Summer 2023

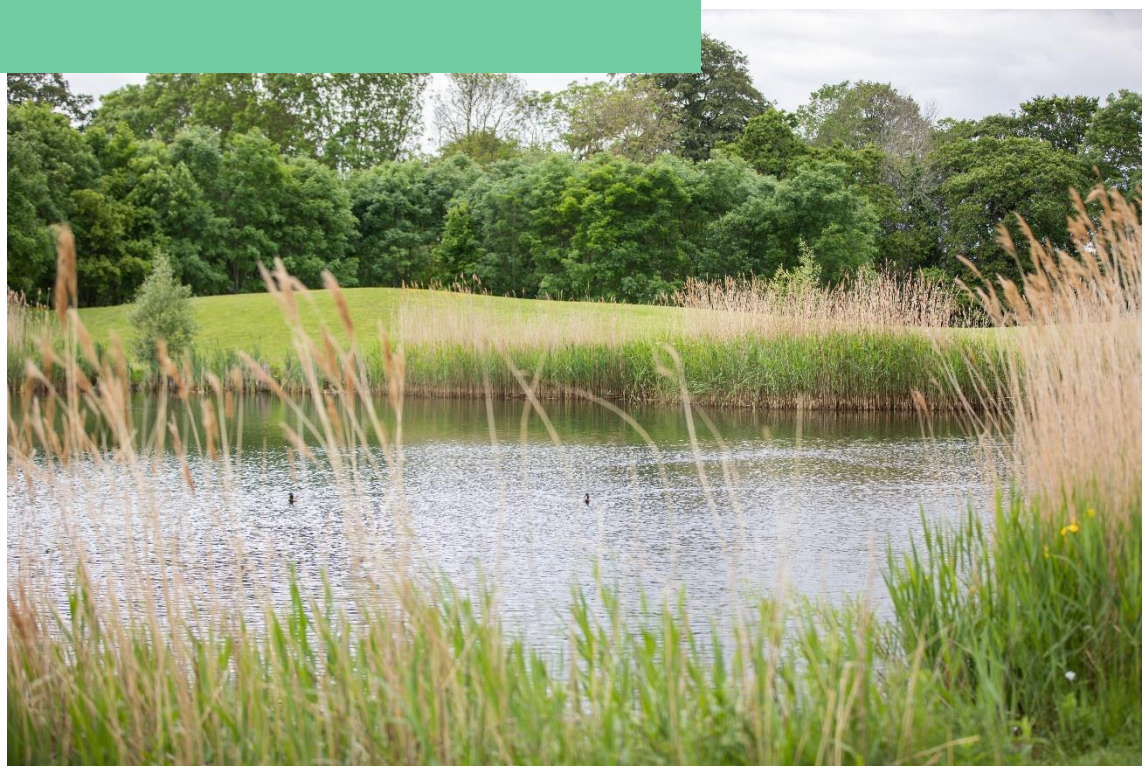
Uisce Éireann
Irish Water

# Regional Water Resources Plan

# North West

## Strategic Environmental Assessment

## Environmental Statement



Tionscadal Éireann
Project Ireland
2040

6 CLEAN WATER AND SANITATION

Data disclaimer: This document uses best available data at time of writing. As data relating to population forecasts and trends are based on information gathered before the Covid 19 Pandemic, monitoring and feedback will be used to capture any updates. The National Water Resources Plan will also align to relevant updates in applicable policy. In December 2022, the Water Services (Amendment) (No. 2) Act, 2022 was signed into law. This act provides that, from the 31 December 2022, Irish Water will only be known as Uisce Éireann. It also provides that, from that date, all references in any enactment, legal proceedings or other document to Irish Water shall be construed as references to Uisce Éireann only. The SEA Environmental Report and Appendices, including this Environmental Review reflect this transition from Irish Water to Uisce Éireann.

Baseline data included in the draft RWRP-NW has been incorporated from numerous sources including but not limited to; National Planning Framework, Central Statistics Office, Regional Spatial and Economic Strategies, Local Authority data sets, Regional Assembly data sets and Uisce Éireann data sets. Data sources are detailed in the relevant sections of the draft RWRP-NW. The year 2019 was selected as the base year to align with the planning period (2019-2025) of the NWRP.



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# 1 Introduction and Background

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## 1.1 Context

### 1.1.1 What is the National Water Resources Plan?

Effective water services, including the delivery of a sustainable and reliable clean water supply and safe disposal of wastewater, are essential for a modern country. Being able to understand and estimate how much water is required, where it is required, and the variability of requirements over the course of the year or over time, is essential to plan appropriately for the future of the public water supply.

A Water Resources Plan is a strategic plan used to identify deficiencies and need across a water supply and to develop Plan level solutions to address these issues.

Uisce Éireann's National Water Resources Plan (NWRP) will be the first resources plan for the public water supply in the Republic of Ireland. It will allow Uisce Éireann to integrate Government Policy, Legislation and external factors that have the potential to impact Uisce Éireann supplies into the planning and operation of its existing and future supply asset base.

The objective of a NWRP is to manage customer and communities needs while meeting their requirements over the short, medium and long term by ensuring safe, secure, sustainable and reliable water supplies. The NWRP will:

- Enable Uisce Éireann to address needs across our water supplies in the most effective way over time, by identifying and in turn, prioritising what needs to be included in regulated investment cycles;
- Ensure that there is a transparent framework to develop the most appropriate projects/programmes to meet statutory obligations in relation to water supply; and
- Provide a framework to track outcomes, allowing interventions to be prioritised to bring the water supply up to the required standards in the shortest possible timeframe.

Water Resources Plans are reviewed on a cyclical basis to take account of new information, data, policies and laws and are usually updated every 5 years in other jurisdictions. Uisce Éireann knows things will change over the next 25 years so within the NWRP it has considered a range of possible futures, some more challenging than others. This approach is called adaptive planning and means Uisce Éireann is ready and flexible whatever the future holds and will formally update the NWRP every 5 years.

### 1.1.2 Development of the National Water Resources Plan

The National Water Resources Plan is being delivered in two phases, the first phase was the Framework Plan (Phase 1 of the NWRP) which included:

- A description of the methodology Uisce Éireann propose to use for Water Resources Planning:
- How Uisce Éireann assess quantity need through the Supply Demand Balance;
- How Uisce Éireann assess quality and reliability need through Uisce Éireann's Water Quality Risk Assessment - "The Barrier Assessment";
- How Uisce Éireann addresses Sustainability by ensuring that all new options for water supply must be based on conservative approaches to protecting water sources;
- Uisce Éireann Options Assessment Process;
- Uisce Éireann Preferred Approach Development Process; and
- An assessment of Need across Uisce Éireann asset base in terms of Quality, Quantity, Reliability and Sustainability for all of their supplies nationally.

The Framework Plan has been subject to SEA and AA processes and public consultation as required under the relevant regulations. The NWRP Framework Plan was adopted in Spring 2021 and the Plan, along with the SEA Statement and AA Determination, is available on https://www.water.ie/projects/strategic-plans/national-water-resources/

The Framework Plan focused on setting out the methodology to be applied through the Phase 2 Regional Plans. In order to manage the delivery of Phase 2, the public water supply is divided into four regional groupings. Each regional grouping has its own Regional Plan, which will apply the Options Assessment Methodology provided in the Framework Plan to the national water supply and develop a programme of preferred short, medium and long term solutions and/or groups of solutions to address identified needs for each area of the supply network. The Regional Plans are each subject to a separate SEA and Appropriate Assessment (AA) process and public consultation and the first Regional Plan, Eastern Midlands Plan, was adopted in September 2022 and the Regional Plan for the South West was adopted in February 2023. The draft Regional Plan for the South East is currently out for consultation.

### 1.1.3 Phase 2: RWRP-NW

The Regional Plan for the North West (RWRP-NW) was the third of the four regional plans to be taken forward. This plan was developed based on the methodology presented and consulted on in the Framework Plan. The draft RWRP-NW has been subject to SEA and AA processes and public consultation. In response to the assessments and consultation comments, the final RWRP-NW has been produced and is available at https://www.water.ie/projects/strategic-plans/national-water-resources/rwrp/ along with the consultation report identifying the comments made and responses to these comments.

## 1.2 The SEA and Phase 2 Regional Plan Process

Figure 1.1 sets the process for development of the NWRP Phases 1 and 2. This document is the SEA Statement for the Phase 2 North West Regional Water Resources Plan following the public consultation process and the finalisation and adoption of the plan.

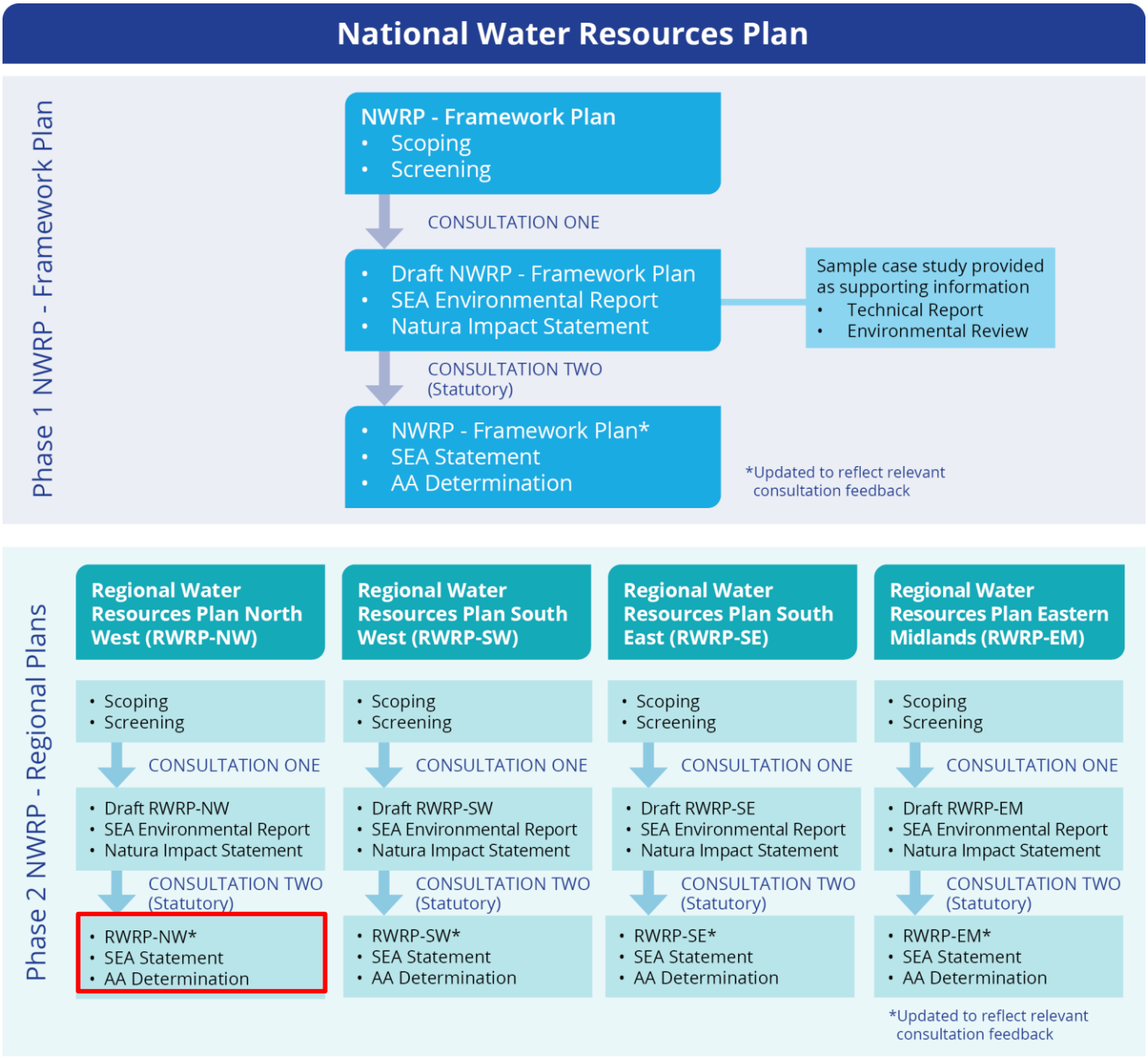


**Figure 1.1 Components of the National Water Resources Plan**

## 1.3 Purpose of this Post-Adoption Statement

The purpose of this Post-Adoption Statement, in accordance with Article 16 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) (as amended) (the "SEA Regulations") is to document how environmental considerations, the views of the consultees and the recommendations of the SEA Environmental Report have been taken into account in the final RWRP-NW. Therefore, this statement includes the following information in line with the Regulations:

- How the submissions and observations expressed in response to the consultation on the draft RWRP-NW and the SEA Environmental Report have been taken into account (chapter 3);
- How potential for transboundary impacts have been considered (chapter 4);
- How environmental considerations and the SEA Environmental Report's recommendations have been integrated into the final RWRP-NW (chapter 4);
- The reasons for choosing the final RWRP-NW as adopted, in light of the other reasonable alternatives dealt with (also in chapter 4); and

- The measures that are to be taken to monitor the significant environmental effects of the implementation of the RWRP-NW (chapter 5).

## 1.4 Strategic Environmental Assessment

### 1.4.1 This Report

This is the SEA Environmental Statement which has been prepared to document the environmental assessment of the Regional Plan. This report has been prepared having regard to the SEA Directive (2001/42/EC) and its provisions that are transposed into Irish law by the SEA Regulations. This SEA Environmental Statement will be published alongside the adopted Regional Plan and notice given in accordance with Article 16 of the SEA Regulations.

### 1.4.2 Legislative Requirement

Council Directive 2001/42/EC of the European Parliament and of the Council of 27th June 2001 on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) established the statutory requirement for SEA as part of the development of certain plans and programmes. The SEA Directive is applicable to the Framework Plan and each of the Regional Plans of the NWRP.

In accordance with the overall objective of the SEA Directive as set out in Article 1, SEA is required to:

*"Provide for a high level of protection to the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development…"*

According to Article 2 of the Directive, "plans and programmes" means plans and programmes, including those co-financed by the European Community, as well as any modifications to them:

- Which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government; and
- Which are required by legislative, regulatory or administrative provisions.

Under Article 3(2), an environmental assessment:

*"…shall be carried out for all plans and programmes, (a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC[1]."*

### 1.4.3 The Strategic Environmental Assessment Process

The purpose of SEA is to enable plan-making authorities such as Uisce Éireann to incorporate environmental considerations into decision-making at an early stage and in an integrated way throughout the plan-making process. The SEA process is undertaken in four stages. The progress for each stage of the SEA process for the Regional Plan for the North West is summarised in Table 1.1.

[1] Replaced by 2011/92/EU as amended by 2014/52/EU

Table 1.1 Stages of SEA for the North West Regional Plan

| Stage | Purpose and Requirements | Progress to Date / Current Status |
|---|---|---|
| **Stage 1: Screening** | Prior to starting the SEA process, a plan or programme undergoes "screening" to determine whether it requires an SEA. | SEA Screening Statement – Uisce Éireann (as the responsible authority) determined that SEA was required for the NWRP when screening was carried out in August 2017 and was also included with the Regional Plan NW SEA Scoping Report. |
| **Stage 2: Scoping** | Consideration of the context and objectives of the SEA provides information on baseline data, identifies relevant environmental issues and trends, and defines the parameters of the scope of the SEA for the purpose of consultation. | SEA Scoping Report – The SEA Scoping Report set the geographical and temporal scope of the Regional Plan and SEA, the baseline environment, and a proposed framework of SEA objectives to inform the Stage 3 assessment. Formal statutory consultation was carried out between 1st June 2022 and closed on the 29th June 2022. |
| **Stage 3: Identification, Prediction, Evaluation and Mitigation of Potential Effects** | Within the context and parameters identified at the scoping stage. Identification and evaluation of likely significant effects of the Regional Plan is carried out, including consideration of alternatives and determination of measures to mitigate and monitor potential residual effects. | Environmental Report (SEA of the Regional Plan). Consultation took place alongside the Regional Plan consultation from 22nd November 2022 and 21st February 2023. |
| **Stage 4: Consultation, Revision and Post-Adoption** | Consultation with statutory consultees and the public. This may require changes to the Regional Plan and SEA Environmental Report in light of responses.<br>Implementation of the monitoring plan. | This stage follows on from Stage 3 and involves responding to the consultation comments and incorporating into the Regional Plan, finalisation of the plan and publication of the Post-Adoption SEA Statement.<br>**Current Stage in the SEA Process** |

### 1.4.4 Appropriate Assessment

In addition to compliance with the SEA Directive, the preparation and implementation of the NWRP must meet the provisions of the Habitats Directive (92/43/EEC). The Habitats Directive has been transposed into Irish law by the Planning and Development Act, 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)(as amended) (the "Habitat Regulations"). The Habitats Directive requires that if a plan, policy or programme is likely to have a significant effect on one or more European sites (that is, a Special Area of Conservation (SAC) or Special Protection Area (SPA), also referred to as the "Natura 2000" Network), either alone or in

combination with other schemes, plans or projects, then it must be subject to Appropriate Assessment (AA).

The NWRP therefore falls under the governing legislation of the Habitat Regulations; and as a “competent authority”, Uisce Éireann must ensure that the NWRP meets these requirements.

The Regional Plan is not directly connected with or necessary for the management of European sites. The screening for AA (Stage 1) concluded that there was potential for significant effects on one or more European sites to occur as a result of the Regional Plan. Therefore, in accordance with Article 6(3) of the Habitats Directive, AA (Stage 2) of the Regional Plan was required. The AA screening focused on the potential for significant effects on European sites that may arise due to the implementation of the Regional Plan. A Natura Impact Statement (NIS) has been prepared and was published for consultation alongside the SEA Environmental Report (and was subsequently amended in response to submissions received during the consultation process); however, the SEA and AA processes are clearly distinguished.

# 2 Overview of North West Region

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Uisce Éireann is planning to develop a national programme of proposed solutions for reducing and eliminating the SDB deficits in its WRZs, meet water quality requirements and bring greater resilience to the water supply network. The aim of the programme is based around the following three pillars, as shown in Figure 2.1.

- **Lose Less:** reducing water lost to the system through leakage;
- **Use Less:** reducing water use through efficiency measures; and
- **Supply Smarter:** improving the quality, resilience and security of Uisce Éireann's supply through infrastructure improvements.


**Figure 2.1 Three Pillar Approach to Reduce or Eliminate the SDB Deficits**

Together these pillars will enable Uisce Éireann to optimise their capital and operational interventions to achieve the best outcomes and react to emerging issues.

There are 539 WRZs in Ireland. Due to their number, Uisce Éireann are having to deliver the Regional Plans (and associated environmental assessments) on a phased basis and have split the country into the four regional groups shown in Figure 2.2.

The North West Region was selected as the second regional group to be assessed as part of the NWRP, with the Eastern and Midlands Plan adopted in September 2022.

Further information on the "three pillars" is detailed in section 5 of the RWRP-NW.

## 2.1 North West Region

There are 142 Water Treatment Plants (WTPs) in the North West Region, which collectively serve 732,700 people or 18% of the population of Ireland, via approximately 17,700 kilometres of distribution network. The size of these WTPs varies, with the largest three in the region producing on average 32% of the water supplied and the remaining 139 producing on average about 68% or 251 Ml/d of the total supply.

The WTPs feed water into supply areas known as Water Resources Zones (WRZs). Each WRZ is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water distribution network in an area. Within a WRZ most customers receive the same Level of Service (LoS), measured as a probability of interruption to services (for example one interruption to the supply in 50 years).

The RWRP-NW summarises key issues that impact the quality, sustainability and reliability of our existing water supplies, in this region, including:

- Levels of Service
- Treatment Capacity;
- Water Quality;
- Network Performance;
- Abstractions potentially at risk of exceeding sustainable abstraction thresholds and;
- Constrained Funding.

In addition, Uisce Éireann also face key challenges over the coming years, which have the potential to exacerbate the current problems in the region, including:

- A growing population;
- A changing climate;
- Changes in land use and emerging contaminants;
- Legislative changes; and
- An Environment in Need.

Addressing these challenges as part of the overall NWRP, ensures that future infrastructure development is proportionate to the identified need and is sustainable, reliable and resilient.

## 2.2 North West Study Areas

The North West Region is further subdivided into seven study areas (SAs) based on Water Framework Directive (WFD) catchment and WRZ boundaries within the region, as shown in Figure 2.2.

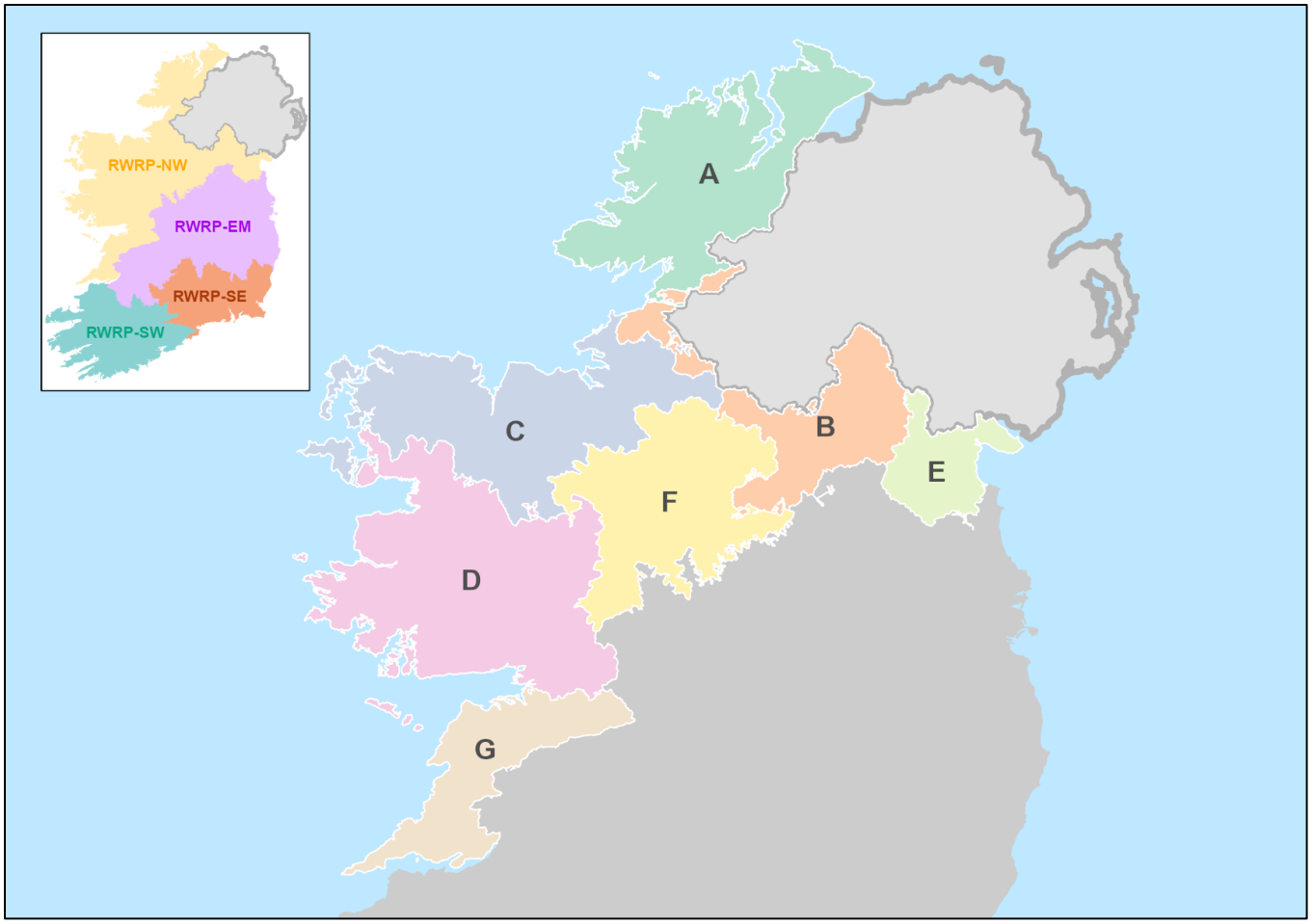


Figure 2.2 North West Region Study Areas

An overview of the seven North West SAs is provided in Table 2.1.

