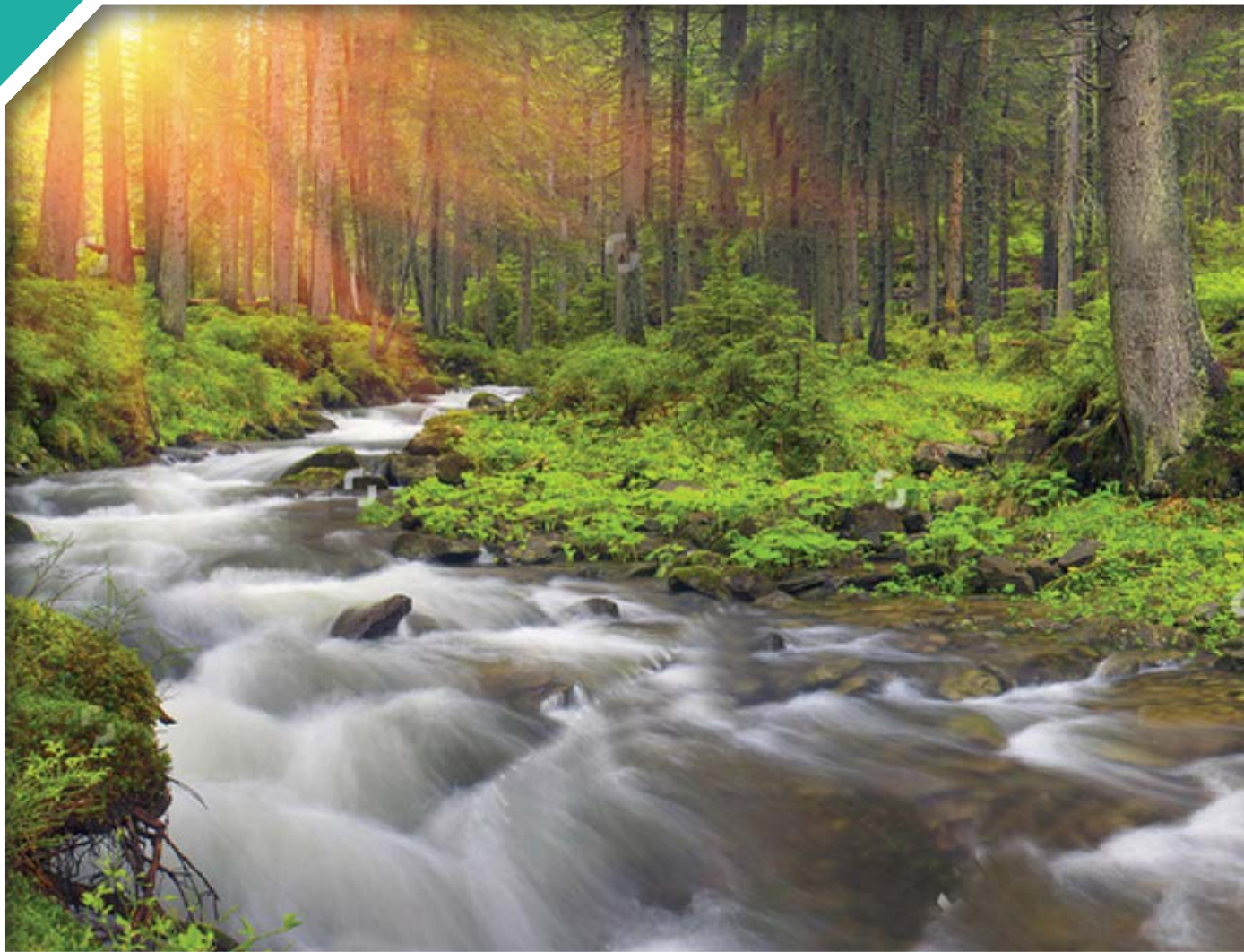epaResearch

Using the OECD Water Governance Indicator Framework to Review the Implementation of the River Basin Management Plan for Ireland 2018–2021

Authors: Joanna O'Riordan, Richard Boyle, Fergal O'Leary and Laura Shannon

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Rialtas na hÉireann
Government of Ireland

ENVIRONMENTAL PROTECTION AGENCY

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The work of the EPA can be divided into three main areas:

Regulation: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

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Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

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We regulate the following activities so that they do not endanger human health or harm the environment:
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- intensive agriculture *(e.g. pigs, poultry)*;
- the contained use and controlled release of Genetically Modified Organisms *(GMOs)*;
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- Monitoring and reporting on Bathing Water Quality.

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The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:
- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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EPA Research Report

Prepared for the Environmental Protection Agency

by

Institute of Public Administration

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Executive Summary

The Environmental Protection Agency (EPA) report *Water Quality in 2019 – An Indicators Report*, published towards the end of 2020, indicated that "nearly half of the surface waters in Ireland are failing to meet the legally binding water quality objectives set by the EU Water Framework Directive because of pollution and other human disturbance" (EPA, 2020, p. 161). The Water Framework Directive (WFD) (2000/60/EC) is a European Union (EU) directive that seeks to protect and improve water, including rivers, lakes, groundwater and coastal water. The WFD objectives are implemented in Member States through River Basin Management Plans (RBMPs). The EPA research and findings represent a sobering reminder of the challenges facing those involved in managing water quality in Ireland.

This report assesses water governance in Ireland using the Water Governance Indicator Framework, a tool developed by the Organisation for Economic Co-operation and Development (OECD) in 2018 to assist countries in assessing their progress towards the WFD goals (OECD, 2018). The report puts a particular emphasis on informing policy and practice with a view to ensuring that governance arrangements are enhanced in the third-cycle RBMP for Ireland 2022–2027. The report consequently addresses the issues raised in *Water Quality in 2019 – An Indicators Report* concerning water quality.

This report is one of a number of outputs at the end of the first year of a 2-year research programme on experimental governance and water governance; it is aimed at drawing out wider learning from the study of water governance and is of relevance to the development of policy and practice in other areas of public reform. A further three reports provide information complementary to this report, one examining Ireland's water governance arrangements using an experimental governance lens (*Using an Experimental Governance Lens to Examine Governance of the River Basin Management Plan for Ireland 2018–2021*), another studying two local case studies of local water catchment groups (*Case Studies on Local Catchment Groups in Ireland, 2018–2020*) and a final one investigating the operation of the Water

Forum (An Fóram Uisce) [*An Fóram Uisce (The Water Forum) as an Example of Stakeholder Engagement in Governance*]. Although each of the reports reflect on Ireland's water governance arrangements using different frameworks, the findings are similar, albeit with some differences of emphases.

The Water Governance Indicator Framework was developed to support the implementation of the OECD Water Governance Principles. The Water Governance Indicator Framework is conceived as a voluntary, self-assessment tool for examining national water governance policy frameworks (*what*), institutions (*who*) and instruments (*how*) used by governments in respect of water governance. As noted in the introduction to the Water Governance Indicator Framework (OECD, 2018), its primary objective is to stimulate a transparent, neutral, open, inclusive and forward-looking dialogue across stakeholders on what does and does not work, what should be improved and who can do what.

This study finds that the new governance structures put in place under the second-cycle RBMP go a significant way towards achieving the objectives contained in the Water Governance Indicator Framework. There is considerable reassurance for those involved that the structures put in place in Ireland around water governance are appropriate and that there are no significant gaps or omissions. Having said that, there is scope for improvements in Irish water governance arrangements for each of the principles, and in particular there is scope to more fully deliver on the indicators behind the principles.

The challenges in respect of improving water quality are immense, and, as highlighted in *Water Quality in 2019 – An Indicators Report*, progress towards the goal of better water quality cannot be taken for granted. Achieving improvements in some of the areas identified in this report is resource dependent, and access to increased funding is going to be very challenging in 2021 and beyond. However, it would be incorrect to conclude that all potential improvements are budget dependent. In particular, benefits would be achieved by the different elements of the governance

structures reviewing their terms of reference in the second-cycle RBMP and refreshing their approach. In addition, more robust monitoring of and reporting on progress in respect of the implementation of the RBMP is identified as a key finding. Improvements in these areas would have positive ramifications in terms of Ireland's performance in respect of all of the OECD principles. The key conclusions identified in this report for each principle are set out in Chapter 3, with Ireland's performance in each principle categorised as "strong progress", "good progress" or "limited progress".

Principle[a]	Performance category	Key findings
1. Clear roles and responsibilities Clearly allocate and distinguish roles and responsibilities for water policymaking, policy implementation, operational management and regulation, and foster coordination across these responsible authorities	Good progress	Roles and responsibilities regarding water governance are clearly identified in the RBMP, but there is a need for all entities to review their terms of reference to ensure that they are effectively meeting their obligations. An overlap between the roles of the WPAC and NCMC was prominent in our research, and it would appear that there is a degree of confusion among both committees on their terms of reference. In particular, it was suggested that project management activities should not fall within the domain of the WPAC and are instead the responsibility of the NCMC There is a lack of clarity on who has overall responsibility for the implementation of the RBMP. As a result, strategic planning and priority setting in the area of implementation of the RBMP is not as rigorous as it might be. Similarly, monitoring progress in relation to the implementation and achievement of outcomes is carried out in an ad hoc manner There is an absence of formal communication mechanisms between the three tiers and various structures. At present, communication is too reliant on personal relationships and is therefore highly vulnerable to inevitable changes of personnel
2. Appropriate scales within basin systems Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and to foster co-ordination between the different scales	Strong progress	There is consensus that, following changes made under the second-cycle RBMP, water is managed at the appropriate scale The governance structures are designed to facilitate decision-making at the right level by the right people and organisations
3. Policy coherence Encourage policy coherence through effective cross-sectoral coordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use	Good progress	One of the dominant aims of the second-cycle RBMP and the governance arrangements put in place as part of it is to address issues of policy coherence where there are differing perspectives and priorities among stakeholders To date, considerable effort has been put into building the governance structures and establishing relationships. There is some evidence of the positive outcomes of this approach, but debates on areas of major policy difference have not yet taken place and, more importantly, resolutions have not yet been found
4. Capacity Adapt the level of capacity of responsible authorities to the complexity of water challenges to be met and to the set of competencies required to carry out their duties	Strong progress	There is a culture of cooperation and knowledge-sharing across the governance structures Considerably more capacity and expertise has been added to the governance structures under the second-cycle RBMP, with approximately 100 new public sector posts added The establishment of LAWPRO has had a very positive impact on capacity. LAWPRO research has generated considerable new knowledge on water quality goals. This has been widely shared LAWPRO and local authorities struggle to meet their obligations given current resourcing. LAWPRO faces particular difficulties in retaining staff who are on fixed-term contracts
5. Data and information Produce, update and share timely, consistent, comparable and policy-relevant water and water-related data and information, and use the data to guide, assess and improve water policy	Good progress	There is a general attitude of collaboration and sharing and the catchments.ie website is a positive development The production, updating and sharing of information, as envisaged by the OECD, is a weakness of the current RBMP Producing data that facilitate the monitoring of progress towards the implementation of the RBMP has been a challenge. Some issues in this regard may reflect a time lag, occasioned by the short duration of the second-cycle RBMP and the Covid-19 pandemic Non-governmental stakeholders and members of the public experience particular difficulties accessing data and information

Principle[a]	Performance category	Key findings
6. Water finance Ensure that governance arrangements help mobilise water finance and allocate financial resources in an efficient, transparent and timely manner	Limited progress	Irish Water differs from water utilities in other OECD countries in that it is not allowed to charge domestic water consumers except in the event of excessive consumption. Irish Water is financed through a combination of non-domestic revenue, excess usage charges, government subvention, non-domestic borrowings and capital contributions Water financing is a political decision. However, it is acknowledged that in the past Irish Water was underfunded and that we are still experiencing the impact of this, despite recent increases in funding through the Irish Water Strategic Funding Plan The financial and resourcing challenges faced by local authorities are acknowledged as a significant issue affecting water
7. Regulatory frameworks Ensure that sound water management regulatory frameworks are effectively implemented and enforced in pursuit of the public interest	Limited progress	The absence of Irish primary legislation to implement the WFD represents a major challenge and ensures that regulation is far more complex than it could be The dominant approach within the RBMP is to change behaviours. However, it is generally accepted that there is a greater need for a regulatory mix, including awareness and education, norms and enforcement It was accepted that overall both formal and informal approaches to ensuring compliance need to be improved
8. Innovative water governance practices Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders	Strong progress	The governance structures put in place under the second-cycle RBMP represent innovative governance in practice. There is a strong science–policy interface across the structures. This point is highlighted in Boyle *et al.* (2021b) In addition to the governance approach in general, a number of organisations that form part of the structures or are aligned with the structures were set up with a clear mandate to develop innovative ways to cooperate, pooling resources and capacity, building synergies across sectors and searching for efficiency gains There is evidence of good collaboration at a local level and local initiatives emerging that result in better practices. These are supported by LAWPRO LAWPRO's work on the communities side of the organisation has sought to promote community and citizen involvement and social learning and, although it is a work in progress, it has high priority
9. Integrity and transparency Mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making	Good progress	Engagement with stakeholders, in particular the environmental NGO sector, led to the establishment of the Water Forum in 2018. Although the organisation is still maturing, this has been a very positive development The level of transparency envisaged by the OECD – a high degree of accountability, supported by legal frameworks, codes of conduct, charters, etc. – is not yet evident Information and data gaps is an area where particular work needs to be done across the governance structures and the public bodies involved in them

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Principle[a]	Performance category	Key findings
10. Stakeholder engagement Promote stakeholder engagement for informed and outcome-oriented contributions to water policy design and implementation	Strong progress	A concerted effort was made within the governance structures to map and include all stakeholders The establishment of the Water Forum as an independent and statutory body and its central role as part of the governance structures has been a positive development There is a strong emphasis on capacity-building among all relevant stakeholders In engagements with the general public a joined-up approach to all environmental issues, but in particular to issues of water, climate and biodiversity, is vital, as the public does not distinguish between different implementing bodies
11. Trade-offs Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas and generations	Good progress	One of the objectives in establishing the governance structures was to facilitate debate on trade-offs. All organisations and committees play a role in this regard Rural issues dominate the second-cycle RBMP. A greater focus on urban issues is called for in the third-cycle RBMP, while recognising the very significant infrastructure expenditure required Trade-offs are also evident in policy debates, with policymakers required to make difficult decisions. It will not be possible in every instance to make a decision that is optimal for water. What is important is that potential trade-offs are identified at an early stage and that efforts are made to minimise any negative impact on water and/or to make a compensatory restitution
12. Monitoring and evaluation Promote regular monitoring and evaluation of water policy and governance where appropriate, share the results with the public and make adjustments where needed	Limited progress	Monitoring and evaluation are acknowledged as a weakness of the second-cycle RBMP. It is not clear whose responsibility it is to report on the implementation of the RBMP The WPAC and NCMC are prescribed roles in monitoring and evaluation. However, to date, neither committee has acted on its role in a formal way Non-governmental stakeholders and the Water Forum, in particular, experience a high level of frustration at the situation The limitations in monitoring and evaluation make it more difficult to achieve the expected outcomes in the second-cycle RBMP It was suggested that over the remainder of the life cycle of the second-cycle RBMP there needs to be rigorous focus on the 726 water bodies identified in the 2018–2021 plan for improvements in water quality. Although it may be the case that improvements in the PAA are offset by deteriorations elsewhere, this is a key test of the governance structures

[a]Descriptions of the principles have been taken directly from OECD (2018).

