

May 2024

Report

Draft Water Services Strategic Plan 2050

Strategic Environmental Assessment
(SEA): Environmental Report
Non-technical Summary



Safeguarding our water for our future

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NTS 1 Introduction and Background

NTS 1.1 Purpose of this document

This is the Non-technical Summary (NTS) of the Strategic Environmental Assessment (SEA) Environment Report of the Draft Water Services Strategic 2050 Plan (WSSP 2050). This report has been prepared on behalf of Uisce Éireann, having regard to the SEA Directive (2001/42/EC) and its provisions that are transposed into Irish law by European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004 as amended in 2011) (SEA regulations).

The SEA Regulations have been established as applicable to the WSSP 2050 Plan through SEA screening. This was published with the SEA Scoping report as part of consultation with the statutory environmental authorities on the approach to the assessment.

In addition to compliance with the SEA Directive, the preparation and implementation of the WSSP 2050 must comply with the requirements of the Birds Directive (Council Directive 2009/147/EC) and the Habitats Directive (Council Directive 92/43/EEC Birds Directive and European Union (EU) Habitats Directive. The Natura Impact Statement (NIS), which fully informs the AA undertaken by Uisce Éireann, is published alongside the Draft WSSP 2050 and the SEA Environmental Report.

NTS 1.2 What is WSSP 2050?

The WSSP 2050 is a long-term strategic plan which is required to be prepared under the Water Services Act. It sets out objectives and how Uisce Éireann aim to achieve them in the context of the significant challenges likely faced over the next 25 years. The plan outlines Uisce Éireann’s strategic direction and the actions that will be implemented to ensure sustainable public water services for Ireland. Once approved, it will replace the existing Water Services Strategic Plan from 2015, which covered the period from 2015 to 2040.

NTS 1.3 Strategic Environmental Assessment

The aim is that the SEA process should influence and improve the plan. The process involves assessing the likely significant effects on the environment through implementing the plan and considering reasonable alternatives for achieving plan objectives. Combined and cumulative effects of the plan as a whole, and with other plans and programmes, are also included as part of the assessment. The SEA Regulations set out specific requirements for consultation with Environmental Authorities and transboundary environmental authorities at the scoping stage, and for public consultation on the Draft WSSP 2050 and SEA Environmental Report. The SEA Environmental Report and consultation responses are also required to be taken into account in finalisation of the WSSP 2050 and the SEA monitoring plan implemented.

The SEA is undertaken as a four-stage process (detailed in Table NTS 1.1).

Table NTS 1.1 Stages of the SEA

Stage	Purpose and Requirements	Output
Stage 1: Screening	Prior to starting the SEA process, a plan or programme undergoes ‘screening’ to determine whether it requires SEA (also if SEA is to be undertaken on a voluntary basis).	SEA Screening Statement – Uisce Éireann (as the responsible authority) determined that SEA would be undertaken for the WSSP 2050 (see Appendix A of the Scoping Report).

Stage	Purpose and Requirements	Output
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
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 WSSP 2050 is carried out, including consideration of alternatives and determination of measures to mitigate and monitor residual effects.	SEA Environmental Report – this report. <div style="border: 2px solid red; border-radius: 15px; padding: 5px; text-align: center;">Current Stage in the SEA Process</div>
Stage 4: Consultation, Revision and Post-Adoption	Consultation with statutory consultees and the public. This may require changes to the WSSP 2050 in light of responses. Statement on how the SEA and consultation process has influenced the final WSSP 2050. The statement is required to include an environmental monitoring plan – this is intended to provide feedback on significant environmental effects. This will also aid any future review/revision of the WSSP 2050 and the SEA.	SEA Statement Implementation of the monitoring programme.

NTS 1.4 Development of the Draft WSSP alongside the environmental assessments

The first stage of the WSSP 2050 involved developing an Issues Paper which took account of aspects considered important for the SEA and Appropriate Assessment identified through the respective SEA and Appropriate Assessment screening stages. These were issued for consultation and the feedback has been used to inform further development of the WSSP 2050 and the environmental assessments. Iteration between the environmental assessments and the WSSP 2050 continued through the development of the Draft WSSP 2050 and will continue to the plan finalisation. Figure NTS 1.1 shows the integrated workstreams.