Table 2.1 Overview of the North West Study Areas

| Study Area | Description |
|---|---|
| **SAA** | SAA total area is approximately 4,632 km$^2$ and lies within the Donegal County. The principal settlement (with a population of over 10,000) within SAA is Letterkenny (CSO, 2016). |
| **SAB** | SAB total area is approximately 2,788 km$^2$ and lies within the counties of Cavan, Monaghan, Leitrim, Longford. Donegal, Sligo. The principal settlement (with a population of over 10,000) within SAB is Cavan (CSO, 2016). |
| **SA-C** | SA-C total area is approximately 5,147 km$^2$ and lies within the counties of Mayo, Sligo, Leitrim, Cavan, Roscommon. The principal settlement (with a population of over 10,000) within SAC are Sligo, Castlebar and Ballina (CSO, 2016). |
| **SAD** | SAD total area is approximately 6,704 km$^2$ and lies within the counties of Galway, Mayo, Roscommon and Galway City. The principal settlement (with a population of over 10,000) within SAD are Galway city and suburbs, and Castlebar (CSO, 2016). |
| **SAE** | SAE total area is approximately 1,261 km$^2$ and lies within the counties of Louth, Monaghan, Meath and Cavan. The principal settlement (with a population of over 10,000) within SAE are Drogheda and Dundalk (CSO, 2016). |

| Study Area | Description |
|---|---|
| **SAF** | SAF total area is approximately 3,990 $km^2$ and lies within the counties of Roscommon, Leitrim, Longford, Galway, Sligo, Cavan, Mayo and Westmeath*. The principal settlement (with a population of over 10,000) within SAF is Longford (CSO, 2016). |
| **SAG** | SAG total area is approximately 2,389 $km^2$ and lies within the counties of Clare and Galway. There are no principal settlements with a population of over 10,000 within SAG. The largest settlements (with population of over 2,000) within SAG are Gort and Kilrush (CSO, 2016). |

# 3

# How Consultation Responses were taken into Account

# 3 How the SEA Environmental Report and Consultation Comments were taken into Account

## 3.1 Purpose of Consultation and Engagement

Public consultation and stakeholder engagement is a key element in ensuring stakeholders and members of the public have an opportunity to contribute to the development of plans and projects in Ireland. Uisce Éireann is undertaking an accessible, meaningful, and accountable consultation and engagement process with stakeholders and members of the public throughout the development of the NWRP including the Regional Water Resource Plans. RWRP North West Public Consultation Roadmap is presented in Figure 3.1.

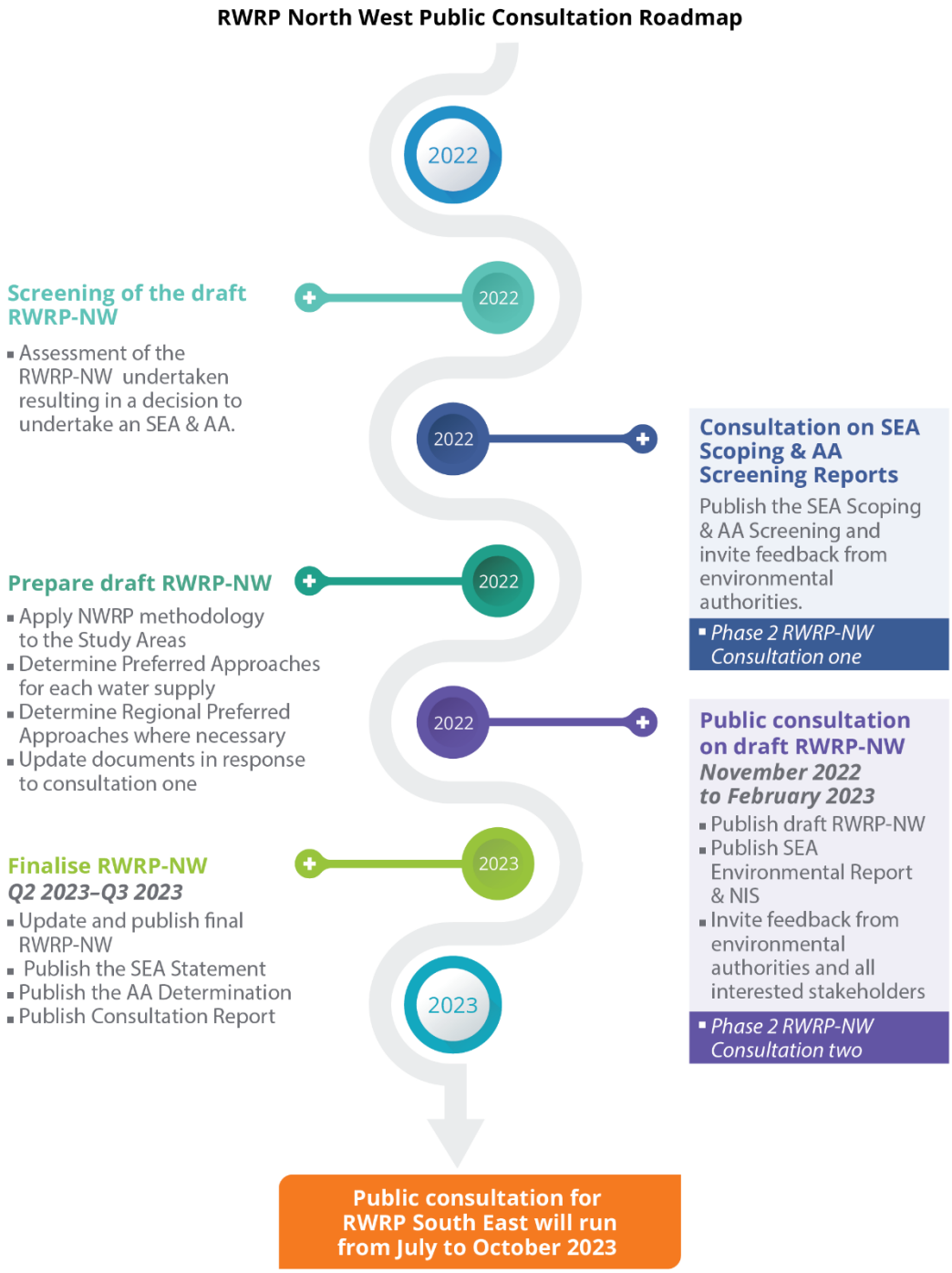


**Figure 3.1 RWRP North West Public Consultation Roadmap**

## 3.2 RWRP-NW Consultation

The RWRP-NW has been developed by applying the methodology from the adopted Framework Plan and SEA, taking account of the consultation received through that process so there is a closely linked although a separate formal process followed for each Regional Plan.

### 3.2.1 Consultation 1: Scoping Stage

A SEA scoping report was consulted on in-line with Article 9(5) of the SEA Regulations and was issued to the following authorities in June 2022:

- The Environmental Protection Agency (EPA);
- Department of Housing, Local Government and Heritage (DHLGH);
- The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM)- Development Applications Unit (DAU);
- The Department of Agriculture, Food and the Marine (DAFM);
- Department of the Environment, Climate and Communications (DECC); and
- For transboundary consultation, Northern Ireland's Department of Agriculture, Environment and Rural Affairs (DAERA).

This SEA Scoping Report is available online at the following website: https://www.water.ie/nwrp.

The scoping consultation closed on the 29th June 2022 and comments received have been considered. The main themes from the comments received were:

- Confirmation that consideration has been given of Ireland's State of the Environment Report 2020 (SOER2020) including chapter 7 and water quality in the identification of deficiencies and needs in relation to water supply;
- There be a recognition of the impacts related to desalinisation options on fisheries and the marine environment;
- Ensure that there is identification of recently published or forthcoming policy, legislation, and other data sources, and consideration of aligning the RWRP with other key planning documents and strategies;
- Drinking water – recognition of the importance of raw water quality for the environment and reducing treatment and risk to supply; and
- Transboundary environment – a need for consideration of specific impacts relating to the transboundary environment, and whether there will be a significant impact.

Comments received on the SEA scoping report were considered within the SEA Environmental Report (see Appendix G of the Environmental Report available at https://www.water.ie/projects/strategic-plans/national-water-resources/rwrp/).

# 4 How the SEA has Influenced the Regional Plan

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## 4.1 SEA Process and Integration with Plan Development

The purpose of SEA is to enable plan-making authorities such as Uisce Éireann to incorporate environmental considerations into decision-making at an early stage and in an integrated way throughout the plan-making process. Figure 4.1 sets out how the SEA processes have been integrated into development of the Regional Plan. The objective of the SEA process is to ensure that environmental objectives and sustainability principles are integrated into the preparation of the Regional Plan as well as providing an overall assessment of the RWRP-NW's proposals. The approach to the SEA has aimed to:

- Contribute to the development of a preferred plan taking account of the full range of environmental protection and enhancement policy and regulatory requirements so that the plan provides a framework for meeting supply requirements while minimising environmental impacts;
- Embed principles governing sustainable abstraction, so the objectives of the RBMP and Uisce Éireann's biodiversity obligations can be achieved;
- Provide weight to the need to consider long term environmental resilience in water resource planning taking into account climate change; and
- Integrate environmental protection, enhancement and sustainability objectives into the plan implementation including the options assessment methodology to be applied through the Regional Plans.

In addition to compliance with the SEA Directive, the preparation and implementation of the NWRP must meet the provisions of the Habitats Directive (92/43/EEC) and transposing legislation. The Habitats Directive requires that if a plan, policy or programme is likely to have a significant effect on one or more European sites (that is, a Special Area of Conservation (SAC) or Special Protection Area (SPA), also referred to as the "Natura 2000" Network), either alone or in combination with other schemes, plans or projects, then it must be subject to AA. Figure 4.1 also shows how the development of the Framework Plan and the SEA of the Regional Plan was integrated with Stage 1 and Stage 2 of the AA process.

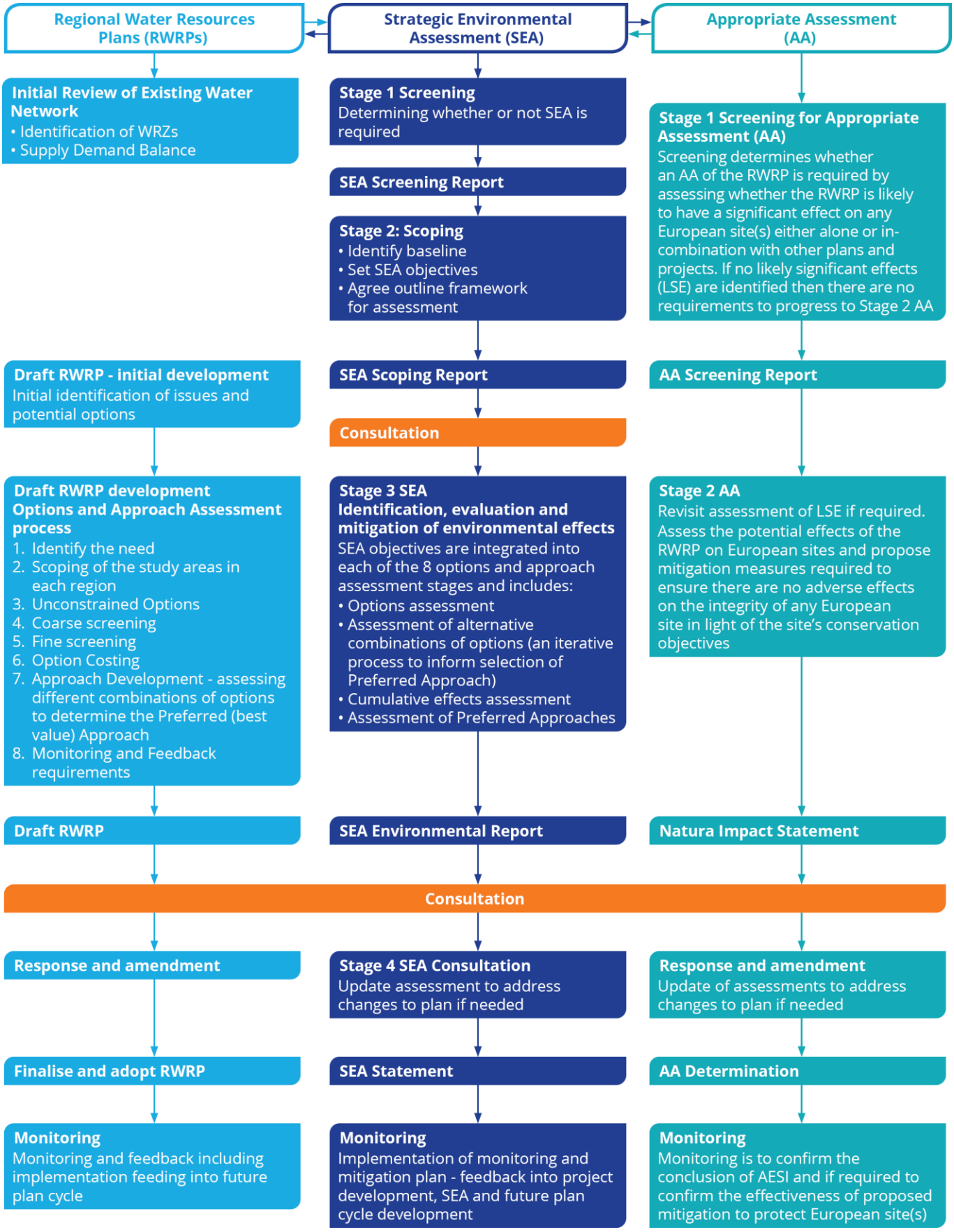


**Figure 4.1 Regional Plan and Strategic Environmental Assessment Process**

### 4.1.1 Consultation 2: Draft RWRP-NW and Environmental Report

Consultation 2 (statutory public consultation) took place between 22nd November 2022 and 21st February 2023.

The draft RWRP-NW and the SEA Environmental Report were published on the Uisce Éireann website alongside the NIS. The Environmental Report outlined the strategic environmental assessment of the draft RWRP-NW, including effects on the environment and proposed mitigation and monitoring proposals.

In accordance with Article 11 of the SEA Regulations, SEA environmental authorities, as well as any relevant transboundary authorities (for example, Northern Ireland Environmental Agency), were notified so that they could make a submission or observation in relation to the SEA Environmental Report or the draft RWRP-NW and NIS to Uisce Éireann. Various communications tools were used in addition to this to promote the consultation and raise awareness and participation from the public and interested parties (see section 4 of the Phase 2 RWRP-NW Post Consultation Report (Uisce Éireann, 2023) for further details).

Responses to the consultation comments are set out in the RWRP-NW Post Consultation Report (Uisce Éireann, 2023). A summary of comments and responses relevant to the SEA are set out in section 4.3.3 of this report. In addition, the SEA Environmental Report has been updated to account for amendments to the RWRP-NW and submissions received during consultation.

## 4.2 SEA and the Regional Plan Development

The Framework Plan includes an eight stage options and approach assessment methodology (see Figure 4.2) that is being used for option development, approach comparison and preferred approach selection during development of the four Regional Plans. This approach has been applied for the development of the RWRP-NW. The options and approach assessment methodology aligns with the seven standard steps set out in the Department of Public Expenditure and Reform (2019) guidance document "*Public Spending Code: A Guide to Evaluating, Planning and Managing Current Expenditure*".

The methodology is focused on ensuring that Uisce Éireann promote solutions that are resilient, environmentally sustainable, and flexible to the changing environment and demands. It is based around the five following criteria:

- Resilience;
- Deliverability and Flexibility;
- Progressibility;
- Sustainability (Environmental and Social Impacts); and
- Cost.

Figure 4.2 outlines how SEA requirements are integrated into each stage of this process, with further detail provided in Table 4.1. The SEA objectives identified at the scoping stage of the SEA process for each of the ten environmental topic area scoped in for assessment (as shown in Table 4.1) are used as a basis for assessing the beneficial and adverse impacts on the environment at all stages of the options and approach development process.

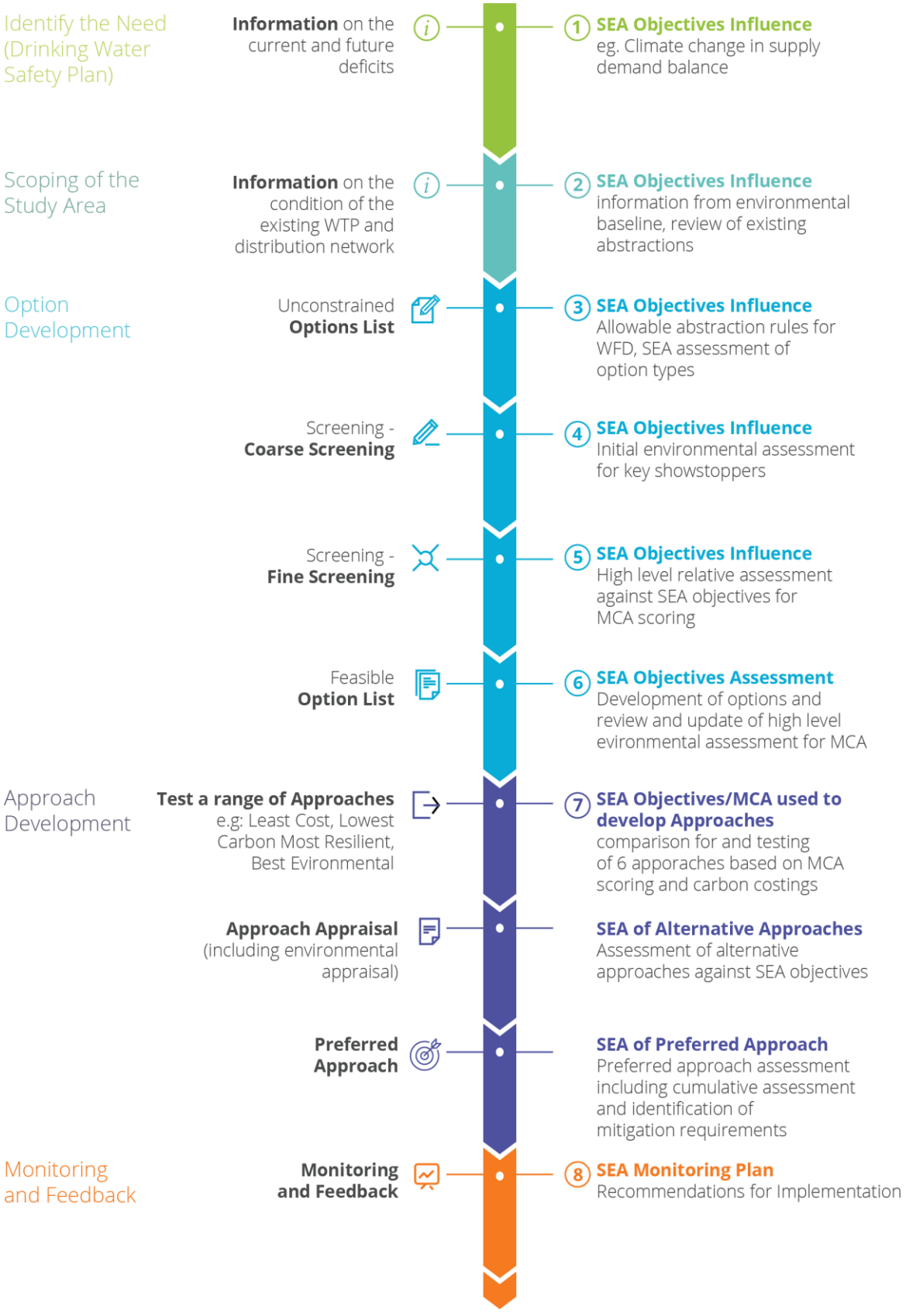


**Figure 4.2 Option and Approach Development Process**

**Table 4.1 SEA Requirements Implemented Through Options and Approach Assessment Methodology**

| Stage (and brief description of process) | SEA considerations and requirements for each stage |
|---|---|
| **Stage 1: Identify the need**<br>Identification of public water supply needs (quality and quantity) based on Supply and Demand Balance (SBD) and/or Drinking Water Safety Plan Barrier Assessment | Environmental aspects considered related to SEA objectives include:<br>1. Climate change affecting future water supply; and<br>2. Public health requirements for access to good quality drinking water. |
| **Stage 2: Scoping of the Study Area**<br>Understanding the study area and condition of existing assets, and consideration of sustainability of existing abstractions. | Consideration of environmental constraints and opportunities as part of this needs study and to link to other initiatives and ongoing projects, such as the climate sensitive catchments, drinking water quality assessments and WTP residuals disposal management. |
| **Stage 3: Unconstrained options**<br>Production of list of unconstrained options (possible solutions which partly of fully resolve a water supply deficit) by generic options types. Options could be at WRZ, Study Area, Regional and Inter-Regional level. | High level consideration of abstraction sustainability in relation to identifying level of theoretical allowable abstraction (related to SEA objective on water) for new abstraction. WFD water body status and objectives are taken into account through a review of existing abstractions and in the identification of new options. This is applied as a rule so that new options can meet theoretical allowable abstraction criteria. |
| **Stage 4: Coarse screening**<br>Coarse Screening of the unconstrained options is undertaken to eliminate options that have fundamental issues meaning they are unlikely to ever be delivered. | Removal of options which are clearly likely to conflict with SEA objectives and expected to be difficult to mitigate through coarse screening. This is supportive of the SEA objectives and the environmental reasons for removing options will be clearly recorded. |
| **Stage 5: Fine Screening**<br>An analysis of the Constrained Options against a range of detailed criteria, through a process known as Multi-Criteria Analysis (MCA). The objective of the MCA and the fine screening process is to determine the potential benefits and impacts of the options across a range of key criteria to identify any additional options that should be removed and to compare the options. | The SEA topics and objectives are the basis for identifying key questions and developing the criteria for the environmental assessment and for scoring of options in the fine screening and multi-criteria analysis (MCA). The MCA is then used in the comparison of options and option combinations in Stage 7. |

| Stage (and brief description of process) | SEA considerations and requirements for each stage |
|---|---|
| **Stage 6: Feasible Options List – Option Costing**<br><br>Production of an outline design and estimated cost for each option on the list.<br><br>Environmental and social valuation of option undertaken to feed into approach appraisal process.<br><br>Removal of worst performing options where there are large numbers of constrained options, or removal of unfeasible/unsustainable/unviable options where limited constrained options are available | Environmental performance against the SEA objectives is reflected in the MCA scoring against environmental criteria and these are reviewed and updated to reflect the option dossier information following outline design and to follow scoring rules.<br><br>The environmental MCA criteria are based on the SEA objectives from the SEA Scoping Report and as consulted on with environmental stakeholders. Some criteria/screening questions may be more relevant to some options types than others.<br><br>Habitats Directive considerations have been integrated into the Options Assessment Methodology at a number of points to ensure both robust assessment and protection are integrated into the plan. In particular, this is demonstrated through the MCA/fine screening scoring for the European sites and through the consideration of mitigation measures to avoid adverse effects that have been identified in the Framework Plan AA process. |
| **Stage 7: Approach development**<br><br>Feasible Options are assessed individually or as option combinations forming different potential approaches to identify the preferred option or combination of options to meet the need for each WRZ, Study Area and Regional Group area.<br><br>Options are identified for:<br><br>1. Least Cost;<br>2. Best Appropriate Assessment (Best AA) sub-criteria;<br>3. Quickest Delivery;<br>4. Best Environmental;<br>5. Most Resilient; and<br>6. Lowest Carbon. | Approach development included consideration of three approaches providing focus on different environmental topics, Best AA, Best Environment and Lowest Carbon<br><br>The Best AA approach gives maximum consideration to the Options with no potential for impacts on European Designated (no Likely Significant Effects or LSEs) sites or Options with LSEs that can be addressed with general/standard mitigation measures at the project level. It puts avoidance of impacts on European sites at the forefront taking account of the fact that Options with a high likelihood of significant effects which could lead to adverse effects on a European Site have already been removed at Coarse Screening stage. This can equally be described as giving maximum consideration to the Options with the Least Impact on European Sites |

| Stage (and brief description of process) | SEA considerations and requirements for each stage |
| --- | --- |
| | Best Environment - for each option or combination of options, the MCA includes assessment across all SEA objectives and sub-criteria, using the sum of positive scores and the sum of negative scores separately and avoiding combining positive and negative scores.<br><br>The scoring is also reviewed against:<br><br>• Individual criteria to identify where high negative or positive scores indicate potential for significant adverse or beneficial effects (for example the number of -3 scores); and<br><br>• How the assessment reflects important differences between options focusing on where these related to potential operational or long-term effects and also the range of difference in the scoring.<br><br>This provides a basis for comparing each option and the option combinations on a relative performance basis. The potential approaches are also assessed in terms of overall performance against the SEA objectives against a do minimum scenario.<br><br>Lowest carbon - for each option carbon emissions are calculated for embodied carbon as one-off costs and annual operational carbon and these are monetized to give a scheme NPV cost.<br><br>Preferred approaches are further assessed against the objectives based and subject to cumulative effects assessments which is fed back into the decision-making process where significant cumulative effects are identified.<br><br>SEA performance is assessed at each stage in the process to alternative options and approach combinations at the following levels:<br><br>• WRZ;<br><br>• Study Area level including cumulative effects assessment;<br><br>• Regional level including cumulative effects assessment; and |

| Stage (and brief description of process) | SEA considerations and requirements for each stage |
|---|---|
| | • Inter-regional level – the final step will be to assess any inter-regional options and potential cumulative or in combination effects and determine if any adjustment is required (this will be addressed based on the Regional Plans under development where information and will be updated as needed for each of the Regional Plans in turn). |
| **Stage 8: Monitoring and feedback**<br><br>This stage allows for ongoing data improvement to feed into updates to the Regional Plans and a commitment for the results from implementing the Monitoring Plan and Environmental Action Plan (EAP) to be taken into account within the plan period and in the preparation of the next plan cycle. | This SEA Statement provides a two stage Monitoring Plan (Part 1 for plan level and Part 2 as a framework for project level monitoring) and an Environmental Action Plan. These plans provide a framework for identifying significant effects as the Framework Plan is implemented through the Regional Plans and sets out recommendations for mitigation in the EAP – these have been updated to take account of consultation comments. |