NCMC, National Coordination and Management Committee; NGO, non-governmental organisation; PAA, Priority Areas for Action; WPAC, Water Policy Advisory Committee.

1 Introduction and Background

This report examines Ireland's implementation of the second-cycle River Basin Management Plan (RBMP), 2018–2021, using the Organisation for Economic Co-operation and Development (OECD) Water Governance Indicator Framework. A particular emphasis is put on informing policy and practice with regard to ensuring appropriate and effective governance arrangements for the third-cycle RBMP for Ireland for 2022–2027.

The report is part of a research programme commissioned by the Environmental Protection Agency (EPA) to examine Ireland's water governance arrangements and to identify areas where changes might be made in the third-cycle RBMP. A further objective is to draw out wider learning from the study of water governance of relevance to the development of policy and practice in other policy areas, especially where a cross-government response is required, e.g. climate action and public service reform.

1.1 Ireland's Water Governance System

The Water Framework Directive (WFD) (2000/60/EC) is a European Union (EU) directive that seeks to protect and improve water, including rivers, lakes, groundwater and coastal water. The WFD objectives are implemented in Member States through RBMPs, which are reviewed and updated every 6 years, and programmes of measures (POMs). Ireland's first-cycle RBMP was published in 2009, covering seven separate river basin districts (RBDs). The second-cycle RBMP, encompassing a single national RBD, was delayed somewhat because of the impact of the global financial crisis. It was published in 2018 and runs to the end of 2021. This plan encompasses 46 catchments, 583 subcatchments and 4832 water bodies. The third-cycle RBMP is due to be published by the end of 2021 and will run for 6 years, to 2027.

The RBMP 2018–2021 highlighted a number of limitations of the governance arrangements put in place for the first RBMP:

> Governance and delivery structures in place for the first cycle were not as effective as expected. Due in part to the number of RBDs, the delivery arrangements were overly complex. In particular, the level of oversight of programme delivery and ongoing review was weak […]. [O]ne could argue that the importance of local delivery for many measures was not well understood when the first-cycle Plans were being developed, or more importantly, when the implementation of the Plans was being considered. (Government of Ireland, 2018, p. 2)

In its assessment of the first-cycle RBMP, the European Commission observed that "there was no single body having ultimate responsibility" and that "fragmented institutional structures, poor intra and inter-institutional relationships and capacity" undermined the ability to both develop and implement plans (Government of Ireland, 2018, p. 117).

In response to the criticisms of the governance system, Ireland created new structures and processes for water governance for the second-cycle RMBP, 2018–2021 (Figure 1.1). These include a new three-tier structure comprising a Water Policy Advisory Committee (WPAC), supported by the Water Forum (An Fóram Uisce), advising the Minister for Housing, Local Government and Heritage; the National Coordination and Management Committee (NCMC) to coordinate implementation, with technical support from the National Technical Implementation Group (NTIG) and the EPA); and local authorities, supported by regional committees and a local government shared service, the Local Authority Waters Programme (LAWPRO), involved in implementation.

As well as enhancing central steering, the new arrangements aim to involve new levels of engagement with local communities and enhanced collaboration across a range of public bodies.

These governance innovations have occurred in the context of the ongoing efforts across the EU to achieve
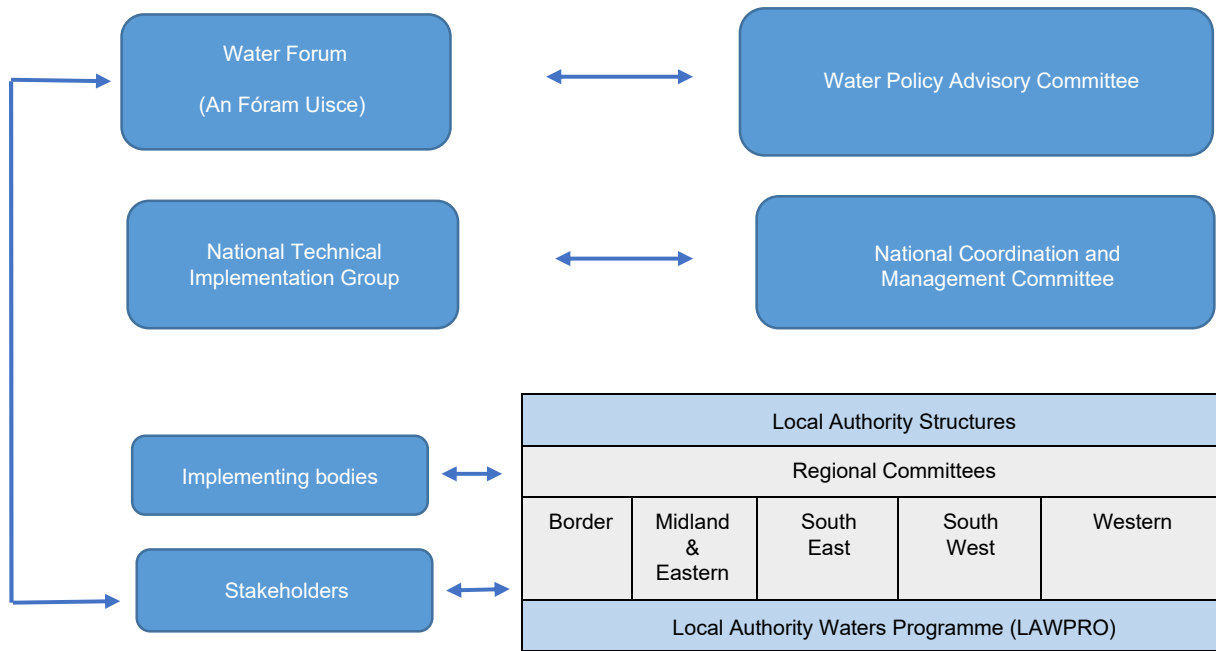
Figure 1.1. Water governance arrangements under the second-cycle RBMP.

the goals of the WFD and international engagement with the OECD's Principles of Water Governance (Hering *et al*., 2010; OECD, 2015; Voulvoulis *et al*., 2017; Giakoumis and Voulvoulis, 2018).

1.2 The OECD Water Governance Indicator Framework

The OECD defines water governance as the "range of political, institutional and administrative rules, practices and processes (formal and informal) through which decisions are taken and implemented, stakeholders can articulate their interests and have their concerns considered, and decision makers are held responsible for water management" (OECD, 2015). It is now widely recognised that improving water quality is a wide-ranging challenge and that policy responses will be effective only if (1) they are coherent and integrated, (2) stakeholders are properly engaged, (3) well-designed regulatory frameworks are in place, (4) there is adequate and accessible information and (5) there is sufficient capacity, integrity and transparency (OECD, 2018).

In 2015, the OECD identified the Principles of Water Governance (OECD, 2015). The principles reflect 12 factors that must be in place for good water governance. The principles are clustered around three main dimensions:

1. Effectiveness of water governance relates to the contribution of governance to defining clear sustainable water policy goals and targets at different levels of government, implementing those policy goals and meeting expected objectives or targets.

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

3. Trust and engagement in water governance relate to the contribution of governance to building public confidence and ensuring inclusiveness of stakeholders through democratic legitimacy and fairness for society at large.

The OECD Water Governance Principles are set out in Figure 1.2.

The OECD Water Governance Indicator Framework was developed in 2018 to support the implementation of the OECD Water Governance Principles. The Indicator Framework is conceived as a voluntary, self-assessment tool for examining national water governance policy frameworks (*what*), institutions (*who*) and instruments (*how*) used by governments in respect of water governance. As noted in the introduction to the Water Governance Indicator Framework (OECD, 2018), its primary objective is to

Figure 1.2. The OECD Water Governance Principles. Reproduced from OECD (2015).

stimulate a transparent, neutral, open, inclusive and forward-looking dialogue across stakeholders on what does and does not work, what should be improved and who can do what.

1.3   Research Approach

Given the nature of water governance, and because the governance arrangements for the RBMP are new and evolving phenomena, a primarily qualitative approach was considered most appropriate for data gathering and analysis 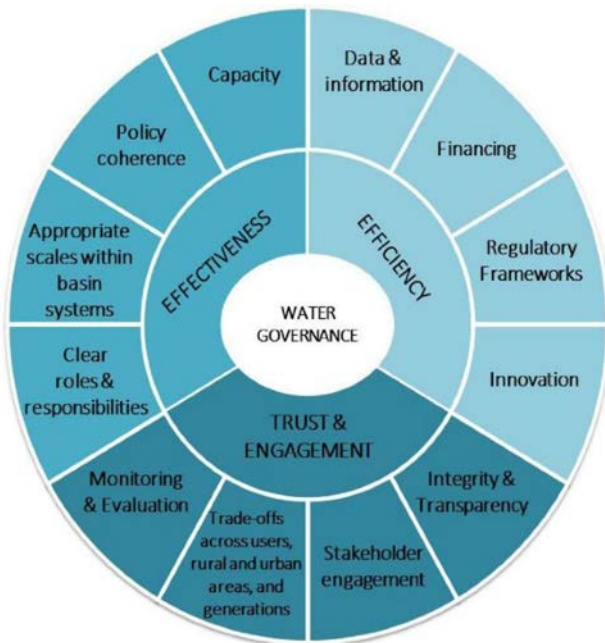(Bluhm *et al.*, 2011). Ospina *et al.* (2017, p. 596) note that qualitative data are "at their best, [...] words that emerge from observations[,] interviews […] or documents [that] are collected (or accessed) in a naturalistic way […] and are processed through several iterations of systematic analysis".

A number of complementary research methods shaped the gathering of the evidence presented in this report:

- Key informant interviews. Interviews with stakeholders were particularly important in collecting information on the issues addressed in the evaluation. Fifty-four people were interviewed. Interviewees were selected from each of the elements and the three tiers of the governance structure (the list of interviewed organisations is provided in Appendix 1).

- Case vignettes. Particular governance aspects were examined and highlighted in some detail to illustrate what contributed to their successes or failures. A short report was subsequently produced on the Water Forum (An Fóram Uisce) (Boyle *et al.*, 2021a), and two case studies of aspects of experimental governance and practice in two catchment settings, the River Moy Trust and Inishowen Rivers Trust (O Cinnéide *et al.*, 2021).

- Documentary analysis. Careful review of relevant documentation (reports, background documentation, government policy papers, academic literature, etc.) provided supportive evidence of the contribution made by the governance arrangements. For example, submissions made to the Department of Housing, Local Government and Heritage (DHLGH) as part of the public consultation process for the third-cycle RBMP 2022–2027 were examined to identify where governance issues were raised and the nature of those issues.

By using this range of methods, triangulation of the data was possible (Salkind, 2010). Investigator triangulation, through members of the research team sharing their individual understandings and perspectives, also provided a further check on data quality and emerging findings. This approach helped to validate the emerging findings and illustrate where consistent or divergent messages were emerging.

1.4   Report Structure

This report maps the Irish experience in respect of water governance onto the OECD Water Governance Indicator Framework (OECD, 2018). The 12 OECD principles are covered consecutively in the next chapter. The key points developed by the OECD in respect of each principle are presented in boxes at the start of each section. This is followed by a short description of how the governance arrangements put in place in Ireland seek to give effect to the principle. In addition, the indicators and checklist of questions developed by the OECD in respect of each of the principles are discussed. However, it is also necessary to bear in mind that the OECD checklists were developed for general use, and some of the issues that the checklists raise do not apply in an Irish context, for example consumers paying directly for

water consumption. In addition, the OECD framework represents the "gold standard" of water governance. In other words, some of the checklist items for some principles have not yet been developed in an Irish context, for example water courts.

The second section under each principle describes the findings of our research and stakeholders' views of the application of the principle. The concluding section of the report provides a summary of our assessment of Ireland's performance in respect of the OECD principles, which is categorised as "strong progress", "good progress" or "limited progress". A number of key action points related to each principle are also identified in this final section. These are proposed actions that are deemed necessary either to preserve areas of strength or improve areas where limited progress has been made in order to deliver on the overriding objective of better water quality. It is anticipated that these actions will inform thinking on the development of the third-cycle RBMP.

2   Assessment of Ireland's Performance by Principle

2.1   Principle 1: Clear Roles and Responsibilities

> Clearly allocate and distinguish roles and responsibilities for water policy making, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities. To that effect, legal and institutional frameworks should:
>
> - Specify the allocation of roles and responsibilities, across all levels of government and water-related institutions in regard to water:
>   – policy making, especially priority setting and strategic planning
>   – policy implementation, especially financing and budgeting, data and information, stakeholder engagement, capacity development and evaluation
>   – operational management, especially service delivery, infrastructure operation and investment
>   – regulation and enforcement, especially tariff setting, standards, licensing, monitoring and supervision, control and audit, and conflict management.
> - Help identify and address gaps, overlaps and conflicts of interest through effective co-ordination at and across all levels of government.
>
> Source: OECD (2018).