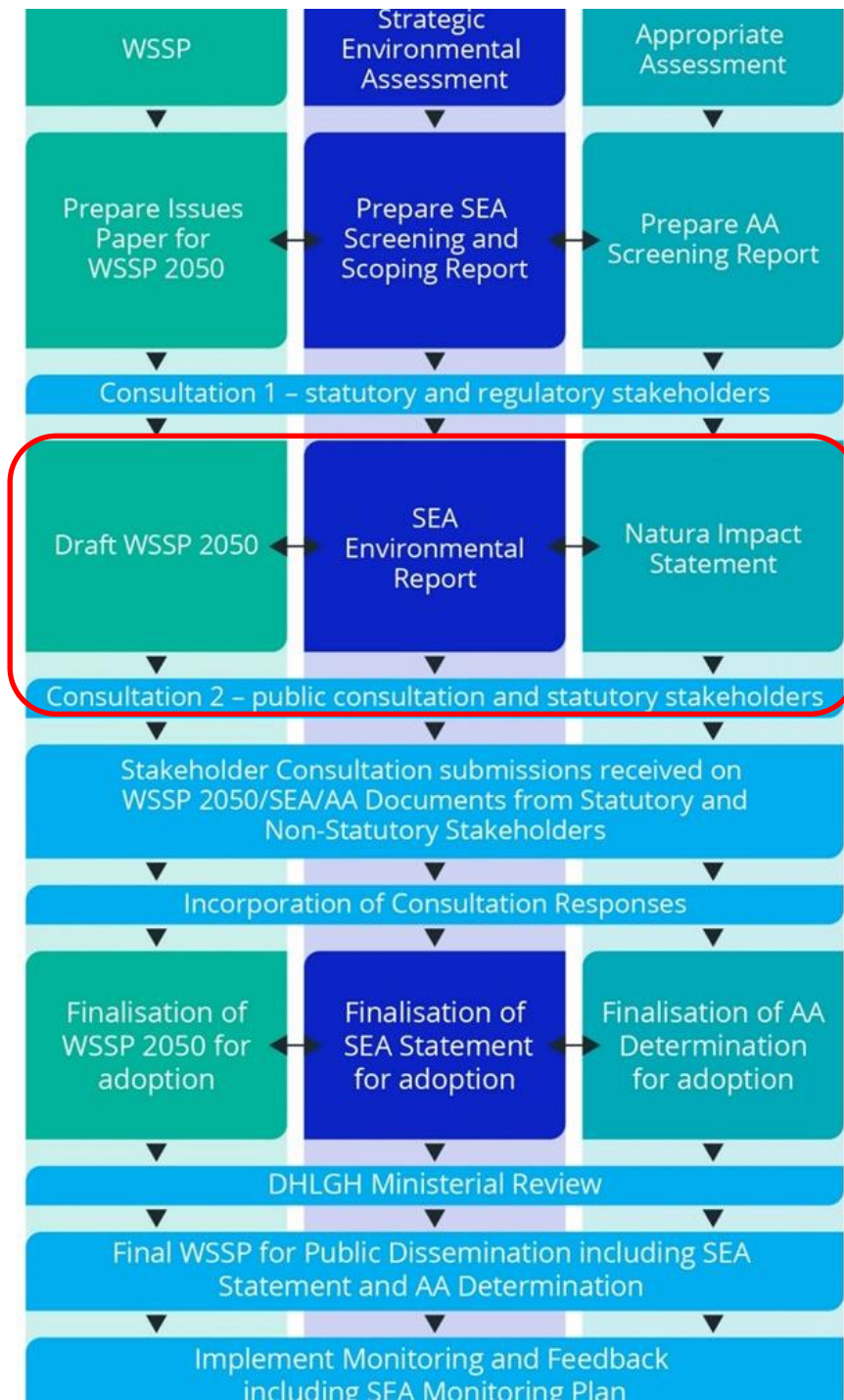


Figure NTS 1.1 Process for the development of WSSP 2050 with the environmental assessments (current stage in red box)

NTS 2 Consultation

NTS 2.1 Purpose of Consultation and Engagement

Public consultation and stakeholder engagement is a key element in ensuring stakeholders, including the statutory Environmental Authorities, and members of the public have an opportunity to contribute to the development of plans and programmes in Ireland.