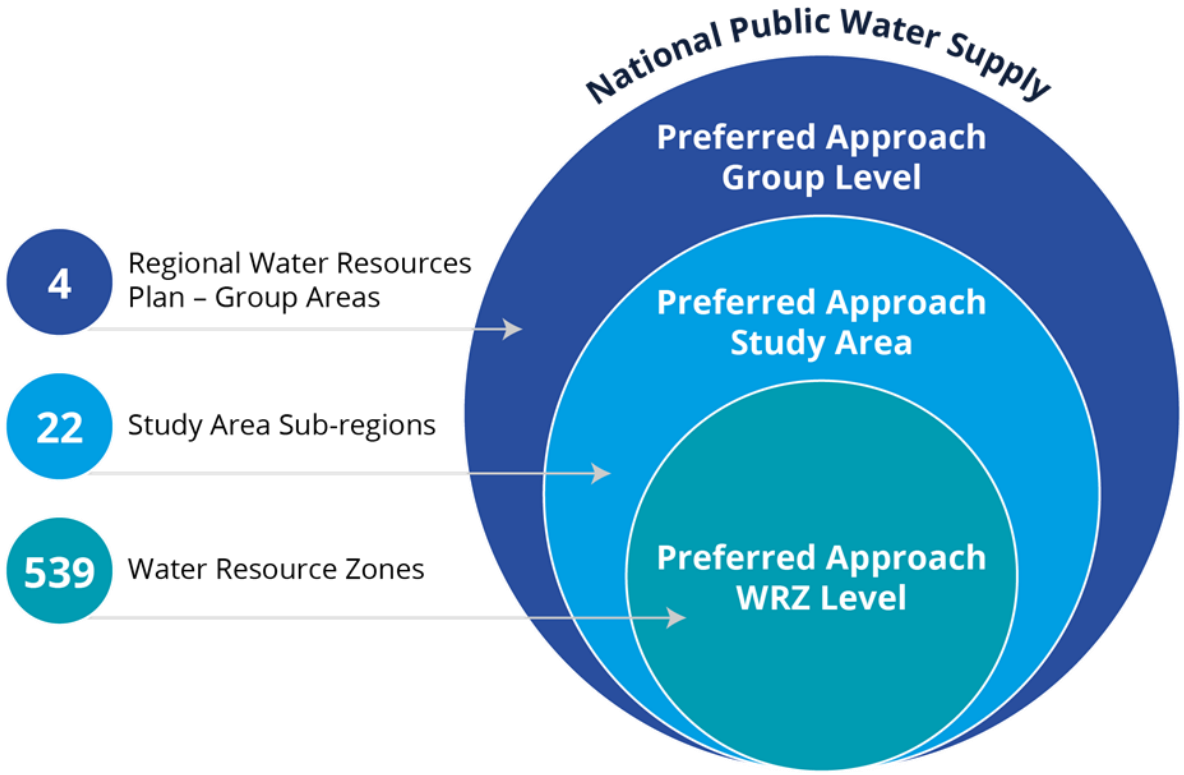


**Figure 4.3 National Water Resources Plan Spatial Scale of Assessment**

1. **Option Level Assessment**: All feasible options have been assessed as part of the MCA and scored against the SEA objectives (Table 6.1 in the RWRP-NW SEA) and sub-criteria using the scoring guide (Appendix B in the RWRP-NW SEA). These are used to inform the selection of options and the approach comparisons. All feasible options are assessed as part of the MCA and scored against SEA objectives. This is a high-level assessment undertaken for each feasible option. The feasible options assessment information is fed into the approach workshop process.

   SEA option assessment summaries, which will record assessment against SEA objectives using a matrix-based approach, are undertaken for all Preferred Approach options for each Study Area and also for any regional level preferred options or alternatives. The nature of effects (temporary, permanent, short term or long term), significance of effects and level of certainty in assessment outcomes will be recorded as shown in Table 6.9 of the RWRP-NW SEA. The significance of effect is determined in accordance with Table 6.10 of the RWRP-NW SEA and moderated by professional judgement where required. The assessment takes into account the value/sensitivity of affected receptors, as well as the magnitude of the impacts anticipated.

2. **Study Area Level Assessment**: An assessment of each approach, including the 'Do Minimum' approach, will be prepared for each Study Area. Differences between the approaches will be explained and justification for the selected Preferred Approach will be set out. Mitigation measures associated with the individual options in the Preferred Approach will be provided.

3. **Study Area Level Cumulative Effects**: The potential for cumulative effects against the SEA objectives will be considered. This will include 'within plan' cumulative effects (i.e. between options or groups of options included within the Preferred Approach) and 'with other developments' cumulative effects (i.e. with other developments within the Study Area).

4. **Regional Level Assessment**: An assessment of the potential cumulative effects arising from the Preferred Approaches identified at Study Area Level, as well as any Regional Level options, will

be undertaken. The assessment will be presented in matrix format, with the significance of effect recorded against each SEA objective.

5. **Regional Level Cumulative Effects**: The SEA Environmental Report for the Framework Plan also refers to a further step which involves assessment of potential cumulative effects associated with either i) inter-regional options (such as transfers between regions) or ii) cumulative effects between Regional/Group Area Preferred Approaches. An inter-regional level assessment will be carried out to the extent possible, based on information currently available regarding approaches for the other regions. As subsequent Regional Plans are developed, the Environmental Report which accompanies them will consider the inter-regional cumulative effects with all preceding Regional Plans including the RWRP-NW.

6. **Inter-Regional Level Assessment**: In addition to assessing combined effects from options across all the Study Areas within the Preferred Approaches in a region/group area, the Regional Plans will need to consider potential for:

    - Inter-regional options such as transfers between regions. These will be part of alternative approaches under consideration in Regional Plans;
    - Cumulative effects between regional Preferred Approaches; and
    - Inter-regional options, these will need to be identified as the Regional Plans are prepared and will be addressed through the assessment of alternative approaches.

    Where Regional Plans are prepared in parallel cumulative effects of the Preferred Approaches can be considered together but where the Regional Plans are prepared sequentially, cumulative effects will need to be addressed for any preceding plans and reported in the SEA Environmental Report.

    The RWRP-NW as the third Regional Plan, will consider cumulative effects with the Eastern and Midlands Regional Plan and the South West Regional Plan.

During the Study Area level assessment process, the Feasible Options were compared to see whether any SA or Regional Options were available to meet the need across multiple WRZs. The Approach development process is designed to determine the “Best Value” approach to meet the need and this is then identified as the Preferred Approach (Figure 4.4). Best value is identified as the approach that provides the best performance overall, balancing across the range of NWRP and SEA objectives.

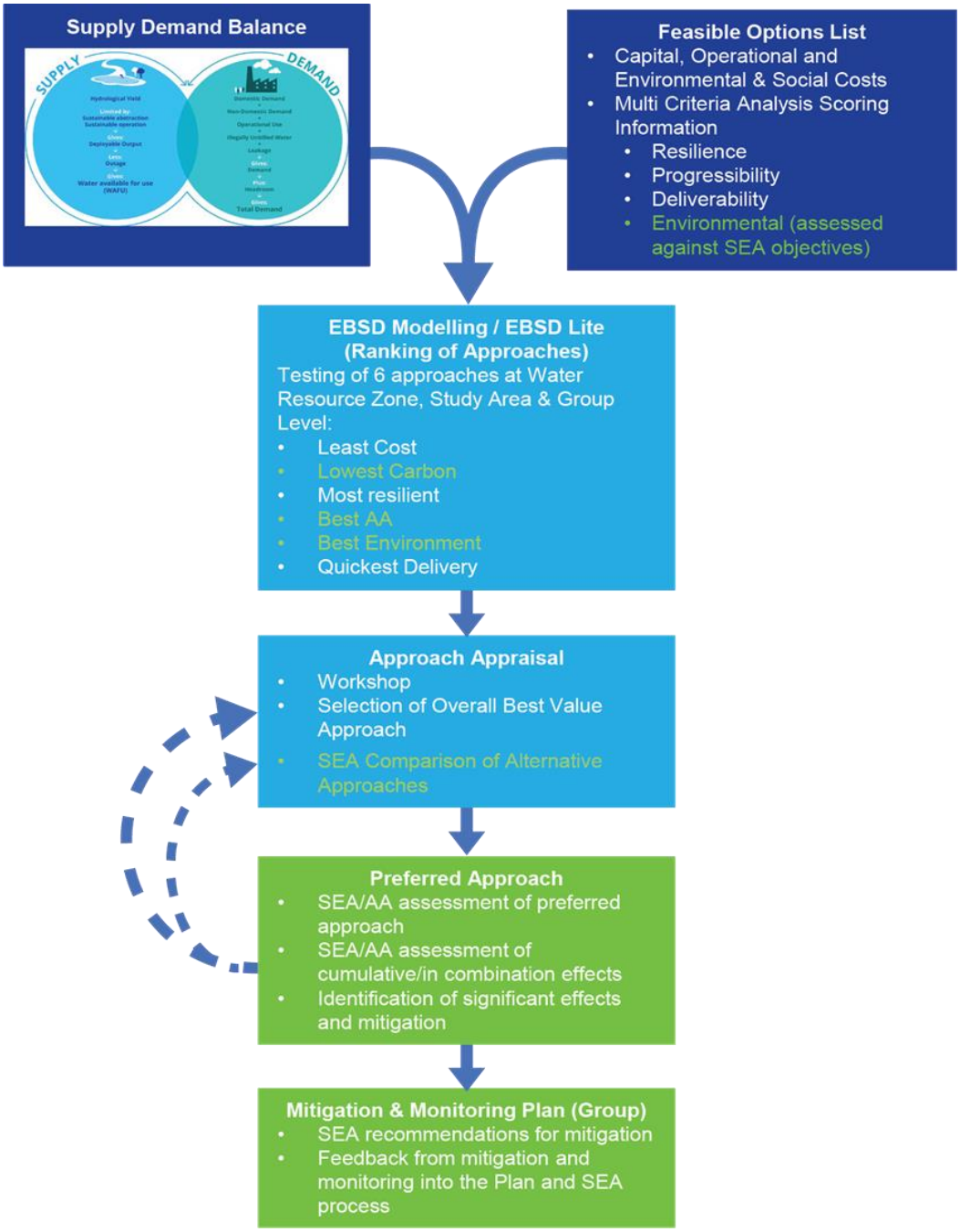


**Figure 4.4 Approach Development Process**

## 4.3 SEA and Consultation Influence on the Final Plan

Consultation comments received on the statutory public consultation for the draft RWRP-NW and accompanying Environmental Report and NIS, and responses and subsequent actions taken to address these comments, are summarised in Table 4.3. Further detail regarding consultation responses is also provided in the RWRP-NW Post Consultation Report (Uisce Éireann, 2023). Many of the consultation comments received were supportive of the environmental assessment approach, however key changes and clarifications requested related primarily to:

- Inclusion of additional plans and policies and baseline information within the SEA;
- Data sources used for the plan assessment and inclusion of additional data sources to be considered as projects are taken forward for more detailed assessment;

- Additional clarification on the assessment of transboundary effects related to consideration of impacts on water quality, quantity, aquatic biodiversity, fisheries and cultural heritage with potential for transboundary effects to be considered further as part of more detailed studies for projects taken forward for further assessment along with further consultation with the relevant stakeholders in Northern Ireland.
- Further clarification on the process for review and feedback on the plan implementation and on the monitoring plan structure along with reporting on progress and increased clarity of monitoring for plan and project levels.
- Updates to the preferred approaches and further assessment.

The submissions received through the consultation process on the SEA Environmental Report are considered not to materially affect the outcome of the assessment. The SEA Environmental Report, NIS and RWRP-NW have been updated to include the additional information and clarifications to respond to the comments made.

### 4.3.1 Updates to the RWRP-NW

During the consultation period for the RWRP-NW Uisce Éireann received submissions from the National Federation of Group Water Schemes (NFGWS) and several individual GWSs which supported the continuation of supplies to seven WRZs. For these WRZs, the proposed Preferred Approach in the draft RWRP-NW was to discontinue supplies from GWSs and consider alternative feasible options that were available. This approach was taken due to the uncertainty regarding regulatory decisions on the sustainability of abstractions under the new abstraction legislation. However, in their consultation submissions, the GWSs outlined their current and future improvement plans which aim to achieve Water Framework Directive objectives in relation to abstractions. These include source protection works, water conservation measures, and water treatment plan upgrades. Furthermore, Uisce Éireann acknowledge that there will be greater clarity on sustainable abstraction limits once the new abstraction legislation and associated regulations are confirmed. Therefore, at this stage, if existing abstractions are deemed to be unsustainable by the EPA, we recognize GWSs could consider alternative sources to ensure sustainability or Uisce Éireann can reassess the alternative feasible options that we have identified through the NWRP option development process. For this reason, Uisce Éireann has updated the Preferred Approach in the final RWRP-NW to continue supplying the following WRZs from GWSs - Arvagh, Gowner, Killeshandra, Blacklion, Ballyhaise, Glaslough, and Emyvale. As the abstraction legislation is implemented, Uisce Éireann will continue to work with GWSs to secure sustainable supplies for our customers into the future.

The updated Preferred Approach for Glaslough and Emyvale WRZs results in a change to the Preferred Approach for Monaghan WRZ. Given the Monaghan WRZ is now in surplus for the planning period, a new or increased supply is not required. Uisce Éireann is therefore proposing to revise the Monaghan WRZ Preferred Approach to upgrade the existing WTPs for water quality improvements.

Similarly, the update to the Preferred Approach for Ballyhaise PWS WRZ results in a change to the Preferred Approach for Cavan and Ballyjamesduff WRZs. Uisce Éireann is proposing to update the Preferred Approach to interconnect the two WRZs and supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS only. Ballyhaise PWS will not connect to Ballyjamesduff but will continue to be supplied from Annagh GWS.

Options SAB-067, SAC-066, SAF-147 and SAF-150 were previously screened out at the coarse screening stage due to the options not meeting resilience, deliverability and flexibility, and/or sustainability criteria. However, consultation feedback and data updates resulted in amendments to the

options and following the Option Development Process, these options were reassessed as feasible. For two options SAB-079, SAB-179 there had been insufficient information but this was provided by Northern Ireland Water during the consultation process. All these options were reviewed through the Options Development Process and this resulted in options SAB-067, SAF-147 and SAF-150 being selected as part of the WRZ Level Preferred Approach and the Study Area Preferred Approach for SAB and SAF.

Options SAB-213 was added as a result of a Local Authority suggestion during consultation and SAF-549 (SA option 49 for SAF) was added following an internal suggestion. However, SAB-213 was screened out at coarse screening stage as the associated WRZ is not in deficit and SAF-549 was not brought forward after comparison with other options through the Approach Development Process.

Following the completion of the review process, updates to the Preferred Approach for SAB and SAF were identified. The resulting updates to the RWRP-NW Preferred Approach for SAB and SAF are summarised in Table 4.2 below. It is important to note that there is potential for amendment as the process of review and feedback is applied.

**Table 4.2 Water Resource Zones that have undergone Preferred Approach Changes Post Consultation**

| Study Area | WRZ Code and Name | Draft RWRP-NW Preferred Approach Option | Post Consultation RWRP-NW Preferred Approach Option |
|---|---|---|---|
| B | 0200SC0002: Blacklion PWS (GWS Import) | SAB-081<br>New GW abstraction (karstic) to supply Blacklion WRZ. | SAB-077 & SAB-078<br>Keep supplying Blacklion WRZ from Gowlan GWS (Cuilcagh Mountain Spring and Garvagh Lough). |
| B | 0200SC0004: Gowna (GWS Import) | SAB-524 (SA option 24 for SAB)<br>Rationalise Gowna (GWS Import) to Gowna WRZ. | SAB-084<br>Keep supplying Gowna WRZ from Erne Valley GWS. |
| B | 0200SC0008: Ballyhaise PWS (GWS Import) | SAB-553 (SA option 53 for SAB)<br>Interconnect Cavan and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS.<br>Upgrade Lismean WTP for water quality improvements. Ballyjamesduff RWSS is not in deficit and supply spare capacity to Cavan RWSS.<br>Interconnect Ballyhaise and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. | SAB-067<br>Keep supplying Ballyhaise WRZ from Annagh GWS. |
| B | 0200SC0012: Ballyjamesduff RWSS | SAB-553 (SA option 53 for SAB)<br>Interconnect Cavan and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. | SAB-501 (SA option 1 for SAB)<br>Interconnect Cavan and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. 0200SC0012 - Upgrade WTP for water |

| Study Area | WRZ Code and Name | Draft RWRP-NW Preferred Approach Option | Post Consultation RWRP-NW Preferred Approach Option |
|---|---|---|---|
| | | Upgrade Lismean WTP for water quality improvements. Ballyjamesduff RWSS is not in deficit and supply spare capacity to Cavan RWSS.<br><br>Interconnect Ballyhaise and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. | quality improvements. Ballyjamesduff RWSS is not in deficit and supply spare capacity to Cavan RWSS. |
| B | 0200SC0014: Cavan RWSS | SAB-553 (SA option 53 for SAB)<br><br>Interconnect Cavan and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS.<br><br>Upgrade Lismean WTP for water quality improvements. Ballyjamesduff RWSS is not in deficit and supply spare capacity to Cavan RWSS.<br><br>Interconnect Ballyhaise and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. | SAB-501 (SA option 1 for SAB)<br><br>Interconnect Cavan and Ballyjamesduff WRZs. Supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS. 0200SC0012 - Upgrade WTP for water quality improvements. Ballyjamesduff RWSS is not in deficit and supply spare capacity to Cavan RWSS. |
| B | 2000SC0004: Gowna | SAB-524 (SA option 24 for SAB)<br><br>Rationalise Gowna (GWS Import) to Gowna WRZ. | SAB-133<br><br>Replace rising main connecting raw water pump station and WTP at Lough Gowna (Cornadrung Pump Station), namely flooding of pump station, lack of control (raw water pumps control flow through plant) and increase SW abstraction to supply deficit. |
| B | 2400SC0005: Glaslough (GWS Import) | SAB-555 (SA option 55 for SAB)<br><br>Rationalise Emyvale and Glaslough to Monaghan WRZ.<br><br>Upgrade existing WTPs for water quality improvements. Monaghan WRZ is not in deficit. | SAB-123<br><br>Keep supplying Glaslough WRZ from Glaslough and Tyholland GWS. |
| B | 2400SC0008: Emyvale (GWS Import) | SAB-555 (SA option 55 for SAB)<br><br>Rationalise Emyvale and Glaslough to Monaghan WRZ. | SAB-115<br><br>Keep supplying Emyvale WRZ from Glaslough and Tyholland GWS. |

| Study Area | WRZ Code and Name | Draft RWRP-NW Preferred Approach Option | Post Consultation RWRP-NW Preferred Approach Option |
|---|---|---|---|
| | | Upgrade existing WTPs for water quality improvements. Monaghan WRZ is not in deficit. | |
| B | 2400SC0011: Monaghan | SAB-555 (SA option 55 for SAB)<br>Rationalise Emyvale and Glaslough to Monaghan WRZ.<br>Upgrade existing WTPs for water quality improvements. Monaghan WRZ is not in deficit. | SAB-190 and SAB-191<br>Upgrade Togan (Lake) WTP and Crosses WTP for water quality improvements. Monaghan WRZ is not in deficit. |
| F | 0200SC0005: Killeshandra PWS (GWS Import) | SAF-156<br>New SW abstraction from Lake Town and new WTP. | SAF-150<br>Keep supplying Killeshandra WRZ from Erne Valley GWS. |
| F | 0200SC0001: Arvagh PWS (GWS Import | SAF-542 (SA option 42 for SAF)<br>Rationalise Arvagh to Gowna WRZ<br>Increase SW abstraction and supply Arvagh. | SAF-147<br>Maintain supply to Arvagh WRZ from Erne Valley GWS. |

In summary, following the post consultation review, Uisce Éireann considered that 10 changes to the Preferred Approach were required:

- Arvagh, Gowner, Killeshandra, Blacklion, Ballyhaise, Glaslough, and Emyvale WRZs will continue to be supplied from the existing GWSs.
- Monaghan WRZ will maintain the current abstraction source and the existing WTP will be upgraded for water quality improvement.
- Cavan WRZ and Ballyjamesduff WRZ: Cavan WRZ will be connected to Ballyjamesduff WRZ, and spare capacity will be supplied from Ballysjamesduff to Cavan only. The connection of Ballyhaise to Ballyjamesduff will no longer form part of the Preferred Approach.

### 4.3.2 Conclusions on Review of Preferred Approaches arising from Consultation

The aforementioned changes were made to SAB and SAF in the final Plan. The Plan has also been updated to provide additional clarification and indicate potential for improvements to data with commitment to review and feedback. The potential for further changes in the future as a result of the review process is also identified. The amendments to the final Plan including the SAB and SAF were considered as part of the post consultation update to the SEA Environmental Report. The Preferred Approach amendments are associated with a reduced number of new options with reduced overall requirement for new infrastructure and new abstraction provision. Options for SAB and SAF that retain their supply from their associated GWS's no longer require new infrastructure and this has resulted in a significant reduction in the length of pipeline required and reduced the number of new WTPs and increased/new abstractions. This is also associated with relative reduction in environmental impacts in relation to objectives for public health, landscape, water and biodiversity, materials and carbon emissions for the final Plan compared to the Draft RWRP. Further details can be found in the SEA

Environmental Report for the RWRP-NW and in the Study Area Environmental Reviews (Appendix H of the SEA Environmental Report).

