 62%), and therefore there remains a gap as to how the remaining 146 water bodies with a high-status objective will be addressed

In line with the Forum's recommendation for an outcomes-based approach, where all targeted measures are developed for all water bodies, the Forum recommends that active measures are required to protect or restore all of the 384 water bodies with high status objectives. It is likely that, without significant additional resources, there will be a time lag for the delivery of the actions for the 146 Blue Dot water bodies not within Areas for Action, thus risking further deteriorations. The Forum recommends that any additional resources should be focused on a plan of action, with a focus on targeted measures to ensure efficiency and impact. Controls of unregulated activities, such as land drainage, should also be assessed when developing protection measures for these high-status sites.

In relation to the proposed workplan for waters with a high-status objective forming part of the proposed local catchment plans, there is no indication of who will have responsibility for delivering this work programme. The draft RBMP states that Local Authorities will have responsibility for the delivery of actions in the 46 catchment plans. The Forum recommends that specific details of roles and responsibilities for high status sites are included to ensure transparency and accountability for the protection of high-status sites. A table should be added to this section outlining the roles and

¹⁹ [Environmental Protection Agency – Ireland's Environment – An Integrated Assessment 2020 \(epa.ie\)](https://www.epa.ie/publications/reports/water/water_quality/2020/20200101_eia_2020.html)

responsibilities of the different Government departments, state bodies and agencies. An integrated catchment management approach must be adopted, ensuring coherence across these governance bodies and policies, which is currently fragmented. It is imperative that the decline in high status waters is halted and reversed in the third cycle so very clear and transparent governance and implementation processes are needed for this area.

The objective of the Waters of LIFE project is to *“Support the implementation of the measures to protect and enhance high status objective water bodies and thus to support the work of the Blue dot Catchments Programme as outlined in the River Basin Management Plan”*. The Waters of LIFE gave a presentation to the Forum members, which illustrated a range of project actions to build on characterisation work of RBMP and improve understanding of drivers of status change in high status sites. It also highlighted the range of engagement and collaboration efforts between various key agencies (DAFM, Teagasc, Forestry Service, LAWPRO, Coilte, EPA). The Forum recommends that details of this project and its associated collaboration efforts should be included as a key action in the RBMP to address high-status sites. While the RBMP states that the Blue Dot Programme will be supported by the Waters of LIFE project, this project is only beginning, so its learnings are not likely to be realised until late in the RBMP cycle and therefore they will have little impact on the wider Blue Dot catchment programme within this cycle.

Key Recommendations – High Status Objective Water Bodies

1. The Forum recommends that a section is added to the RBMP to outline the strategy to protect high status sites, with an associated list of principal actions and clarity about governance, accountability and implementation. A table should be added to this section outlining the roles and responsibilities of the different Government departments, state bodies and agencies. An integrated catchment management approach must be adopted, ensuring coherence across governance bodies and policies.
2. The Forum recommends that an urgent action is added to the RBMP to develop a plan to urgently protect the 230 high status water bodies. Furthermore, the 20 remaining pristine water bodies should be included as a sub-group within this plan, with an emphasis on high-level protection of the water bodies. The active measures required to protect or restore all of the 384 water bodies with high status objectives must also be outlined in the final RBMP.
3. The Forum recommends that an action is added to the RBMP on the monitoring and reviewing of the Blue Dot Programme, including details of the role of the Blue Dot Steering Committee.
4. The Forum recommends that details of the Waters of LIFE project, its objectives and associated collaborations should be included as a key action in the RBMP to address high-status sites.
5. The Forum recommends that a member of the Forum executive should sit on the Waters of LIFE Stakeholder Advisory Group, to allow updates to be provided to the Forum members on the progress of the plan.
6. The Forum recommends that the DHLGH engage with the DAFM to ensure priority access to AECM schemes for landowners within all 384 high status objective water bodies (currently approximately 70% are included) as a means to meet WFD objectives.
7. The Forum recommends a national awareness campaign on Blue Dot catchments and high-status objective water bodies and why it is essential that their status is restored and protected.

6.5 Urban Wastewater

Urban wastewater is a main pressure in 208 water bodies, the fourth largest significant pressure identified for the 3rd cycle, impacting 13% of unsatisfactory surface waters. The Water Forum welcomes the reduction in wastewater as a significant pressure in 83 water bodies during the second cycle, along with the planned investment in 83 urban wastewater treatment plants and 10 collection networks proposed for the third cycle.

It is essential that Irish Water's plans and programmes of work address the significant pollution risk in the 208 water bodies at risk from urban wastewater and bring these water bodies to good ecological status. The Forum recommends that Irish Water must outline clear measures in their RC4 Capital Investment Plan to address the 208 water bodies at risk from urban wastewater, which must be addressed during the third RBMP. Furthermore, there should be no deterioration in the other water bodies putting them at risk from urban wastewater. This requirement should be included as an additional Principal Action in the final RBMP plan, in line with the Forum's recommendation or an outcomes approach to the third cycle (Box 1).

In relation to the proposed measures to invest in the 83 Waste Water Treatment Plans and 10 collection networks, Irish Water needs to publish proposed dates for these projects, expected completion dates and any dependencies and these need to be included in next RBMP. The EPA Waste Water Treatment report for 2020²⁰ stated that based on the current investment levels and rate of delivery of infrastructure, it will take two decades to bring Ireland's waste water infrastructure to the necessary standard. The Forum recommends that Irish Water prioritise their planning process to address those water bodies where wastewater is the most significant risk and where the greatest benefits can be achieved.