Ireland's RBMPs are the action plans for achieving the objectives of the EU WFD. In developing the current RBMP (2018–2021), considerable importance was placed on putting in place implementation structures that would ensure an effective and coordinated delivery of measures. These structures are set out in Figure 1.1. The DHLGH has overall responsibility for water policy, whereas the EPA has statutory responsibility for reporting on Ireland's progress in respect of the WFD to the European Commission. Other elements of the governance structure are:

- The WPAC. This committee is chaired by a representative of the Minister for Housing, Local Government and Heritage and has responsibility for high-level policy direction and oversight of the implementation of the RBMP. It is specifically charged with advising the Minister with regard to progress in delivering on the objectives contained in the RBMP. Its membership encompasses a wide range of government bodies with an involvement in water policy.
- The Water Forum (An Fóram Uisce). The Water Forum was formally established in 2018 under the Water Services Act 2017. It is an independent entity and currently has 28 members representing organisations and sectors with an interest in water issues. These include consumer groups, Irish Water consumers, community groups, rivers trusts, groups that participate in aquatic activities (such as fishing and water sports), sectors with a particular interest in water issues (such as the agricultural and business sectors), the community and voluntary sector, the environmental sector, organisations representing rural Ireland and the group water scheme sector. The Forum's functions are broad and include advising WPAC in relation to the RBMP. More details about the Water Forum are provided in a research vignette that was developed as part of the water governance research programme (Boyle *et al*., 2021b).
- The NCMC. This committee provides the necessary interface between science, policy and programme delivery. It agrees and oversees the overall work programmes and reports to the WPAC on progress. The NCMC is tasked with addressing potential obstacles to implementation and, when required, advising the WPAC on future policy needs. The NCMC is chaired by the DHLGH and comprises representatives of the DHLGH and the EPA together with the chairs of the regional management committees.
- The NTIG. This group oversees the technical implementation of the RBMP at the national level and provides a forum to ensure coordinated actions among all those involved. It also addresses any operational barriers to

implementation that may arise. The group is chaired by the EPA, and members include the local authorities and other state bodies with a role in water quality. The NTIG reviews progress on an ongoing basis and provides the NCMC with updates on the implementation and effectiveness of measures. The NTIG is also a forum for information exchange and for promoting the consistency of regional implementation.

- Regional local authority structures. There are five local authority regional management committees, which have responsibility for coordinating the delivery of water improvement measures at regional and local levels. They are supported by LAWPRO, a local authorities shared service initiative that is responsible for coordinating the local authority approach to water. The five regional committees are chaired at chief executive level, with active participation and technical advice from the EPA. Within each region there are also regional operational committees (ROCs) with members from all the implementing bodies and chairs at director of service level.

2.1.1 Our findings

The roles and responsibilities in respect of water governance are defined in the RBMP. The overall responsibility for water policy resides with the Minister for Housing, Local Government and Heritage, whereas the EPA has a statutory responsibility to report on Ireland's progress regarding the implementation of the WFD to the European Commission. However, there is a lack of clarity about who has overall responsibility for coordinating the implementation of the RBMP. As a result, strategic planning and priority setting are not as rigorous as they might be. Similarly, monitoring progress in relation to the implementation and the achievement of outcomes is somewhat ad hoc.

Implementation of policy, operational management and regulation and enforcement are all delineated in the RBMP. However, each of these areas has challenges and gaps. Furthermore, there is a danger that these issues will not be addressed because of the deficiencies in monitoring. Ultimately, this may have an impact on the achievement of the expected outcomes included in the RBMP. It was suggested that establishing a programme management office within the DHLGH to manage and coordinate the

implementation of the RBMP would help address these issues.

All committees established as part of the governance structures meet regularly, and meetings are well attended. However, it was suggested by a number of interviewees that more active participation by all members would facilitate better engagement. it was apparent from our interviews that some members perceive meetings as a forum for receiving updates from LAWPRO or the DHLGH without fully appreciating the need for all members to contribute robustly. Committees have also lost some degree of momentum as a result of changes in personnel.

Staff turnover is inevitable in a public service context, and, when personnel change, care should be given to ensuring a smooth transfer of responsibilities and knowledge. It emerged from our research that there is at present too much reliance on excellent relationships between individuals and on goodwill between their organisations. This makes the system fragile when people move on, as some inevitably do.

Communication and information sharing between the different tiers and committees are generally perceived as positive, albeit with some gaps, most notably in the ROCs. However, again, it appears that good communications are dependent on good relations between individuals and overlap of personnel and that some form of more formal communication would be beneficial.

The WPAC includes a wide range of members, including representatives of all relevant government departments. Meetings are well attended. The WPAC has proved to be a useful forum for raising and debating policy issues, including challenging issues such as the role of agriculture in water quality and flood management, but wider agricultural representation would be useful. At present, involvement is limited to representatives from the Nitrates, Biodiversity and Engineering Division of the Department of Agriculture, Food and the Marine (DAFM). It was suggested that it would be beneficial to also have representatives from other areas of the Department, in particular the Farm Supports and Payments Division. A wider representation from agriculture might yield more mutual understanding and, ultimately, better coordination of policy. It was also suggested that the involvement of the Department

of Public Expenditure and Reform would be valuable, given the vital role it plays in public service spending.

The overlap between the roles of the WPAC and the NCMC was prominent in our research, and it would appear that there is a degree of confusion regarding their terms of reference. In particular, it was suggested that project management activities should not fall within the domain of the WPAC and instead should be the responsibility of the NCMC. However, difficulties with how the NCMC operates has resulted in some of these issues, for example resourcing issues, creeping upwards to the WPAC. As a result, the WPAC's attention has been somewhat diverted from what should be its core focus, i.e. developing policy, ensuring coherence and collaboration across stakeholders and monitoring progress in the implementation of the RBMP. As noted previously, priority setting and strategic planning in the area of water policy are not sufficiently developed. These are the responsibility of the Minister for Housing, Local Government and Heritage, and the DHLGH, though they are strongly supported by the WPAC. The RBMP tasks the WPAC with "high level policy direction" and "advising the Minister with regard to progress" (Government of Ireland, 2018).

Strongly related to the areas of priority setting and strategic planning is the area of policy coherence and policy debate. This area is discussed in greater detail in section 2.2. However, it is relevant here to note that advising on policy and policy contradictions is clearly assigned to the WPAC. This responsibility is recognised by the WPAC members, but there also seems to be a certain hesitancy around taking on these issues. According to those we interviewed, time has been invested in building relationships, and this is reasonable up to a point. However, as work "on the ground" by LAWPRO and the EPA brings greater clarity and evidence on factors impinging on water quality, there will need to be a more robust debate about policy contradictions. Heifetz *et al*. (2009) developed the concept of adaptive leadership as a way of addressing recurring leadership challenges. One technique proposed by Heifetz *et al*. (2009) is called low-risk experimentation. We suggest that the WPAC might benefit from carrying out some facilitated, low-risk experimentation on potentially contentious issues to give members some practice on how to deal with such discussions.

To date, the WPAC has not meaningfully developed its role in monitoring the implementation of the RBMP. There have been no interim or progress reports. This is a serious omission, as it means that delays, challenges and key learning are not being formally documented. The short, 3-year, cycle of the current plan was cited in interviews as a mitigating factor, it being suggested that it is only now that structures are "bedding in", that relationships and trust are being established, and that greater clarity and evidence are emerging in terms of the science of water quality.

Within the governance structures set out in the second-cycle RBMP, the Water Forum informs the work of the WPAC by sharing with it the views of the very wide-ranging group of stakeholders represented on the Water Forum. Having all water stakeholders come together as part of the one committee is a hugely valuable initiative, and the Water Forum is widely representative of Irish society. The Water Forum has matured well as an organisation and has benefited from the expanding secretariat and strong chairing of its sessions. The development of a strategic plan has given the Water Forum a greater focus and has helped it develop its role and competence. The Water Forum is very well regarded by the DHLGH and the EPA, and our research identified a culture of dialogue across all organisations, though a memorandum of understanding could perhaps further clarify roles and expectations. Members of the Water Forum reported difficulties in liaising with some public bodies and structures involved in water governance, citing in particular the ROCs, the DAFM and Irish Water, though some improvements have been made in this regard in recent months.

There appears to be a need to clarify the relationship between the WPAC and the Water Forum and also to establish clear procedures in relation to information and communication exchange. Both committees are charged with advising the Minister, but ideally this would be done in a more collaborative way. Some interviewees from the Water Forum perceived a lack of transparency around the WPAC's operations, though this would seem to be attributable more to a failure of the WPAC to consider the possibilities afforded by the Water Forum rather than to any deliberate secrecy. The desire for a better relationship was cited by representatives of both organisations, with some WPAC members expressing a desire for the Water

Forum to share more information and evidence with them to inform their debates. It was further noted by some in the WPAC that greater use could be made of the Water Forum, which is a very accessible committee of all water stakeholders. For example, it was suggested that the WPAC, when developing a position on some issue, should elicit contributions from the Water Forum, thus accessing a wider range of viewpoints than would be possible from the WPAC alone.

Some interviewees were of the opinion that the NCMC duplicates the work of the WPAC and the regional management committees. Some went so far as to suggest that there may not be a need for the NCMC. However, the RBMP prescribes a distinct role for the NCMC. In essence, the NCMC is at the hub of the governance structure, providing an interface between policy discussions at the WPAC, technical questions emerging from the NTIG and implementation/operational issues arising through the work of LAWPRO and local authorities. From this perspective, and as suggested by one interviewee, the NCMC should be seen as the project managers of the RBMP, in particular playing a key role in monitoring and reporting on progress in the implementation of the RBMP, a task that at present is being done inadequately.

The NCMC is also very specifically tasked with addressing obstacles to the implementation of the RBMP. Its members, who include only representatives of the DHLGH, the EPA and local authorities, should facilitate this. In particular, given that the NCMC includes all chairs of the regional management committees, who are senior managers in local authorities, there should be great capacity to address issues affecting the implementation of measures. Furthermore, the NCMC is the only group at the national level that enables senior local authority personnel to provide direct input into the water governance process. Given the vital role of local authorities in improving water quality, it is important that this input is maintained and further developed. From this perspective, the conclusion of one interviewee that local authorities are not using the NCMC as they should appears to be pertinent. However, it was also noted that it is the responsibility of other members of the NCMC working full-time in the water area to support the local authority members

and ensure that NCMC meetings become a really valuable support to the sector. It was also suggested that it would be desirable to have an Irish Water representative on the NCMC, as this would facilitate greater collaboration on practical matters with the EPA and local authorities.

The NTIG has evolved well as a committee, and as relationships have developed it has evolved from an information exchange forum to more effectively fulfilling its function to provide technical guidance. Its relationships with each of the three tiers of the governance structures – the WPAC, the NCMC and the local and regional bodies – are very good, and there appears to be a good exchange of information. The committee has also matured in other ways; in particular, it has recognised the need for a formal method of raising and managing issues, and this is widely regarded as a positive development. Our interviewees considered the system of working groups to assess certain issues (e.g. hydromorpholgy and natural water retention measures) very constructive, though at times progress can be slower than some would wish. It was suggested that the interests of farmers and a real knowledge and awareness of farming culture are perhaps under-represented on the committee. There is perhaps potential to further expand the role of the NTIG; for example, the group could play a stronger role in monitoring the progress of the plan, for example by developing indicators that, in conjunction with the EPA water status indicators, could be used to monitor water quality.

At a local level, LAWPRO is a very positive and highly regarded initiative. The organisation fulfils a vital role in coordinating the identification of measures required to improve water quality and ensuring a consistent approach. It is represented on all three governance committees, which ensures that its findings are effectively shared. LAWPRO staff have worked extremely hard to build relationships with individuals and organisations represented on the three governance committees, more widely with the local authority system and, consistent with the objectives of the organisation, with other stakeholders and the general public.

The relationship between LAWPRO and the local authority system that established the shared service is a complex one. Local authorities, like all public

service organisations, were greatly affected by the years of austerity following the financial crisis. They have wide-ranging responsibilities, and the Covid-19 pandemic has placed further pressure on already stretched resources. It was suggested that the notion of co-benefits is critical to the engagement of local authorities and achieving their full "buy-in" and commitment to water quality. In other words, local authorities need to be supported to identify linkages, i.e. how delivering water objectives can help them to achieve goals and objectives in other areas. It was further suggested that the role of the County and City Management Association (CCMA), and in particular its water subcommittee, should be re-examined and that the role it plays in water governance should be clarified.

In theory, on the catchments side the, demarcation of roles and responsibilities between LAWPRO and local authorities is clear, with LAWPRO responsible for identifying what measures are required and local authorities responsible for addressing these. However, in practice the relationships are more complex. There is a tendency among some local authorities to regard LAWPRO as a "one-stop shop" for all water issues and, therefore, to consider that they are no longer required to engage on the topic, which is very far from the case. Furthermore, LAWPRO faces considerable challenges in managing the relationship, as it has no authority over the local government sector, which is charged with addressing identified weaknesses. This was a deliberate strategy when LAWPRO was established, as it was perceived to be vital that local authorities remain involved in the task of improving water quality; however, it does mean that on occasion measures may not be implemented as quickly as would be desirable. Finally, across all local authorities there is a need to improve capacity, skills and knowledge in the area of water management. LAWPRO is aware of this need and has commenced local authority training, but more of this is required in the future if there is to be widespread take-up of the learning being generated by LAWPRO catchment scientists.

The issue of scaling up measures and sharing the learning generated by LAWPRO is also vital, as at present there is a concern that improvements to water quality in Priority Areas for Action (PAA) could be cancelled out by deteriorations in other water bodies.

This possibility was expressed by one interviewee, who commented that:

> in some local authorities the foot is off the pedal because of LAWPRO. But LAWRPO are bringing supplementary measures, extra measures not relying on a core piece of legislation, but if basic measures across the county are not being implemented to the full then LAWPRO's activities will only be offsetting the deterioration elsewhere.

A final area of focus of local government should be "mainstreaming" of water. In other words, water should not be seen as the preserve of only the water division, but instead should be given priority and be addressed throughout local authorities, with other divisions, for example roads or planning, also having regard for water quality issues.