NTS 2.2 Consultation Stages

An initial statutory consultation (Consultation 1: Scoping Stage) on the Issues Paper, SEA Scoping Report and the Appropriate Assessment Screening Report took place between 19 September to 18 November 2023. For this period of consultation, Uisce Éireann engaged directly with key statutory and regulatory stakeholders. In line with Article 9(5) of the SEA Regulations (S.I. No. 435 of 2004), the SEA Scoping Report was issued to the following statutory Environmental Authorities for their review and comment:

- The Environmental Protection Agency;
- The Department of Agriculture, Food and the Marine;
- The Department of Housing, Local Government and Heritage, including the Development Applications Unit;
- The Department of the Environment, Climate and Communications; and
- Northern Ireland’s Department of Agriculture, Environment and Rural Affairs.

Feedback received on the Issues Paper and the SEA Scoping Report and the Appropriate Assessment Screening Report, has been reviewed and taken into account in the preparation of the Draft WSSP 2050, this SEA Environmental Report and the Natura Impact Statement.

As part of the second phase of consultation (Consultation 2: Draft WSSP 2050 and Environmental Reports), Uisce Éireann will carry out a public consultation on the Draft WSSP 2050. This will be undertaken together with the SEA Environmental Report and Natura Impact Statement, where the authorities/consultees listed above and the public will be consulted (Stage 3 – SEA Environmental Report) as required under the SEA Regulations.

NTS 3 Review of Plans, Programmes and Policies

In accordance with the SEA Directive, as stated in Article 5(1) of Annex 1, the relevant policies, plans, programmes and legislative frameworks have been considered as an important part of setting the context for the SEA and the WSSP 2050. The review also identifies wider environmental protection objectives. The review aims to identify the relationships between the WSSP 2050 and these other documents i.e. how the WSSP 2050 could be affected by the other plans and programmes’ aims, objectives and/or targets, or how it could contribute to the achievement of their environmental and sustainability objectives.

Key influences identified at the national and regional level include:

- Water Framework Directive and River Basin Management Plan;
- Abstraction Licensing;
- Drinking Water Directive ‘Recast’;
- Urban Wastewater Directive;
- Floods Directive;
- Marine Planning;
- Climate Action and Low Carbon Development (Amendment) Act 2021;
- Climate Action Plan 2024 (Consultation draft);
- 4th National Biodiversity Action Plan 2023-2030;
- European Union’s Proposed Nature Restoration Law;

- European Union Soil Strategy for 2030;
- National Adaptation Framework and Sectoral Adaptation Planning;
- Circular Economy and Miscellaneous Provisions Act 2022;
- The Planning and Development Bill 2022;
- National Development Plan 2021-2030;
- National Planning Framework – Project Ireland 2040; and
- Uisce Éireann’s plans and strategies already in place, as well as those in development.

A comprehensive list of national and regional plans, as well as the county, local level county and local level plans and transboundary plans, is provided in the SEA Environmental Report.

NTS 4 Baseline Environment

NTS 4.1 Key Challenges and Opportunities

The key challenges and opportunities during the construction and operation phase of water services infrastructure and the potential for transboundary effects have been identified in Table NTS 4.1.

Table NTS 4.1 Key challenges and opportunities identified through the baseline assessment

SEA Topic	Challenges and Opportunities
Water Environment (Potential for transboundary effects)	<p>Challenges:</p> <ul style="list-style-type: none"> • Water pollution affecting fresh, estuarine and coastal waters from wastewater discharges, untreated and stormwaters, and the need for investment. • Abstraction for water supply to be sustainable with additional demand and climate change. • Raw water quality affected by diffuse pollution and discharges affecting water treatment for supply. • New and upgraded infrastructure requirements to meet needs and improve resilience. <p>Opportunities:</p> <ul style="list-style-type: none"> • Continued investment to reduce pressure and achieve environmental improvements. • Targeted and wider catchment-based actions to improve water quality, ecosystems services, resources and use of nature-based solutions.