The European Union's Urban Waste Water Treatment Directive sets standards for waste water treatment at all large urban areas across Europe. Compliance with the standards is *a basic step* in protecting our environment from the adverse effects of wastewater discharges. The final deadline to comply with these mandatory standards was 2005. The EPA 2020 report also stated that treatment at "12 towns and cities failed to meet EU standards" for environmental protection, standards which were set 15 years ago. The Forum recommends that the Department ensures these improvements are made by Irish Water within this RBMP cycle.

The EPA have also identified 42 areas where wastewater treatment improvements are needed to prevent pollution and 5 of these are currently being assessed for improvements. A further 8 areas will be addressed up to 2024, but Irish Water does not have a clear plan to address the remaining 29 areas where infrastructure works are needed.

One of the proposed measures in the draft RBMP is in relation to Irish Water's *Enhanced ambition programme*; where additional funding is being provided by the European Commission to specifically support upgrades of wastewater treatment plans which are impacting water bodies at-risk from urban wastewater. The Forum recommends that the final RBMP should provide more information on the process of this Enhanced Ambition programme, to increase transparency and accountability towards achieving WFD objectives, outlining the proposed sites for improvements, measures to be implemented and timelines for delivery. Priority should also be given to towns that have more than one environmental priority such as failing to meet EU treatment standards and is on the list of towns and villages discharging raw sewage. Similarly, €20m of the EU Recovery and Resilience Fund was assigned to the River Basin Management Plan specifically for the upgrade of 10 wastewater treatment

²⁰ [Urban-Waste-Water-Treatment-in-2020-report.pdf \(epa.ie\)](#)

plants, and the Water Forum recommends that these plants are identified in the RBMP and that the upgrades are delivered within this cycle.

34 towns and villages release raw sewage into the environment because they are not connected to water treatment plants. In a recent press release (6/9/2021), Irish Water stated they are on track to remove the 'majority' of raw sewage discharge by 2025. The Forum recommends that increased transparency in the plans, progress and expected timelines for these projects, as part of the final RBMP.

Nature-based solutions (NBS) such as Integrated constructed wetlands (ICW), willow bed evapotranspiration systems and soil-absorption systems can achieve high treatment performances and are already in operation in locations across Ireland. An Irish study (Hickey et al., 2018) looked at 52 constructed wetlands operated by local authorities, and performed data analysis to compare effluent results from constructed wetlands with secondary free surface flow or tertiary horizontal subsurface flow, hybrid systems and integrated constructed wetlands (ICW) with those from small-scale mechanical wastewater treatment plants of the same size class. The authors found that ICWs performed well in retaining nutrients and suspended solids, when design guidelines were adhered to. Irish Water (IW) have recognised that wetlands can also help improve wastewater quality by filtering and removing high levels of nutrients from wastewater, as well as their use for wastewater treatment of small rural communities²¹ rather than relying solely on hard-engineering grey-infrastructure solutions. Soft engineering solutions have benefits for biodiversity and a lesser carbon footprint and can potentially be implemented faster than hard engineering solutions and are significantly cheaper to operate (10% of conventional WWTP operational costs²²). The Water Forum welcomes the development of 'the multiagency group under the NTIG that will co-ordinate efforts for NBS in catchment management' proposed in the draft plan and hopefully it will encourage the consideration of wider use of ICW and nature-based solutions particularly for smaller agglomerations in at risk catchments. The Forum recommends the adoption of regulatory frameworks promoting NBS at the national level, harmonising them with the recommendations of existing European and International regimes (e.g. Paris Agreement, 2030 Agenda for Sustainable Development, SDGs, Water Framework Directive, Water Europe's Healthy Soils Strategy, UN and IWA's recommendations, etc.). This may also facilitate synergies across scales and across multiple agendas.

Vulnerable habitats; the EPA identified 12 priority areas where improvements in waste water treatment is needed to protect pearl mussel habitats under Irish Water's current plan, 5 of these areas are not likely to be resolved until after 2024. There are 64 shellfish designated areas around Ireland's coastline that are producing shellfish for human consumption, if these waters get polluted the shellfish can accumulate bacteria and viruses, and if consumed can cause illness to humans. Irish Water is required to carry out assessments in 43 of these to ensure wastewater is not impacting on shellfish and 25 assessments were outstanding at the end of 2020. The Water Forum recommends that the assessments of all shellfish designated areas are completed urgently, and that the necessary treatment processes are put in place to protect freshwater pearl mussel habitats and all shellfish designated areas.

Stormwater overflows; At the end of 2020, Irish Water had assessed the performance of approximately 60% of storm water overflow outlets (EPA Waste Water Report 2020). Of these, 25% did not meet the necessary standards, meaning that during storm events untreated sewage is entering surface waters, putting the environment and public health at risk. The Forum recommends that all

²¹ <https://www.water.ie/help/wastewater/wetlands/>

²² [Irish Water celebrates World Wetlands Day as new Integrated Constructed Wetlands \(ICW\) Project in Lixnaw enters commissioning phase | News | Irish Water](#)

combined sewer overflows and storm water overflows should be assessed and their locations should be mapped with discharge rates and discharge volumes recorded. Funding should be provided to develop a publicly accessible data-hub of this information particularly as such incidences can cause pollution events at bathing waters, open water recreation sites or other sensitive protected areas. It is essential that storm water overflow standards are met and implemented as soon as possible. The draft RBMP states that the EPA will carry out a review of waste water discharge licences and the Forum recommends that this include updated hydrological flow measurements to account for the likely impacts owing to climate change.