### 4.3.3 Summary of Consultation Responses and Changes to SEA and RWRP-NW

Table 4.3 provides a summary of the consultation responses and the actioned changes to the SEA Environmental Report and RWRP-NW.

Table 4.3 Summary of Consultation Responses and Changes to SEA and RWRP-NW

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| **Strategic Environmental Assessment Approach** | | |
| **The Environmental Protection Agency (EPA)** | | |
| The Environmental Protection Agency (EPA) welcomed that the comments made in their previous submission at SEA Scoping Stage, have been considered, in preparing the draft RWRP-SW and associated SEA.<br><br>EPA noted that the Water Environment (Abstractions and Associated Impoundments) Act 2022 will lead to the establishment of a licensing regime, once the enabling Regulations are published and it is "therefore likely that there will be an overlap in timelines between the final options assessment of the Regional Water Resource Plans, and the start of the licensing regime commencing." EPA noted the main impact that this will have, will be on any proposed new abstractions or proposals to increase existing abstractions and "there will also be a requirement for EIA for any abstractions that will be licensed by the EPA." | We welcome the Environmental Protection Agencies (EPA's) feedback on the SEA process and the acknowledgment that Uisce Éireann has considered the transboundary impacts and cumulative effects in preparing the RWRP-NW.<br><br>Uisce Éireann has referred to the EPA State of the Environment Report Ireland's Environment – An Integrated Assessment 2020 (EPA, 2020) as relevant and appropriate in the SEA Environmental Report; and will consider the recommendations, key issues and challenges outlined in the report when implementing the Plan and SEA recommendations at project stage. | SEA Environmental Report updated to include reference to new policy and plan documents including the 2023 Climate Action Plan and the draft NPS. |
| The EPA suggested "Where proposals for further impoundments are proposed, these should be carefully considered, assessed, designed and implemented to minimise any potential likely significant environmental effects."<br><br>They further noted that "the abstraction of waters for drinking water purposes need to continue to be carefully considered, effectively implemented and monitored, where those waters support protected species and designated habitats within the Plan area." They commented that the "Abstraction of water resources should be carried out in accordance with any abstraction licensing legislation, which is currently in draft form with the Department of Housing, Local Government and Heritage (DHLGH)." The EPA commented that Uisce Éireann "should be mindful of the Water Framework Directive-related environmental objectives for surface waters and groundwaters, with regards lakes and | In response to the submission from the Environmental Protection Agency (EPA) and the Department of Housing, Local Government and Heritage – National Parks and Wildlife Services (DHLGH-NPWS), Uisce Éireann recognises the importance of minimising the potential for environmental impacts of all proposed developments, including the proposals for additional reservoirs and impoundments in the draft RWRP-SW. We will ensure the ecology of the area is protected by implementing appropriate mitigation measures to manage environmental risks at project level. Uisce Éireann have outlined key mitigation measures for the Preferred Approach in Table | No action |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| proposed further abstractions and for any new abstractions. Any increased abstraction should not cause deterioration of water quality status.” | 7.1 of the Study Area Environmental Reviews which are provided in Appendix H of the SEA Environmental Report.<br><br>Uisce Éireann will be required to apply for licenses for abstractions through the proposed abstraction license legislation. The EPA as the licencing regulator will review our existing and proposed abstractions and determine if they are feasible considering all other abstractions in the catchment and the impact of the abstractions on the ecology of the waterbody. | |
| The EPA acknowledged the consideration of cumulative effects, as provided in Chapter 9 of the draft RWRP-NW, which looks at regional cumulative effects, both within the RWRP-NW and between the RWRP-NW and other plans and programmes. The EPA also welcomed that the EPA guidance ‘Good Practice Guidance Note on Cumulative Effects in Strategic Environmental Assessment’ (EPA, 2020) has been considered. | We acknowledge the EPA’s recommendations relating to the SEA Statement and confirm that an SEA Statement and AA Determination will be issued following the adoption of the RWRP-NW. The SEA Statement will outline how environmental considerations have been integrated into the RWRP-NW and how consultation influenced the development of the RWRP-NW. The SEA Statement also outlines the reasons for selecting the Preferred Approach and the measures to monitor the significant environmental effects. The SEA and AA set a framework for identifying mitigation and monitoring so that these can be a part of the decision-making and can inform option design and costing as schemes are developed. | No action |
| The EPA noted the inclusion of Table 9.2 – Cumulative Effects with other plans and programmes and commented that the draft National Policy Statement on Geothermal Energy for a Circular Economy (Department of Environment, Climate and Communications) may also be useful to consider. | We note the EPA’s reference to the draft National Policy Statement on Geothermal Energy for a Circular Economy (Department of Environment, Climate and Communications). The SEA Environment Report has been updated to account for this draft policy statement in the cumulative effects assessment, and Table 9.2 has | SEA Environmental Report policy update |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| | been updated to refer to this document. Uisce Éireann will consider this policy as part of the monitoring and feedback process outlined in Section 9. This process involves continual review of assumptions and data as new information becomes available, to ensure the National Water Resources Plan (NWRP) is up to date. A further review of data will take place at project development stage as outlined in Section 6.4 of the draft RWRP-NW. | |
| The EPA recommended that once the Plan is adopted, Uisce Éireann should prepare an SEA Statement that summarises:<br>• How environmental considerations have been integrated into the Plan;<br>• How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;<br>• The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and<br>• The measures decided upon to monitor the significant environmental effects of implementation of the Plan.<br>A copy of the SEA Statement with the above information should be provided to any environmental authority consulted during the SEA process. | This document is the SEA Statement and has been prepared to cover the points identified in the EPA comments. | See this SEA Statement |
| The EPA commented that in Chapter 4 – Current Status of Infrastructure Uisce Éireann should continue to focus on addressing issues related to supplies currently on the EPA's Remedial Action List and any future additions, as applicable. They noted that currently, there are 58 water supplies on the latest EPA's Remedial Action List for Q4 2022 (published 2023), some of which are present within the area covered by the RWRP-NW. | In response to the EPA's recommendation that Uisce Éireann continue to focus on addressing issues related to supplies currently on the EPA's Remedial Action List (RAL) Uisce Éireann note that critical projects and programmes to address potential public health issues are on-going and not impacted or delayed by the delivery of the NWRP. Section 7.6 of the RWRP outlines the process | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| | for developing interim options to address critical water quality and quantity issues while delivering the Preferred Approaches through the coming investment plans. Using this process, interim, short-term capital maintenance solutions have been identified for all WTPs and these solutions are referred to in Section 6 of the Study Area Technical Reports. | |
| **Roscommon County Council (RCC)** | | |
| Roscommon County Council (RCC) noted that both the Strategic Environmental Assessment and the Natura Impact Assessment are comprehensive. However, "potential adverse impacts need to be assessed in the development of an additional ground water source at Longford Springs, Castlerea."<br><br>Furthermore, RCC requested that "development of additional ground water sources at Longford Springs, Castlerea will need to be assessed with respect to existing groundwater source protection areas. | The SEA is a strategic plan level assessment but also provides a framework for project level assessments and recognises that the potential adverse impacts for individual projects will need to be assessed further and this will include any development of additional ground water source at Longford Springs, Castlerea and will need to include existing groundwater source protection areas. | Clarification |
| **Meath County Council (MCC)** | | |
| Meath County Council (MCC) would welcome the sharing of water related environmental information gathered during its ongoing activities associated with the RWRP-NW and EM regions to support the preparation of Meath County Council's Local Area Plans, Development Plan(s) and associated core strategy. Similarly, "such information will assist with the preparation of environmental reports (Strategic Environmental Assessment, Appropriate Assessment) and support environmental monitoring of our land use plans." | The environmental information associated with the RWRP-NW and EM region proposals is provided in the relevant study area Environmental Reviews included as Appendices to the SEA Environmental Report. We have also recommended consideration of the environmental information sources used by the SEA directly and as recommended by the EPA as these sources of information are also regularly updated. | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| **The Department of Communities Northern Ireland Historical Environment Division (HED)** | | |
| The Department of Communities Northern Ireland Historical Environment Division (HED) suggested that the SEA Criteria as outlined in Table 6.2 of the draft RWRP-NW "should also include undesignated heritage assets, toward a more comprehensive assessment of potential effects on cultural heritage, particularly industrial heritage assets located along watercourses in the border region." | The consideration of undesignated heritage assets and archaeological interests have been added to the criteria however in many cases this information is not available for a strategic level assessment. SEA recommendations include the need for further detailed assessments and consultation with relevant authorities to take account of potential impacts on cultural heritage and to identify appropriate approaches for mitigation and this will include cross border consultation where needed. | Clarification added the SEA Environmental Report |
| **DAERA Inland Fisheries** | | |
| DAERA Inland Fisheries noted that 26 locations for surface water abstraction are to be decommissioned as part of the draft RWRP-NW and commented that "any such sites should have a fish passage assessment conducted and restorative action taken if necessary." | Consideration of opportunity to address fish passage barriers is recommended as part of mitigation and enhancement measures as part of project level studies including for abstraction decommissioning and has been included in the Environmental Action Plan (EAP12.1) and Monitoring Plan (RMP Bio 2). | Clarification |
| DAERA Inland Fisheries commented that in Section 5.5.3 Species the SEA noted the species, and in particular the fish species, to be considered within it however it "does not include European eels or migratory trout (sea-trout), any potential impacts are likely to include impacts to these protected species." Furthermore, in Section 4.2 Key Plans, Policies and Programmes, Inland Fisheries suggested the inclusion of the North Atlantic Salmon Conservation Organisation (NASCO), Convention for the Conservation of Salmon in the North Atlantic Implementation Plan for the period 2019 – 2024 as "this an international commitment for both Ireland (as part of the EU) and Northern Ireland (as part of | Section 5.5.3 European eels or migratory trout (sea-trout) have been added to the species referred to and have been considered as part of the assessment of effects on sustainable abstraction, aquatic biodiversity and potential for creating or removing barriers to species movement.<br>The plans, policies and programmes have been added to the SEA Report in the PPP review and are included as key influences for the SEA and draft RWRP and will also be taken forward for consideration in more detailed studies as relevant. The importance of the North Atlantic | Update to Section 5.5.3 Species, and Section 4.2 Key Plans, Policies, and Programmes in the SEA Environmental Report |

| Key issues/themes raised | SEA response | Summary of action taken |
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| the UK).” Also, in relation which includes specific fisheries and water abstraction measures | Salmon Conservation Organisation (NASCO), Convention for the Conservation of Salmon in the North Atlantic Implementation Plan for the period 2019 – 2024 and as an international commitment for Ireland is recognised in section 5.5.3. in relation to commitments to protect and restore fisheries and habitats for salmon and maintain biodiversity. | |
| DAERA-NIEA noted that there is reference to the transboundary catchments, the third cycle of the Water Framework Directive Consultation on the Draft 3rd Cycle River Basin Management Plan 2021 to 2027 \| Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk), “however it should include particular reference to the measures listed as part of the screening report in relation to the protection of fisheries.” | The third cycle of the Water Framework Directive Consultation on the Draft 3rd Cycle River Basin Management Plan 2021 to 2027 for the North Western, Neagh Bann and North Eastern River Basin Districts, Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk), is referred to in section on the Transboundary baseline as a key source document including measures listed in relation to the protection of fisheries. | Clarification |
| Furthermore, DAERA Inland Fisheries commented that given the geographical location and the catchments associated with the Draft RWRP-NW the Loughs Agency is the lead body for provision of advice regarding impacts to salmonid and inland fisheries interests within the catchments of Lough Foyle and Carlingford Lough. Therefore, the Lough Agency “should be consulted in relation to this plan. DAERA Inland Fisheries will provide fisheries advice for those areas outside of the catchments of Foyle and Carlingford Loughs.” | Uisce Éireann note DAERA identifying the Loughs Agency as the lead body for provision of advice regarding impacts to salmonid and inland fisheries interests within the catchments of Lough Foyle and Carlingford Lough and we have included commitment to consult with the Lough Agency in relation to projects within the catchments for Lough Foyle and Carlingford Lough and DAERA Inland Fisheries for fisheries advice for other shared catchments in Northern Ireland and have referenced this in the SEA Environmental Action Plan (EAP11). | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| **The Marine Plan Team in the DAERA Marine & Fisheries Division (MPT)** | | |
| MPT suggested Section 5.4 would benefit from including narrative in relation to coastal and marine waters from a Marine Strategy Framework Directive perspective and the achievement of good environmental status. This, they noted "is important particularly in relation to those elements not covered by Water Framework Directive, such as, marine noise, litter, certain aspects of biodiversity and ensuring concentrations and effects of contaminants are kept within acceptable levels." The commented that "any outcomes from this exercise could then be drawn out into the issues and opportunities for the water topic in Table 5.12." | Uisce Éireann note that consideration of coastal and marine waters are included in the commitment to support the achievement of good environmental status as expressed in the SEA objectives. We note that there are elements addressed in Marine Strategy that are not covered by Water Framework Directive, such as, marine noise, litter, certain aspects of biodiversity and ensuring concentrations and effects of contaminants are kept within acceptable levels but note that the objectives are focused on aspects relevant to the water resource supply proposals, which largely involve ground water and surface water abstraction, drinking water treatment plant and network improvements. The elements mentioned are covered broadly by SEA objectives on biodiversity, water and material assets and Table 5.12 highlights the issues and opportunities considered to be relevant to the plan. | Clarification |
| MPT noted that the SEA Objectives and SEA Criteria for Water does not refer to the "prevention in the deterioration of Marine Strategy and Framework Division (MFSD) environmental status of coastal and transitional waters, the meeting of MSFD objectives or whether activities will effect MSFD status" MPT commented that "given that some elements of MSFD are not covered by the Water Framework Directive for coastal and transitional waters, MPT would suggest there could be benefit to including reference to MSFD within the Water Objective and Criteria." | Uisce Éireann note that consideration of coastal and marine waters are included in the commitment to support the achievement WFD objectives and avoidance of deterioration expressed in the SEA objectives. As noted above, there are elements addressed in Marine Strategy that are not covered by Water Framework Directive, such as, marine noise, litter, certain aspects of biodiversity and ensuring concentrations and effects of contaminants are kept within acceptable levels but note that the SEA objectives are focused on aspects relevant to the water resource supply proposals, which largely involve ground | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | water and surface water abstraction, drinking water treatment plant and network improvements. The elements mentioned are covered broadly by SEA objectives on biodiversity, water and material assets and Table 5.12 highlights the issues and opportunities considered to be relevant to the plan. | |
| MPT noted that in Section 5.7 that though Seascape Character Areas are referenced within the Landscape and Visual Amenity the link to seascape is not included as an issue or opportunity in Table 5.12 or the latter sections of the report, particularly the SEA Objectives and SEA Criteria. MPT commented that "whilst the impacts on seascape may have been considered as part of the assessment, this is not clear and there is scope to include references to seascape within both the SEA Objective and SEA Criteria." MPT recommended the reference to aquatic in the Biodiversity SEA objective on Table 6.1, includes marine as it will "ensure consistency with the language used in Table 6.2 which states 'aquatic and marine biodiversity." | Table 5.12 'Key Issues and Opportunities' have been updated to consider Marine Litter in association with tourism and "where tourism involves water vessels 'Marine Invasive Non-Native Species. In addition, marine habitats and species have been considered as part of aquatic habitats in the 'Biodiversity, Flora and Fauna' and furthermore 'Seascape' is already considered in the Landscape and visual amenity baseline section and is part of the general assessment against the SEA landscape objective. | Clarification and update to Table 5.12 in the SEA Environmental Report |
| MPT noted that the SEA objective for Material Assets includes the protection to the ecological status of waterbodies. However, MPT suggested "there could be benefit to including protection to the environmental status of coastal and transitional waters, to ensure those MSFD elements not covered by WFD would be included in the assessment under this objective." | Consideration of coastal and marine waters is included in the commitment to support the achievement WFD objectives and avoidance of deterioration expressed in the SEA objectives. As noted above, there are elements addressed in Marine Strategy that are not covered by Water Framework Directive, such as, marine noise, litter, certain aspects of biodiversity and ensuring concentrations and effects of contaminants are kept within acceptable levels but note that the SEA objectives are focused on aspects relevant to the water resource supply proposals, which largely involve ground water and surface water abstraction, drinking water treatment plant and | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | network improvements. The elements mentioned are covered broadly by SEA objectives on biodiversity, water, landscape and material assets and Table 5.12 highlights the issues and opportunities considered to be relevant to the plan. | |
| **DAERA SEA Team the Marine Conservation Advice (MCA)** | | |
| Through the DAERA SEA Team the Marine Conservation Advice (MCA) recommended the following report be considered in Section 4: Review of Relevant Plans, Policies and Programmes:<br>• The Marine and Coastal Access Act 2009<br>• The Marine and Coastal Access Act 2009 introduced a revised system of Marine Management and Licensing, including marine planning.<br>• The eight key elements are:<br>• Establishment of the Marine Management Fisheries management and marine enforcement<br>• Migratory and freshwater fisheries<br>• Coastal access<br>• Coastal and estuarine management<br>• The Marine and Coastal Act 2009<br>• The Marine Strategy Regulations 2010<br>• UK Marine Strategy Part 1<br>• UK Marine Strategy Part 2<br>• Overview of UK Marine Strategy Part 3<br>• Marine Policy Statement 2011 | The legislation, strategies and plans suggested by DAERA including those for Northern Ireland, have been added to the PPP review where relevant to the proposals in the RWRP-NW. | Updated PPP review and add plans in the SEA Environmental report and appendices |

| Key issues/themes raised | SEA response | Summary of action taken |
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| • Marine Policy Statement<br>• The draft Marine Plan for Northern Ireland (consultation 2018)<br>• Wildlife (Northern Ireland) Order 1985<br>• The Wildlife (Northern Ireland) Order 1985<br>• Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995<br>• Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995<br>• Marine Act (Northern Ireland) 2013<br>• Marine Act (Northern Ireland) 2013<br>• Strategic Planning Policy Statement for Northern Ireland 2015<br>• Strategic Planning Policy Statement<br>• An Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026 | | |
| **Clare County Council (CCC)** | | |
| Clare County Council Physical Development Directorate commented that it is "essential that cumulative and/or negatively synergistic impacts are assessed between plan areas." CCC noted there is reference to this in the document (1.2, 1.3 & 6.1 and also an acknowledgement that assessment was to the "extent that data was available." However, CCC noted that "if sufficient data was not available, then further investigation and assessment is warranted…as this is especially important for County Clare as the County is split over two plan areas." | Clare County Council Physical Development Directorate comments on the references to identifying cumulative and/or negatively synergistic impacts in the Plan and noting that the assessment is limited by the data available. The SEA Environmental Report addresses potential cumulative effects across plan areas and also sets out commitments for further investigation at project level and for monitoring effects including potential cumulative effects. | Clarification |
| CCC commented that in Section 1.1, the SEA Objective under Water Quality and Resources should be further strengthened to ensure that Water Framework Directive requirements are met. CCC suggested adding the following: "prevent | The SEA Objective for Water Quality has been amended to address previous comments from the EPA to ensure that the Water Framework Directive requirements and | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| deterioration of the WFD status of waterbodies with regard to both water quality and quantity due to Uisce Éireann's activities. Contribute towards the "no deterioration" WFD condition and where possible to improvement of waterbody status for rivers, lakes, transitional and coastal waters, and groundwater to at least Good status and to not undertake any new action or activity which would further restrict or limit the ability of a Waterbody to achieve "Good" or "excellent "status." | objectives are addressed. The approach to the assessment using the current SEA objective is considered to be aligned with the intent in the suggested wording and no further wording change is proposed. | |
| Clare County Council (CCC) raised concerns that the "current and planned water and wastewater capacity will not support growing annual visitor numbers." They cited The Burren and Cliffs of Moher, Doolin and Lahinch as examples.<br><br>The Council further highlighted that Failte Ireland supported a Niche Destination Plan for Ennis which would make Ennis a leading national tourism destination. | The importance of tourism in County Claire is recognized in the SEA baseline and this has been updated to include reference to the Ennis expected to be a leading national destination for tourism.<br><br>Further to Local Authorities comments regarding the impact of tourism on seasonal demands, we note that our demand estimates account for the increase in demand resulting from the influx of tourists, particularly during the summer periods when there is the combined impact of reduced supplies and increased local demands. We acknowledge there is some uncertainty associated with our existing forecasts, which is accounted for in the headroom allowance added to our demand forecast. | Clarification and update to the SEA baseline – SEA Environmental Report |
| Clare County Council's Planning Department, Economic Development Directorate (Clare County Council) commented that maintaining a secure water supply to customers must be a critical function of Uisce Éireann. CCC highlighted that it is an objective of both the County Clare Tourism Strategy 2030 and the Draft Clare County Development Plan 2023-2029 to promote and encourage an extended tourism season to attract visitors all year round. CCC further highlighted that in county Clare water demand is hugely influenced by peak | In developing the Preferred Approach, Uisce Éireann has considered the impact of abstractions on the aquatic environment and assessed sustainable abstraction thresholds during low flow periods. We have taken a conservative approach when conducting desktop assessments of the Preferred Approaches using the methodology set out in Appendix C of the Framework Plan. Further information on our approach to assessing | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| tourism season and “the associated increase in tourism demand on the water supply must be reflected in the Irish Water Supply Demand Balance.” | abstraction pressures is provided in Section 2.3.5. Section 7.4 provides detail regarding the sustainability of our water abstractions under the Preferred Approach. | |
| **Department of Environmental Climate and Communication (DECC)** | | |
| The Department of Environment, Climate and Communications and Geological Survey Ireland (GSI) recommended using their various data sets, when conducting the EIAR, SEA, planning and scoping processes attributing their data and maps to ‘Geological Survey Ireland’. GSI commented that this data can “add to the content and robustness of the SEA process.” The following is the list of GSI’s publicly available datasets that may be useful to the environmental assessment and planning process:<br>• Groundwater<br>• Marine and Coastal Unit<br>• Coastal Vulnerability Index<br>• Geoheritage: Geological Mapping<br>• Geochemistry of soils, surface waters and sediments<br>• Geophysical data<br>• Geohazards<br>• Geotechnical Database Resources<br>• Historic Mines<br>• Physiographic Units<br>• Institute of Geologists of Ireland, 2013. Guidelines for the Preparation of the Soils, Geology and Hydrogeology Chapters of Geology in Environmental Impact Statements. | Uisce Éireann has noted the Department of Environmental Climate and Communication (DECC) recommendations on data sets that would support the fine screening assessment scoring question relating to geology and soils. In response to this, Uisce Éireann confirms that ‘Geological Heritage Audited Sites’ and ‘Geological Heritage Unaudited Sites’, ‘National Landslide Susceptibility Map’, ‘Irish Soil Information System’ and ‘MINES - Solid Waste Heaps’ maps were used for fine screening question G1.<br>In addition, the geological Natural Heritage Areas, Ireland’s Geological Heritage Sites, the Irish Soils Information System national soils map and Geological Survey Ireland (GSI) Groundwater Flooding maps and geology maps available on Map Viewer, and GSI’s online datasets of bedrock and subsoil geological mapping, were used to prepare descriptions of geology presented in the Study Area Technical Reports (Appendices 1 to 3 of the draft RWRP-SW) and the Study Area Environmental Reviews.<br>Uisce Éireann confirms that GSI’s advice, data and maps were utilised where available throughout the fine screening assessment, and that hydrogeological assessments of options were completed taking account of | Clarification and update to the SEA Environmental Report |