SEA Topic	Challenges and Opportunities
<p>Population, Economy, and Tourism and Recreation</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Population and economy growth with implications for the level of demand for water and wastewater services. Including consideration of where and when - such as seasonality and peak demand from tourism. • Access to natural environment including rivers, lakes, canals coastal areas and bathing waters important for tourism, recreation and wellbeing. • Construction and operational nuisance from noise, air pollution, traffic generation and wastewater treatment odour. <p>Opportunities:</p> <ul style="list-style-type: none"> • Investment in water treatment and supply network Drinking Water Safety Plans, and catchment management plans. This supports sustainable supply with wider environment benefits. • Opportunities to reduce nuisance effects from wastewater treatment odour.
<p>Health and Wellbeing (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Water treatment affected by raw water quality with health and access issues. Although performing well, risk areas are reflected in the Environmental Protection Agency's Remedial Action List. • Access to, and quality of the natural environment including rivers, lakes, canals, coastal areas and bathing waters is important for tourism, recreation and wellbeing. • Construction and operational nuisance from noise, air pollution, traffic generation and wastewater treatment odour. <p>Opportunities:</p> <ul style="list-style-type: none"> • Opportunities to reduce nuisance effects from wastewater treatment odour.
<p>Climate Change (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Changes to rainfall patterns, temperature, sea level rise and increase frequency of weather events affecting the environment and risks to infrastructure and services. <p>Opportunities:</p> <ul style="list-style-type: none"> • Support environment resilience by reducing pressure from wastewater discharges, avoiding exceeding sustainable abstraction thresholds and planning for drought conditions. • Making infrastructure and services more resilient to extreme events.

SEA Topic	Challenges and Opportunities
<p>Biodiversity (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Impacts from wastewater and water discharges to waterbodies – pollution and abstraction pressure potentially affecting aquatic ecology, fresh water estuarine and marine, and designated sites, including European and national sites. • New and upgraded infrastructure – plants and pipelines with potential for habitat loss, fragmentation, disturbance and pollution. <p>Opportunities:</p> <ul style="list-style-type: none"> • Reduce pollutant loads and pressure on the aquatic environment from abstraction. • Opportunities to remove barriers for fish/eel migration or provide passes. • Biodiversity no net loss and potential for net gain including benefits from nature-based solutions and catchment management actions.
<p>Fisheries (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Water pollution from wastewater discharges with potential effect on freshwater, estuarine and marine fisheries; including Shellfish Waters Protected Areas with livelihood and recreational impacts. <p>Opportunities:</p> <ul style="list-style-type: none"> • Improvements to water quality and reduced pressure on water resources. • Reduced barriers for fish migration will support fisheries.
<p>Material Assets</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Ageing water and wastewater infrastructure assets needing repair, maintenance and replacement. • Waste management challenges for sewage sludge and water treatment residuals to avoid pollution and minimise disposal of waste to landfill. <p>Opportunities:</p> <ul style="list-style-type: none"> • Potential to adopt circular economy principles and potential for waste resource recovery through use on land and innovation for use for renewable energy/fuel.
<p>Landscape, Townscape and Seascape (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Infrastructure development and construction work can have impacts on visual amenity and landscape, townscape or seascape depending on location. • Wastewater discharges, storm water overflows and pollution can lead to algal blooms, also affecting visual amenity such as litter. <p>Opportunities:</p> <ul style="list-style-type: none"> • Sensitive siting and construction of new infrastructure. • Improvements to the wastewater discharge and support for improving water quality to benefit aquatic ecology and recreation

SEA Topic	Challenges and Opportunities
<p>Cultural Heritage – Archaeological and Architectural (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Infrastructure development and construction work can have impacts on cultural heritage and archaeology and architecture either through direct loss or impacts on their settings. This is particularly relevant for river and coastal heritage structures. • Abstraction affecting wetlands and other waterbodies can lead to loss of archaeological assets. <p>Opportunities:</p> <ul style="list-style-type: none"> • Sensitive siting and construction of new infrastructure actions supporting the enhancement of water courses, wetland and soil conservation could also help conserve archaeological interest.
<p>Geology and Soils</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Potential impacts on designated geological sites of interest from infrastructure construction and soil loss. <p>Opportunities:</p> <ul style="list-style-type: none"> • Potential for nutrient recovery and reuse of sewage sludge in agriculture, supporting soil health and circular economy principles. • Catchment management and nature-based solutions aimed at improving raw water quality can support soil health with related benefits for water retention and water quality and carbon sequestration. • Wetland restoration and peat and soil conservation measure can help to reduce soil erosion, polluting run off and flash flooding.
<p>Air Quality (Potential for transboundary effects)</p>	<p>Challenges:</p> <ul style="list-style-type: none"> • Air pollution from construction works, vehicle movements and operations, including odour from wastewater treatment works. <p>Opportunities:</p> <ul style="list-style-type: none"> • Construction air emissions can be managed through good construction practice and fuel/ energy policy. • Wastewater treatment improvements - higher design standards and operation practice can reduce odour. <p>These are considered local issues addressed through application of appropriate standards at lower programme and project levels and are therefore generally considered as potential nuisance or disturbance effects under population and health and wellbeing. Odour is scoped into the assessment in relation to consideration of odour emission standards at wastewater treatment plants.</p>