Priority Areas; The EPA Urban Waste Water Treatment report 2020 identified 97 priority areas that require plant and treatment upgrades to resolve environmental priorities. Irish Water in a press release (3/11/21), stated they had plans in place for 75 of these, leaving 22 to be addressed in the next investment cycle and therefore not likely to be addressed in the third RBMP cycle. Even when funding was available timelines to provide the infrastructure or additional treatment were often revised and extended. The plans for these 97 priority areas (identified by the EPA as requiring plant and treatment upgrades) must be included in the final RBMP, along with a timeline for improvement so that it can be monitored as part of the RBMP implementation process.

Nutrient Recovery from Wastewater; The Water Forum commissioned research on nutrient recovery and recycling (Giberti, in prep), which presents the various technologies available and national and international case studies of nutrient recovery; the research states that dissolved nutrients from wastewater should be considered as a resource to be recovered, rather than merely pollutants to be removed. Human urine contributes for less than 1% of the total wastewater volumetric flowrate, but it contains more than 80% of the total nitrogen, and more than half of the total phosphorus and potassium (Larsen et al., 2004; Vinneras and Jonsson, 2002). Nutrient recovery from waste water and its recycling into agriculture has the potential to both reduce nutrient pollution of water bodies and reduce the use of, for example, mineral phosphorus as land fertiliser. Sustainable phosphorus management is already being highlighted within Europe due to concerns over a future global supply shortage of recycled fertilisers to meet growing consumer food demand^{23,24}. Phosphorus recovery as struvite has been included as part of the upgrade of Ringsend wastewater treatment plant, a development which is welcomed by members of the Forum.

The Forum recommends that more urgent consideration should be given in the RBMP to the concept of nutrient recovery from wastewater, not only from urban wastewater treatment facilities, but also through stream segregation technologies (e.g. urine diverting toilets). This would strengthen national efforts for achieving a circular economy and meeting requirements of the UN Sustainable Development Goals and EU Circular Economy goals, while reducing the dependencies on imported fertilisers (which are vulnerable to prices volatility).

Research projects such as [ReNu2Farm](#) and [Nutri2Cycle](#) show that Struvite, a bio-based fertiliser from Phosphorus in waste water, was consistently more productive for plant growth than bagged chemical fertilizer, slurry or other bio-based fertilizers. Struvite also accommodated a significantly higher earthworm biomass than chemical fertilizers. The Water Forum recommends that Irish Water increase its levels of nutrient recovery as a means to reducing pressures on the environment, along with adapting to increasing fertiliser costs with reductions in availability.

²³ <https://ec.europa.eu/environment/consultations/pdf/phosphorus/EN.pdf>

²⁴ <https://www.phosphorusplatform.eu/links-and-resources/p-facts>

Key Recommendations – Urban Wastewater

1. The Forum recommends that the RBMP includes an action for Irish Water to address the deficits in treatment in the 208 water bodies at significant risk from urban wastewater treatment, where Irish Water must outline project details and timelines, in line with the Forum's proposed outcomes-based approach (Box 1). Irish Water must outline clear measures in their RC4 Capital Investment Plan to address the 208 water bodies at risk from urban wastewater, which must be addressed during the third RBMP. Furthermore, there should be no deterioration in the other water bodies putting them at risk from urban wastewater.
2. The final RBMP should provide specific information on associated dependencies for funding of wastewater infrastructure, including details of the Enhanced Ambition programme, with details of decision-making for proposed sites and timelines to achieving WFD objectives.
3. The assessments of all shellfish designated areas should be completed urgently, and that the necessary treatment processes are put in place to protect freshwater pearl mussel habitats and all shellfish designated areas.
4. A regulatory framework promoting nature based solutions at the national level should be adopted and harmonised with the recommendations of existing European and International regimes (e.g. Paris Agreement, 2030 Agenda for Sustainable Development, SDGs, Water Framework Directive, Water Europe's Healthy Soils Strategy, UN and IWA's recommendations, etc.)
5. There needs to be greater emphasis on nutrient recovery from wastewater treatment systems in the plan to contribute to a circular economy, while reducing pressures of nutrient pollution from wastewater.

6.6 Domestic Wastewater

Domestic wastewater is the sixth largest pressure on water bodies in Ireland, where poorly performing, maintained or located domestic wastewater treatment systems (DWWTS) are highlighted as a pressure on 12% of At-Risk water bodies. The EPA's National Inspection Plan (NIP) is proposed as a key tool in the draft RBMP to address the pressure of DWWTS on water bodies, and states that an objective of the NIP *"is to prioritise inspections to areas of greatest environmental and public health risk and secure upgrading works where required"*. The Water Forum prepared a submission for the public consultation on the NIP for 2022-2027²⁵, where the Forum welcomed the risk-based methodology used in the draft NIP for the characterisation of risk and the 'right-measure-right-place' approach with targeted inspections based on scientific evidence of local conditions. Local authorities have a key role in reducing the pressures from current DWWTS through their inspection regime. As outlined in the Governance section, the selection of DWWTS for inspections should be in the context of the WFD and water catchment assessments to provide the scientific context and understanding needed for effective inspections and compliance assurance. The Forum supports the Proposed Action in the draft RBMP *"The Local Authority Environmental Services National Training Group (LAESNTG) will provide training for catchment assessment and Integrated Catchment Management for the staff of local authorities and all implementing bodies"* and recommends that all Local Authority DWWTS inspectors should complete Catchment Management Science Training, similar to that being taken by LAWPRO in Priority Areas for Action. Furthermore, refresher training should be provided on a regular basis (e.g. every two years) to ensure all staff are developing their inspection regime to optimise outcomes for water bodies identified as being at-risk from DWWTS. To strengthen the implementation of the NIP, the EPA should carry out increased audits of local authorities to ensure consistency in following through with enforcement, along with refresher training to Local Authority Inspectors on the enforcement model to ensure efficient closing out of advisory notices.