| Key issues/themes raised | SEA response | Summary of action taken |
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| • EPA, 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR). | groundwater resources provided by the GSI, i.e. wells, drinking water source protection areas; national Aquifer, Vulnerability and Recharge map; subsoil permeability, karst features, tracer test database, turlough water levels (gwlevel.ie) and the Groundwater body descriptions database; and considered cumulative effects on WFD ground water status and interaction with existing Uisce Éireann abstractions. Uisce Éireann acknowledges the disclaimers associated with these datasets and communicates caveats with the datasets in the transition of plan to project level assessment approaches. These assessments supported the options assessment process and considered the following additional data sources: Uisce Éireann recognises the invaluable ongoing contribution of the GSI's Groundwater and Geothermal Unit to the Irish groundwater knowledge base.<br><br>Uisce Éireann commends the GW Flood and GW Climate projects for their work in assessing climate change impact on groundwater. The outputs of these projects will inform Uisce Éireann' s Flood Risk Assessment and management plans where they are undertaken in the future.<br><br>Uisce Éireann is familiar with the GSI's GW3D project and as outputs are developed as part of this project, Uisce Éireann will ensure consideration and integration as plans transition to project level and site-specific investigations occur. | |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | Uisce Éireann acknowledges the recommendation from DECC to utilise additional datasets, i.e., Geotechnical Database Resources, Geo Hazards, Marine and Coastal Unit and Coastal Vulnerability Index and can confirm that further evaluation of options will take place at project level, at which stage the proposed datasets and any new information and data will be considered and incorporated via the monitoring and feedback process in Section 8.3.8 of the Framework Plan. This will include the following data sets identified by the DECC in their submission on the draft RWRP-NW:<br>• GSIs Groundwater Protection Scheme mapping<br>• 'GW Climate' maps and data<br>• County Geological Sites (available on GSI's Map Viewer)<br>• National Geodatabase<br>• National Landslide database and Landslide Susceptibility map<br>• Historic Site project datasets<br>• GSI's Coastal Vulnerability Index study<br>• Integrated Mapping for the Sustainable Development of Ireland's Marine Resource and other GSI Marine and Coastal Unit datasets<br>The SEA Environment Report has been updated to reference these data sets in the Monitoring Plan provided in Section 10 of the report. | |

| Key issues/themes raised | SEA response | Summary of action taken |
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| **The National Federation of Group Water Schemes (NFGWS)** | | |
| NFGWS welcomed the pillars “Use Less” and “Lose Less” in the regional plan and encourage more engagement with Uisce Éireann customers, both metered and unmetered. They noted that “more communication and educational awareness on a continuous basis is needed on the ground to create behavioural change.”<br><br>NFGWS would “welcome collaboration and improved engagement between the six Group Water Schemes and Uisce Éireann in this area, which will help to improve water efficiencies and ensure protection of water sources by helping meet future water demand challenges particularly in relation to droughts and climate change impacts.”<br><br>They noted that the Group Water Schemes that are supplying water into the nine towns and villages, Arva, Gowna, Killeshandra, Shercock, Blacklion, Ballyhaise, Glaslough, Emyvale & Dowra) across counties Cavan and Monaghan have been doing so for several years. NFGWS highlighted that “many of the alternative options proposed involve huge infrastructural cost to Uisce Éireann for a reasonably small quantity of water…and the financial implications of these proposals – particularly in regard to value for money compared to alternative options should be closely analysed.” They further noted that if Uisce Éireann proceed with the preferred approach “it may cause causing serious infrastructural disruption to Group Water Scheme networks.” | Uisce Éireann welcomes NFGWS’ positive comments on supporting collaboration and engagement with us on improvement in water supply efficiency and water conservation in the context of future demand challenges.<br><br>For some WRZs that are currently supplied by GWSs, we proposed in the draft RWRP-NW a Preferred Approach of an alternative supply options to reduce the potential over-abstraction from the sources serving the GWSs.<br><br>As part of the option development process for the draft RWRP-NW, where appropriate, we considered meeting WRZ needs by connecting to adjacent GWSs. In these cases, Uisce Éireann will continue to consult with the NFGWS in the development of any Preferred Approach where we are proposing to obtain a GWS supply or utilise GWS infrastructure. We acknowledge that GWS consent would have to be given prior to advancing such an option. Opportunities to partner with GWSs will be explored as we progress the plan level Preferred Approach to project stage.<br><br>For some WRZs that are currently supplied by GWSs, Uisce Éireann were not able to assess the potential for existing and future abstractions to exceed sustainable abstraction limits. On these occasions we selected alternative supply options as the Preferred Approach to avoid the possibility of over-abstraction. We acknowledge the improvements proposed by the NFGWS in their submission to the draft NWRP-NW which aim to achieve | Clarification and amendments to Preferred Approaches and assessment update in the SEA Environmental Report and Study Areas Environmental Review appendices |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | Water Framework Directive objectives in relation to abstractions. We also recognise that as part of the new abstraction licencing regime, the EPA will adjudicate licence applications and confirm the sustainable abstraction limits. Once the new abstraction legislation and associated regulations are confirmed there will be greater clarity on sustainable abstraction limits. At this stage, if existing abstractions are deemed to be unsustainable by the EPA, GWSs could consider alternative sources to ensure sustainability or Uisce Éireann can reassess the alternative feasible options that we have identified through the NWRP option development process. For this reason, Uisce Éireann has amended the Preferred Approach to continue supplying the following WRZs from GWSs - Arvagh, Gowner, Killeshandra, Blacklion, Ballyhaise, Glaslough, and Emyvale. As the abstraction legislation is implemented we will continue to work with GWSs to secure sustainable supplies for our customers into the future.<br><br>The change to the Preferred Approach for Glaslough and Emyvale WRZs results in a change to the Preferred Approach for Monaghan WRZ. Given the Monaghan WRZ will be in surplus for the planning period, a new or increased supply is not required. We are therefore proposing to revise the Monaghan WRZ Preferred Approach to upgrade the existing WTPs for water quality improvements.<br><br>Similarly, the change to the Preferred Approach for Ballyhaise PWS WRZ results in a change to the Preferred | |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | Approach for Cavan and Ballyjamesduff WRZs. We are proposing to update the Preferred Approach to interconnect the two WRZs and supply spare capacity from Ballyjamesduff RWSS to Cavan RWSS only. Ballyhaise PWS will not connect to Ballyjamesduff but will continue to be supplied from Annagh GWS. | |
| **Drinking water quality** | | |
| **Environmental Protection Agency (EPA)** | | |
| The Environmental Protection Agency (EPA) welcomed Uisce Éireann's commitment to fully adhere with the WHO of source protection and to establish drinking water safety plans across all supplies under Uisce Éireann's remit. They noted it as important for Uisce Éireann to continue to identify and implement actions and mitigations to address those risks identified through the drinking water safety plan approach. | Uisce Éireann acknowledges the need to continue to identify and implement actions and mitigations to address risks identified through the Drinking Water Safety Plan (DWSP) approach. As outlined in RWRP-NW Section 9 – Ongoing Monitoring, Mitigation and Evolution – Uisce Éireann will progress Source Risk Assessments under the DWSPs and incorporate knowledge gained into the Preferred Approach.<br><br>As part of the rollout of the Drinking Water Safety Plans, Uisce Éireann will consider nature-based solutions and catchment measures to reduce source risk to their supplies and will actively engage as a stakeholder in catchment initiatives. Further information on Uisce Éireann's source risk assessment is included in Box 5.2 in Section 5.5 (and cross referenced in Section 5.9) of the Framework Plan.<br><br>All water supplied by the public water supply must comply with the Drinking Water Directive. Uisce Éireann takes a risk-based approach to our water supplies using the World | Clarification and update added to the SEA Environmental Report |

| Key issues/themes raised | SEA response | Summary of action taken |
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| | Health Organisation's drinking water safety plan methodology. This ensures that our water treatment plants are designed based on the type of water abstracted from any given source and the treatment processes put in place are designed to remove contaminants. Uisce Éireann is currently in the process of completing Drinking Water Safety Plans for all supplies. All public water sources, including groundwater and surface water, involve water treatment. | |
| **Biodiversity, flora & fauna** | | |
| **The Department of Fishing and Marine (DAFM)** | | |
| The Department of Fishing and Marine (DAFM) commented that commercial sea fishing is a long standing, pre-existing and traditional activity in the marine environment and is therefore essential that any negative impacts on fisheries are avoided. The evaluation of potential impacts on any commercial sea fishing activities as a result of the draft RWRP-NW needs to be given consideration as part of any planning or proposal process and during the development process itself. The DAFM noted it as imperative that engagement should be sought with the fishing industry and other relevant stakeholders at as early a stage as possible to discuss any changes that may affect them to afford a chance for their input. The DAFM commented that the Fishers' interests and livelihoods must be fully recognised, supported, and taken into account. | Uisce Éireann acknowledges the comment from DAFM that potential impacts on commercial sea fishing activities should be considered in the development of the Regional Water Resource Plans and early engagement should be sought. Our assessment of desalination options has taken account of potential environmental impacts from their associated brine discharge on the aquatic environment and biodiversity, including potential impacts on fisheries. For the draft RWRP-NW, there are no desalination options included in the Preferred Approach and therefore these have not been assessed further in terms of impact on commercial fisheries. As plan level approaches progress to project level, Uisce Éireann carry out the required environmental assessments at a site level, including surveys and investigations, as part of the statutory consenting process. | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
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| **Department of Agriculture, Environment and Rural Affairs (DAERA)** | | |
| DAERA Inland Fisheries noted that section 8.3.3 Cumulative Effects at regional level takes into consideration the potential impacts from habitat fragmentation and loss due to water quality, and that "this should also clearly reference habitat fragmentation due to barriers created to impound water." | Section 8.3.3 Cumulative Effects considers potential for habitat fragmentation and species movement due to barriers created to impound water. An additional comment has been added to confirm that this aspect has been considered in the assessment. | Update to Section 8.3.3 Cumulative Effects in the SEA Environmental Report |
| **Marine Conservation Advice Team (MCA) in the DAERA Marine and Fisheries Division** | | |
| The Marine Conservation Advice Team (MCA), in the DAERA Marine and Fisheries Division recommended in Section 5.5.3 species in the Northern Ireland Priority Species should be considered which can be viewed here: https://www.daera- ni.gov.uk/sites/default/files/publications/doe/northern-ireland-priority-species- list.pdf. MCA welcomed the consideration of invasive non-native species in section 5.5.3. | Section 5.12 of the SEA Environmental Report on transboundary effects includes reference to the Northern Ireland Priority Species List sources. | Clarification and no update required |
| They further welcomed the consideration of 'Seascape' and further recommended including the following Regional Seascape Character Areas (RSCA): The Newry Estuary RSCA, Carlingford Lough RSCA, Atlantic RSCA, Lough Foyle RSCA, Foyle Estuary RSCA and North Coast Strands and Dunes RSCA. MCA asked that the DAERA Marine Map Viewer should be referred to for details and Northern Ireland Regional Seascape Character Assessment. | The DAERA Marine Map Viewer has been referred to for details and Northern Ireland Regional Seascape Character Assessment in section 5.12 of the SEA Environmental Report in relation to transboundary effects and sources of information on the baseline environment. | Clarification and no update required |
| In Table 5.11 MCA recommended "considering an interrelationship between 'Biodiversity, including flora and fauna' and 'Cultural Heritage, including architectural and archaeological, as archaeological sites such as shipwrecks can be important habitats for marine species." | Table 5.11 has been updated to indicate the interrelationship between Biodiversity and Cultural Heritage. | Update to Table 5.11 in the SEA Environmental Report |
| In Table 5.12 Key issues and opportunities, MCA recommended considering 'Marine Litter' in association with tourism and "where tourism involves water vessels 'Marine Invasive Non-Native Species." In addition, they suggested that | Table 5.12 'Key Issues and Opportunities' have been updated to consider Marine Litter in association with tourism and "where tourism involves water vessels | Update to Table 5.12 in the SEA Environmental Report to refer to marine litter and |

| Key issues/themes raised | SEA response | Summary of action taken |
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| marine habitats and species should be considered in association with 'Biodiversity, Flora and Fauna' and furthermore 'Seascape' in association with Landscape and visual amenity. | 'Marine Invasive Non-Native Species. In addition, marine habitats and species have been considered as part of aquatic habitats in the 'Biodiversity, Flora and Fauna' and furthermore 'Seascape' is already considered in the Landscape and visual amenity baseline section. | risk of INNS from tourism in relation to biodiversity issues and clarification. |
| **Inland Fisheries Ireland (IFI)** | | |
| Inland Fisheries Ireland (IFI) commented that "the Plan should fully consider and make appropriate reference to and provision for aquatic biological diversity, the fisheries resource and relevant stakeholder interests... IFI commented that this RWRP-NW "should recognise that protection of the aquatic environment / habitat not only requires the protection of water quality but also necessitates the protection and maintenance of physical habitat, hydrological processes and regimes and broader biological diversity." IFI highlighted that considering "State obligations to ensure sustainable development, it is advocated that such plans / policies prioritise maintenance and (where possible) restoration of ecological status in surface waters." | In response to IFI UÉ recognise that protection of the aquatic environment is a core part of the option assessment process, which has aimed to ensure all proposed options meet sustainable abstraction requirements in relation to the Water Framework Directive (WFD). The wider WFD and biodiversity objectives are also embedded in SEA objectives and are to be taken forward through the mitigation and monitoring framework outlined in Section 9 of the Plan. Where Uisce Éireann have determined that existing abstractions may not meet sustainable flow thresholds, the Preferred Approach improves or avoids further deterioration at these sources by abandoning the abstraction, or where viable alternatives do not exist, by reducing the abstraction or developing additional sources to support growth. Further detail of the assessment of sustainable abstractions is provided in Section 7.4.5 and Appendix C and Appendix G of the Framework Plan.<br><br>Uisce Éireann are identifying all potential barriers that are associated with Uisce Éireann infrastructure, from internal | Clarification |
| IFI note that the long-term environmental sustainability of any activity that may impact on the status of fish species, their habitats, fisheries and the recreational angling or related commercial activities that may utilise these resources is of primary concern to IFI. IFI commented that critical and sensitive habitats and species, both designated and otherwise, must be protected. IFI remarked that "a number of fish species and associated habitats are protected under European Directives in Ireland…from an IFI perspective, all fish species and associated habitats within its remit require protection and management for conservation and development…IFI advocates application of the precautionary principle when considering the fisheries resource and aquatic ecology in the current process." | | |

| Key issues/themes raised | SEA response | Summary of action taken |
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| Inland Fisheries Ireland (IFI) noted that the protection of the aquatic environment must also include a greater commitment as well as to prevent fish mortality protect water quality and quantity. IFI commented that “sustainable management of hydrological regimes is necessary to safeguard the fisheries resource and avoid potential negative impacts on habitat and biological functions.” They went on to highlight that the maintenance and improvement of aquatic habitat is an important fisheries objective and forms part of the broader remit of other environmental authorities under the Water Framework Directive objectives. IFI requested that negative impacts of the RWRP-NW on aquatic habitats should be addressed in the plan. They noted that “these pressures are further exacerbated by climate disruption impacts reflected in increased likelihood of drought conditions as seen in 2018 and 2020.” | information, and international research in this area (https://amber.international/) is also supporting this task. Where abstractions interdependent on barriers are determined by the EPA to be unsustainable Uisce Éireann will, in collaboration with the EPA, establish a programme to move away from such abstractions. For locations where the Preferred Approach is not to move away, UÉ is engaging with IFI to, to develop fish passage at weirs associated with our abstractions to address fish movement throughout the year.<br><br>The RWRP-NW determines the feasible Preferred Approach at plan level. It is acknowledged within the Plan that further site-based assessments will be required at project level. These detailed environmental assessments will take place prior to any planning permission application being made and therefore site-specific questions will be addressed at this stage. More information on project level assessments is provided in Section 6.4.<br><br>Uisce Éireann recognises the importance of minimising the potential for environmental impacts of all proposed developments. Uisce Éireann will ensure the ecology of the area is protected by implementing appropriate mitigation measures to manage environmental risks at project level. Uisce Éireann has outlined key mitigation measures for the Preferred Approach in Table 7.1 of the Study Area Environmental Reviews which are provided in Appendix H of the SEA Environmental Report. | |
| IFI commented that the 1997 Habitats Regulations and Special Areas of Conservation (SAC) Directive does not extend to the inclusion of all aquatic habitats of fish bearing importance, biodiversity significance or of amenity value “therefore, the reliance of any plan on these designations alone will exclude significant numbers of waterways which require consideration and protection.” IFI suggested that a comprehensive approach to impact assessment necessitates that looking beyond any one particular suite of designated sites would be of benefit and they are available for consultation in respect of the specific sensitivity of sites both without and beyond the boundaries of ‘protected sites’ designations. | | |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| **Climate change** | | |
| **Marine Conservation Advice Team (MCA) in the DAERA Marine and Fisheries Division** | | |
| The Marine Conservation Advice Team (MCA), in the DAERA Marine and Fisheries Division noted that the following information might be of benefit for Section 2.4.3 Flood Risk: Sea Level Rise: "the Independent Assessment of UK Climate Risk (CCRA3) provides a series of projections of sea level rise for Belfast Northern Ireland. The projections detailed in this report show that sea level is expected to rise between 0.14 – 0.16m in 2050 and 0.27 – 0.58m in 2080. While the IPCC report 'Climate Change 2021: The Physical Science Basis' states that global sea levels are projected to increase by 0.28-0.55m by 2100 under SSP1-1.9 (the lowest Green House Gas emissions scenario) or by as much as 0.63 – 1.01m by 2100 under SSP5-8.5 (the highest Green House Gas emissions scenario)." | The information from the DAERA Marine Conservation Advice team is noted and general projections from the IPCC report as reflected in the latest national Climate Action Plan has been taken into account in the preparation of the RWRP-SW and the SEA and issues in terms of sea level rise and other issues requiring climate change resilience and adaptation are identified as part of project level design and assessment consideration also. | Clarification |
| **Inland Fisheries Ireland (IFI)** | | |
| Inland Fisheries Ireland (IFI) commented that "climate disruption is expected to have diverse and wide-ranging impacts on Ireland's environment, society and economic development, including managed and natural ecosystems, water resources, agriculture and food security, human health and coastal zones." IFI further noted that the immediate risks to Ireland which can be influenced by climate change are predominantly those associated with changes in extremes, such as droughts and floods and that "these factors should be integrated in every decision made when planning for surface and groundwater management." IFI explained that high temperatures and low flows can cause changes in species distribution and phenology, including native, non-native and invasive species. IFI highlighted that Ireland's native fish populations such as Salmon, Brown trout, Pollan and Arctic char are cold water species and "are more vulnerable to | In developing the Preferred Approach, Uisce Éireann has considered the impact of abstractions on the aquatic environment and assessed sustainable abstraction thresholds during low flow periods. Uisce Éireann has taken a conservative approach when conducting desktop assessments of the Preferred Approaches using the methodology set out in Appendix C of the Framework Plan. Further information on our approach to assessing abstraction pressures is provided in Section 2.3.5. Section 7.4 provides detail regarding the sustainability of our water abstractions under the Preferred Approach.<br><br>When considering the Preferred Approach, we assessed the resilience of each option to climate change by | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| climate change and warming of our waterbodies than those fish species that have been introduced over the last 100 years.” | assessing available yields from the proposed new source in the future and by considering the location of our infrastructure in relation to flood zones. We have identified solutions to secure supplies and reduce water shortfalls during drought conditions. These solutions include both raw and treated water storages to support increased abstractions during high flow periods and provide for higher demands during low flow periods. | |
| **Economy, Tourism and Human Health** | | |
| **The Marine Coastal Division from the Northern Ireland Environment Agency the Department of Agriculture, Environment and Rural Affairs (DAERA-NIEA)** | | |
| The Marine Coastal Division from the Northern Ireland Environment Agency The Department of Agriculture, Environment and Rural Affairs (DAERA-NIEA) welcomed the opportunity to comment on the draft RWRP-NW and in particular where the proposals are within close proximity of Lough Foyle and Carlingford Lough. They requested the following should be considered:<br>• Section 2.2.4 Tourism and Recreation, ‘Marine Litter’ and “where tourism and recreation relates to the use of water vessel ‘Marine Invasive Non-Native Species’ should be considered.”<br>• The UK Marine Strategy<br>• The Draft Marine Plan for Northern Ireland | Section 5 on Tourism and Recreation in the SEA Environmental Report has been updated to consider Marine Litter in association with tourism and “where tourism involves water vessels ‘Marine Invasive Non-Native Species.<br>Additionally, the UK Marine Strategy and the Draft Marine Plan for Northern Ireland has been considered in the SEA. | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| **Inland Waterways Ireland (IWAI)** | | |
| Inland Waterways Ireland (IWAI) highlighted that in Section 2.2.4 the omission of "sufficient references to the navigable inland waterways, namely the River Shannon and interconnecting lakes, the River Suck, the River Erne and interconnecting lakes, the River Inny, the River Corrib and interconnecting lakes and the Royal Canal in Longford as a contributor to tourism and recreation." They noted that the only reference cites the River Shannon as an important transportation route "which in the opinion of this Association does not show the immense potential for economic development that the inland navigable waterways offer".<br><br>The IWAI further noted the omission of Waterways Ireland as a stakeholder and any reference in section 2.2.4 to Waterways Ireland's River Shannon Tourism Masterplan. IWAI commented that "Waterways Ireland as the navigation authority for the navigable inland waterways should be included on this list and with all stakeholder discussions with Irish Water." | Uisce Éireann has updated the baseline and PPP review for the SEA to refer to issues highlighted in relation to Tourism and Recreation such as Marine Litter and Marine Invasive Non-Native Species and have included reference to the UK Marine Strategy and Draft Marine Plan for Northern Ireland as appropriate.<br><br>Uisce Éireann has added to the Environmental baseline, the navigable inland waterways, to include the River Shannon the interconnecting lakes, the River Suck, the River Erne and interconnecting lakes, the River Inny, the River Corrib and interconnecting lakes and the Royal Canal in Longford as a contributor to tourism and recreation<br><br>Waterways Ireland has been added as a stakeholder for consultation and reference in section 2.2.4 to Waterways Ireland's River Shannon Tourism Masterplan. | Clarification and update to the SEA Environmental Report |
| **Transboundary Effects** | | |
| **The Department of Agriculture, Environment and Rural Affairs (DAERA) National Environment Division (NED)** | | |
| DAERA Natural Environmental Division (NED) welcomed the acknowledgement and consideration of transboundary environmental effects within the SEA. NED requested that should there be any changes to the current RWRP-NW which could result in transboundary impacts then the relevant authorities in Northern Ireland should be consulted. NED also noted within Section 7.16 that any project level individual environmental assessments including EIA and AA subject to public consultation should include relevant authorities in NI. NED noted it would be "worth considering the Northern Ireland Landscape Character Assessment | Uisce Éireann are committed to re-consult with Department of Agriculture, Environment and Rural Affairs (DAERA) should any changes arise which are likely to impact Northern Ireland. We will be undertaking more detailed project level environmental assessments and these will include appropriate consultation with DAERA and other nominated stakeholders. | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| 2000 (NILCA 2000) alongside the NI Regional Landscape Character Assessment, for proposals located in border areas." | Additionally, the Northern Ireland Landscape Character Assessment 2000 (NILCA 2000) will be considered alongside the NI Regional Landscape Character Assessment, for proposals located in border areas. | |
| **The Department of Agriculture, Environment and Rural Affairs (DAERA)** | | |
| The Department of Agriculture, Environment and Rural Affairs (DAERA) noted under Section 9.7 that none of the options identified in proximity to the border are considered likely to have transboundary effects however should any changes which are likely to impact Northern Ireland be included, then DAERA should be re-consulted. | Should there be any changes to the options in close proximity to the boundary which are likely to impact Northern Ireland, DAERA will be re-consulted. Uisce Éireann will be undertaking more detailed project level environmental assessments and these will include appropriate consultation with DAERA and other nominated stakeholders. | Clarification |
| The DAERA SEA Team Marine Conservation Advice (MCA) advised that in Section 5.12 Transboundary Baseline there are 18 Special Protections Areas and East Coast Marine SPA and Carlingford Marine SPA should also be included. | Uisce Éireann have referred to SPA and marine designations in Northern Ireland in section and amended to specifically include the East Coast Marine SPA and Carlingford Marine SPA and these are added to the relevant figures. | Update to Section 5.12 Transboundary Baseline and figures in the SEA Environmental Report |
| **DAERA-Water Management Unit** | | |
| DAERA-Water Management Unit commented that are happy "that any potential transboundary issues have been considered and note the findings of the report which state that transboundary effects will be avoided." | No further comment required | No update |
| **DAERA Inland Fisheries** | | |
| DAERA Inland Fisheries commented that that though transboundary effects are scoped in for the draft RWRP-NW and will be considered further as part of assessing the proposals for the final RWRP- NW there is "no consideration has | Comments from DAERA Inland Fisheries acknowledge that transboundary effects to Shellfish Water Protected Areas (SWPAs) and Bathing waters in the transboundary | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| been given to potential impacts to designated Shellfish Water Protected Areas (SWPAs) or identified Bathing Waters. Although impacts to SWPAs and Bathing waters in the transboundary loughs of Carlingford and Foyle are unlikely, the report would benefit from considering the baseline condition and potential impacts to these designations." | loughs of Carlingford and Foyle are unlikely and their recommendation to include consideration in the baseline condition and assessment for these designations. We have added clarification that these designations have been considered but are not considered likely to be adversely affected by the water resource proposals in the plan. | |
| DAERA Inland Fisheries commented that Study Area A, B, C, E and F have the potential for "transboundary impacts both to migratory fish species but also impacts due to water quality and quantity." | Uisce Éireann note DAERA Inland Fisheries comment that Study Area A, B, C, E and F have the potential for transboundary impacts to migratory fish species but also impacts due to water quality and quantity. However, the assessment is not on the effects of the baseline study area but of the proposals put forward as part of the Preferred Approaches for the Plan. The options in the Preferred Approaches have been assessed taking account of their characteristics, locations and the sensitivity of the environment. These are discussed in section 9.2 of the SEA Environmental Report. Further clarification has been added to section 9.2 to explain how impacts on migratory fish, water quality and water quantity have been considered. | Clarification |
| **Northern Ireland Department of Communities Historic Environmental Division (HED)** | | |
| Northern Ireland Department of Communities Historic Environmental Division (HED) commented that "considering the potential for transboundary effects on cultural heritage assets at this plan stage however, particularly for those assets in a riverine context, we would have expected this assessment to be included in para 9.2 Transboundary Effects." | Uisce Éireann has noted the Northern Ireland Department of Communities Historic Environmental Division (HED) comments on considering the potential for transboundary effects on cultural heritage assets at this plan stage for those assets in a riverine context in para 9.2 Transboundary Effects and have added further | Clarification to Paragraph 9.2 Transboundary Effects in the SEA Environmental Report |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| | clarification on why we consider that effects are unlikely given the proposed preferred options with proximity are rationalisation schemes, ground water abstraction or decommissioning with all construction works taking place within the ROI. We also clarify that further and more detailed assessment will be undertaken at project level and will include consideration of effects on riverine and other cultural heritage assets. | |
| HED acknowledged that this is a plan level assessment however they advised "the potential for transboundary effects, particularly in relation to SAB -081 at Blacklion, given the number of scheduled monuments around the Lough Maclean Lower area, should be considered further." For this reason, they further suggested "the criteria for a significant effect in relation to Cultural Heritage as outlined in Appendix D 'Loss or damage to cultural heritage assets within construction footprint' is expanded to take into account the potential for significant effects on heritage assets outside the identified area e.g., to include potential impacts on setting or consequential effects." | Uisce Éireann note the comment from HED in relation to SAB -081 at Blacklion, given the number of scheduled monuments around the Lough Maclean Lower area. We have highlighted this in section 9.2 and also clarified the basis for considering impacts on these cultural heritage assets in Northern Ireland unlikely. In relation to mitigation measures proposed for Cultural Heritage as outlined in Appendix D we have strengthened this in line with the SEA objectives to include taking account of potential significant effects on heritage assets outside construction footprints and to include significant setting or consequential effects. | Clarification |
| **Northern Ireland Water** | | |
| Northern Ireland Water commented that a "number of 'Import Water from NI Water' and 'Continue to import water from NI Water' options have been assessed which in the main have been rejected based on deliverability & flexibility. The exception being the preferred approach to maintain the import of water from NI Water at Carrickarnon." NI Water highlighted that if any of "these decisions are revisited in the future or any new cross border opportunities are identified that NI | Uisce Éireann note Northern Ireland Water's (NI Water) comment and confirm that if any of the decisions are revisited in the future or any new cross border opportunities are identified we will discuss with NI Water NI Water. | Clarification |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| Water is happy to have discussions in relation to these." NI Water further noted" that there are two cross border water imports from Northern Ireland, it is unclear however whether there are any exports from the Republic of Ireland into Northern Ireland." They noted that there are several catchments with a large proportion of the catchment in both jurisdictions and Uisce Éireann "should, where relevant and as appropriate, take account of the whole catchment approach in their water resources planning in collaboration with the relevant cross-border stakeholders." | Uisce Éireann concur with NI Water's comment that there are several catchments with a large proportion of the catchment in both jurisdictions and confirm Uisce Éireann's commitment to take account of the whole catchment approach in their water resources planning in collaboration with the relevant cross-border stakeholders. Uisce Éireann confirm that there are no exports of water from Uisce Éireann to Northern Ireland. | |
| **Mitigation & monitoring** | | |
| **Environmental Protection Agency** | | |
| The Environmental Protection Agency (EPA) recommended that the Monitoring Programme should be flexible to take account of specific environmental issues and unforeseen adverse impacts should they arise during implementation of the Plan. As well as set out the various data sources, monitoring frequencies, responsibilities and reporting. EPA noted it should consider and deal with the possibility of cumulative effects and that monitoring of both positive and negative effects should be considered. The EPA recommended that "if the monitoring identifies adverse impacts during the implementation of the Plan, Uisce Éireann should ensure that suitable and effective remedial action is taken".<br><br>Furthermore, the EPA recommended that the RWRP-NW implementation, monitoring and reporting should be aligned with the environmental monitoring and reporting required under the SEA legislation which will assist in evaluating the environmental performance of the Plan. Guidance on SEA-related monitoring is available on the EPA website.<br><br>The EPA noted the proposed Mitigation Measures and monitoring measures are set out in Chapter 10 – Mitigation and Monitoring of the SEA Environmental Report and the inclusion of Table 10.2 Monitoring Plan: Indicators and Targets. | The Strategic Environmental Assessment (SEA) monitoring plan references and takes account of good practice outlined in 'Tiering of Environmental Assessment – The influence of SEA on Project-level Environmental Impact Assessment' (EPA, 2021). The Monitoring Plan is therefore provided for in two parts. This has been clarified and explained further in SEA Environment Report section 10. Part 1 is plan level monitoring that addresses the high-level environmental protection objectives of the SEA; and Part 2 provides a monitoring framework for project level implementation that addresses more detailed environmental objectives. The monitoring indicators are relevant to the corresponding plan or project level context and are aligned with the indicators defined in the SEA to the National Water Resources Plan (NWRP) Framework Plan. | Clarification on the two part Monitoring Plan and feedback process. Updates to the EAP and Monitoring Plan to incorporate comments in the Environmental Report |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| They also welcomed the link between the Plan and SEA regarding monitoring the implementation of the Plan.<br><br>In relation to the Mitigation measures, they acknowledged that the identified SEA mitigation measures have been integrated into the Plan which shows a clear linkage between the Plan and SEA. | The Environmental Action Plan also includes a task to review and update the monitoring indicators and targets to allow new conditions to be taken into account and to ensure the Plan is sufficiently flexible to take account of environmental issues arising during implementation of the Plan and any unforeseen adverse impacts.<br><br>The Monitoring Plan and Environmental Action Plan has been designed to provide a basis for the identification and continuous review of the positive, negative and cumulative impacts of the RWRP-NW. The plan refers to monitoring targets and indicators, monitoring frequencies and review timescales, and information sources.<br><br>Reporting timescales are outlined for plan level monitoring in Part 1 of the Monitoring Plan. As outlined in Part 2 of the Monitoring Plan, reporting timescales across each project will be developed over the plan implementation period. Monitoring results on individual projects will be fed back to reporting for the Regional Plan and the SEAs. The final Environmental Action Plan and Monitoring Plan are also provided in section 5 of this SEA Statement.<br><br>The process for review of amendments to the RWRP-NW is outlined as part of the feedback and monitoring process in the Plan section 9. | |
| The EPA noted it as important that monitoring of the significant environmental effects of implementation of the Plan are carried out. “Bearing that in mind, we suggest for clarity, the information presented in Section 10 – Mitigation and Monitoring Plans, should be reorganised…in this context, there is merit in considering a tiered approach to presenting the monitoring information”.<br><br>They suggested that the key high-level environmental protection objectives of the SEA could be set out in one table, with the accompanying monitoring targets and indicators, monitoring frequencies and information sources. They further suggested a second table could be provided to show the more detailed environmental objectives, targets and indicators, more of relevance at a project level. | | |
| Additionally, the EPA highlighted there is merit in limiting the number of indicators currently presented. “The monitoring indicators should be meaningful, have a monitoring frequency associated with them and include thresholds/targets or triggers above which remedial action should be taken. While some of the environmental indicators described are applicable at a plan- level, others appear to be more applicable at a project level. These should be separated out for clarity purposes. The aim should be for the higher-level SEA-specific monitoring aspects to align and inform the Plan-specific monitoring”. | | |
| The EPA suggested that the more detailed project specific monitoring elements could be separated out and used to inform the development and implementation of future projects, that may arise out of the implementing the RWRP-NW. In this | | |