SEA Topic	Challenges and Opportunities
Noise and Vibration (scoped out)	<p>Challenges:</p> <ul style="list-style-type: none"> Noise and vibration from construction works and operations including vehicle movements (effects of construction in marine environments addressed in biodiversity topic). <p>Opportunities:</p> <ul style="list-style-type: none"> Construction noise can be managed through good construction practice and appropriate design standards and siting to take account of sensitive receptors. <p>These are considered local issues addressed through application of appropriate standards at lower programme and project levels and are therefore generally considered as potential nuisance or disturbance effects under population and health and wellbeing.</p>
Interrelated aspects	<p>Opportunities:</p> <p>Potential to use natural capital and ecosystems-based approaches to support consideration of scale and multiple environmental impacts and benefits using quantification and metrics to add to qualitative environmental assessment approaches.</p>

NTS 4.2 SEA Geographical and Temporal Scope

Uisce Éireann’s operating area is the Republic of Ireland. Uisce Éireann supplies 82% of people in Ireland with their drinking water and provides about two-thirds of households with wastewater services (Department of Housing, Local Government and Heritage, 2022). The infrastructure supporting this is widespread, and abstraction, discharges of wastewaters and sludge spreading can affect wider areas.

The broad geographical scope for the SEA covers the entirety of Ireland, including the surrounding coastal waters. There are river and groundwater catchments shared between Ireland and Northern Ireland in addition to the coastal and marine environment, meaning that there are potential pathways for transboundary issues due to both proximity and connectivity. Therefore, the scope also includes the transboundary baseline environment.

The time frame for the SEA covers the 25 year period to 2050 and is aligned with the plan period. The environmental assessment will also be updated periodically alongside periodic updates to the plan. The plan is required to be reviewed every 5 years and should the plan require an update, the update will be subject to SEA.

NTS 4.3 Baseline Topic Interactions, Issues and Opportunities

In accordance with the SEA Directive, it is important to recognise the interrelationships between environmental topics. This is because changes to one environmental aspect can directly and indirectly influence others, as summarised in Table NTS 4.2.

All SEA topics will be relevant to some degree through potential positive or negative impacts from the implementation of the WSSP 2050. Table NTS 4.2 illustrates the potential interrelationships between the environmental topics.

Table NTS 4.2 Interrelated SEA topics

	Y Potential for interaction	N Minimal interaction likely									
Population, Economy, and Tourism and Recreation	Y										
Health and Wellbeing	Y	Y									
Climate Change	Y	Y	Y								
Biodiversity	Y	Y	Y	Y							
Fisheries and Angling	Y	Y	Y	Y	Y						
Material Assets	Y	Y	N	Y	Y	N					
Landscape, Townscape and Seascape	Y	Y	Y	Y	Y	N	Y				
Cultural Heritage – Archaeological and Architectural	Y	Y	N	Y	Y	N	Y	Y			
Geology and Soils	Y	Y	N	Y	Y	Y	Y	Y	Y		
Air Quality	N	Y	Y	Y	Y	Y	N	N	N	Y	
Noise and Vibration	Y	Y	Y	N	Y	Y	Y	N	Y	N	
	Water Environment	Population, Economy, and Tourism and Recreation	Health and Wellbeing	Climate Change	Biodiversity	Fisheries and Angling	Material Assets	Landscape, Townscape and Seascape	Cultural Heritage – Archaeological and Architectural	Geology and Soils	

NTS 5 Assessment Methodology

NTS 5.1 Strategic Environmental Assessment Objectives

During this scoping stage of the SEA process a set of Strategic Environmental Objectives and assessment criteria were developed based on the key considerations from the baseline review and the policy, plan and programme review. These objectives will provide the framework for assessing the alternative plan approaches and preferred plan proposals. The Strategic Environmental Objectives and assessment criteria are provided in Table NTS 5.1.