However, the most pertinent issue for local authorities at present appears to be resources, and this issue needs to be managed and escalated appropriately. Although LAWPRO has relieved individual local authorities of some of their responsibility for water quality, it has also in many areas increased their commitments. Much of the vital work being done by LAWPRO, by both the Catchments team, in terms of water quality issues, and the Communities team, in relation to public and stakeholder engagement, was simply not undertaken by individual local authorities prior to the establishment of LAWPRO. In addition, LAWPRO is identifying measures across the PAA that fall to local authorities to address. It is very constructive that, in November 2020, local authorities were putting together a business case around the need for greater resources to address water issues.

Since its inception, LAWPRO as an organisation has invested considerably in relationship building, which is fundamental to its work. It is also reasonable to point out that the organisation has been in existence for only a very short period and the duration of the second-cycle RBMP was short. However, it was suggested that in the future there needs to be a very strong focus on implementation – are measures being applied and are they are achieving the right results?

A further key aspect of LAWPRO's stakeholder engagement role is working with the agriculture

sector, in particular by supporting the work of the Agricultural Sustainability Support and Advisory Programme (ASSAP). ASSAP is a government–industry collaboration that commenced in 2018. A team of 30 experienced farm advisers (20 from Teagasc and 10 funded by the dairy industry) are available to provide farmers with advice, free of charge. The aim is to improve water quality by working with farmers. The initiative has garnered worldwide attention as it is considered a highly innovative approach.

All parties involved have worked very hard on building working relationships and, in particular, there have been significant achievements in engaging farmer representative groups. However, it remains the case that the organisation and management of ASSAP, and the context in which the vital work of the farm advisers is being carried out, is highly complex. LAWPRO is very aware of these difficulties and has held regional meetings between its staff and ASSAP advisers, and in 2020 also commenced a programme of joint training, which has been positively received. However, there remains an urgent need, first, to monitor the implementation of measures by farmers and, by analysing the data, determine which measures have been adopted and why, and, second, to scale up the work of ASSAP by sharing its learning with the wider cohort of Teagasc advisers and also ultimately the large number of private advisers working in Ireland. In this regard, it is very positive that this training and "water mainstreaming" in Teagasc is under way.

The final actors within the governance structures are the regional committees. The five local authority regional management committees coordinate the delivery of water measures at local and regional levels and ensure a consistent approach. The committees appear to be working well, albeit at present they face challenges in respect of local authority resources. The chairs of the committees also attend NCMC meetings to ensure that their committees are kept informed of local authority developments.

There are also five other regional committees, known as ROCs. These encompass local-level representatives of the implementing bodies. They are also coordinated and chaired by the local authorities. Little information about the work of the committees can be found in the public domain, as the minutes of meetings are not made available; however, one interviewee referred to the regional committees as the

backbone of the structure" and claimed that "a lot of interaction happens at the ROCs". It was noted that in the past ROC meetings could become somewhat sidetracked by local authority matters. However, more recently, in many regions, separate local authority liaison meetings have been held in advance of the ROC meeting, and this has helped maintain focus. It was also reported that workshops have been held to tease out specific issues. The ROC operating in the Border Region has incorporated cross-border collaboration with counterparts in Northern Ireland, which is a positive development. One important role that ROCs have is supporting the identification of PAA for the third-cycle RBMP. A recent positive initiative, organised by LAWPRO, is regular meetings of the chairs of the ROCs.

2.2   Principle 2: Appropriate Scales within Basin Systems

Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales. To that effect, water management practices and tools should:

- respond to long-term environmental, economic and social objectives with a view to making the best use of water resources, through risk prevention and integrated water resources management
- encourage a sound hydrological cycle management from capture and distribution of freshwater to the release of wastewater and return flows
- promote adaptive and mitigation strategies, action programmes and measures based on clear and coherent mandates, through effective basin management plans that are consistent with national policies and local conditions
- promote multi-level co-operation among users, stakeholders and levels of government for the management of water resources
- enhance riparian co-operation on the use of transboundary freshwater resources.

Source: OECD (2018).

The reform programme is specifically aimed at managing water at the appropriate scale. Ireland has been divided into 46 catchments, 583 subcatchments and 4832 water bodies, all within one national administrative unit. As a result of work carried out by the EPA, a tiered approach to characterisation has been taken, which has resulted in structured data and evidence at water body, subcatchment, catchment and national levels. The data are all contained in one application called the WFD Application (App), and all public bodies involved in water management and protection in Ireland have access to this as a shared service. Much of this data is also available to the public through the website catchments.ie. The committees at the three tiers are also designed to facilitate decision-making at the right level by the right people and organisations.

2.2.1   Our findings

Appropriate scales within the river basin system appear to have been identified and our research did not identify any difficulty in this area. However, as mentioned elsewhere in this report, access to data, in particular by non-governmental stakeholders, is a significant challenge.

2.3   Principle 3: Policy Coherence

Encourage policy coherence through effective cross-sectoral co-ordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use through:

- encouraging co-ordination mechanisms to facilitate coherent policies across ministries, public agencies and levels of government, including cross-sectoral plans
- fostering co-ordinated management of use, protection and clean-up of water resources, taking into account policies that affect water availability, quality and demand (e.g. agriculture, forestry, mining, energy, fisheries, transportation, recreation and navigation) as well as risk prevention

- identifying, assessing and addressing the barriers to policy coherence from practices, policies and regulations within and beyond the water sector, using monitoring, reporting and reviews
- providing incentives and regulations to mitigate conflicts among sectoral strategies, bringing these strategies into line with water management needs and finding solutions that fit with local governance and norms.

Source: OECD (2018).

Cross-government collaboration to address major policy challenges, on which perspectives and priorities differ among stakeholders, is widely regarded as very difficult. The companion paper on water governance (Boyle *et al*., 2021b) addresses this issue in detail, looking through an experimental governance lens.

The OECD Water Governance Principles highlight the importance of policy coherence to achieving water quality objectives. This principle is relevant to any sector with ownership for policies that affect water availability, quality and demand, as well as risk prevention. Prominent sectors in this regard include the agriculture, forestry, mining, energy, fisheries, transport, recreation and navigation sectors.

The OECD Water Governance Indicator Framework emphasises that it is not sufficient to have in place policies, mechanisms and institutions that demand the development of coherent policies and the addressing of potentially wide-ranging barriers: it is necessary to go further. For example, the Framework recommends the use of cost–benefit analysis to determine the costs of poor water-related coherence and, similarly, a calculation of the benefits of a good approach. The OECD also suggests the development of provisions, frameworks or instruments to ensure that decisions taken in other sectors are "water-wise". Furthermore, the Framework calls for conflict mitigation and resolution mechanisms to manage trade-offs across water-related policy areas (e.g. water courts, regulations or bottom-up initiatives involving stakeholder consultation).

A major objective of the second-cycle RBMP and the governance structure put in place as part of the plan is cross-government collaboration in respect of water and, consequently, policy coherence. Initiatives to

deliver on this objective include the establishment of horizontal coordination mechanisms at both national and subnational levels. The establishment of the Water Forum to facilitate consultation with and the input of a wide-ranging group of stakeholders is a further noteworthy achievement.

Water quality is affected by policy decisions in a wide range of sectors, as evidenced by the organisations represented on the governance committees. Policy coherence concerns arise when the policies being pursued by a government department have a negative impact on water quality. It is well documented that the intensification of agriculture, when it is driven by practices that have a detrimental impact on water quality, is a particular concern (EPA, 2020). The EPA has calculated that agricultural pressures are a significant factor in over half of "at-risk" water catchments. Flood mitigation measures that release sediment into water courses also have an impact on water quality, as does intensive forestry. From a local authority perspective, housing is one of the top government priorities, as identified in the Programme for Government (Government of Ireland, 2020), but in urban areas developments are regularly granted planning permission without regard for waste water treatment capacity. Similar ineffective infrastructure can also create problems in rural areas. Addressing these very complex policy dilemmas is at the heart of water governance.

2.3.1   Our findings

At a top level there has been some progress around policy coherence. The EU Green Agenda and an environmental focus in the Programme for Government (Government of Ireland, 2020) has somewhat raised the profile of water quality and drawn attention to policy coherence issues. This is similarly the case with biodiversity and climate action, which the general public associates closely with water quality. Public awareness of these issues is serving to nudge policymakers towards the need for coherent policies.

Within the water governance structures, the WPAC is charged with ensuring policy coherence. There is some concern among members that quarterly meetings are not sufficient to facilitate this, though it is also recognised that much of the effective policy debate happens at bilateral meetings. Although it is evident that everyone involved in the WPAC has

good intentions, it is also clear that the priority for many departmental officials is their own policies. As a result, identifying synergies and co-benefits, as noted by some interviewees, is one way forward. This is happening on the ground through the work of LAWPRO and ASSAP, but also needs to be evident at the national policy level.

Resourcing challenges within the relevant government departments and agencies were mentioned by interviewees, and there was a perception that the complexity of cross-government issues and the time required to progress them are sometimes underestimated by officials' parent department. Leadership and commitment to the importance of policy coherence around water from the very top level in government organisations are also vital.

It would appear that, to date, much of the energy and focus within the governance structures have gone into identifying issues and problems in relation to water quality. This has now been achieved. Similarly, the various elements of the structures have had a chance to "bed in" and relationships have been established. It is hoped that this work will facilitate the really complex policy debates that now need to take place. However, this will also require considerable openness from those involved and leadership and commitment from the very top of the relevant organisations. As suggested previously, low-risk experimentation or trialling policy debates might also prove beneficial. In addition, the Water Forum is very willing, as a group, to play a role in furthering policy coherence (e.g. "road-checking" ideas), and greater use should be made of the Forum in this regard. Finally, although the predominant approach within the RBMP is one of culture change and bottom-up initiatives, the OECD Water Governance Indicator Framework does recognise that "command and control mechanisms" at times can make a useful contribution.

One particular consideration in the area of policy coherence that came to the fore in our research is misgivings among those representing the agricultural sector at the often repeated suggestion that farmers be paid to implement environmental measures or, more radically, to leave land unproductive. However, from the perspective of some agricultural representatives, providing subsidies and supports is not a long-term, sustainable business model. Subsidies are a precarious source of income and have been discredited more

generally. More fundamentally, in some contexts subsidies may fail to respect and value farmers' desire to farm their land. Instead, it was suggested that the approach needs to change to one of promoting forms of farming and farm practices that are environmentally friendly and productive for farmers.

2.4   Principle 4: Capacity

Adapt the level of capacity of responsible authorities to the complexity of the water challenges to be met and to the set of competencies required to carry out their duties:

- identifying and addressing capacity gaps to implement integrated water resources management, notably for planning, rule-making, project management, finance, budgeting, data collection and monitoring, risk management and evaluation
- matching the level of technical, financial and institutional capacity in water governance systems to the nature of problems and needs
- encouraging adaptive and evolving assignment of competences upon demonstration of capacity, where appropriate
- promoting the hiring of public officials and water professionals that uses merit-based, transparent processes that are independent from political cycles
- promoting education and training of water professionals to strengthen the capacity of water institutions as well as stakeholders at large and to foster co-operation and knowledge-sharing.

Source: OECD (2018).

Capacity relates to the skills, abilities and knowledge of those involved in water governance. The context in which people work and the culture of their organisations also matter. Ultimately, capacity determines whether or not the governance structures and the individuals and organisations that constitute such structures are fit for purpose and can deliver on the goals of the WFD. Developing and enhancing capacity over time is also important.

2.4.1   Our findings

The establishment of the governance structures as part of the RBMP has had a significant impact on the resources available for water governance in Ireland. Since 2014, approximately 100 new public sector posts have been added across the EPA, local government and Teagasc. The new structures have also had a very positive impact on capacity-building among the individuals and organisations involved. There is a culture of cooperation and knowledge-sharing across the tiers, which is encouraged and facilitated by the EPA. The EPA has always had a strong capacity in respect of water, but the current RBMP capacity has enhanced its capacity in other areas. The establishment of LAWPRO, and its specific objective of developing knowledge of catchments, has been very positive. Work is ongoing within LAWPRO to determine the best means of sharing knowledge across the local government sector. Capacity has also been enhanced within the DHLGH, with officials with considerable water expertise appointed to support the work of the departmental generalists. Many of those consulted during the course of this research referred to the growing capacity within the NTIG to develop an agenda of issues affecting water quality and to advise the NCMC, and consequently the WPAC. The more formal approach that the group has put in place for bringing forward issues has helped in this regard. Finally, members of the Water Forum highlighted that the skills and expertise of members and their organisations are improving as a result of the interactions across the committee. In addition, their understanding of other perspectives is facilitated.

Developing capacity is connected with, though not entirely dependent on, resources. Throughout this research it was frequently mentioned that collaboration, knowledge management and capacity-building are heavily resource dependent and, when resources in organisations are limited, training, development and other initiatives aimed at capacity-building may be sidelined. Resourcing constraints are also addressed under Principle 6.

Within the governance structures, the development of capacity is strongly connected with LAWPRO, which has as a core objective the generation and sharing of knowledge of water quality. LAWPRO, as a new organisation, has been able to mould itself and it has placed a huge emphasis on capacity-building

in all its dealings across the structures. On both the catchments and the communities sides, LAWPRO research has generated new knowledge about water. It was noted in the course of this research that, on the catchments side, there is greater clarity on how the generated knowledge can contribute to the WFD goals, whereas on the communities side there is a need for a more developed "road map" on how to share generated knowledge. This is referred to in the research by O Cinnéide and Bullock (2020) as a social science framework.

The role of LAWPRO has expanded over the life cycle of the plan, and its resources are particularly stretched. On the catchments side, the organisation has 30 scientists across 10 locations. The scientists typically work in pairs, with three pairs in each region. When one scientist is on leave, regions can really struggle, as they will be at two-thirds capacity. On the communities side the organisation employs 13 community water officers and three regional managers. According to one interviewee, LAWPRO, given its staffing resources, faces "mission impossible", while another described the work of the organisation as "flat-out firefighting". LAWPRO has made representation to DHLGH for more staff. It is also working towards putting in place a more flexible staffing policy that would allow for temporary recruitment and quicker replacement of departing staff. However, the organisation recognises that it will always be vulnerable to losing its highly qualified and experienced staff, particularly on the catchments side. This is not helped by the lack of security afforded to staff, who, with the exception of those who are on secondment from other public bodies, are all on fixed-term contracts. The impact of this on LAWPRO and more generally on water governance is significant. As one interviewee commented:

> I think we need to be committing for the long haul and that, to me, is around giving a bit of certainty to the staff who are involved in this. Like the last thing you'd need is a set of people on contracts getting nervous and exiting.