The Forum welcomes the focus on household wells in the NIP 2022-2027²⁶, which the EPA have reported as the lowest quality drinking water source in Ireland. The Forum is concerned that the 400 inspections per year in Zone 2 (households with a DWWTS co-located on the same site, and in areas which have higher groundwater susceptibility to the percolation of wastewater), is only equivalent to 8% inspection coverage in this Zone over the entire NIP and recommends that the EPA should lead a *targeted Education and Awareness Campaign* for the 160,000 dwellings that have a household well and DWWTS co-located on the same site. An effective awareness campaign, outlining the potential impacts to drinking water quality and associated health risks to the homeowners and their families, should encourage homeowners to correctly maintain their DWWTS, which would subsequently have co-benefits for local water quality.

Grant schemes; The Forum are also of the view that the grant scheme should be made available to all homeowners in Zone 1 (i.e. dwellings that are within 100m of water bodies that have been identified as being at risk from DWWTS), as a pro-active measure to reduce the national threat from DWWTS to our water bodies, supporting measures to achieve WFD objectives for at-risk water bodies. This is particularly necessary where DWWTS are located in unsuitable soils and may need specific technical requirements to adequately treat wastewater before entering the local soil. Homeowners in Zone 1 should be eligible to avail of this grant, even if they have not been inspected by local authorities under the National Inspection Plan.

²⁵ [AFU-submission-NIP-DWWST-Review-21st-March-2021.pdf \(thewaterforum.ie\)](#)

²⁶ [2022-2026-NIP---Final.pdf \(epa.ie\)](#)

The draft RBMP has a Proposed Action where the *“DHLGH will continue to 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”*. The Forum is of the view that there could be administrative issues for applying for or drawing down the grant that could be limiting the scope of the scheme. Having reviewed the uptake of the grant scheme (83 in 2018, 160 in 2019, 111 in 2020 and 21 in between January and June 2021), the Forum has concerns that there are barriers for homeowners to avail of this grant. One of the conditions of eligibility is that the DWWTS *“must have been registered by the owner by 1st February 2013, or in the case of treatment systems constructed or installed after this date registration must have been completed within 90 days of connection”²⁷*, or they will not qualify for the grant. The Forum believes that this requirement should be removed as an eligibility criterion; if a DWWTS has been found to be a risk to human health or a risk to the environment, the Government should be supporting homeowners to remove this threat, regardless of when the DWWTS was registered. If the DWWTS is not registered, the homeowner should be allowed to register if it facilitated eligibility for the grant. Furthermore, there should be sufficient resources within a Local Authority to support the homeowner with the administrative requirements of the grant application.

The Forum recommends that an action is added to the final RBMP for on-going communication between the DHLGH, the EPA and Local Authorities, to ensure the grant scheme is optimal and effective at reducing the risk of DWWTS to water bodies, and also to secure funding to expand the grant scheme to increase the criteria for grant applications.

In its submission to the NIP 2022-2027, the Forum raised concern that grant schemes are *“outside the scope of the national inspection plan”*. The report on the Review of the NIP 2018-2021 states *“Grant accessibility and sufficiency has been frequently raised in workshops and the initial stakeholder meetings as a barrier to closing advisory notices involving significant works”*, and therefore it is clearly a key issue for the successful implementation of the plan. The Forum recommends that the RBMP must outline how it will align and cohere these different policy tools where the RBMP should act as the framework for policy coherence to reduce pressures from DWWTS.

Planning and building control also have a direct influence on the risk posed by DWWTS to local water bodies, where planning processes must ensure that planning is not permitted in areas that have unsuitable soil for DWWTS, while planning and building control must ensure that a suitable DWWTS are used in any new buildings. The Forum also raised concern in their submission to the EPA that planning and building control *“are outside the scope of the NIP”* and believe it is not indicative of an integrated approach to address Ireland’s water quality crises. The Forum is concerned about the lack of follow up procedures in relation to new buildings and recommends that there are follow-up inspections by Local Authority staff to ensure the correct DWWTS was used and that it was installed correctly. At the very least homeowners should have to submit a photo of the newly installed DWWTS, along with proof of purchase to ensure that the proposed DWWTS was actually used in the final build. The Forum recommends that the RBMP should outline measures to outline how it will integrate Local Authority planning application process with the requirements of the WFD.

The Forum supports the proposed measure associated to domestic wastewater in the draft RBMP; *“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.”* This EPA funded project is not due to start until March 2022, therefore the Forum recommends that the DHLGH receive

²⁷ [gov.ie](http://www.gov.ie) - Domestic waste water treatment systems (septic tanks) (www.gov.ie)

interim updates on the research on the application of zero discharge from domestic wastewater, to allow for planning and incorporation into the 3rd cycle.

In addition, the Forum suggests that research on a number of pilot projects for a rural community to adopt nutrient recovery technologies should be carried out. For example, in Cloughjordan, Co. Tipperary, there is no further planning permission due to an overloaded municipal wastewater treatment plant. The Eco Village Community in Cloughjordan are interested in nutrient recovery and reuse, which could be an ideal pilot project to assess this front of pipe approach. As part of the pilot project, subsequent monitoring of pollutants in local water bodies could indicate the impact of community-based nutrient recovery from wastewater, which could support developments in planning. Learnings from these pilot projects could support the development of guidelines for alternative approaches to domestic wastewater treatment.