| Key issues/themes raised | SEA response | Summary of action taken |
|---|---|---|
| context, they noted, the key overarching environmental objectives to be taken at project level, identified in the SEA could be set out to help inform any project level monitoring that would be required. This they remarked, would help promote further good SEA practice, as promoted in the EPA guidance document 'The Tiering of Environmental Assessment – The influence of Strategic Environmental Assessment on Project-level Environmental Impact Assessment' (EPA, 2021). | | |
| The EPA highlighted that this approach should assist in linking the SEA monitoring and Plan-monitoring and reporting aspects. The EPA suggested that interim monitoring reports (annual or bi-annual) be provided over the lifetime of the RWRP-NW which would allow for remedial action to be taken where significant adverse effects are identified and enable Uisce Éireann to adapt the monitoring programme as necessary. | | |
| The EPA recommend that Uisce Éireann should screen any future amendments to the RWRP-NW for likely significant effects, using the same method of assessment applied in the "environmental assessment" of the RWRP-NW. | | |
| The EPA noted Uisce Éireann's commitment to an environmentally sustainable approach to water abstraction, the challenge they noted "will be to ensure that environmental monitoring is carried out regularly to monitor water abstraction activities, particularly in areas with water dependant ecosystems (including groundwater). It is also important to have a plan in place to react to the monitoring results as necessary." The EPA welcomed the commitment in Subsection 5.4.2 - WFD and Abstractions within the North West Region, that Uisce Éireann will work with the EPA and GSI to develop systems (desktop and site investigation) to further understand the sustainability of groundwater abstractions. | | |

## 4.4 SEA Summary for the RWRP-NW Preferred Approach

This section provides a summary of the assessment undertaken for the SEA of th final RWRP-NW Preferred Approach taking account of the updates and amendments included as part of responses to the consultation process.

### 4.4.1 Study Area Assessment

The application of the methodology in the North West Region led to the identification of Preferred Approaches in some Study Areas which involve an external transfer i.e. from a supply in another Study Area. A Regional Level assessment was then undertaken, and the potential Preferred Approach was reviewed further to consider how alternative combinations perform in the round at this level.

The potential for large feasible options with the capability to provide regional interconnectivity is limited by the terrain across the North West Region and constrained by the location of environmentally sensitive site and the sustainability of the water sources. The Preferred Approach for each study area does however comprise large, interconnected supplies within the study area boundaries and in this way provides the benefit of resilience and improved environmental outcomes, through the decommissioning of unsustainable sources and interconnection of supplies. The assessments for these are included in the study area Environmental reviews for SAA-G (Appendix H of the SEA for the RWRP-NW) and summarised in section 7.1- 7.7 of the SEA for the RWRP-NW. These also assess potential for cumulative effects within each study area. The small Cross Study Area Transfers, including one connection to the Eastern and Midlands region, are further considered as part of the whole plan cumulative assessment in section 9 of the SEA for the RWRP-NW.

### 4.4.2 Regional Plan Assessment

The Option Development Process for the North West Region did not identify any feasible options with the potential, in terms of quantity and distribution of supply, for a large-scale interconnection of multiple WRZs across the Study Area boundaries. The Regional Preferred Approach is therefore defined as the combination of the three Study Area Preferred Approaches for the North West Region and is summarised in Table 4.4.

Although the Preferred Approach does not involve a large-scale regional interconnected supply, the Preferred Approach does comprise large, interconnected supplies within the Study Area boundaries. The benefits of interconnecting supplies are outlined in section 8.3.1 of the RWRP-NW. These are all assessed within the Study Area Environmental Reviews, SAA-G (Appendix H of the SEA for the RWRP-NW) and are summarised in section 7 of the SEA Environmental Report.

Interconnecting supplies include (in most cases) interconnected WRZs and rationalisation of one or more existing water supply systems. The inter-connection of supplies has the following benefits, which are identified in the RWRP-NW and include:

- Smaller and/or unsustainable abstraction sources to be decommissioned (once alternatives are in place) – these have potential benefits for aquatic ecology and can contribute to meeting WFD objectives;
- Decommissioning of WTPs for improving reliability of supply and delivers efficiencies through the reduced number of assets to operate and maintain. Improved minimum Level of Service of 1 in 50 across all WRZs in the North West Region during normal, dry, drought and winter conditions – Operational flexibility and increased resilience by enabling supply to be delivered from other connected WTPs or storages during drought periods and at times of supply outages resulting

from maintenance or operational failure. These can all provided wider associated community benefits;

- Larger supply systems are therefore less sensitive to peaks in demand during critical events. For this reason, peaking factors (used to estimate design capacity) are lower for larger WRZs, offering increased resilience through large, interconnected supplies;
- Uncertainty and sensitivity to demand is reduced and one of the key benefits for merging WRZs is this reduction in the design capacity resulting from the increased resilience of larger water supply systems. For RWRP-NW an estimated reduction in abstraction volume of 74.7 Ml/d is achieved compared with the alternative of maintaining fragmented supply systems – this can help reduce pressure for abstraction; and
- Increased efficiency and economies of scale in delivering leakage reduction measures compared with fragmented systems also enabling environmental benefits from energy and carbon savings and reducing pressure for abstraction.

These interconnection benefits therefore also support SEA objectives during operation. Although, the additional pipeline network involved is associated with local environmental construction impacts.

**Table 4.4 Regional Preferred Approach**

| Study Area | Regional Preferred Approach |
|---|---|
| **SAA** | **5 WRZ Options:**<br>3 Options with increased/new GW/SW abstractions<br>2 Options involving 'within WRZ supply rationalisations<br><br>**3 SA Options:**<br>1 Option interconnecting 4 WRZs<br>1 Option rationalising and interconnecting 8 WRZs<br>1 Option rationalising 1 WRZ (Glenties Adara) to Lettermacaward and interconnecting Owenteskiny and Killybegs |
| **SAB** | **17 WRZ Options:**<br>5 Options with increased/new GW/SW abstractions<br>4 Options with WTP upgrades (Water Quality (WQ) only)<br>7 Options that keep supplying from their current Group Water Scheme (GWS)<br>1 Option involving a GWS import<br><br>**4 SA Options:**<br>1 Option interconnecting Cavan to Ballyjamesduff<br>2 Options involving the rationalisation of 2 WRZs each<br>1 Option involving the rationalisation of 4 WRZs and an increased GW abstraction |
| **SA-C** | **11 WRZ Options:** |

| Study Area | Regional Preferred Approach |
|---|---|
| | 6 Options with increased/new GW/SW abstractions<br>2 Options with a WTP upgrade (WQ only)<br>1 Option involving a GWS import<br>2 Options rationalising to a GWS<br><br>**3 SA Options:**<br>3 Options including rationalisation of WRZs, collectively rationalising 4 WRZs to 3 WRZs |
| **SAD** | **14 WRZ Options:**<br>13 Options with increased/new GW/SW abstraction<br>1 desalination Option<br><br>**4 SA Options:**<br>2 Options including rationalisation with increased SW/GW abstractions collectively rationalising 3 WRZs to 2 WRZs<br>1 Option with a rationalisation to a new community scheme/GWS<br>1 Option with a new abstraction creating a new RWSS |
| **SAE** | **7 WRZ Options:**<br>3 Options involving a WTP upgrade for WQ<br>1 Option involving a Northern Ireland import<br>3 options involving new/increased SW/GW abstractions<br><br>**2 SA Options:**<br>1 Option involving rationalisation of Collon Drybridge to South Louth East Meath and associated new GW abstraction<br>1 Option involving a new groundwater abstraction |
| **SAF** | **12 WRZ Options:**<br>6 Options involving new/increased SW/GW abstractions<br>4 Options involving WTP upgrades for WQ<br>2 Options maintaining supply from a GWS<br><br>**2 SA Options:**<br>1 Option interconnecting 2 WRZs and increasing a SW abstraction<br>1 Option rationalising to SAD and increasing GW abstraction |

| Study Area | Regional Preferred Approach |
|---|---|
| SAG | **4 WRZ Options:**<br>2 Options involving WTP upgrades (for WQ)<br>2 Options involving new/increased SW/GW abstractions<br><br>**3 SA Options:**<br>2 Rationalisation Options with increased GW abstraction, collectively rationalising 2 WRZs to 2 WRZs<br>1 interconnection Option with an increased SW abstraction |

An overall assessment summary of the Preferred approach compared to the do minimum against SEA objectives is provided in Table 4.5 below.

**Table 4.5 Regional Preferred Approach and Do Minimum Comparison**

| Population, economy, tourism and recreation and human health | Water environment (quality and resources) | Water environment (flood risk) | Biodiversity | Material assets | Landscape and visual amenity | Climate change (mitigation) | Climate change (adaptation) | Cultural heritage | Geology and soils |
|---|---|---|---|---|---|---|---|---|---|
| - | - | 0 | - | - | 0/- | 0/- | - | 0/- | 0 |

**Do Minimum Approach**

- The ‘Do Minimum’ approach is the ‘without plan’ approach, meaning that this is the approach that would occur without the RWRP-NW. As a result, the ‘Do Minimum’ approach would only include reactive, unplanned interim measures to address likely failures in infrastructure.
- Ongoing reliability issues with the supplies and the situation is expected to further deteriorate due to climate change driven reductions in water resources and increased demand growth within the area.
- While there would not be major construction works there would likely be increased pressure on existing abstractions. Including abstractions likely to be currently above sustainable levels and increasing issues with unreliable or inefficient network infrastructure.
- Currently 72 surface water bodies are identified by Uisce Éireann as not meeting sustainability guidelines during dry weather flows. These are likely to be subject to continued or increased abstraction pressure and other existing sources may also be subject to increased abstraction pressure in the future.

| Population, economy, tourism and recreation and human health | Water environment (quality and resources) | Water environment (flood risk) | Biodiversity | Material assets | Landscape and visual amenity | Climate change (mitigation) | Climate change (adaptation) | Cultural heritage | Geology and soils |
|---|---|---|---|---|---|---|---|---|---|
| + | +/- | 0/+ | +/- | 0/- | +/- | - | + | 0/- | 0/- |

**Regional Preferred Approach**

- Focus on three pillars of using less, losing less, and supplying smarter and a planned rather than a reactive approach and a resilient system with more reliable sources.
- Implementation of the Regional Preferred Approach, which is the combination of Study Area Preferred Approaches for SAA-SAG, with the mitigation identified in the SEA Environmental Report Appendix D Environmental Action Plan, the Monitoring Plan and the Study Area Environmental Reviews Sas A-G.
- Construction impacts from pipelines and associated infrastructure but will be mitigated by reinstatement of land uses and mitigation and enhancement to minimise long term landscape, land use and biodiversity effects.
- Network improvements adding flexibility and resilience.
- Decommissioning of inefficient infrastructure and abstractions including from 42 groundwater and surface water abstractions, including twenty-eight surface water sources identified by Uisce Éireann as not meeting sustainability guidelines during dry weather flows. Reduced pressure on 44 maintained surface water abstractions identified by Uisce Éireann as not meeting sustainability guidelines during dry weather flows. Uisce Éireann has applied sustainability guidelines to all new surface water sources; however, further investigations will be undertaken to confirm sustainable yields for new and increased groundwater sources, and these will be subject to assessments under the new abstraction legislation. Overall, these will provide potential benefits for water dependent biodiversity including aquatic ecology and support for meeting WFD objectives through more sustainable abstractions.
- Recognition that existing abstractions that will be upgraded and have been identified by Uisce Éireann as currently not meeting sustainability guidelines during dry weather flows will be supported by compensation flow releases.
- Carbon emissions associated with construction and moving and treating water.
- Improving Uisce Éireann's understanding of future risks, including climate change and efficient water use.
- Increasing routine monitoring and operational planning allowing Uisce Éireann to proactively manage and forecast resourcing and operational trends.
- Process put in place for monitoring implementation of the plan and reviewing and feeding back on a regular basis within the plan development cycle.

**Basis for Assessment**

The RWRP-NW Regional Preferred Approach includes a commitment to work to a 1:50 year level of service across all locations and actions are in place to achieve this target. The RWRP-NW Regional Preferred Approach will provide

the basis for developing an investment programme providing greater security of supply and a more resilient supply since options will address the SDB over extreme weather planning scenarios.

The Preferred Approach identifies cross study area transfers including small cross regional transfers and a transboundary transfer (maintenance of an existing import from Northern Ireland (SAE-050)). Rationalisation and local WRZ schemes can have both positive and negative potential effects on the water environment, biodiversity, landscape and visual amenity and cultural heritage. Therefore, mitigation measures and a monitoring framework will be developed alongside recommended developments.

In the long-term, the plan will bring benefits in terms of greater security of water supply to the population, tourism industry and recreational amenities, human health and the local economy. Additionally, the newer, or upgraded, more reliable assets within the system will result in it being more adaptable to the impacts of climate change; with benefits from replacement of abstractions identified as potentially unsustainable for meeting WFD or protected area obligations and greater flexibility to respond to future sustainability reductions.

Carbon emissions are associated with the construction and operation of schemes but there is significant scope to decarbonise especially through use of renewable energy sources at a scheme and network level. Also potential for benefits from linking carbon sequestration, biodiversity and water quality benefits from catchment management, including land use initiatives.

The SEA and AA embeds environmental considerations into the plan making process and sets a framework for identifying mitigation and monitoring so that these can be part of decision-making and can inform option design and costing as schemes are developed and studied further prior to consenting and licencing. Further consideration of alternative options and variants to options is expected to be part of the process of taking options forward.

| Key | | | |
|---|---|---|---|
| Likely to have a positive effect | + | Likely to have a mixed positive and negative effect | +/- |
| Likely to have a negative effect | - | Likely to have mixed neutral and negative effect | 0/- |
| Effects are uncertain or not applicable | ? or N/A | Likely to have mixed neutral and positive effect | 0/+ |
| Likely to have a neutral effect | 0 | | |

## 4.5 AA Summary for the North West Region

As set out in section 6 of the SEA Environmental Report for the RWRP-NW, each option is subject to an objective assessment with uniform scoring criteria, based on best publicly available datasets. Options are scored using a seven-point Likert scale, from major adverse scoring -3 through to major beneficial 3, Lowest score against the European Sites (Biodiversity) sub criteria question based on assessing the option as having either no LSEs, LSEs that can be addressed with general/standard mitigation measures or LSEs that may require additional mitigation.

The SA Preferred Approaches for four of the Sas have -3 biodiversity scores, indicating there are Options with the potential for Likely Significant Effects (LSEs) on European Sites that cannot be ruled out without further detailed Site Level assessments. These Options have been assessed as -3 either because the mitigation may be complex.