In addition to sharing knowledge generated across the governance tiers, LAWPRO has also been active in helping to build capacity within ASSAP. LAWPRO is part of the ASSAP coordination team, which meets periodically, in part to ensure that the knowledge generated by LAWPRO scientists is shared with the ASSAP advisers. The LAWPRO Catchments team and ASSAP advisers have also participated in joint training, which has helped build connections. More recently, LAWPRO piloted communications training, which proved positive and, Covid-19 permitting, will be rolled out across all regions.

In terms of transferring capacity on the communities side, a useful initiative put in place was the Rivers Trust conference, held in 2019 and repeated in November 2020. The conference brought together rivers trusts and voluntary catchment groups from all over the country to share learning. The conference also provided the opportunity for groups that are better established to provide guidance to groups that are at an earlier stage.

Within LAWPRO there is a strong emphasis on internal training, with internal experts upskilling other members of the team. LAWPRO also sees a role for the organisation in developing much needed capacity in the area of water management within local authorities. Given that local authorities are responsible for implementing the measures identified by LAWPRO, it is vital that they receive the learning they need and that practices are consistent. One interviewee observed that knowledge-sharing is not always practised even within an individual local authority .

Project management capacity was mentioned as an area in which the governance structures are weak. This is particularly evident in the challenges experienced when managing implementation and ensuring that sufficient progress is being made, in other words keeping the programme "on track" and also reporting on and monitoring of the RBMP. It was suggested, as noted in relation to Principle 1, that a dedicated secretariat or programme management office in the DHLGH would help greatly in this regard. It was also suggested that the NCMC needs to revisit its terms of reference and better meet its objectives, which are largely related to project management.

Data management and capacity were also raised as an issue. This is evident in terms of modelling capacity, which was noted could be beneficial in identifying the measures that produce the best outcomes and thus targeting resources effectively. It was also suggested that data collection and sharing are challenges and areas in which capacity could be strengthened. This

is evident in the metrics developed in respect of the second-cycle RBMP, many of which are based on activity rather than on output and outcome.

Related to the issue of data sharing is the issue of communications, and it was widely observed by interviewees from multiple organisations that capacity in this regard needs to be improved. This relates to both internal communication among the three tiers and communication with other stakeholders and the public in general. It was noted that any information and data shared may be inaccessible to those without a scientific background and this acts as a barrier to knowledge-sharing.

2.5   Principle 5: Data and Information

Produce, update and share timely, consistent, comparable, and policy-relevant water and water-related data and information, and use it to guide, assess and improve water policy, through:

- defining requirements for cost-effective and sustainable production and methods for sharing high-quality water and water-related data and information, e.g. on the status of water resources, water financing, environmental needs, socio-economic features and institutional mapping
- fostering effective co-ordination and experience-sharing among organisations and agencies producing water-related data between data producers and users, and across levels of government
- promoting engagement with stakeholders in the design and implementation of water information systems, and providing guidance on how such information should be shared to foster transparency, trust and comparability (e.g. data banks, reports, maps, diagrams, observatories)
- encouraging the design of harmonised and consistent information systems at the basin scale, including in the case of transboundary water, to foster mutual confidence, reciprocity and comparability within the framework of agreements between riparian countries

- reviewing data collection, use, sharing and dissemination to identify overlaps and synergies and track unnecessary data overload.

Source: OECD (2018).

Data and information relevant to water quality are held by a wide range of organisations. This has presented a challenge in the past, and one of the aims of the water governance structures under the second-cycle RBMP has been to facilitate better information and data exchange. One of the reasons for the establishment of LAWPRO was to carry out localised catchment assessments and to generate data on water quality at a local level.

2.5.1   *Our findings*

The current RBMP is weak in the area of production, updating and sharing of water-related data and information. Although there is a widespread desire for collaboration, the establishment of an accessible mechanism for sharing water-related data and information across the governance structures has proven to be challenging.

Members of the Water Forum appear to experience particular difficulty in accessing data and information. As members of a statutory body they do have greater access to information and data than would otherwise be the case; however, it was suggested that often these are not presented in an accessible way. There was a general view among Water Forum interviewees that agency reporting metrics need to be more aligned to the actions in the RBMP. In addition, one interviewee noted a need for what they described as intelligence rather than data, in other words that data need to be presented with context and meaning. The establishment within the Forum of a liaison group to engage with Irish Water on specific issues has, in recent times, resulted in a better flow of information between the two organisations.

Although there does appear to be some improvement in the sharing of data – it was noted that organisations that had been criticised in the past in this regard, in particular Irish Water and the DAFM, had become more open – there is a lack of real-time data. Interviewees suggested that the NCMC and NTIG should play a stronger role when it comes to data,

in particular by identifying data gaps and proposing how these would be filled. It was also suggested that these organisations could perhaps act as a forum for discussing and resolving concerns on the General Data Protection Regulation (GDPR).

Producing data that facilitate the monitoring of progress around implementing the RBMP is also a significant challenge. It was noted that, to date, LAWPRO data has generally focused on activity (numbers of visits or numbers of meetings) and that feedback, for example on progress being made by ASSAP, tends to be quite anecdotal in nature. LAWPRO aims to publish comprehensive data on the take-up of measures in the future, but the research needed, for example follow-up visits to farmers, has not yet been carried out, having been particularly hampered in 2020 by the Covid-19 pandemic.

Finally, it was noted by one interviewee that "our biggest shortfall is getting information out to the public in general". The website catchments.ie was developed by the DHLGH, EPA and LAWPRO as a portal for information on water for anyone interested. However, there are limitations to the site, as it does not include live updates on progress. This is particularly an issue for individuals and groups that provide information on a catchment and then subsequently cannot access updates in relation to that catchment. The EPA's WFD App does have some more up-to-date information, but it was described by interviewees as quite technical and it is not generally available to those not working in the public service.

2.6   Principle 6: Financing

Ensure that governance arrangements help mobilise water finance and allocate financial resources in an efficient, transparent and timely manner through:

- promoting governance arrangements that help water institutions across levels of government raise the necessary revenues to meet their mandates, building through, for example, principles such as the polluter-pays and user-pays, as well as payment for environmental services

- carrying out sector reviews and strategic financial planning to assess short-, medium-, and long-term investment and operational needs and take measures to help ensure availability and sustainability of such finance
- adopting sound and transparent practices for budgeting and accounting that provide a clear picture of water activities and any associated contingent liabilities, including infrastructure investment, and aligning multi-annual strategic plans to annual budgets and medium-term priorities of governments
- adopting mechanisms that foster the efficient and transparent allocation of water-related public funds (e.g. through social contracts, scorecards and audits)
- minimising unnecessary administrative burdens related to public expenditure while preserving fiduciary and fiscal safeguards.

Source: OECD (2018).

Ireland has a complex history in relation to water financing. The water utility company Irish Water was established in 2013. The objective in establishing the national utility was to create a single integrated body to manage the infrastructure across Ireland. Irish Water has two regulators, the EPA, which sets standards on water quality, and the Commission for Regulation of Utilities (CRU), which oversees the treatment of consumers and the economic operation of the utility and its investment programme. Irish Water differs from the other utilities regulated by CRU, and other water utilities around the world, in that it is not allowed to charge domestic water consumers, except in circumstances of excessive usage, as a means to fund its investment programmes. Irish Water is funded through a combination of non-domestic revenue, excess usage charges, government subvention, non-domestic borrowings and capital contributions.

Although Irish Water has taken over responsibility for Ireland's water and waste water services from local authorities, local governments still have significant obligations in respect of water and the WFD, overseeing the implementation and enforcement of measures at local level.

2.6.1 *Our findings*

The total level of resources available for the implementation of RBMP actions was widely commented on by our interviewees. Resource constraints affect the pace and level to which various actions can be advanced. It was noted across our research that Irish Water has insufficient resources to guarantee a safe and secure supply of water. As one interviewee commented, "one of the biggest problems we have in water full stop is a very underfunded national body". Major infrastructural investment is required to address problems regarding waste water in particular. Other interviewees noted that Irish Water faces significant challenges resulting from budgetary decisions that have delayed implementation of its work programme, including investment in some treatment plants. Although the funding available to Irish Water has improved significantly, it still faces serious challenges in making up for many years of underinvestment.

The financial and resourcing challenges faced by local authorities were also widely commented on. The workload in respect of water quality measures has increased but resources have remained the same or have even been reduced. It was noted that local authority directors that attend regional management committees where regional action plans in respect of water are developed are becoming increasingly frustrated. The challenges in urban areas where the infrastructural deficits are very challenging were noted in particular. Similarly, LAWPRO and ASSAP face considerable challenges in achieving their obligations given their limited resources.

Ultimately, the financing of water is a political decision, and water investment is competing with many other demands. It is acknowledged that in the past Irish Water was underfunded and that we are still experiencing the impact of this, despite recent increases in funding through the Irish Water Strategic Funding Plan. It has been noted by one commentator (Fitzgerald, 2020) that, to secure Oireachtas backing for more funding, it might be helpful if the regulators were to publish annual estimates of the amount of funding, efficiently spent, that our water system needs.

Many interviewees also stressed that funding arrangements associated with the next Common Agricultural Policy (CAP) will fundamentally affect farmers' interest in, and ability to engage effectively with, water improvement initiatives. Changes to the CAP that encourage greater emphasis on environmental sustainability are expected, and encouraging policy moves in this direction is an important role for the WPAC and others. The European Commission Farm to Fork Strategy also sets targets, which will influence resource allocation decisions, as will the European Green Deal and the Chemicals Strategy, the latter having an impact on pesticide use. Within this overall context, the governance arrangements were generally seen as facilitating the ability to make best use of the resources available.

2.7 Principle 7: Regulatory Frameworks

Ensure that sound water management regulatory frameworks are effectively implemented and enforced in pursuit of the public interest through:

- ensuring a comprehensive, coherent, and predictable legal and institutional framework that sets rules, standards and guidelines for achieving water policy outcomes, and encourages integrated long-term planning
- ensuring that key regulatory functions are discharged across public agencies, dedicated institutions and levels of government and that regulatory authorities are endowed with the necessary resources
- ensuring that rules, institutions and processes are well co-ordinated, transparent, non-discriminatory, participative, and easy to understand and enforce
- encouraging the use of regulatory tools (evaluation and consultation mechanisms) to foster the quality of regulatory processes and make the results accessible to the public, where appropriate
- setting clear, transparent and proportionate enforcement rules, procedures, incentives and tools (including rewards and penalties) to

promote compliance and achieve
regulatory objectives in a cost-effective
way

● ensuring that effective remedies can
be claimed through non-discriminatory
access to justice, considering the range of
options as appropriate.

Source: OECD (2018).

Regulation in respect of the WFD is somewhat
complex in that no enforcement happens directly under
the WFD or under the RBMP; instead, enforcement
happens under other European and Irish legislation.
The responsibility for compliance and enforcement
is therefore devolved; for example, the DAFM has
responsibility for enforcing the Nitrates Directive,
whereas the EPA monitors compliance with the Waste
Water Treatment Directive.

The absence of Irish primary legislation to implement
the WFD represents a major challenge. This has been
evident in, for example, the area of water abstraction,
where appropriate safeguards and protections should
be in place when abstracting water from rivers,
lakes, streams and groundwater sources. Legislation
in Ireland significantly predates the WFD and is
inadequate. Ireland's non-compliance in this regard
forms part of the infringement action being taken by
the EU against Ireland. The DHLGH has worked on
legislation in this area, and pre-legislative scrutiny
of the Water Environment (Abstractions) Bill was
completed in autumn 2020.

2.7.1   Our findings

The need for radical legislative reform in the water
sector to ensure full compliance with the WFD and
to provide good foundations for water governance in
Ireland was noted. It was further commented that the
complexity of the regulatory environment in itself means
that the governance structures put in place as part of
the RBMP are essential, because there is no single
government body responsible for water quality.

The dominant approach within the RBMP is to change
behaviours or, as one interviewee put it: "people don't
respond well to rules; collaboration and engagement
is about making it easy to make changes – this
is especially important in relation to agriculture,
which is the biggest problem for water". Another

interviewee commented similarly, though with more of
a negative connotation, and said that "Ireland doesn't
do enforcement and [...] historically, courts have
been lenient on environmental breaches". However,
generally it is accepted that there is a need for a
regulatory mix that includes not only awareness and
education but also norms and enforcement.

At a national level, breaches of water and waste
water regulations and guidelines are enforced by the
EPA. It is a source of considerable frustration among
stakeholders that a state-sponsored body, namely Irish
Water, contributes to water pollution, with interviewees
pointing to the "hypocrisy" and "double standards"
implied.

At a local level, the establishment of LAWPRO
has had a significant impact on the identification of
pollution problems. However, as noted previously,
LAWPRO has no enforcement powers; rather,
enforcement is the responsibility of local authorities.
However, of the approximately 3500 farm inspections
per annum, only about 100 enforcement letters are
sent. Similarly, it was suggested by one interviewee
that "DAFM have a tolerance approach – that is they
'accept' small areas of non-compliance, ask farmers to
fix them but never re-inspect". Several members of the
Water Forum also expressed frustration at what they
regard as an overly lenient regime and a lack of follow-
through and enforcement when breaches of regulation
are identified.

In terms of changing farming practices, it was
commented that the LAWPRO/ASSAP way, which
is widely regarded both in Ireland and internationally
as highly innovative, has emerged as the best way
forward following many years of experience and
debate on differing approaches to reducing agricultural
pollution. Listening to farmers, the agricultural
community and industry is at the heart of the approach
and, in the view of one interviewee, "it [the relationship]
has come a long, long way". In particular, engaging
with farming organisations and convincing them of the
importance of water quality to the future of agriculture
is a notable achievement.