Key Recommendations – Domestic Wastewater

1. In relation to the National Inspection Plan, the EPA should integrate enforcement follow-through as part of its audit of local authorities, along with refresher training to Local Authority Inspectors on the enforcement model, due to large numbers of non-compliant advisory notices outstanding.
2. The EPA should lead a targeted Education and Awareness Campaign for the 160,000 dwellings that have a household well and DWWTS co-located on the same site to highlight health and environmental risks to encourage homeowners to correctly maintain their DWWTS.
3. An action should be added to the final RBMP for on-going communication between the DHLGH, the EPA and Local Authorities, to ensure the grant scheme is optimal and effective at reducing the risk of DWWTS to water bodies, removing current obstacles for receiving the grant.
4. The Forum recommends that the grant scheme should be made available to all homeowners in Zone 1 (i.e. dwellings that are within 100m of water bodies that have been identified as being at risk from DWWTS) as a pro-active measure to reduce the national threat from DWWTS to our water bodies, supporting measures to achieve WFD objectives for at-risk water bodies.
5. The Forum raised concern in their submission to the EPA that planning and building control “*are outside the scope of the NIP*” and believe a more integrated approach including planning and building control would be more effective in addressing Ireland’s water quality crises.
6. The RBMP should outline measures to outline how it will integrate Local Authority planning application process with the requirements of the WFD.
7. The Forum recommends that the RBMP should act as the framework for policy coherence to reduce pressures from DWWTS and outline how it will align and cohere the different policy tools (e.g. grant scheme, planning guidelines).
8. The Forum is concerned about the lack of follow up procedures in relation the establishment of DWWTS at new buildings and recommends that there are follow-up inspections by Local Authority staff to ensure the correct DWWTS was used and that it was installed correctly.
9. The Forum recommends that the DHLGH should receive interim updates on the research on the application of zero discharge from domestic wastewater, to allow for planning and incorporation into the 3rd cycle.
10. The Forum recommends a number of pilot projects to research community based nutrient recovery from domestic wastewater. Learnings from these projects could support the development of guidelines for alternative approaches to domestic wastewater treatment.

6.7 Peatlands

Peatlands cover 20% of Ireland's land area, forming raised bogs in the midlands and blanket bogs on higher ground. Only 18% of Ireland's bogs are at good conservation status, with the remaining 82% degraded. Degradation releases greenhouse gases, reduces biodiversity and pollutes rivers and streams. Drainage allows oxygen flows into peat, microbes can then degrade the peat, releasing Greenhouse gasses in the process. Drained peatlands are the largest emitter of Greenhouse Gas (GHG) emissions every year in Ireland. The draft RBMP states that peatland degradation impacts on 106 water bodies and is a significant pressure on 28 water bodies.

The draft RBMP proposes seven Principal Actions in relation to Peatlands:

- Measures set out in the National Peatlands Strategy be updated into a new Implementation Plan by NPWS to continue driving the implementation of the various programmes to restore the raised bog SAC and NHA network.
- Appropriate bodies to implement the actions arising from the CANN and CABB Interreg programmes.
- DHLGH to oversee the coordination of the Wild Atlantic Nature LIFE Integrated Project (IP), bringing together the experience and knowledge of the associated partners.
- Bord na Móna to oversee the "Peatlands and People" LIFE Integrated Project.
- 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.
- DAFM to oversee the implementation of sustainable management practises developed through the Blackstairs Mountains, Wicklow Mountains and MacGillycuddy Reeks Mountains EIP projects.
- NPWS to explore peatland financing options to escalate restoration efforts including public private partnerships, community trusts, offsetting etc.

Not all of the measures in the second RBMP to address peatlands and water quality have been delivered. In order to successfully develop actions for the third cycle to reduce the pressures from Peatlands, the Forum recommends that a review of the second cycle is carried out to determine if the measures implemented between 2018 and 2021 had any impact on this pressure. While the number of waterbodies impacted by peat has decreased from the second cycle, (p69 dRBMP) the assessment of status should continue in order to assess the potential impact of climate change such as enhanced dissolved organic carbon (DOC) in water courses. The Forum is of the view that the measures proposed in this draft plan are fragmented and believes a much more focused national approach is needed to address the issues caused by degraded peatlands for water quality, flood attenuation, biodiversity and climate mitigation.

The managed rewetting of the bogs by blocking drains and other improvements to keep the water level between 0 and -30cm below the surface will let the bog plants grow back, reduce biodiversity loss, improve water quality and stop carbon emissions. Such action provides a quick win for climate, biodiversity and water quality. With 20% of our land area formed of peatlands, retaining the capacity of peatlands to store water has the potential to attenuate flooding during storm events by slowing the flow.

The Forum recommends that the RBMP should include an action that peatland degradation status is identified in each water body and measures are put in place to restore the status in each catchment. Furthermore, the status of peatlands in catchments should be continuously monitored for their impact

on water quality particularly with regard to dissolved organic carbon and ammonia in drinking water source catchments. Considering these potential wins the draft plan lacks concrete actions to protect peatlands and rewet degraded peatlands. At the Forum's peatlands webinar discussion last year, it was noted that *'there is a serious leak in the bucket regarding peatlands and it is being driven by current policy'*. One of the key recommendations from a research project funded by the Water Forum on *Peatland Management for water quality, biodiversity protection and climate mitigation*²⁸ is the implementation of existing policies to ensure compliance with relevant regulations and the eradication of deficiencies or conflicts across legislations.