Table NTS 5.1 SEA Objectives

SEA Topic	SEA Objectives - in relation to Uisce Éireann's provision of water and waste water services
Water Environment	<p><i>Water quality and quantity</i></p> <p>Restore and improve rivers, lakes, transitional and coastal waters, and groundwater to meet Water Framework Directive, Marine Strategy Framework Directive and River Basin Management Plan objectives where possible, and prevent status deterioration, in relation to the provision of water and wastewater services.</p> <p><i>Flood risk</i></p> <p>Protect and, where possible, reduce risk from flooding as a result of provision of water and wastewater services.</p>
Population, Economy, and Tourism and Recreation (including angling)	<p>Protect and support sustainable economic and population growth, including housing provision and recreation, through the provision of reliable good quality water supply and wastewater services.</p>
Health and Wellbeing	<p>Improve access to reliable good quality water supply and to wastewater services including protecting bathing waters.</p>
Climate Change	<p><i>Climate change mitigation</i></p> <p>Minimise contributions to greenhouse gas emissions through energy efficiency and measures contributing to meeting carbon reduction targets, related to the provision of water and wastewater services.</p> <p><i>Climate change adaptation</i></p> <p>Promote measures supportive of climate change resilience for the environment and resilience for the provision of water and wastewater services.</p>
Biodiversity	<p>Protect and enhance terrestrial, aquatic and soil biodiversity and habitat connectivity; particularly European sites and national sites (including proposed and candidate sites), and for protected species and the achievement of national and Uisce Éireann Biodiversity Action Plan commitments, related to the provision of water and wastewater services.</p>
Fisheries	<p>Protect marine and freshwater fisheries including shellfish waters, related livelihoods and safety for human consumption and support measures contributing to restoring or improving fisheries and fish/eel passage in relation to provision of water and wastewater services.</p>
Material Assets	<p><i>Resource use and waste management</i></p> <p>Seek to apply circular economy principles across lifecycle decision making for resources and wastes including minimising resource use and waste generation from provision of water and wastewater services including management of sludge and residuals.</p> <p><i>Asset use</i></p> <p>Minimise impacts on other material assets and infrastructure, optimise use of existing assets and support capacity and upgrades of existing sites and assets in relation to provision of water and wastewater services.</p>

SEA Topic	SEA Objectives - in relation to Uisce Éireann’s provision of water and waste water services
Landscape, Townscape and Seascape	Protect and, where possible, contribute to enhancing designated and valued landscapes, townscapes and seascapes and visual amenity in relation to the provision of water and wastewater services.
Cultural Heritage – Archaeological and Architectural	Protect cultural heritage assets in terms of their condition, settings or access - including for designated sites, undesignated heritage and archaeological interest (including terrestrial and underwater heritage) related to the provision of water and wastewater services.
Geology and Soils	Protect soils and geological heritage sites and contribute towards improved management of soil resources related to the provision of water and wastewater services.
Air Quality	Improve performance on odour emissions, where possible, in relation to the provision of wastewater services.

NTS 5.2 SEA Assessment Approach

The assessment covers the proposals in the Draft WSSP 2050 comprising:

- Overall approach and alternatives considered in the development of the proposed Draft plan;
- Assessment of the Draft plan proposals including:
 - Assessment and recommendations for amendment of proposed WSSP 2050 objectives and identified actions or measures as means of achieving them;
 - Overarching comparative assessment of the proposed Draft plan considering all the proposals compared to a no plan scenario assuming no update to the current WSSP;
 - Assessment of cumulative impacts of the proposed WSSP 2050 with other plans and programmes; and
 - Identification of mitigation measures and recommended actions and monitoring requirements for the plan implementation.

NTS 5.3 Alternatives Assessment

The SEA Directive requires the SEA process to identify and describe ‘reasonable alternative’ means of achieving the objectives of the WSSP 2050. The reasons for selecting (a) the alternatives and (b) the preferred approach for the plan must be documented, together with a description of how this assessment of alternatives was undertaken.

NTS 6 Assessment of the WSSP 2050 and Alternatives

An iterative process has been undertaken to develop the best proposed approach for the Draft WSSP 2050. This was completed through a series of internal workshops held with the departments across Uisce Éireann which will be implementing the plan and delivering water and wastewater services and supporting activities. The workshops identified the strategic objectives and aims and also the actions required to achieve these.