The endorsement of ASSAP by the Irish Farmers'
Association (IFA) makes a huge difference when
advisers are approaching farmers and looking for their
cooperation. Commenting on the relationship with the
farming organisations, one interviewee noted that,
"at the start, there was a really bad atmosphere, you

could cut the tension with a knife. But, we found a compromise and way forward". However, it was also noted that the approach is highly resource intensive and time consuming, in terms of both managing the range of stakeholders involved and delivering and assessing progress.

Overall, research contributors acknowledged that both formal and informal approaches to ensuring compliance need to be improved; in other words, there needs to be an ongoing focus not only on the awareness of practice change but also on the threat of sanction for repeated or continuing breaches. Similarly, it was noted that both top-down and bottom-up approaches are central to any regulatory context. For example, importance was placed on what was referred to as a top-down mindset within the DAFM, Teagasc and the dairy industry, namely that Ireland's image as a sustainable farming economy cannot be taken for granted, but that it is also necessary to encourage farmers to adopt environmentally friendly measures and practices.

2.8   Principle 8: Innovative Governance

Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders:

- encouraging experimentation and pilot testing on water governance, drawing lessons from successes and failures, and scaling up replicable practices
- promoting social learning to facilitate dialogue and consensus-building, for example through networking platforms, social media, information and communication technologies and user–friendly interfaces (e.g. digital maps, big data, smart data and open data) and other means
- promoting innovative ways to co-operate, pool resources and capacity, build synergies across sectors and search for efficiency gains, notably through metropolitan governance, inter-municipal collaboration, urban–rural partnerships and performance-based contracts

- promoting a strong science–policy interface to contribute to better water governance and bridge the divide between scientific findings and water governance practices.

Source: OECD (2018).

The governance structures put in place under the second-cycle RBMP represent innovative governance in practice. All relevant government departments, regulators and implementing bodies are represented, together with local government. The Water Forum, which advises both the WPAC and the Minister for Housing, Local Government and Heritage on water matters, comprises a wide range of water stakeholders. These structures were put in place in recognition of the need for an innovative approach to respond adequately to the challenges confronting Ireland regarding water quality and in recognition of the inadequacy of previous approaches. In a separate paper published as part of this research programme (Boyle *et al.*, 2021b) the Institute of Public Administration research team assesses the Irish water governance structures through an experimental governance lens (Sabel and Zeitlin, 2012).

In addition to the governance approach, a number of the organisations that make up the structures were set up with a clear mandate of developing innovative ways to cooperate, by pooling resources and capacity, building synergies across sectors and searching for efficiency gains. LAWPRO, with both its Communities and Catchments teams, seeks to identify better approaches and build consensus around these. In its relationships with community groups, rivers trusts and members of the public in general, it seeks to learn from and support work already being done to promote better water quality. On the catchments side, the whole thrust of its work with ASSAP and the dairy industry is to identify mutually beneficial responses. As noted previously, ASSAP is a highly innovative form of public–private partnership. As an advisory service it seeks to promote farming practices that protect water quality. It was recognised from the start that this could only be effectively achieved in collaboration with farming organisations, the dairy industry and the recognised farm advisory service, Teagasc. Finally, at national level, a memorandum of understanding developed between the EPA and DAFM to share information represents another innovative approach to

cooperation and the pooling of resources in respect of water quality.

2.8.1   *Our findings*

The governance structures are widely regarded as a positive and beneficial innovation and as promoting cooperation and capacity-building in the area of water management. They are also specifically oriented towards achieving a science and policy interface and ensuring that policies affecting water are evidence based.

LAWPRO was widely praised by our interviewees for its open and cooperative approach and for the unassuming way in which it shares learning and builds capacity. One interviewee also noted that "joined up thinking has definitely improved [as a result of LAWPRO]. This is key to what LAWPRO is doing; it is 'plugging a gap'". On the catchments side it was suggested that "all of it is highly innovative and there's great communication and connections around it". It was acknowledged by the organisation itself that on the communities side it is still learning and that "it's very much a new furrow; it's a case of suck it and see".

In the case of ASSAP, although much feedback was positive, with its approach considered to have enhanced cooperation and resulted in synergies, it was also noted that it is still too early to definitively decide if it is the right approach and is achieving positive outcomes in respect of water quality. As one interviewee noted: "ASSAP has only been around a few years; we need another series of it to determine if we have a model that everyone can work with – so we need time to see results and then can really determine about scaling up". However, another interviewee considered it critical that the approach is mainstreamed (and urgently): "Water quality is bad everywhere; non-dairy farmers are equally impacting. The wider agricultural advisory service needs to up its game regarding water quality and this needs to be supported by government. All agriculture needs to get behind this as it impacts all farmers". From this perspective, it seems very positive that Teagasc has commenced a training programme on water quality for its general advisers, based on the learning and experience of its ASSAP advisers.

A wide variety of local and pilot initiatives are generally aimed at improving water quality. These range from small projects, such as Birr 2020, funded by LAWPRO under its Community Water Development Fund (CWDF), to initiatives funded by the EU, for example Burren Life in County Clare, funded under the EU LIFE programme, as part of which farmers are paid for achieving specific environmental outputs. On a much larger scale are a small number of catchment partnerships and rivers trust groups, which are supported by a combination of LAWPRO, the LEADER programme, the DHLGH and the EU. However, learning the lessons from these pilots and subsequently scaling them up is a challenge. As one interviewee commented, "it's key to learn from pilot schemes and innovative programmes. This isn't being done so readily in my view". However, a balanced judgement is clearly required, as another participant suggested that the "DHLGH are very keen to scale up good practices and mainstream them, but are lacking hard evidence to base judgments on; there's only anecdotal evidence". Similarly, it was commented that "some might be too hasty in their positive view of pilots; results/evidence is the thing that matters and that's water quality".

However, some of those involved in pilots cited a number of barriers. Firstly, it was suggested that "the excessive paperwork and amount of red tape can stymie community and voluntary efforts". The challenge of planning permission was particularly noted, with, it seems, even small remedial projects requiring planning permission. Secondly, it was noted that "money is always an issue" and that only small sums of money are available to support innovations. Some interviewees referred to the situation in the UK, where a rivers trust group can have a sizeable number of paid officers. The relatively modest size of LAWPRO's CWDF budget of €200,000 would seem to lend further credence to this claim. However, this assertion is disputed to an extent by LAWPRO, with one interviewee noting that "money can be found in other ways if there is a good idea". Finally, it was suggested that pilot projects can be too dependent on voluntary efforts and the goodwill of those involved.

LAWPRO acknowledges that more could be done to build capacity among those involved on the ground in pilot initiatives. It was noted that these initiatives result in learning that could be promoted in a more structured

way through workshops and training. Capacity-building among volunteers is also essential. Similarly, it was acknowledged that "there needs to be more support if we are serious about getting local groups involved in the RBMP process to make a meaningful impact". The advantages of evolving the work of pilot studies and community groups into more formally established rivers trusts was also emphasised: "if you can get them into a group it really works but it takes time, you're talking a few years. Also, you need a champion". These findings are strongly corroborated in case studies of the Inishowen Rivers Trust and the River Moy Trust carried out as part of this research programme (O Cinnéide *et al*., 2021).

One interviewee highlighted the importance of a clearly defined road map if pilot projects are ultimately to have a positive impact: "I would like to see schemes and a roadmap, with clear funding that is available", commenting further that "one consistent pathway is essential to go beyond 'pilot projects. There may be many different pots of money that you dip into, but you want to have a roadmap, and at least there is clarity." This comment is consistent with the recommendation in the O Cinnéide and Bullock (2020) review of LAWPRO, which called on LAWPRO to develop a social science framework.

The issue of social learning is only slowly coming to prominence within the governance structures. However, it was noted in the course of this research that there is a growing public appetite for consultation and engagement in the area of water management. One interviewee said that "People want to protect water and do the right thing [...]; there's a growing appreciation that society needs to pull together to achieve common goals". However, another interviewee expressed views somewhat at variance with this, noting that "the jury is still out on citizen science; the level of impact that can be made through citizen science is not going to help achieve RBMP objectives". This interviewee believed that resources should, instead, be put into more formal initiatives such as partnerships and trusts. However, in relation to the wider public, it was noted that there is a popular knowledge deficit in respect of water issues and that, although LAWPRO is playing a role in this regard, progress is slow. A national media campaign on water, as noted previously, would be beneficial, but is beyond LAWPRO's current resources.

2.9 Principle 9: Integrity and Transparency

Mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision making through:

- promoting legal and institutional frameworks that hold decision makers and stakeholders accountable, such as the right to information and of independent authorities to investigate water-related issues and law enforcement
- encouraging norms, codes of conduct or charters on integrity and transparency in national or local contexts and monitoring their implementation
- establishing clear accountability and control mechanisms for transparent water policy making and implementation; diagnosing and mapping on a regular basis existing or potential drivers of corruption and risks in all water-related institutions at different levels, including for public procurement
- adopting multi-stakeholder approaches, dedicated tools and action plans to identify and address water integrity and transparency gaps (e.g. integrity scans/ pacts, risk analysis, social witnesses).

Source: OECD (2018).

One of the primary objectives of putting in place the new governance structures was to prioritise stakeholder engagement. Engagement with stakeholders, in particular the environmental non-governmental organisation (NGO) sector, resulted in the establishment of the Water Forum in 2018. Its establishment as a statutory body gives it a level of credibility with government organisations. In addition, the establishment of LAWPRO has resulted in greater consultation with the wider public.

However, the level of transparency envisaged in the OECD Water Governance Indicator Framework (OECD, 2018) – a high degree of public accountability, supported by legal frameworks, codes of conduct,

charters, etc. – is not at present evident in the Irish water governance arrangements. Similarly, risk management and anti-corruption controls are not at present explicitly included in water governance, aside from those in place in individual organisations and the general standards of ethical behaviour required of all public servants under the Ethics in Public Office Acts.

2.9.1 Our findings

Individuals and organisations participating in water governance in Ireland seemingly do so with a sense of purpose and goodwill. Although some organisations have been slower than others in entering into a full spirit of openness and transparency, all organisations have made progress in this direction. This has resulted in a climate of mutual respect.

As noted previously, information and data gaps are an area where further work remains to be done. In some instances, this is because the data is not yet available, and in other instances there are capacity gaps. Irish Water and the DAFM were mentioned by several interviewees regarding data issues. The limited availability of data on waste water treatment plants, in terms of which ones are polluting, which are being upgraded and progress on the upgrades, was noted as a particular issue. In general, there is a need for enhanced sharing of information.

There is very little information in the public domain about the regional committees. As one interviewee put it, this means they "have to accept the views of others that they're working". For example, there are no minutes of meetings or published regional integrated catchment management programmes. Transparency of the operation of regional committees is an issue that needs to be addressed. Similarly, the linkages between the regional committees and the other tiers of governance, and the flows of information between them, are somewhat opaque.

2.10 Principle 10: Stakeholder Engagement

Promote stakeholder engagement for informed and outcome-oriented contributions to water policy design and implementation through:

- mapping public, private and non-profit actors who have a stake in the outcome

or who are likely to be affected by water-related decisions, as well as their responsibilities, core motivations and interactions

- paying special attention to under-represented categories (youth, the poor, women, indigenous people, domestic users) newcomers (property developers, institutional investors), and other water-related stakeholders and institutions

- defining the line of decision making and the expected use of stakeholders' inputs, and mitigating power imbalances and risks of consultation capture from over-represented or overly vocal categories, as well as between expert and non-expert voices

- encouraging capacity development of relevant stakeholders as well as accurate, timely and reliable information, as appropriate

- assessing the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly, including the evaluation of costs and benefits of engagement processes

- promoting legal and institutional frameworks, organisational structures and responsible authorities that are conducive to stakeholder engagement, taking account of local circumstances, needs and capacities

- customising the type and level of stakeholder engagement to the needs and keeping the process flexible to adapt to changing circumstances.

Source: OECD (2018).

As noted previously, one of the primary objectives behind the development of new governance structures for water was the need to achieve stakeholder engagement. The importance of public participation had already been recognised by the local government sector, with the establishment of the Local Authority Waters and Communities Office (LAWCO) in 2017 and the creation of 12 Community Water Officer posts around the country with holders having responsibility for engaging and working with environmental and voluntary groups and with the wider public. Since then,

LAWCO has evolved into LAWPRO. The O Cinnéide and Bullock review (O Cinnéide and Bullock, 2020) notes that, up to spring 2020, LAWPRO team members had taken part in 1183 events over 3 years and in each of the 26 counties.

The importance of stakeholder engagement within water governance further resulted in the establishment of the Water Forum. The Forum has 26 members and three full-time staff. The Water Forum represents a broad range of interests, with the main sectors and stakeholders interested in water quality coming together around the table. The Forum is a body for the sharing of mutual learning and information and for keeping stakeholders up to date. However, beyond that, it seeks to influence policy and has a role in advising the Minister for Housing, Local Government and Heritage.

2.10.1   Our findings

Priority is given to stakeholder engagement within the governance structures. A concerted effort was made to map and include all stakeholders. This is evidenced in the Water Forum's broad membership, which includes representatives of the following groupings: agriculture, business, the community and voluntary sector, education, environmental groups, fisheries, forestry, recreation, general consumers, rivers trusts, the National Federation of Group Water Schemes, social housing, tourism and trade unions. It was noted by some that perhaps there should be broader representation from education, as at present there is only one representative. Other groups suggested for inclusion were young people, aquaculture, commercial fisheries and artisan food suppliers. However, the need for additional representation was balanced by a view that, as the Forum is already a large grouping, adding more members could challenge its effective operation even further. Nevertheless, the need to reach the general public, who are also stakeholders, is recognised. An interviewee suggested that there is "ample scope to improve this and much work needs to be done to make the issue of water quality resonate more strongly with the general public".

The Water Forum is a very positive vehicle for capacity-building among stakeholders, with members who were interviewed commenting that they feel more informed and that their knowledge of water issues has increased, and that participation in the Forum has strengthened relationships with other members. Most interviewees emphasised the positive role of the chair as one of the reasons for the successes of the Forum to date. Having an independent chair not linked to any particular interest group was seen as important. That the chair operates in a respectful and inclusive manner, allowing for diverging views to be articulated, was emphasised as a significant factor in the generation of trust among members.