Key actions to meet the legislative requirements are:

- Restoration of all raised and blanket bog SACs as required in the Habitats Directive (currently less than 25% of protected raised bog SACs is restored or scheduled for restoration SACs and only 4% of blanket bog SACs are restored or scheduled for restoration).
- New and sufficient funding mechanisms need to be provided for peatland restoration schemes that includes long-term monitoring and supports for peatland community schemes.
- Agricultural peat soils are one of the largest peatland land use categories so it is critical to develop strategies to reduce carbon emissions to the atmosphere and to the water, which are tailored to local grassland types and climates. As these nutrient rich organic soils act as hot spots for CO₂ and N₂O they should be prioritised for rewetting. A National Strategy for rewetting peat soils is required.
- Implementation of supports to rewet agricultural peatlands or practice change for rewetting must be straight forward, and monitoring and evaluation must be captured. There needs to be investment in training and skills development of the farmers, support and advice is very important throughout the process.

Key Recommendations – Peatlands

1. An assessment of the status of water bodies outlined as being at risk from peatlands in the second RBMP should be carried out to determine if there was any change in status over the second cycle, where learnings should support the development of proposed measures for the third RBMP.
2. The Forum recommends the implementation of existing policies to ensure compliance with relevant regulations and the eradication of deficiencies or conflicts across legislations. Urgent action is required to restore the raised and blanket bog as required under the Habitats Directive.
3. Peatland degradation status should be fully recognised in the River Basin Management plans and thus monitored carefully in all catchments, especially with regards to dissolved organic carbon and ammonia emissions within each catchment. Measures must be included to reduce the impacts of degraded peatlands
4. A National Strategy for the rewetting of peat soils needs to be developed. Implementation of supports to rewet agricultural peatlands or practice change for rewetting must be easy, and monitoring and evaluation must be captured. The Strategy will have to include measures to provide financial supports for farmers to rewet their agricultural peatlands.
5. All activities to rewet, restore and manage peatlands needs to be assessed for compliance with the WFD, while also taking account the multiple benefits for climate and biodiversity.

²⁸ [Peatlands Synthesis-Report_Final_April2021.pdf \(thewaterforum.ie\)](#)

6.8 Invasive Alien Species

Invasive Alien Species (IAS) were highlighted in SWMI public consultation as one of the issues to be addressed in the third cycle are listed as one of the 'Other Pressures' in the RBMP, with 5 Principal Actions to address this pressure;

- NPWS to finalise legislation for the implementation of the EU IAS Regulation
- NPWS to prepare draft management plans and priority pathway action plans for priority invasive species.
- NPWS to advance negotiations on the recruitment of additional Biodiversity Officers
- An additional €500,000 to be provided for projects tackling Invasive Alien Species under the Local Authority Biodiversity Grant Scheme
- DHLGH to provide increased funding to the Community Water Fund to allow for additional projects, including invasive species control projects, to be undertaken at community level.

Recognising the urgency of developing management strategies for IAS in Ireland, a recent EPA research project on Prevention, Control and Eradication of Invasive Alien Species (Lucy et al 2021) established a suite of practical management strategies for IAS in Ireland. Furthermore, in 2020 the Water Forum commissioned research to address policy gaps surrounding management of IAS in Ireland (Lucy et al., 2021)²⁹, which presented ten recommendations for changes in governance and policy that will, if implemented, radically improve IAS management on the island of Ireland and significantly reduce the threat to native biodiversity and associated forecasted economic costs. Some of the ten policy recommendations outlined in this research were also proposed as key actions in the second RBMP, however there has been slow implementation of these actions, and some are still being progressed. The Forum has concerns that some of these uncompleted proposed actions from the second cycle have not been included in the draft RBMP.

The ten policy recommendations outlined in Lucy et al. (2021);

1. Establish a suitably resourced, single lead Division that is responsible for Invasive Alien Species (IAS) management in Ireland, working under the aegis of the National Parks and Wildlife Service (NPWS).
2. Establish an All-Ireland IAS Forum.
3. Develop a national Biosecurity Strategy for Ireland.
4. Provide appropriate resources, training and support in relation to IAS for our national Customs services at ports/entry points throughout Ireland.
5. Produce comprehensive Management Plans for IAS currently in Ireland, along with Contingency Plans for IAS expected to arrive in the future (based on horizon scan exercises).
6. Develop a surveillance programme to regularly monitor water bodies for the presence and status of IAS.
7. The new IAS legislation for Ireland that will come into force in 2021 must be implemented and enforced by the responsible agency.
8. Develop national IAS education and awareness programmes in Ireland.
9. Harness community involvement and support to ensure the long-term sustainability of national and local IAS and biosecurity programmes.
10. Significantly increase the level of research and management funding into IAS.

²⁹ [Lucy-et-al.-Invasive-Alien-Species-Report Policy-Recommendations-for-their-Management.pdf \(thewaterforum.ie\)](https://www.thewaterforum.ie/wp-content/uploads/2021/05/Lucy-et-al.-Invasive-Alien-Species-Report-Policy-Recommendations-for-their-Management.pdf)

The Forum recommends urgent finalisation of the legislation for the implementation of the EU IAS Regulation. The delivery of draft management plans and priority pathway action plans for priority IAS is urgently also needed, which should be implemented and enforced by the NPWS. The EU Regulation obliges member states to carry out comprehensive analysis of pathways and to identify those that require priority action. Only a small number of Priority Action Plans are currently being prepared and urgent action is needed on these. The Forum recommends that all information, guidance and advice that is provided as result of this legislation and associated regulations needs to be user friendly, interpretable and actionable.