There were -3 scores for the Preferred Approaches for SAA, SA-C, SAD and SAF. One for SAA (Cloghernagore Bog and Glenveagh National Park SAC, and Leannan River SAC), two for SA-C (Glenamoy Bog Complex SAC and Keel/Menaun Cliffs SAC), five for SAD (Lough Corrib SAC and SPA, Inishbofin SAC and SPA, Connemara Bog Complex SAC, and Twelve Bens/Garraun Complex SAC), and two for SAF (Lough Corrib SAC and Callow Bog SAC). All Likely Significant Effects (LSE) on

European Sites can be addressed by mitigation measures as set out in full in the NIS. No Adverse Effects on Site Integrity (AESI) are identified at Plan level.

There are Options with -1 and -2 scores across all of the Study Areas and as such there is the potential for Likely Significant Effects (LSEs). However, the potential for LSEs is generally construction related impacts and it is considered that these LSEs will not result in Adverse Effect on Site Integrity (AESI) if mitigation is in place.

## 4.6 AA In-Combination Summary

In summary, potential in-combination effects were identified at the North West Region's level for the following European sites:

- Donegal Bay SPA;
- Galway Bay Complex SAC;
- Inner Galway Bay SPA;
- Lough Carra/Mask Complex SAC;
- Lough Corrib SAC;
- Lough Gill SAC; and
- Lough Mask SPA.

However, potential in-combination effects (construction and/or operational) would only occur where options within each Study Area are progressed concurrently with one another or with projects, and in the absence of mitigation. With the implementation of mitigation as outlined in the NIS section 6.3 and Appendix E there will be no adverse effects on the integrity of the European sites, either alone or in-combination with other plans or projects as a result of progressing the Preferred Approach options associated with the RWRP-NW.

The conclusion of the NIS for the RWRP-NW is that, based on a plan-level assessment, and with implementation of appropriate mitigation for protecting European sites, there will be no adverse effects on the integrity of any European site(s), either alone or in-combination with other plans or projects as a result of progressing Preferred Approach options within the RWRP-NW.

## 4.7 WFD Summary for the North West Region

Application of estimated allowable abstraction constraints on new options means that only options that are expected to meet sustainability requirements are considered. Individual options within the Regional Preferred Approach have been assessed and are expected to be sustainable, based on Plan Level desk-based assessment, in terms of avoiding deterioration of WFD status or avoiding conflict with meeting WFD objectives.

All surface water abstractions proposed within Preferred Approaches are within the expected sustainable abstraction limits of 10% or 5% of Q95 for 'good' and 'high' WFD river waterbody status sources and 10% or 5% of Q50 for 'good' and 'high' WFD lake waterbody sources respectively. Abstraction impacts on groundwater bodies have been assessed through a separate technical study which considered cumulative effects on WFD ground water quantitative status. Based on the available information this concluded that there is no indication of cumulative impact or impact on WFD quantitative status of the groundwater bodies (Uisce Éireann, 2022).

However, cumulative effects also need to be considered, in terms of both sustainability for connected surface waterbodies and groundwater dependent habitats and protected areas. Further studies are identified in the Study Area Environmental Reviews for specific options where risks are identified.

## 4.8 Transboundary Effects for the Regional Preferred Approach

The potential for transboundary effects has been considered through identification of potential options with impacts through proximity or pathways to receptors. The types of options and their location, proximity and pathways for environmental effects have been considered through the process in relation to possible environmental effects for the Northern Ireland environment including any shared groundwater and river catchments and the marine environment.

One option has been identified as having the potential for impacts on the marine environment. This is a small scale desalination option in Study Area D (SAD-055). Impacts are expected to be relatively local and will be subject to further study and mitigation. The option is remote to the Northern Ireland water and no significant transboundary impacts are expected.

One WRZ option (SAE-050) involves the maintenance of an existing water transfer from Northern Ireland. This is not expected to result in a change to the current baseline as there will be no change to the existing supply arrangement; therefore, no transboundary effects to the baseline environment will occur.

Five options were identified as having proximity to Northern Ireland or the potential to impact receptors through hydrological pathways:

- SAA-217: Rationalisation of a scheme involving a new or upgraded pipeline and no increased abstraction;
- SAB-535: The rationalisation of [ ] with a new surface water abstraction from Assaroe lake, a regulated Heavily Modified Water Body (HMWB), including a new WTP (planning permission granted);
- SAB-173: Increase groundwater abstraction from existing source Ballyshannon East groundwater body (good status) with an upgrade to an existing WTP;
- SAB-081: New groundwater source from Marble Arch (good status) including a new WTP and pipeline; and
- SAB-538: Rationalisation scheme with an existing source (Newtown-Ballyconnell waterbody – good status) including upgrade of existing WTP, new pipeline and decommissioning of a WTP and abstraction.

The potential for significant effects on Water and Biodiversity objectives has been considered in terms of impacts on migration of fish, water quality and water resources. One option (SAB-535) involves a surface water abstraction but from a regulated water body and within abstraction sustainability limits, replacing another abstraction which would be decommissioned. Two options are groundwater abstractions, one a new abstraction and one an increase. Two options involve rationalisation, including decommissioning two existing abstractions. No likely significant impacts are identified for the operation of these schemes once constructed for water, biodiversity and landscape within Northern Ireland. Construction effects could potentially include noise, dust, traffic and water pollution risk but all are expected to be avoided through the application of standard good practice measures.

Although there are noted to be cultural heritage interests near to SAB-081 in the Lough Maclean Lower area and potential for impacts on riverine cultural heritage assets within Northern Ireland from options with potential hydrological effects, the risk of effects is however, considered to be low given the type and location of the proposed options and including consideration of the mitigation hierarchy, commitment to further detailed assessment and consultation. There are no schemes directly increasing surface water abstraction and given rationalisation infrastructure largely involves underground pipelines or small scale

above ground infrastructure, significant effects on setting of existing heritage assets are considered unlikely. Detailed siting studies will be required for all new infrastructure works and this will take account of local constraints and consider detailed setting impacts and mitigation.

# 5 Mitigation and Monitoring Plans

# 5 Mitigation and Monitoring Plans

The Mitigation and Monitoring Plans for the RWRP-NW are based on the plan outlined in section 8.3.8 of the Framework Plan and include three elements:

- Mitigation Measures including recommendations to incorporate into project development as options are taken forward through feasibility assessments, design, consenting and implementation;
- Environmental Action Plan identifying actions to be taken to integrate environmental requirements into process and related areas so that mitigation recommendations implemented; and
- Monitoring Plan identifying the targets and indicators to be measured or recorded to determine progress to meeting SEA objectives.

Commitment to implementing the Environmental Action Plan and the Monitoring Plan is provided in section 9 of the RWRP-NW which also sets out the wider context and process for monitoring and feedback to inform the implementation of the plan and future cycles of review and updating.

The approach to monitoring takes account of the EPA report '*The Tiering of Environmental Assessment – The influence of Strategic Environmental Assessment on Project-level Environmental Impact Assessment'* (EPA, 2021).

The Monitoring Plan is therefore provided in two parts; the first to address plan level monitoring and the second to provide a framework for project level monitoring. The Environmental Action Plan will also include a task to review and update the monitoring indicators and targets to allow new conditions to be taken into account and to ensure the plan is sufficiently flexible to take account of environmental issues arising and any unforeseen adverse impacts. The plan level monitoring covers combined and cumulative effects. The indicators include both those aimed at positive as well as covering potential negative effects and sources, frequency and responsibilities are identified.

## 5.1 Mitigation Measures

SEA options assessment assumes the implementation of standard mitigation measures, such as operation of water sources in line with regulatory requirements and the use of good construction practice. Examples of standard measures expected to be embedded in the design and development of infrastructure options are listed in Appendix D of the SEA report for RWRP-NW which identifies the mitigation measures that specifically respond to the significant environmental effects identified for each SEA topic in the RWRP-NW SEA SAs A-G Environmental Reviews. Standard and specific mitigation measures include recommendations for further environmental assessment work to be undertaken at project stage to further inform mitigation development, as well as mitigation to be implemented directly at project stage.

## 5.2 Environmental Action Plan

The Environmental Action Plan (EAP) set out in Table 5.1 summarises the actions and areas of further study identified in this Environmental Report. The EAP provides a basis for tracking recommendations from the SEA during the NWRP implementation.

The EAP provided in Table 5.1 focuses on two aspects, the first being the options and approach appraisal process and the second is how environmental considerations are integrated with other supporting areas.

**Table 5.1 Environmental Action Plan**

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| **Identifying the Need – Quantity, Quality and Reliability** | | | | | |
| **Quantity – Supply Demand Balance** | | | | | |
| **Abstractions and Supply Side Yield Assessments** | | | | | |
| **EAP1** | Options and Approach Development Process and Supporting Measures | **EAP1.1** Link investigation on supply risks to environmental resilience and avoiding damage to vulnerable habitats and protected areas; especially European designated sites, and threats to WFD water body objectives. | Environmental issues to be included in risk assessments for supply shortages or drinking water quality issues. | Study area scoping, risk assessments and prioritisation as part of the Regional Plan development and SEA 2022/2023 | Y completed for the RWRP-NW |
| **Demand Side Data Improvements: Planning for Future Developments** | | | | | |
| **EAP2** | Options and Approach Development Process and Supporting Measures | **EAP2.1** Reviews of WRZ configuration can consider potential environmental benefits from rationalisation opportunities to improve operational efficiency for waste and energy use and also reduce need for developing new sources. | Optimised WRZs/study areas | Study area scoping, risk assessments and prioritisation as part of the Regional Plan development and SEA 2021-2023 | Y completed for the RWRP-NW |
| | | **EAP2.2** Feed information on potential for water efficiency improvements to provide savings into future options identification | | | |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| **Linking SEA and Future Development of Schemes** | | | | | |
| **EAP3** | Options and Approach Development Process and Supporting Measures | **EAP3.1** Understanding causes of water quality issues for drinking water can support catchment management actions and wider environmental objectives. Link clean water element (RC3) on water quality compliance and ongoing programmes on improving drinking water quality to potential for long term solutions through to long term Catchment Management and Nature Based Solutions opportunities to reduce pollution in groundwater and surface waters and water treatment issues. | Source risk assessments and drinking water safety plans linked to the NWRP process. | Regional Plan SEA Environmental Reports 2021-2023 and Source risk assessments and drinking water safety plans ongoing – consider progress in Annual reviews | Y completed for the RWRP-NW<br><br>R project level assessments for water sources |
| | | **EAP3.2** Link Drinking Water Safety Plans to scoping of study areas, prioritisation and options development process including consideration of catchment management opportunities. | | Study area scoping, risk assessments and prioritisation and engagement with relevant stakeholder groups | R |
| | | **EAP3.3** Link ongoing projects with the supply demand assessments, scoping area studies and prioritisation for new investment. Consider as part of investment proposals for water treatment works – wider rationalisation opportunities with opportunities to reduce abstraction pressure on | Existing programmes and projects coordinated with the NWRP | Study area scoping, risk assessments, prioritisation and application of options development methodology | Y completed for the RWRP-NW |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| | | stressed sources and potential for improvements to residuals management (see also EAP 11.1) | | | |
| | | **EAP3.4** Value environmental and social benefits as well as costs in options development process (using environmental economics tools such as natural capital/ecosystems services and social value assessments) which can also value nature based solutions such as catchment management benefits. | Cost Benefit Analysis and MCA supported by environmental/social valuation as well as qualitative assessment | Take forward into project development<br>Include in next cycle of Regional Plans 2023 onwards | R |
| **Delivering Solutions – Approach** | | | | | |
| **Climate Change** | | | | | |
| **EAP4** | Options and Approach Development Process and Supporting Measures | **EAP4.1** Take account of effects of climate change effects on protected areas and WFD objectives as well as water supply. | Environmental resilience as part of the climate change risk assessment informing long-term solutions. | Regional Plan SEA Environmental Reports 2021-2023 and implementation of projects.<br>Catchment management to be considered in source risk assessment where appropriate - ongoing.<br>Progress to be | R |
| | | **EAP4.2** Results completed, and ongoing climate change studies should be used to inform future scoping of study areas/WRZs, and the types of solutions considered and prioritisation for investment. | | | R |
| | | **EAP4.3** Long term actions to improve water retention in upper catchments as well as | | | R |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary: Completed: Y In progress: P Recommended: R |
|---|---|---|---|---|---|
| | | catchment wide water quality initiatives could be considered as responses. Catchment management and nature based solution benefits linking improvements to water quality reducing treatment and opportunities for improving carbon sequestration in soils and through woodland planting (also linking to biodiversity objectives) | | considered in Annual review. | |
| | | **EAP4.4** Investigate opportunities to reduce carbon emissions in construction and operational phases reflecting importance of energy efficient and low carbon emission considerations in design and construction methods and considering opportunities for use of renewable energy sources. Ensure alignment with the Uisce Éireann Energy Efficiency Plan. | Identify how construction and operational carbon can be reduced across project development, construction and operation including potential for including renewable energy sources, such as solar panels, in project design | Progress to be considered in Annual review | R |
| **Lose less: Leakage Reduction** | | | | | |
| **EAP5** | Options and Approach Development Process | **EAP 5.1** Take forward studies and actions supporting meeting leakage targets and include consideration of relieving pressure on existing deficit areas and abstractions with sustainability issues and drought risks. | Develop information to support and improving leakage reduction | Progress to be considered in Annual review | R |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| **Use Less: Water Conservation** | | | | | |
| **EAP6** | Options and Approach Development Process and Supporting Measures | **EAP6.1** Link to raising awareness on environmental benefits of water conservation. | Improved awareness of benefits of conserving water (day to day and during extreme events) | Awareness campaigns<br>Progress to be considered in Annual review | R |
| | | **EAP6.2** Consider customer research on the water supply and demand management including water efficiency options development along with local community and stakeholder views. | | Customer consultation<br>Progress to be considered in Annual review | R |
| | | **EAP6.3** As data is developed to support understanding on water conservation, develop water conservation/water efficiency options to be considered as part of the Options Assessment Methodology for future plan cycles. | Monitoring and feedback stage 8 of the options assessment methodology | Progress to be considered in Annual review | R |
| **Supply Smarter: Capital Investment and Improved Operations** | | | | | |
| See **EAP3, 4 and 5** in relation to linking ongoing programmes and future water resource planning and **EAP10, 11 and 12** on implementing options and approach assessment methodology. | | | | | |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| **Drought Planning** | | | | | |
| **Information for Assessing Drought Risks** | | | | | |
| **EAP7** | Options and Approach Development Process | **EAP7.1** Identify the risks from potential drought actions for water sources designated for nature conservation value and supporting protected species - include lessons learned from the 2018 drought. | Drought -sources at risk identified | Drought management phased for each Regional Plan area 2023 onwards | R |
| **Environmental Mitigation of Drought Measures** | | | | | |
| **EAP8** | Options and Approach Development Process | **EAP8.1** Assess potential impacts of drought restrictions on customers, especially vulnerable groups, to identify both communication requirements and exemptions on restrictions relevant for each management area. | Drought management avoiding causing temporary or long-term impacts on protected habitats and species as well as minimising restrictions to customers | Drought management - environmental reviews and communications strategy Drought management:<br>• Social/environmental reviews<br>• Communication strategy<br>Environmental assessment of sources at risk phased for each | R |
| | | **EAP8.2** Develop drought communication plans and identify approaches to avoid impacts on vulnerable water users, for example, through exemptions – plan to provide customers with information early so that voluntary measures can be effective in avoiding the need for additional measures in most cases and taking forward the approaches from the 2018 summer drought and 2020 spring drought. | | | R |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| | | **EAP8.3** Prepare environmental assessments (including AA) for sensitive water sources at risk from drought management actions. These should be available in advance of measures being needed. They should include consultation on the assessments with environmental authorities and identify specific monitoring or mitigation measures. | | Region Plan area 2023 onwards | R |
| **Residuals Approach** | | | | | |
| **EAP9** | Options and Approach Development Process and Supporting Measures | **EAP9.1** Include consideration of residuals management in the options development process involving WTPs or rationalisation opportunities | Residuals approach linked to options development process | Regional Plan SEA Environmental Reports 2021-2023 and implementation of projects | Y |
| | | **EAP9.2** Apply the waste management hierarchy with any solid waste disposal limited to appropriate licensed sites. | | | R |
| **Delivering Solutions: Options and Approach Assessment Methodology** | | | | | |
| **Integration of Environmental and Sustainability Considerations** | | | | | |
| **EAP10** | Options and Approach Development Process | **EAP10.1** Study area scoping to include analysis of environmental baseline issues, risks, constraints and opportunities to inform identification of initial options as providing context for the option development process. | Context for identifying and assessment options is provided | Regional Plan SEA Environmental Reports 2021-2023 | Y |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| | | | | Risk assessments and prioritization | |
| | | **EAP10.2** Further development of the environmental and social impact valuation methodology as a tool for the approach appraisal process, based on ecosystems services assessment/natural capital assessment principles, can support cost benefit analysis and MCA methodologies and provide quantitative information supporting SEA in the future. | Cost Benefit Analysis and MCA supported by environmental valuation based on natural capital/ecosystems services approaches as well as qualitative assessment | Take forward into project development<br>Include in next cycle of Regional Plans 2023 onwards | R<br>R |
| | | **EAP10.3** Comparison of combinations of options (or approach) should include assessment of cumulative effects for each study area (groups of WRZs) and be considered in determining the best value approach. Justification for the approach selected will need to be provided. | Best environmental solutions considered in selection of preferred solutions with mitigation built into design and costing. Opportunities for enhancement to contribute to objectives to be considered. | Regional Plan SEA Environmental Reports 2021-2023<br>Consider in Annual Review | Y<br>R to be taken toward to project level |
| **Transboundary Issues** | | | | | |
| **EAP11** | Options and Approach Development Process | **EAP11.1** Ensure potential for transboundary impacts are considered during options assessment and early consultation is undertaken to inform the assessment process. | Transboundary effects avoided. | Regional Plans SEA Environmental Reports 2021-2023<br>Consider in Annual review | Y<br>R |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| **Delivering Sustainable Solutions** | | | | | |
| **EAP12** | Options and Approach Development Process | **EAP12.1** Link the options development information and SEA mitigation recommendations into the initial studies and designs for selected project level schemes so that assumptions and mitigation recommendations are taken forward.<br>Develop a monitoring information template to capture key environmental information at key project development stages recording:<br>• Project design/implementation stage and environmental assessment process applied and link to SEA and NIS recommendations<br>• Data review and update at each key stage including reviewing current and draft policies and plans<br>Report on Monitoring Plan indicators<br>Identify potential for cumulative effects | Template developed and applied<br>Preferred approach options taken to project stage subject to initial environmental review linking to information from the options development and assessment process and to good practice procedures and Monitoring Plan criteria. | Monitoring Plan/scheme development - progress to be considered in Annual review | P |
| | | **EAP12.2** Development of procedures to integrate good practice approaches for avoiding/mitigating environmental impacts and identifying | | | P |

| Ref no. | Focus | Recommended Action for Mitigation / Further Study | Target | Monitoring (Timescale) | North West Region Progress summary:<br>Completed: Y<br>In progress: P<br>Recommended: R |
|---|---|---|---|---|---|
| | | enhancement opportunities in future scheme design and development. | | | |
| | | **EAP12.3** Ensure environmental mitigation and study requirements are covered in option costing and risk aspects are taken into account in scheme development. | | | P |
| | | **EAP12.4** Review monitoring framework and update to ensure environmental mitigation and study requirements are covered in option costing and risk aspects are taken into account in scheme development. | | | R |

## 5.3 Monitoring Plan

The Monitoring Plan is a requirement under the SEA regulations to provide a basis of identifying significant environmental effects during the implementation of the Plan. This is required to review the predicted impacts of the Regional Plan, and the adequacy of the mitigation measures recommended so that additional mitigation can be applied if required. Performance against the monitoring plan targets will also inform the next cycle Plan and SEA process.

The Public Water Supply in Ireland is a live asset base and is subject to continuous change. Similarly, the development of Preferred Approaches, as part of the Regional Plans, is influenced by evolving scientific data, understanding, and policy change in relation to the natural environment.

Uisce Éireann must be able to continuously adapt to these changes, which may be minor or material in nature. The Framework Plan setting out the overarching approach committed to undertaking continuous monitoring and ensuring that there is a feedback mechanism within the Framework Plan and Regional Plans. Given the scale of the assessments required and work to be undertaken, the first iteration of the NWRP consists of a Framework Plan and four Regional Plans. Once completed, the NWRP will be treated as a unified plan, and the regional boundaries established for the purposes of the development of the regional plans will have no on-going application. All Preferred Approaches identified in the NWRP will be prioritised on a national basis through Uisce Éireann's regulated investment cycles. The intention is to review the NWRP every five years, and this continuous monitoring process will ensure that material amendments are assessed for significant impacts on the environment.

The Monitoring Plan is provided in two parts:

- Monitoring Plan – Part 1: North West plan level monitoring (Table 5.2 – purple table); and
- Monitoring Plan - Part 2: Framework for project monitoring (Table 5.3 – orange table).

The Monitoring Plan takes account of comments from the consultation process and has been designed to provide a basis for the identification and continuous review of the positive, negative and cumulative impacts of the RWRP-NW.

### 5.3.1 Regional Monitoring Plan

The Monitoring Plan for the RWRP-NW SEA takes forward and builds on the monitoring adopted for the Framework Plan.

The Monitoring Plan covers the integration of environmental and sustainability considerations throughout implementation of the Regional Plan and the options development methodology. It also provides a framework for future long-term monitoring. In most cases, more detailed baseline collection and project studies will be required to confirm the significance of environmental effects and ensure appropriate mitigation is included as part of the individual scheme designs.

In certain circumstances, monitoring and feedback will identify the need for a variation of the Regional Plan. Where a variation is required, Uisce Éireann will screen the change against SEA and AA requirements in accordance with its legal obligations.

As part of the screening, Uisce Éireann will consult with the EPA and relevant Government Departments as required by Article 9(5) of the SEA Regulations. If, following screening, Uisce Éireann determines that the change is likely to have significant effects on the environment, it will carry out a SEA before adopting the change. Uisce Éireann will also carry out an AA if it determines, following screening, that the change is not directly connected with or necessary to the management of any European site and Uisce Éireann cannot, on the basis of objective scientific information, exclude that the change,

individually or in combination with other plans and projects, will have a significant effect on European sites, as required by Article 42(6) of the EC (Birds and Natural Habitats Regulations) 2011 (SI 477/2011)(as amended).

In recognition of the importance of multi-stakeholder engagement and collaboration in managing shared natural resources, Uisce Éireann are members of an expert group chaired by the Department of Housing Local Government and Heritage (DHLGH) to make recommendations to the Minister regarding a new approach to drinking water source protection as part of the transposition of the recast Drinking Water Directive. Other members of the group include the County and City Management Association (CCMA), the Local Authority Waters Programme (LAWPRO), the National Federation of Group Water Schemes (NFGWS), the Environmental Protection Agency (EPA), Geological Survey of Ireland (GSI), the Health Service Executive, the Department of Agriculture, Food and the Marine (DAFM), the Irish National Accreditation Board (INAB), the National Standards Authority of Ireland (NSAI) and the Commission for Regulation of Utilities (CRU). Implementation of source protection measures will require further collaboration with several stakeholders including, riparian owners, industry groups, the agricultural and environmental sector forestry and Teagasc. These measures will complement existing ongoing works for example the works carried out by Teagasc under the Agricultural Sustainability and Advisory Programme (ASSAP) which looks to improve water quality through working with farmers.