The need to keep the process of stakeholder engagement flexible and adapt to changing circumstances is an element of the OECD stakeholder engagement principle. This has particular relevance to the Water Forum. The time commitment required of members, particularly those with limited resource supports or those who are not working full-time in the area, was referenced by several interviewees as a limitation to their participation. It was felt that this could lead to disadvantages for lesser resourced stakeholders in determining the direction of work. It was recognised that the chair is conscious of this and attempts to ensure equity in this regard to the extent possible. In addition, the wide-ranging brief of the Forum was referenced by several interviewees as posing challenges in terms of possibly being too diverse and hence failing to address selected issues in a thorough and comprehensive manner. Consequently, some interviewees saw the need for a tighter brief, with more focused priorities. Finally, it was noted that not everyone involved in the Water Forum is interested in all aspects of the RBMP or in all water bodies; similarly, it was noted that some members can be highly critical of agriculture and perhaps do not fully appreciate the complexity of the issues involved. In respect of all of these areas it was noted that there will need to be ongoing flexibility in how the Forum is supported and in how it operates.

Members of the Water Forum are anxious to see how their work affects policy and would welcome greater feedback in this regard. As a statutory body, the Forum does have some credibility with government organisations, in particular with the DHLGH; however, it was noted that other departments are more reluctant to engage with the Forum. More generally, it was suggested that all organisations that elicit stakeholder contributions should publish both the points raised and any subsequent decision, even if negative. It was accepted that, although the stakeholders' suggestions might not be implemented, this would at

least show that the representations had been read and considered.

The establishment of LAWPRO was in part a recognition by local authorities that stakeholder engagement had in the past been ineffective. As an organisation, LAWPRO has put a huge amount of reflection into the way in which it approaches stakeholder engagement. This is consistent with good practice and with the OECD principles referring to the value of "assessing the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly" (OECD, 2018). However, as in the case of the Water Forum, it was noted that the challenge lies not in engaging recognised stakeholders but in engaging the general public. In this regard, a coordinated approach around all environmental issues, and in particular water, biodiversity and climate action, is regarded as vital by many of the research participants, because the general public does not distinguish between these. Indeed, LAWPRO has had to be very flexible in this regard, often fielding enquiries at meetings about other environmental concerns, for example waste water treatment plants and invasive species.

The outreach work of LAWPRO is very positive and is undoubtedly enhancing the knowledge and awareness of those it meets. It also resonates with the objectives contained in the OECD principles (OECD, 2018) of the importance of building capacity among stakeholders. There appears to be a very genuine appreciation of the value of building relationships with both the organisations they need to work with and NGOs and citizens. The comment of LAWPRO's first director, "we do our best work over a cup of tea", seems to aptly sum up the organisation's style of engagement, and its own assessment that "it [building relationships] can never be seen as wasted time, but it does take time to get right" is important to highlight.

However, the need to reach wider sections of Irish society was mentioned by several interviewees, with young adults regarded as a particularly vital target group. More in-depth research on public participation was cited as necessary to identify "what types of public participation structures would be appropriate for Ireland". This comment is consistent with one of the recommendations of the O Cinnéide and Bullock (2020, p. 38) review of LAWPRO, i.e. the need to build

a framework or methodology on which to base its public participation work.

In addition, and as mentioned several times previously, it was noted that there is little opportunity for individuals or NGOs to have an input into the work of the catchments teams that are actively exploring the reasons for pollution in the PAA or indeed how PAA are selected or progress on measures adopted. Furthermore, there is very little feedback provided in these areas. O Cinnéide and Bullock (2020, p. 15) referred to "boundaries" around public engagement. LAWPRO interviewees are aware of these concerns, highlighting the need to improve data availability and the website. One interviewee commented that "we're getting better at upward feedback but we're not so good at downward feedback".

2.11 Principle 11: Trade-offs across Users, Rural and Urban Areas, and Generations

Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas, and generations, through:

- promoting non-discriminatory participation in decision making across people, especially vulnerable groups and people living in remote areas
- empowering local authorities and users to identify and address barriers to access quality water services and resources and promoting rural–urban co-operation, including through greater partnership between water institutions and spatial planners
- promoting public debate on the risks and costs associated with too much, too little or too polluted water to raise awareness, build consensus on who pays for what, and contribute to better affordability and sustainability now and in the future
- encouraging evidence-based assessment of the distributional consequences of water related policies on citizens, water users and places to guide decision-making.

Source: OECD (2018).

Trade-offs in respect of the implementation of the RBMP are driven primarily by resource limitations, in particular regarding funding and personnel. This means, for example, that PAA have to be selected, focusing attention on water bodies that are most at risk. The governance structures put in place are aimed at ensuring that, where trade-offs have to be made, they are done on the basis of an evidence-based assessment and in consultation with stakeholders and the public. The work of LAWPRO is crucial in this regard.

Trade-offs are also at the heart of policy debates about water quality, and evidence-based assessments are vital in this regard. Agriculture, forestry, flood relief, wind energy and housing are all areas in which policy decisions can affect water quality, and therefore research, evidence and collaboration, which are facilitated by the governance structures, are vital. Although the objective, where possible, is to have mutually beneficial outcomes, trade-offs may be required on occasion.

2.11.1 *Our findings*

As noted previously, resources are widely regarded as a major limiting factor in achieving water quality goals. In particular, it was noted that the funding received by Irish Water is insufficient to address the major infrastructural deficits (e.g. in respect of combined sewer networks, missed connections and waste water treatment plants), particularly in urban areas. According to one interviewee, "the second RBMP has concentrated too much on rural areas; there hasn't been enough conversation about urban areas". Although it was appreciated that addressing rural water challenges is less costly as it primarily involves changes to farm practices, it was argued that it is vital to give prominence in the third-cycle RBMP to urban issues, in particularly "more oversight of what is being planned" from within the governance structures. Another interviewee noted that the focus on rural water is driven by the complexity of the challenges facing rural water, but suggested that in the third-cycle RBMP there will need to be a focus on the following three categories: rural, urban and rural–urban (i.e. large towns).

As noted previously, trade-offs are also evident in policy debates, with policymakers at times having to make difficult decisions. For example, in certain cases, flood protection may trump water quality when there is an overriding public interest to protect people from flooding and when the actions needed will inevitably have negative impacts on water quality or biodiversity. What is important is that these potential trade-offs are identified at an early stage and that efforts are then made to minimise any negative impact or, as is provided for in the Habitats Directive, make a compensatory restitution in some other area. As noted previously, several interviewees referred to the desirability of a national campaign to raise awareness of water quality and associated trade-offs.

2.12 Principle 12: Monitoring and Evaluation

Promote regular monitoring and evaluation of water policy and governance where appropriate; share the results with the public and make adjustments when needed:

- promoting dedicated institutions for monitoring and evaluation that are endowed with sufficient capacity, the appropriate degree of independence and resources as well as the necessary instruments
- developing reliable monitoring and reporting mechanisms to effectively guide decision making
- assessing to what extent water policy fulfils the intended outcomes and water governance frameworks are fit-for-purpose
- encouraging timely and transparent sharing of the evaluation results and adapting strategies as new information becomes available.

Source: OECD (2018).

One of the reasons behind the establishment of new governance arrangements regarding water was to achieve better monitoring and evaluation of progress towards improving water quality. Consistent with the OECD Water Governance Indicator Framework (OECD, 2018), it was recognised that there was a need for institutions dedicated to monitoring and evaluation. The terms of reference of the NCMC in the second-cycle RBMP state that "it will agree and

oversee the overall work programmes and report to WPAC on progress". The terms of reference of the WPAC note that it will "advise the Minister with regard both to progress of the plan and to the preparation of programmes of measures necessary to achieve the environmental measures".

Expected outcomes of the second-cycle RBMP are set out in Section 13 of the RBMP. However, as considered desirable by the OECD, there are no formal requirements or prescribed mechanisms for monitoring and evaluation. The key indicator on water quality outcomes included in the RBMP is a commitment that, over the lifetime of the plan, general water quality improvements will be achieved in the 726 water bodies prioritised, and 152 water bodies will show "improvement in status" by 2021 (Government of Ireland, 2018).

The call for submissions in respect of the third-cycle RBMP, various reviews of aspects of the governance structures, including that of LAWPRO, the Water Forum and ASSAP, and the commissioning of this research programme by the EPA all indicate a commitment to further improving water governance arrangements in Ireland.

2.12.1   Our findings

Monitoring and evaluation is acknowledged as a weakness of the second-cycle RBMP. In particular, the sharing of information and data on the progress towards water quality goals, especially regarding PAA and individual catchments, is limited. This would appear to be in part a timing issue, with governance structures only maturing as we come to the end of the 3-year plan. The Covid-19 pandemic has also had a major impact, in particular affecting monitoring and evaluation work at a local level.

It was suggested that, over the remainder of the second-cycle RBMP, "There is need for a laser-like focus on the 726 water bodies identified in the 2018–2021 plan for improvements in water quality by

the end of the second cycle. This is ultimately the test of the governance structures and the approach put in place under the second-cycle RBMP". Although it may transpire that improvements in the PAA will be offset by deterioration elsewhere, it is vital that the success of the approach, in terms of water quality, can be vindicated before considering scaling it up.

To achieve these goals, it seems to vital to clarify who has ultimate ownership for the monitoring of the RBMP. The DHLGH has responsibility for water policy and the EPA has a statutory role to report to the European Commission in respect of the WFD. However, there appears to be some confusion surrounding whose responsibility it is to monitor the implementation of the RBMP. It was suggested by one interviewee that "this is a bit of a gap" and by another interviewee that "it defaults back to the Department and the EPA […] but I would say that it's not the EPA's job to report on the Plan, it's a Government Plan".

It was also acknowledged that the NCMC and WPAC have a prescribed role regarding monitoring and evaluation. However, as noted previously, it would seem that neither committee has, to date, taken on the role of advising the DHLGH on progress in any formal way. It was also suggested that the NTIG could play a role, in particular in the development of indicators. Initiatives in this regard would reflect the OECD (2018) recommendation to "develop reliable monitoring and reporting mechanisms to effectively guide decision making".

Members of the Water Forum, representing water stakeholders, experience a high degree of frustration with this situation and have called for better metrics, a more formal reporting of progress by all agencies assigned actions under the RBMP and more transparency of data. In particular, they would like agencies to report data aligned to RBMP goals. It was suggested that in the next cycle of the RBMP there needs to be more SMART (specific, measurable, achievable, realistic and timely) indicators to ensure that "they set themselves up to track progress better".

3   Conclusions and Recommendations

The water governance arrangements put in place for the RBMP for Ireland 2018–2021 have been examined here using the OECD Water Governance Indicator Framework (OECD, 2018) as a frame of reference. As the governance arrangements have been in place for only a relatively short period, in many ways they are still "bedding down" and are in the process of development.

The three-tier governance structure has been well received by the different stakeholders and participants. In the research carried out for this study, the emphasis of interviewees was on improving elements of the governance arrangements rather than making significant changes. Areas where adaptation or improvement is thought to be needed to achieve a higher standard of water governance have been highlighted throughout the report.

With regard to the lessons learned to date, to help ensure appropriate and effective governance arrangements for the third-cycle RBMP for Ireland 2022–2027, a number of conclusions and recommendations are set out in this chapter. These are presented using the OECD (2018) Water Governance Indicator Framework. The conclusions set out in Table 3.1 use a colour-coded dashboard based on the assessment of the research team and corroborated with the research programme steering group. Green represents principles where strong progress has been made, orange principles where good progress has been made and red principles where limited progress has been made. The conclusions are followed by recommended actions to be taken by those involved in water governance in Ireland to further strengthen areas in which there has been good progress and to improve areas of limited progress. The conclusions and recommendations have been developed based on the research carried out by the Institute of Public Administration team during 2020. However, it is open to those involved in the water governance structures, perhaps in a workshop format, to discuss and amend the recommendations.

3.1   Conclusions

The conclusions are set out in Table 3.1.

3.2   Recommendations

In this section, based on the conclusions of this research, we set our recommendations for the third-cycle RBMP. However, we invite those involved in the governance arrangements to review these recommendations and to prioritise for implementation those which they believe will contribute most to the outcome of better water quality.

3.2.1   Clear roles and responsibilities

- A programme management office within DHLGH is to be established to coordinate implementation of the RBMP.
- The terms of reference of all bodies in the RBMP should be reviewed and all bodies should fulfil their roles in full.
- The NCMC should develop its role as "project manager".
- Chairs of all committees could come together for a specific and focused conversation about roles and responsibilities, what is working well and what is working not so well, and to discuss any changes to be agreed in advance of the third-cycle RBMP.
- All members of committees could come together occasionally for a facilitated workshop on process, collaboration and engagement.
- The relationship between the local authority sector and LAWPRO needs to be reviewed. The CCMA water subcommittee should play a strong role in furthering this.
- A memorandum of understanding between the Water Forum and the DHLGH and WPAC would prove mutually beneficial.

3.2.2   Appropriate scales within basin systems

- A review of catchment-based organisations to determine if they have the appropriate level of autonomy, staff and budgets should be carried out.