The Forum supports the action in the draft RBMP for the development of management plans for priority IAS; Management of IAS, particularly aquatic species is complex and once established they are virtually impossible to eradicate, such as the Curly waterweed in Lough Corrib or Asian Clam in the River Barrow. The policy IAS research commissioned by the Forum also identified the need to produce comprehensive Management Plans for IAS currently in Ireland, along with Contingency Plans for IAS expected to arrive in the future (based on horizon scan exercises). The EU Regulation obliges member states to carry out comprehensive analysis of pathways and to identify those that require priority action. Only a small number of Priority Action Plans are currently being prepared and urgent action is needed on these. While the proposed additional resources for community invasive species control projects are welcome, Lucy et al. (2021) outlined the need for a surveillance programme to regularly monitor water bodies for the presence and status of IAS.

Key Recommendations – Invasive Alien Species

1. Establish a suitably resourced, single lead Division that is responsible for Invasive Alien Species (IAS) management in Ireland, for example the National Parks and Wildlife Service (NPWS). This single lead division would ensure engagement with and coherence across various Government departments (including DHLGH and DAFM), sectors and agencies.
2. An All-Ireland IAS Forum should be established which would report to the responsible agencies for IAS in Ireland and Northern Ireland. It will bring together national and international IAS experts, scientists, policy makers, practitioners, and stakeholders to advise both jurisdictions regarding IAS and biosecurity management on the island of Ireland.
3. A National Biosecurity Strategy should be developed that includes biosecurity guidelines and plans based on international best practice to encourage good biosecurity practice such as the need for biosecurity declaration forms at ports and entry points. The lack of biosecurity awareness was evidenced with the issues related to the crayfish plague during the second cycle
4. Provide appropriate resources, training and support in relation to IAS for our national Customs services at ports/entry points throughout Ireland.
5. IAS education and awareness programmes should be supported, such as biosecurity campaigns, along with pertinent materials on codes of practice, protocols for use by all stakeholders (garden centres, supermarkets, anglers, water sports industries etc).

6.9 Transitional and Coastal Waters

The Water Framework Directive ‘water environment’ includes rivers, lakes, transitional waters, groundwater and coastal waters out to 1 nautical mile (and 12 nautical miles for chemical status, i.e. for territorial waters)³⁰. Ireland has 196 transitional water bodies, and 112 coastal water bodies. According to the EPA Water Quality Indicators Report 2020³¹, there has been an increase of 26% Nitrogen loads and 35% Phosphorus loads to estuarine and coastal waters between the sampling period of 2012-2014 and 2018-2020. The Water Quality of Ireland Report 2013-2018 reported 80% of coastal waters are in good or high ecological status, however, only 38% of transitional waters are currently meeting the minimum ‘good’ status of the WFD.

The Forum is concerned that there is little emphasis on transitional and coastal waters in the draft RBMP. Only 42 of the 196 estuarine waters have been classified as ‘Not at risk’, with 52 classified as ‘At risk’ of not meeting the WFD objectives. More than half of all transitional water bodies (52%) and 40% of coastal water bodies are still classified as ‘In Review’, meaning that there is insufficient data to determine their WFD status. The Forum recommends that an urgent action is added to the RBMP to address this data gap and outline the measures and associated timelines for collecting the required data in these water bodies. Furthermore, the Forum recommends that a table is added to the RBMP outlining the roles and responsibilities of Government departments, state bodies and agencies in the management of transitional and coastal waters, including the roles of Local Authorities, the EPA, the Marine Institute, and the Maritime Area Regulatory Authority.

In line with the Forum’s recommendation for an outcomes-focused approach to the RBMP, the Forum recommends that targeted measures are developed for every transitional and coastal water body, along with estimates of timelines for these water bodies to achieve their WFD objectives. Where the status of the water bodies is unknown, timelines for achieving adequate data for the status assessments should be included, along with subsequent timelines for illustrating progress in chemical and biological quality. The Forum acknowledges that many pressures impacting estuarine waters will be addressed in targeted measures of water bodies upstream, however a catchment approach is required considering all aspects of the catchment. Therefore, coastal specific pressures which influence the WFD status should also be addressed, such as hydraulic dredging, shipping, seaweed harvesting, offshore renewables.

The management of transitional and coastal water bodies have additional complexities relative to inland water bodies as they are governed by a range of additional national and EU policies (such as the National Marine Planning Framework and the EU Marine Strategy Framework Directive – MSFD). Unlike inland water bodies, coastal water bodies also fall under the remit of the Department of Agriculture, Food and Marine, which adds additional challenges to their governance. There needs to be an integrated approach to managing the interconnectivity of Ireland’s river catchments, its transitional waters and its marine waters. Deferring responsibility to another legislative process reinforces governance silos, limits mitigating actions and restricts the integrated and collaborative approach within which the MSFD can address the environmental status of Ireland’s near shore environment. The development of the RBMP, however presents an opportunity for the DHLGH to display leadership in policy coherence and linking the RBMP with the relevant marine policies to create an ambitious strategy which will understand and address the multiple challenges facing Ireland’s (and the EU’s) marine environment. Specifically, the Forum recommends that the RBMP outlines how it will align with the Programme of Measures of the MSFD.