**Table 5.2 Regional Monitoring Plan: Indicators and Targets - North West Regional Plan Level Monitoring**

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| **Reporting timescale: included in Regional Plan and SEA (developed during 2022-23)** | | | | |
| All topics and objectives | **Regional All Topics 1**<br>Application of the options and approach assessment process, as set out in the Framework Plan, to integrate environmental, social and sustainability SEA objectives alongside other criteria in the preparation in the Regional Plans<br>**Regional All Topics 2**<br>Application of methodology for SEA and AA in the comparison and selection of Preferred Approaches for the preparation in the Regional Plans<br>**Regional All Topics 3**<br>Environmental and social valuation methodology developed further as a tool using natural capital /ecosystems services assessment<br>**Regional All Topics 4**<br>Transparent documentation of the appraisal and selection process | • Target 1 Options and plan approach to find sustainable solutions that contribute to environmental objectives | Uisce Éireann | Uisce Éireann |
| All topics and objectives | **Regional All Topics 5**<br>Iterative approach to the identification of appropriate options meeting objectives, and mitigation measures incorporated into project costs or risks, as part of the development of options for the Regional Plans and as a basis for future project costing.<br>**Regional All Topics 6** | • Target 2 Process implemented for iterative options assessment through identification, option design development stages and identification of mitigation measures and input to project costing | Uisce Éireann | Uisce Éireann |

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| | Identification of process for undertaking the relevant options studies and feeding back where potential significant environmental effects are identified including engagement with relevant stakeholders. | • Target 3 Option development for Preferred Approach options built on the SEA and AA work and incorporating feedback to the next Framework Plan and adequate comparison with alternatives at key points | | |
| **Reporting timescale: to be phased for RWRP-NW implementation 2023 onwards** | | | | |
| All topics and objectives | **Regional All Topics 7**<br>Environmental assessment, including AA, for designated international and national sites potentially affected by drought measures<br>**Regional All Topics 8**<br>Communication plan for drought/freeze-thaw period actions | • Target 4 Source-specific environmental assessment and mitigation and monitoring measures agreed, avoiding long-term damage on designated sites and associated species from drought measures | Uisce Éireann | Uisce Éireann |
| **Reporting timescale: annual reporting for RWRP-NW from 2023 onwards** | | | | |
| All topics and objectives | **Regional All Topics 9**<br>1. Monitoring plan data collection implemented (see below for each topic) set up to support baseline information for the next Regional Plan, project level feedback, identification of cumulative effects, and providing the basis for monitoring future implementation<br>2. Review of the monitoring plan and update where needed to capture issues or unforeseen effects. | • Target 5 Monitoring plan data compiled for feeding into future Framework Plans and the Stage 8 Monitoring and Feedback process. | Uisce Éireann | Uisce Éireann |

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| Population, economy, tourism and recreation, and human health | **Regional Population and Health**<br>1. Level of Service achieved<br>2. Frequency and duration of droughts needing management actions<br>3. Number of days/hours when water supply to people is disrupted due to drought, freeze-thaw or other service/infrastructure issues<br>4. Awareness raising programmes on water conservation<br>5. Reduced water supply restrictions due to water quality risks | • Target 6 Maintained or improved access to reliable and safe drinking water meeting forecast demand<br>• Target 7 Reduced number of drought actions affecting supply<br>• Target 8 Raised public awareness of actions to take for water conservation with reduced household /non domestic per customer demand | Uisce Éireann | Uisce Éireann |
| | **Regional Recreation and Tourism**<br>1. Level of service accommodating seasonal tourism demand | See Target 6 | Uisce Éireann | Uisce Éireann |
| Water environment | **Regional Water Environment**<br>1. Number of investigations and area covered by catchment management schemes and number of nature based solutions put in place<br>2. Additional water quality and biological monitoring/data collection in addition to WFD monitoring data where needed<br>3. Number of demand management initiatives supporting water savings<br>4. Compliance with WSSP Strategy Objective to manage water supplies in an efficient and economic manner (WS3). Key indicator – | • Target 9 Improved environmental resilience and water quality within water resource use catchments<br>• Target 10 Contribution to restoration to “good” status of waters currently at “moderate”, “poor” or “bad” status (WFD objective) | Uisce Éireann and EPA | Uisce Éireann |

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| | Leakage expressed as a percentage of treated water put into the distribution system<br>5. Number of waterbody sources where WFD good status is not reached due to abstraction pressure<br>6. Number of waterbody sources benefiting from reduced abstraction or cessation in abstraction | • Target 11 Achieve leakage targets identified for the South East | | |
| | **Regional Flooding**<br>1. Number of outages due to flood events or power or outages | • Target 12 No loss of supply due to flood events | Uisce Éireann and EPA | Uisce Éireann |
| Biodiversity, flora and fauna | **Regional Biodiversity**<br>1. Identification of existing abstractions or drinking water treatment residuals with risks to international or national designations<br>2. Aquatic ecology - number of existing abstractions identified by Uisce Éireann as potentially unsustainable in dry weather conditions where abstractions are reduced or abandoned<br>3. Number of waterbodies with improvements benefiting raw water quality/aquatic ecology due reduced or cessation of abstractions, catchment management, nature based solutions, river enhancement, migration barrier removal<br>4. Number of waterbodies sources where WFD good status is not reached due to abstraction pressure<br>5. Regional information on net loss/gain of habitats collated from proposed and undertaken projects | • Target 13 No adverse effects on integrity of European, national or regional level designations and, where feasible, seek to contribute to achieving favourable conservation status<br>• Target 14 Improvement to aquatic biodiversity of existing waterbody sources<br>• Target 15 region wide no net loss of high value habitats and improved habitat connectivity (OSI National Land Cover data can be used as a basis for determining no net loss) | NPWS, OSI, EPA and Uisce Éireann | Uisce Éireann |

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| Material assets | **Regional Material Assets**<br>1. Tonnes of residuals reused or recycled across region per year<br>2. Tonnes of waste disposed of to landfill for the region per year | • Target 16 No drinking water treatment residuals sent to landfill and no reduced abstraction to other users due to new schemes | Uisce Éireann, EPA and Local Authorities | Uisce Éireann |
| Landscape and visual amenity | **Regional Landscape and Visual**<br>1. Total working area of pipelines through protected landscapes, outside protected areas, and urban areas<br>2. Development of protected landscape strategies to guide work in important and valued landscapes | • Target 17 Improvement or no net change in landscape quality | Uisce Éireann | Uisce Éireann |
| Climate change | **Regional Climate Change Mitigation**<br>1. Percentage of energy supply from renewable sources and energy efficient improvement for the region.<br>2. Carbon footprint (total tonnes) per year, predicted over plan period, lifetime of schemes of water resource options (tonnes$CO_2$equiv)<br>3. Operational Carbon Intensity kgs$CO_2$equic/ML overall achieved for the region each year<br>4. Total carbon value from any carbon offsetting schemes linked to the Plan | Decarbonisation through the following:<br>• Target 18 Increased contribution of renewable/low carbon energy sources for existing and new schemes including project-based sources.<br>• Target 19 Minimised the annual carbon emissions from operation and reduced carbon intensity of water supply<br>• Target 20 Supported carbon offsetting schemes, including upper catchment schemes linked | Uisce Éireann | Uisce Éireann |

| SEA topics | SEA indicators | SEA targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring Regional Plan. Monitoring results are to be fed back into the reporting for the Regional Plan and SEAs** | | | | |
| | | to biodiversity and water and population wellbeing (recreational) objectives | | |
| | **Regional Climate Change Adaptation**<br>1. Frequency of drought (including freeze thaw) orders requiring change to normal abstractions/compensation releases<br>2. Number of outages due to weather events and power loss | • Target 21 Improved resilience of environment to climate change | Uisce Éireann | Uisce Éireann |
| Cultural heritage | See project level monitoring | N/A | N/A | N/A |
| Geology and soils | See project level monitoring | N/A | N/A | N/A |

### 5.3.2 Project Level Monitoring Framework

The Monitoring Plan - Part 2 Framework for the project monitoring is set out below in Table 5.3. This is intended to provide a framework for project level monitoring which can be considered as part of the plan feedback and review process as the individual projects are developed and implemented.

**Table 5.3 Project Level Monitoring Framework: Indicators and Targets - Project Level Framework**

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| **For monitoring individual projects. Monitoring results on individual projects also to be fed back to reporting for the Regional Plan and SEAs. Note that not all indicators will be relevant for all types of projects** | | | | |
| **Reporting timescale: across each project develop over plan implementation period** | | | | |
| All topics and objectives | **Project All Topics 1**<br>Environmental screening applied for all projects to check appropriate level of study and assessment to address risks of environmental impacts | • Project Target 1 Project development to find sustainable | Uisce Éireann | Uisce Éireann |

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| | but also opportunities for enhancements or reduction of and carbon emissions in construction and operation and application of waste hierarchy, including taking account of recommendations from the SEA and NIS. Include engagement with stakeholders. Assessments will take account of relevant and available data sources including those recommended by the EPA, NPWS and DECC[2] . | solutions that contribute to environmental objectives | | |
| All topics and objectives | **Project All Topics 2**<br>Application of project level monitoring and feedback to identify potential significant environmental effects are identified at each stage of project development and implementation process and post project evaluation or audit. | • Project Target 2 Process implemented for project level development feeding back information for project and regional level review | Uisce Éireann | Uisce Éireann |
| Population, economy, tourism and recreation, and human health | **Project Population and Health**<br>a) Number of complaints received relating to construction works<br>b) Duration of works with traffic control/disruption<br>c) Noise levels at receptors within recommended limits during construction and operation and mitigation provided where assessment indicated levels are exceeded<br>d) Dust management plan applied for construction | • Project Target 3 Minimise extent and period of disruption to traffic related to construction<br>• Project Target 4 Minimise access restrictions and noise disturbance to people from construction and operation of schemes | Uisce Éireann (project level information) | Uisce Éireann |
| | **Project Recreation**<br>a) Number of footpath/access closures/diversions<br>b) Length of public access paths created compared to loss<br>c) Area of any amenity improvement provided, or amenity area lost (ha) | • Project Target 5 No net loss of important recreational amenity, improved access and support for new recreational amenity | Uisce Éireann (project level information) | Uisce Éireann |

[2] DECC recommended, in responses to the draft RWRP-SW consultation, additional sources which would need to be considered at project level including: Geotechnical Database Resources, Geo Hazards, Marine and Coastal Unit and Coastal Vulnerability Index GSIs Groundwater Protection Scheme mapping,'GW Climate' maps and data, County Geological Sites (available on GSI's Map Viewer), National Geodatabase, National Landslide database and Landslide Susceptibility map, Historic Site project datasets, GSI's Coastal Vulnerability Index study.

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| Water environment | **Project Water Environment**<br>a) Additional water quality and biological monitoring/data collection in to supplement WFD monitoring data where needed<br>b) Sustainability of abstraction for surface or ground water<br>c) Inclusion of supporting measures to safeguard or improve raw water quality where appropriate<br>d) Design measures to contribute to remove or contribute to removing barriers to fish migration where appropriate and within Uisce Éireann responsibility.<br>e) Improvement to river morphology/aquatic ecology/water quality<br>f) Consult INFOMAR and other GSI Marine and Coastal Unit datasets to identify constraints.<br>g) Consult Waterways Ireland as the navigation authority regarding canals and waterways to identify constraints. | • Project Target 6 Avoids "No deterioration" in status of waters (WFD objective)<br>• Project Target 7 Contributes to restoration to "good" status of waters currently at "moderate", "poor" or "bad" status and WFD objectives | Uisce Éireann and EPA (project level information) | Uisce Éireann |
| | **Project Flooding**<br>a) Area of flood plain/flood storage loss and compensation provided<br>b) Flood risk vulnerability to water supply change due to project<br>c) Any significant increase in flood risk to property or assets due to project<br>d) Consult the GW Climate project (follow on from GW Flood project) data in relation to Flood Risk Assessment<br>e) Consult the Geological Survey Ireland's Groundwater Protection Schemes to identify constraints<br>f) Consult GSI's Coastal Vulnerability Index study to identify constraints related to the adverse impacts of sea-level rise on the Irish coast | • Project Target 8 No net flood plain area lost as a result of the plan, and where possible increase functioning flood plain<br>• Project Target 9 Reduced flood risk or vulnerability to supply | Uisce Éireann (project level information) and EPA | Uisce Éireann |

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| Biodiversity, flora and fauna | **Project Biodiversity**<br>a) For designated nature conservation sites potentially affected by water resource options:<br>b) Area of each designated site/type affected and the likely impact<br>c) Area of site with a predicted or recorded change in condition (positive or negative)<br>d) Plan for/measurement of enhancement - area/length of habitat loss or affected vs restored - (for example use of biodiversity metrics to compare before and after habitats area and condition)<br>e) Improvement in habitat connectivity or loss of connectivity<br>f) Improvement to aquatic habitats and fish migration where relevant<br>g) Removal of residuals discharge to waterbodies<br>h) Invasive species risk assessment<br>i) Identification of potential for applying nature-based solutions or catchment management including opportunities for biodiversity enhancement | • Project Target 10 No adverse effects on integrity of European, national or regional level designations and, where feasible, seek to contribute to achieving favourable conservation status<br>• Project Target 11 No net loss of valued habitats or habitat connectivity as a result of the works and, where possible, demonstrate habitat enhancement/creation<br>• Project Target 12 reduced invasive species risk<br>• Project Target 13 Implementation of nature-based solutions or enhancement linked to catchment management | NPWS, EPA and Uisce Éireann (including project level information) | Uisce Éireann |
| Material assets | **Project Material Assets**<br>a) Area of permanent loss of greenfield land, including agricultural, forestry or other land uses or area returned to greenfield, habitat or community use.<br>b) Materials and waste management plans used on all new schemes and including decommissioning of infrastructure<br>c) Sustainability assessment including consideration of non Uisce Éireann abstractions<br>d) Residuals management for water treatment plant upgrades and new | • Project Target 14 Minimise permanent loss of greenfield land, including agricultural, forestry or other land uses<br>• Project Target 15 Minimise material consumption and waste during construction and operation of schemes | Uisce Éireann, EPA and Local Authorities (including project level information) | Uisce Éireann |

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| | plant designed in accordance with Uisce Éireann's Residuals Management Strategy | • Project Target 16 Increase investment in existing and new water treatment and wastewater management infrastructure<br>• Project Target 17 No drinking water treatment residuals sent to landfill and no reduced abstraction to other users due to new schemes | | |
| Landscape and visual amenity | **Project Landscape and Visual**<br>a) Total working area of pipelines through protected landscapes, outside protected areas, and urban areas<br>b) Development of protected landscape strategies to guide work in important and valued landscapes<br>c) Land use/landscape features re-established for projects over an appropriate period – areas/km successfully restored to meet requirements | • Project Target 18 Improvement or no net change in landscape quality through landscape design and mitigation and enhancement | Uisce Éireann (including project level information) | Uisce Éireann |
| Climate change | **Project Climate Change Mitigation**<br>a) Carbon footprint (total tonnes) of construction and lifetime carbon tonnes including operational carbon calculated for the project<br>b) Carbon intensity calculated of the project (kgs$CO_2$equic/ML) based on lifetime carbon<br>c) Inclusion of renewable energy sources as part of the project<br>d) Decarbonisation plan to inform design, construction and operation<br>e) Carbon offsetting opportunities through carbon sequestration such as woodland planting or peat bog restoration. | Decarbonisation through the following:<br>• Project Target 19 Benchmarked reduced carbon emissions from construction<br>• Project Target 20 Increased contribution of renewable/low carbon energy sources<br>• Project Target 21 Minimise the annual carbon emissions from | Uisce Éireann (including project level information) | Uisce Éireann |

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| | | operation and Improve energy efficiency of water services<br>• Project Target 22 Scheme related carbon offsetting- such as upper catchment management initiative/collaboration linked to biodiversity and water and population wellbeing (recreational) objectives | | |
| | **Project Climate Change Adaptation**<br>a) Flood, freeze thaw and drought risk vulnerability assessment including power outages to inform scheme design. | • Project Target 23 Improved project resilience to climate change effects | Uisce Éireann | Uisce Éireann |
| Cultural heritage | **Project Cultural Heritage**<br>a) Number of designated sites or other important archaeological or architectural heritage sites and/or their settings adversely affected by water resource options including through hydrological change from abstraction<br>b) Provision of access to/ or recording of assets and communication/interpretation of interest features where appropriate | • Project Target 24 No unauthorised physical damage or alteration of the context of cultural heritage features due to Uisce Éireann activities<br>• Project Target 25 All schemes developed applying best practice approaches for consultation, desk study and investigation and mitigation for cultural heritage and archaeological interest | Uisce Éireann (including project level information)<br>Archaeological Survey of Ireland Sites and Monuments Record | Uisce Éireann |
| Geology and soils | **Project Geology and Soils**<br>a) Area of geological site affected by water resource options<br>b) Total area of soil removed or reused on schemes | • Project Target 26 No loss of statutory and non-statutory geological sites of interest | Uisce Éireann (including | Uisce Éireann |

| SEA topics | SEA Project level indicators | SEA Project targets | Source data | Responsibility |
|---|---|---|---|---|
| | c) Area of contaminated land restored, or soils removed<br>d) Area within catchment management initiative where soil is to be improved for example by reducing soil loss/erosion, reducing artificial fertiliser use, increasing soil carbon and increasing native woodland planting<br>e) Consult the National Geodatabase, the Geological Survey Ireland's (GSI) Groundwater and Geothermal Unit, the National Landslide Database and Landslide Susceptibility Map, and the Historic Mine Site project datasets to identify constraints | • Project Target 27 Minimal disturbance or loss of high-quality land as a result of the Framework Work and minimal net loss of soil resources<br>• Project Target 28 Catchment areas where raw water quality issues have been improved though soil and land management changes | project level information) | |

# 6 Next Steps

# 6 Next Steps

SEA requirements and consultation comments have been taken into account in finalising the Regional Plan. Consultation responses and how the SEA has been taken into account are reported in this SEA Statement published with the final Regional Plan. Responses to the consultation are also reported in the Post Consultation Report. In addition, the SEA Environmental Report has been updated to take account of amendments to the RWRP-NW and comments received through the consultation process.

This SEA Statement is published with the final adopted Regional Plan Report and the updated SEA Environmental report (including the Study Area Environmental Review appendices), along with the AA determination and all the documents are available online at the following website: https://www.water.ie/projects/strategic-plans/national-water-resources/rwrp/

# Glossary and Acronyms

| Term | Definition |
|---|---|
| Abstraction | The process of taking water from any source, including rivers and aquifers |
| Appropriate Assessment (AA) | An assessment required under the Habitats Directive when a plan or project has the potential to affect a European site |
| Aquifer | A water-bearing rock that groundwater can be extracted from |
| Baseline condition | The state of the environment in the absence of the NWRP Framework |
| Catchment | The total area of land that drains into a watercourse |
| CFRAM | Catchment Flood Risk Assessment and Management |
| CRU | Commission for Regulation of Utilities |
| CSO | Central Statistics Office |
| Cumulative effect | The combined effects from several plans, programmes or policies |
| Deficit | The amount of water shortage between supply and demand |
| Desalination | The process of removing salt from seawater |
| DHPLG | Department for Housing, Planning, and Local Government |
| EBSD | Economics of Balancing Supply and Demand |
| EC | European Commission |
| Effluent | Liquid waste or sewage discharged into a river or the sea |
| Environmental Report (SEA Environmental Report) | The SEA report that documents the effects of measures outlined in a plan |
| EPA | Environmental Protection Agency |
| GIS | Geographical Information System |
| Gross Domestic Product (GDP) | Gross Domestic Product is a monetary measure of the market value of all goods and services produced in a period (in this case annually) |
| GSI | Geological Survey Ireland |
| IGH | Irish Geological Heritage |
| Invasive species | Non-native species that out-compete native species to the detriment of an ecosystem |
| LSEs | Likely Significant Effects |

| Term | Definition |
|---|---|
| MCA | Multi-Criteria Analysis |
| Mitigation | The implementation of measures designed to reduce the predicted effects of a plan or project on the environment |
| Ml/d | Mega litres per day |
| NAF | National Adaptation Framework |
| National Climate Change Adaptation Framework | National Climate Change Adaptation Framework |
| National Water Resources Plan (NWRP) | A plan developed by water companies to deliver a long-term provision of water to accommodate the impacts of population growth, drought, their environmental obligations and climate change uncertainty in order to balance supply and demand for water. These are produced cyclically, at least every five years, with a minimum 25-year planning horizon. |
| NHA | National Heritage Area |
| Natura Impact Statement (NIS) | The statement prepared following AA of European sites as required under the Habitats Directive, which presents information on the assessment and the process of collating data on a project and its potential significant impacts on European sites. |
| NIAH | National Inventory of Architectural Heritage |
| NPV | Net Present Value |
| NPWS | National Parks and Wildlife Service |
| OPW | Office of Public Works |
| PCC | Per Capita Consumption |
| pNHA | Proposed National Heritage Area |
| Ramsar site | An international designation for an important wetland site under the Ramsar Convention |
| RSES | Regional Spatial and Economic Strategies |
| River Basin District | The area of land and sea, made up of one or more neighbouring river basins together with their associated groundwater and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins |
| River Basin Management Plan (RBMP) | A key element to the WFD, taking an integrated approach to the protection, improvement and sustainable use of the water environment; including all surface water and groundwater bodies |
| RMP | Record of Monuments and Places |

| Term | Definition |
|---|---|
| RPS | Record of Protected Structures |
| Special Area of Conservation (SAC) | An international designation for habitats and/or species under the Habitats Directive |
| Special Protection Area (SPA) | A site of international importance for birds, designated as required by the Birds Directive |
| Strategic Environmental Assessment (SEA) Objectives | Methodological measures against which the effects of the NWRP can be tested |
| Supply Demand Balance (SDB) | The SDB is the deficit or surplus between the supply and demand both now and over the 25-year horizon |
| UKWIR | UK Water Industry Research |
| UN | United Nations |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| WFD | Water Framework Directive |
| Water resource management | The management of water sources and demands to minimise any deficit between the two |
| Water Resource Management Plan | A plan designed to identify water deficits and outline measures that can reduce the deficit |
| Water Resource Zone (WRZ) | The largest possible zone in which all resources, including external transfers, can be shared and all customers experience a similar risk of supply failure from a resource shortfall |
| WSSP | Water Supply Strategic Plan |
| Water Supply Zone | The area supplied by an individual water supply scheme. This typically includes one or more abstractions (from a river, lake or groundwater), a treatment plant, storage in reservoirs and the distribution pipe network to deliver the water to each household or business. |
| WTP | Water Treatment Plant |
| WwTP(s) | Wastewater Treatment Plant |

# References

Central Statistics Office (CSO). 2016. E2014: Population Density and Area Size 2016 by Towns by Size, Census Year and Statistic. [Online]. [Accessed: 06/01/20]. Available from: https://www.cso.ie/en/releasesandpublications/ep/p-cp2tc/cp2pdm/pd/

Department of Public Expenditure and Reform. 2019. *Public Spending. Code A Guide to Evaluating, Planning and Managing Current Expenditure.* [Online]. [Accessed 05.12.2020]. Available from file:///C:/Users/jensensa1/Downloads/43555_b026e01682a24a4fb4db411bc15c3df3.pdf

Environmental Protection Agency (EPA). 2020a. *State of the Environment report*. *Ireland's Environment – An Integrated Assessment 2020*. [Online]. [Accessed: 21/12/20]. Available from: https://www.epa.ie/our-services/monitoring--assessment/assessment/irelands-environment/state-of-environment-report-/

Environmental Protection Agency (EPA). 2020b. *Good Practice Guidance on Cumulative Effects Assessment in Strategic Environmental Assessment*. [Online]. [Accessed: 21/12/20]. Available from: https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/EPA-Good-Practice-Guidelines-SEA.pdf

Environmental Protection Agency (EPA). 2021. *Tiering of Environmental Assessment – The Influence of Strategic Environmental Assessment on Project-level Environmental Impact.* [Online]. [Accessed: 23/03/21]. Available from: https://www.epa.ie/publications/research/socio-economics/Research_Report_391.pdf

Uisce Éireann. 2022. *Technical Note: Groundwater Summary Report – Potential impacts on GW Bodies due to Uisce Éireann Groundwater Abstraction Scheme.*

Uisce Éireann. 2023. *RWRP-NW Post Consultation Report*. [Online]. Available from: https://www.water.ie/projects/strategic-plans/national-water-resources/rwrp/