Table 3.1. Conclusions

Principle[a]	Performance category	Key findings
1. Clear roles and responsibilities Clearly allocate and distinguish roles and responsibilities for water policymaking, policy implementation, operational management and regulation, and foster coordination across these responsible authorities	Good progress	Roles and responsibilities regarding water governance are clearly identified in the RBMP, but there is a need for all entities to review their terms of reference to ensure that they are effectively meeting their obligations. An overlap between the roles of the WPAC and NCMC was prominent in our research, and it would appear that there is a degree of confusion among both committees on their terms of reference. In particular, it was suggested that project management activities should not fall within the domain of the WPAC and are instead the responsibility of the NCMC
		There is a lack of clarity on who has overall responsibility for the implementation of the RBMP. As a result, strategic planning and priority setting in the area of implementation of the RBMP is not as rigorous as it might be. Similarly, monitoring progress in relation to the implementation and achievement of outcomes is carried out in an ad hoc manner
		There is an absence of formal communication mechanisms between the three tiers and various structures. At present, communication is too reliant on personal relationships and is therefore highly vulnerable to inevitable changes of personnel
2. Appropriate scales within basin systems Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and to foster co-ordination between the different scales	Strong progress	There is consensus that, following changes made under the second-cycle RBMP, water is managed at the appropriate scale
		The governance structures are designed to facilitate decision-making at the right level by the right people and organisations
3. Policy coherence Encourage policy coherence through effective cross-sectoral coordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use	Good progress	One of the dominant aims of the second-cycle RBMP and the governance arrangements put in place as part of it is to address issues of policy coherence where there are differing perspectives and priorities among stakeholders
		To date, considerable effort has been put into building the governance structures and establishing relationships. There is some evidence of the positive outcomes of this approach, but debates on areas of major policy difference have not yet taken place and, more importantly, resolutions have not yet been found
4. Capacity Adapt the level of capacity of responsible authorities to the complexity of water challenges to be met and to the set of competencies required to carry out their duties	Strong progress	There is a culture of cooperation and knowledge-sharing across the governance structures
		Considerably more capacity and expertise has been added to the governance structures under the second-cycle RBMP, with approximately 100 new public sector posts added
		The establishment of LAWPRO has had a very positive impact on capacity. LAWPRO research has generated considerable new knowledge on water quality goals. This has been widely shared
		LAWPRO and local authorities struggle to meet their obligations given current resourcing. LAWPRO faces particular difficulties in retaining staff who are on fixed-term contracts
5. Data and information Produce, update and share timely, consistent, comparable and policy-relevant water and water-related data and information, and use the data to guide, assess and improve water policy	Good progress	There is a general attitude of collaboration and sharing and the catchments.ie website is a positive development
		The production, updating and sharing of information, as envisaged by the OECD, is a weakness of the current RBMP
		Producing data that facilitate the monitoring of progress towards the implementation of the RBMP has been a challenge. Some issues in this regard may reflect a time lag, occasioned by the short duration of the second-cycle RBMP and the Covid-19 pandemic
		Non-governmental stakeholders and members of the public experience particular difficulties accessing data and information

Table 3.1. Continued

Principle[a]	Performance category	Key findings
6. Water finance Ensure that governance arrangements help mobilise water finance and allocate financial resources in an efficient, transparent and timely manner	Limited progress	Irish Water differs from water utilities in other OECD countries in that it is not allowed to charge domestic water consumers except in the event of excessive consumption. Irish Water is financed through a combination of non-domestic revenue, excess usage charges, government subvention, non-domestic borrowings and capital contributions Water financing is a political decision. However, it is acknowledged that in the past Irish Water was underfunded and that we are still experiencing the impact of this, despite recent increases in funding through the Irish Water Strategic Funding Plan The financial and resourcing challenges faced by local authorities are acknowledged as a significant issue affecting water
7. Regulatory frameworks Ensure that sound water management regulatory frameworks are effectively implemented and enforced in pursuit of the public interest	Limited progress	The absence of Irish primary legislation to implement the WFD represents a major challenge and ensures that regulation is far more complex than it could be The dominant approach within the RBMP is to change behaviours. However, it is generally accepted that there is a greater need for a regulatory mix, including awareness and education, norms and enforcement It was accepted that overall both formal and informal approaches to ensuring compliance need to be improved
8. Innovative water governance practices Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders	Strong progress	The governance structures put in place under the second-cycle RBMP represent innovative governance in practice. There is a strong science–policy interface across the structures. This point is highlighted in Boyle *et al.* (2021b) In addition to the governance approach in general, a number of organisations that form part of the structures or are aligned with the structures were set up with a clear mandate to develop innovative ways to cooperate, pooling resources and capacity, building synergies across sectors and searching for efficiency gains There is evidence of good collaboration at a local level and local initiatives emerging that result in better practices. These are supported by LAWPRO LAWPRO's work on the communities side of the organisation has sought to promote community and citizen involvement and social learning and, although it is a work in progress, it has high priority
9. Integrity and transparency Mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making	Good progress	Engagement with stakeholders, in particular the environmental NGO sector, led to the establishment of the Water Forum in 2018. Although the organisation is still maturing, this has been a very positive development The level of transparency envisaged by the OECD – a high degree of accountability, supported by legal frameworks, codes of conduct, charters, etc. – is not yet evident Information and data gaps is an area where particular work needs to be done across the governance structures and the public bodies involved in them
10. Stakeholder engagement Promote stakeholder engagement for informed and outcome-oriented contributions to water policy design and implementation	Strong progress	A concerted effort was made within the governance structures to map and include all stakeholders The establishment of the Water Forum as an independent and statutory body and its central role as part of the governance structures has been a positive development There is a strong emphasis on capacity-building among all relevant stakeholders In engagements with the general public a joined-up approach to all environmental issues, but in particular to issues of water, climate and biodiversity, is vital, as the public does not distinguish between different implementing bodies

Table 3.1. Continued

Principle[a]	Performance category	Key findings
11. Trade-offs Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas and generations	Good progress	One of the objectives in establishing the governance structures was to facilitate debate on trade-offs. All organisations and committees play a role in this regard Rural issues dominate the second-cycle RBMP. A greater focus on urban issues is called for in the third-cycle RBMP, while recognising the very significant infrastructure expenditure required Trade-offs are also evident in policy debates, with policymakers required to make difficult decisions. It will not be possible in every instance to make a decision that is optimal for water. What is important is that potential trade-offs are identified at an early stage and that efforts are made to minimise any negative impact on water and/or to make a compensatory restitution
12. Monitoring and evaluation Promote regular monitoring and evaluation of water policy and governance where appropriate, share the results with the public and make adjustments where needed	Limited progress	Monitoring and evaluation are acknowledged as a weakness of the second-cycle RBMP. It is not clear whose responsibility it is to report on the implementation of the RBMP The WPAC and NCMC are prescribed roles in monitoring and evaluation. However, to date, neither committee has acted on its role in a formal way Non-governmental stakeholders and the Water Forum, in particular, experience a high level of frustration at the situation The limitations in monitoring and evaluation make it more difficult to achieve the expected outcomes in the second-cycle RBMP It was suggested that over the remainder of the life cycle of the second-cycle RBMP there needs to be rigorous focus on the 726 water bodies identified in the 2018–2021 plan for improvements in water quality. Although it may be the case that improvements in the PAA are offset by deteriorations elsewhere, this is a key test of the governance structures

[a]**Descriptions of the principles have been taken directly from OECD (2018).**

NCMC, National Coordination and Management Committee; NGO, non-governmental organisation; PAA, Priority Areas for Action; WPAC, Water Policy Advisory Committee.

3.2.3   Policy coherence

- The WPAC, informed by the NCMC and NTIG, needs to debate and reach resolutions on policy areas that have an impact on water, where there is a divergence of views among stakeholders.
- It may be possible to trial policy debates to accustom people to such debates in a safe and respectful environment.
- The Water Forum could be involved in policy debates as a forum for "road-checking" solutions reached at the WPAC.

3.2.4   Capacity

- Consideration needs to be given to how best to build water capacity within local authorities to facilitate the mainstreaming of water within the local government sector.
- The issue of contracts for LAWPRO staff needs to be resolved. In particular, those on fixed-term contracts need to be given timely reassurance that their contracts are being renewed.
- The transfer of knowledge on water measures from ASSAP advisers to all Teagasc and private sector advisers needs to be planned.
- In terms of the implementation of the second-cycle RBMP, project and data management and communications skills were identified as limited among those involved, and this should be improved.

3.2.5   Data and information

- There is a need for a rigorous focus on what measures are working in the PAA and the associated water bodies for the remainder of the second-cycle RBMP.
- The catchments.ie website should be able to provide anyone interested with up-to-date information and data on the quality of water in any given catchment.
- The reporting of metrics of government bodies need to be more closely aligned to the water quality outcomes in the RBMP.
- The NCMC and NTIG could play a stronger role in respect of data, in particular by developing indicators and identifying data gaps.

3.2.6   Financing

- Local authority and LAWPRO resources to deliver on their responsibilities under the RBMP should be reviewed, with a timely response needed for the business case under development.
- It might be helpful in securing the required Oireachtas backing for the funding requirements that the system needs if the regulators were to publish annual estimates of the amount of funding, efficiently spent, that our water system requires (Fitzgerald, 2020).

3.2.7   Regulatory frameworks

- There is a need for primary legislation to implement the WFD.

3.2.8   Innovative governance

- LAWPRO should develop a clear road map and framework for those involved in pilot projects, community initiatives and rivers trusts.
- Local-level initiatives (rivers trusts, partnerships, etc.) need to be more fully recognised and supported within the water governance frameworks, and they also need to be supported in becoming more sustainable.
- How the ASSAP approach could be mainstreamed should be examined.

3.2.9   Integrity and transparency

- Information and data gaps need to be addressed, to ensure full transparency.
- Codes of conduct, charters and legal frameworks and other such arrangements that guarantee an open and transparent approach and which hold decision-makers accountable should be examined.

3.2.10   Stakeholder engagement

- A coordinated approach relating to all environmental issues, but especially water, climate and biodiversity, is desirable in respect of all stakeholder engagement.
- There is a need for a flexible approach to stakeholder engagement that can be adapted in response to changing circumstances and needs.

3.2.11 Trade-offs across users, rural and urban area, and generations

- There needs to be an increased focus on water quality in urban areas and a better oversight of what is being planned by Irish Water and local authorities from within the governance structures.
- It is recognised that it will not always be possible to implement the optimal decision on water quality. However, what is important is that these potential trade-offs are identified at an early stage and that efforts are then made to minimise any negative impact or, as is provided for in the Habitats Directive, make compensatory restitution in some other area.

- A national communications campaign on water quality issues and trade-offs is desirable.

3.2.12 Monitoring and evaluation

- The WPAC and NCMC need to play a more significant role in monitoring and evaluation.
- There should be more formal reporting of progress by all agencies that are assigned actions under the RBMP and there should be more openness in respect of data.
- In the next cycle of the RBMP, there need to be more SMART indicators to ensure that there is a clearer way of reviewing progress.

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Abbreviations

App	Application
ASSAP	Agricultural Sustainability Support and Advisory Programme
CAP	Common Agricultural Policy
CCMA	County and City Management Association
CRU	Commission for Regulation of Utilities
CWDF	Community Water Development Fund
DAFM	Department of Agriculture, Food and the Marine
DHLGH	Department of Housing, Local Government and Heritage
EPA	Environmental Protection Agency
EU	European Union
LAWCO	Local Authority Waters and Communities Office
LAWPRO	Local Authority Waters Programme
NCMC	National Coordination and Management Committee
NGO	Non-governmental organisation
NTIG	National Technical Implementation Group
OECD	Organisation for Economic Co-operation and Development
PAA	Priority Areas for Action
POM	Programme of measures
RBD	River basin district
RBMP	River Basin Management Plan
ROC	Regional operational committee
SMART	Specific, measurable, achievable, realistic and timely
WFD	Water Framework Directive
WPAC	Water Policy Advisory Committee

Appendix 1   List of Interviewed Organisations

Cork County Council
Cork Environmental Forum
DAFM
Department of the Environment, Climate and Communications (DECC)
DHLGH
Dublin City Council
Dundalk Institute of Technology
EPA
Galway City Council
Geological Survey Ireland (GSI)
Health Service Executive (HSE)
Inishowen Rivers Trust
Inland Fisheries Ireland
Irish Creamery Milk Suppliers Association (ICMSA)
Irish Farmers' Association (IFA)
Irish Rural Link
Irish Underwater Council
Irish Water
Kerry County Council
Kilkenny County Council
LAWPRO
Longford County Council
National Federation of Group Water Schemes (NFGWS)
Office of Public Works (OPW)
River Moy Trust
Sustainable Water Network (SWAN)
Teagasc
Waterford City and County Council
Zero Waste Alliance

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Ghníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaol a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: *Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.*

Eolas: *Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.*

Tacaíocht: *Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaol atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaol inbhuanaithe.*

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaol:

- saoráidí dramhaíola *(m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola)*;
- gníomhaíochtaí tionsclaíocha ar scála mór *(m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta)*;
- an diantalmhaíocht *(m.sh. muca, éanlaith)*;
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe *(OGM)*;
- foinsí radaíochta ianúcháin *(m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha)*;
- áiseanna móra stórála peitril;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uiscí idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaol

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil *(m.sh. tuairisciú tréimhsiúil ar staid Chomhshaol na hÉireann agus Tuarascálacha ar Tháscairí)*.

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaol in Éirinn *(m.sh. mórphleananna forbartha)*.

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíoch.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaol ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaol *(m.sh. Timpeall an Tí, léarscáileanna radóin)*.
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

Using the OECD Water Governance Indicator Framework to Review the Implementation of the River Basin Management Plan for Ireland 2018–2021

Authors: Joanna O'Riordan, Richard Boyle, Fergal O'Leary and Laura Shannon

epaResearch

This report assesses water governance in Ireland using the Water Governance Indicator Framework, a tool developed by the Organisation for Economic Co-operation and Development (OECD) in 2018 to assist countries in assessing their progress towards the European Union's Water Framework Directive. The report puts a particular emphasis on informing policy and practice in Ireland with a view to ensuring that governance arrangements are enhanced in the third-cycle River Basin Management Plan (RBMP) for Ireland 2022–2027.

The OECD Water Governance Indicator Framework was developed in 2018 to support the implementation of the OECD Water Governance Principles. The Water Governance Indicator Framework is conceived as a voluntary, self-assessment tool for examining national water governance policy frameworks. As noted in the introduction to the Water Governance Indicator Framework, its primary objective is to stimulate a transparent, neutral, open, inclusive and forward-looking dialogue across stakeholders on what does and does not work, what should be improved and who can do what.

This study finds that the new governance structures put in place under the second-cycle RBMP go a significant way towards achieving the objectives contained in the Water Governance Indicator Framework. There is considerable reassurance for those involved that the structures put in place in Ireland around water governance are appropriate and that there are no significant gaps or omissions. Having said that, there is scope for improvements in Irish water governance arrangements for each of the principles. The key conclusions identified for each principle are set out in this report, with Ireland's performance in each principle categorised as "strong progress", "good progress" or "limited progress".

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