³⁰ [Delineation of water bodies — European Environment Agency \(europa.eu\)](#)

³¹ [EPA Water Quality 2020 indicators-report.pdf](#)

The Forum recommends that a section is added to the final RBMP outlining the measures required for the management of the marine environment, including measures to address policy coherence and interdepartmental collaboration. The Forum would welcome future engagements with the Department about future developments in the marine environment.

Key Recommendations – Transitional and Coastal Waters

1. The Forum recommends that a table is added to the RBMP outlining the roles and responsibilities of Government departments, state bodies and agencies in the management of transitional and coastal waters, including the roles of Local Authorities, the EPA, the Marine Institute and MARA.
2. The Forum recommends that an urgent action is added to the RBMP to address the data gap in the status of transitional and coastal water bodies. The RBMP should outline the measures and associated timelines for collecting the required data in these water bodies.
3. The Forum recommends that targeted measures are developed for every transitional and coastal water body to either restore or protect these water bodies, along with estimates of timelines for these water bodies to achieve their WFD objectives. When assessing pressures and significant issues in these water bodies, coastal-specific pressures should also be included (not only pressures upstream of the estuary).
4. The Forum recommends that a section is added to the final RBMP outlining the measures required for the integrated and joined up management of the marine environment, including measures to address policy coherence and interdepartmental collaboration. In particular, the RBMP should identify how it will align with the programme of measures of the MSFD.

6.10 Aquaculture

Aquaculture represents a significant threat to native species – not only, for example, through escaping farmed fish impacting on wild populations, but also through nutrient impacts, disease, marine litter, and the introduction and spread of non-native invasive species. The Forum welcomes the inclusion of the section on Aquaculture in the draft RBMP.

The draft RBMP outlines three Principal Actions in relation to the aquaculture;

- DAFM to seek to improve access to information through the launch of an online mapping viewer of licenced aquaculture sites in Ireland which will link to licence information already available online.
- DAFM and DHLGH to review opportunities to strengthen the links between the Aquaculture licensing process and the objectives of the WFD.
- DHLGH will seek to implement a new legislative and management framework for shellfish waters in Ireland.

The Forum is supportive of the second principal action to address aquaculture in the draft RBMP (*“DAFM and DHLGH to review opportunities to strengthen the links between the Aquaculture licensing process and the objectives of the WFD”*.) The Forum recommends that addressing the cumulative impact of aquaculture is essential in the aquaculture licencing process (including the threat to native species, nutrient impact, disease, marine litter, the introduction and spread of non-native invasive species), which should be implemented in a holistic, integrated approach. The Forum recommends that there should be WFD assessments carried out for every licence to ensure compliance with the WFD, along with transparency in the application process and environmental assessments.

Protected areas are areas that have been designated as requiring special protection because of their particular importance. These include shellfish areas, which are areas in which shellfish are grown or harvested. The requirement from a WFD perspective is to ensure that water quality does not impact on the quality of shellfish produced for human consumption. The Forum is supportive of the proposed action; *“DHLGH will seek to implement a new legislative and management framework for shellfish waters in Ireland.”*, to ensure shellfish waters meet the required water quality standards. The Forum, however, is of the view, that an action should be added to the RBMP to ensure that aquaculture activities in turn should not affect the ambient water quality. For instance, aquaculture can be a source of nutrients entering the local environment with, for example, uneaten feed and fish wastes from finfish farms being a source of organic nutrients. The Forum recommends that RBMP should include an action to indicate how licenced farms comply with the WFD (through monitoring of water quality for example), thereby protecting their ambient water bodies.

According to Inland Fisheries Ireland (IFI), one of the greatest impacts on wild salmon and sea trout mortality is sea lice infestation from poorly managed and sited salmon farms (Shepard and Gargan 2017, 2020). Escapees of farmed salmon from aquaculture facilities can also threaten native wild salmon through introgression, where farmed salmon have successfully interbred with natural populations. Data from controlled studies have indicated a decrease in total productivity of wild smolts in the river following introgression of farmed salmon (Fleming et al., 2000; McGinnity et al., 1997). Studies have demonstrated that the offspring of farmed salmon compete with wild salmon for food and space (Skaala et al., 2012; Fleming et al., 2000).

The Forum recommends that stronger regulation and enforcement are required for aquaculture activities in Ireland to prevent both the spread of sea lice and escapees of farmed salmon, both of which threaten native finfish species. This is in line with international recommendations made by the

North Atlantic Salmon Conservation Organisation (NASCO) in order to protect wild salmon and sea trout stocks from aquaculture.

Key Recommendations – Aquaculture

1. The Forum is supportive of the second principal action to strengthen the links between the Aquaculture licensing process and the objectives of the WFD; the Forum recommends that the cumulative impact of aquaculture is essential in the aquaculture licencing process, (including the threat to native species, nutrient impact, disease, marine litter, the introduction and spread of non-native invasive species) and there should be WFD assessments carried out for every licence to ensure compliance with the WFD. Furthermore, there should be transparency in the application process and environmental assessments.
2. The Forum is supportive of the proposed action for *“DHLGH will seek to implement a new legislative and management framework for shellfish waters in Ireland.”* to ensure shellfish waters meet the required water quality standards. The Forum, however, are of the view, that an action should be added to the RBMP to indicate how licenced farms in turn comply with the WFD (through monitoring of water quality for example), thereby protecting their ambient water bodies from pollutants from aquaculture activities, e.g. nutrients.
3. The Forum recommends for stronger regulation and enforcement around aquaculture activities, for both new and existing licences, particularly to prevent the spread of sea lice and escapees of farmed salmon.

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