The environmental assessments in the SEA Environmental Report address the Plan as a whole and have been built up from the assessment of each Strategic Objective, their associated Strategic Aims and a total of 35

supporting actions required to achieve these. Figure NTS 6.1 presents the WSSP 2050 strategic objectives and aims. The 35 actions are included in the SEA Environmental Report.

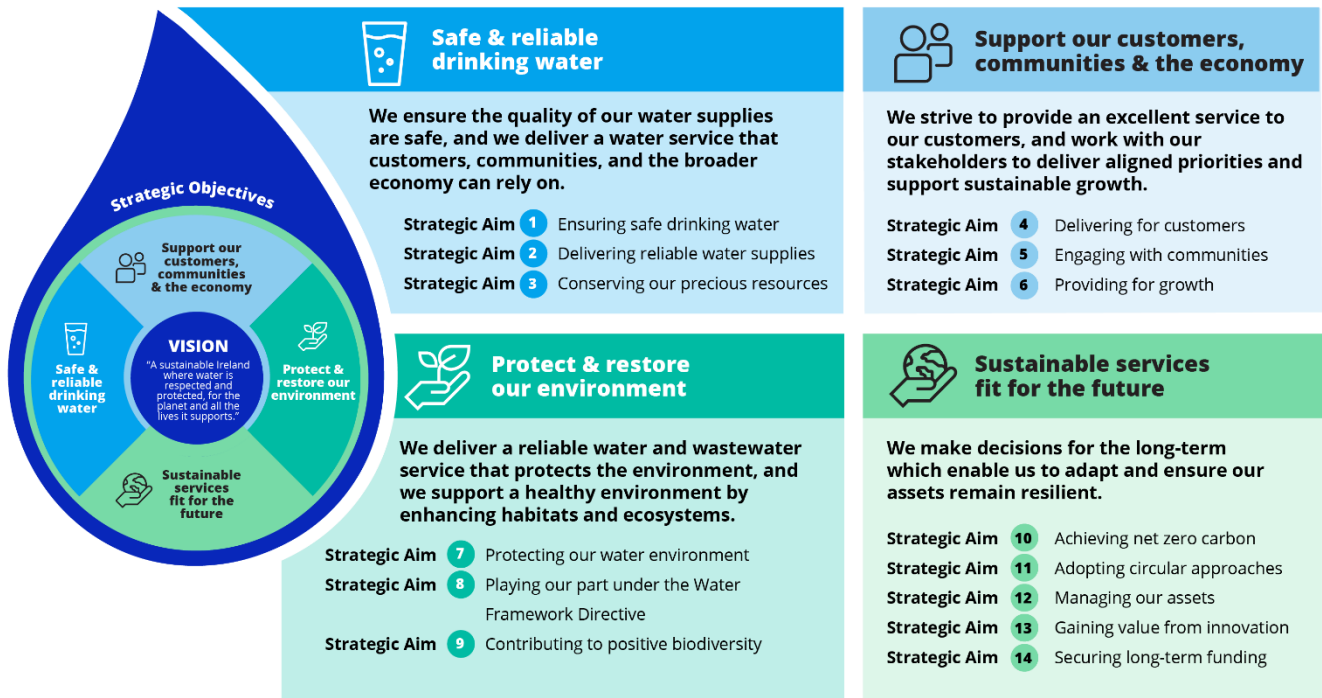


Figure NTS 6.1 WSSP 2050 strategic objectives and associated aims

SEA requires a consideration of reasonable alternatives for meeting plan objectives.

The five main alternatives were identified as:

- **Alternative 0:** Do minimum for actions where this could meet current legislative requirements;
- **Alternative 1:** Business As Usual (BAU): Continue with current approach – involving implementing existing plans and meeting legislative requirements;
- **Alternative 2:** Business As Usual plus (BAU+) Approach proposed in WSSP 2050 to meet plan objectives - this is built on the Business As Usual actions
- **Alternative 3:** WSSP 2050+: Do more, or reach targets quicker than the proposed WSSP 2050 actions; and
- **Alternative 4:** Different: Take a different approach to the proposed WSSP 2050.

The alternatives were defined for each action and where no reasonable alternative was identified this was also recorded.

The assessment scoring applied for the actions and alternatives is provided below:

Description of Comparison of Effect	Effect score	Description of Comparison of Effect	Effect score
Plan approach/alternative is likely to make a considerable positive contribution to Strategic Environmental Objectives or greatly improve likelihood of delivery of positive effects and reduce risk of adverse effects.	++	Plan approach/alternative has potential to conflict to a greater extent with Strategic Environmental Objectives or increase risk of adverse effects.	-

Description of Comparison of Effect	Effect score	Description of Comparison of Effect	Effect score
Plan approach/alternative has potential to provide a positive contribution to Strategic Environmental Objectives or improve likelihood of delivery of positive effects and reduce risk of adverse effects.	+	Plan approach/alternative has potential to conflict to a greater extent with Strategic Environmental Objectives or increased risk of adverse effects.	--
Plan approach/alternative has no identifiable difference from other alternatives in terms of actual or potential contribution or conflict with Strategic Environmental Objectives or risk of effects. Or the outcome is too uncertain at this stage to indicate how SEA Objectives will be supported.	0/?	Plan approach/alternative has potential to provide mixed effects so both positive and negative contribution to Strategic Environmental Objectives or in terms of likelihood of delivery of beneficial effects or risk of adverse effects.	+/-

NTS 6.1 Summary of Assessment of Alternatives

The proposed alternatives were considered first in terms of if they could be reasonable alternatives at this stage for meeting the plan objectives. The ‘do minimum’ (Alternative 0) was not considered for some actions as, in many cases, it represented a backward step from the Business as Usual, would not meet plan objectives or legislative requirements or would involve not implementing existing plans. Therefore, Alternative 0 was only considered for actions where the approach might be possible while complying with the current legal framework. The SEA Objectives that the alternatives and draft plan proposals are assessed against, are provided in Table NTS 5.1.

Table NTS 6.1 provides a summary of the alternative actions taken forward (highlighted) for all the Strategic Aims and Objectives. Further detail and reasoning is provided in the SEA Environmental Report.

Table NTS 6.1 Summary of alternatives assessment

Strategic Objectives	Alternatives				
	Alternative 0 – Do minimum	Alternative 1 – Continue current approach (Business as Usual)	Alternative 2 – Proposed WSSP 2050 (Business as Usual +)	Alternative 3 – Do more/faster (WSSP 2050+)	Alternative 4 – Do things differently
Strategic Objective 1: Safe and Reliable Drinking Water	No reasonable alternatives were identified that would meet legislative requirements for Actions 1.1-1.6 and 1.9. Considered for Actions 1.7 and 1.8	Considered for all Actions (1.1-1.9)	Taken forward in the Draft WSSP 2050 for all Actions (1.1-1.9).	No reasonable alternatives identified for Actions 1.1, 1.6, 1.8 and 1.9. Considered for Actions 1.2-1.5 and 1.7	No reasonable alternatives identified for Actions 1.1-1.7 and 1.9. Considered for Action 1.8.
Strategic Objective 2: Support our Customers, Communities and the Economy	No reasonable alternatives were identified that would meet legislative requirements for Actions 2.4-2.8. Considered for Actions 2.1-2.3	Considered for all Actions (2.1-2.8)	Taken forward in the Draft WSSP 2050 for all Actions (2.1-2.8).	No reasonable alternatives identified for Actions 2.1 and 2.3. Considered for Actions 2.2 and 2.3-2.8	No reasonable alternatives identified for Actions 2.1-2.3 and 2.5-2.8. Considered for Action 2.4.
Strategic Objective 3: Protect and Restore the Environment	No reasonable alternatives were identified that would meet legislative requirements for Actions 3.1-3.6. Considered for Actions 3.7 and 3.8	Considered for all Actions. Taken forward in the Draft WSSP 2050 for Actions 3.3 and 3.7.	Taken forward in the Draft WSSP 2050 for Actions 3.1, 3.2, 3.4-3.6 and 3.8. (Actions 3.3 and 3.7 in Alternative 2 are the same as for Alternative 1).	No reasonable alternatives identified for Actions 3.1, 3.3, 3.5 and 3.7. Considered for Actions 3.2, 3.4, 3.6 and 3.8	No reasonable alternatives identified.

Strategic Objectives	Alternatives				
	Alternative 0 – Do minimum	Alternative 1 – Continue current approach (Business as Usual)	Alternative 2 – Proposed WSSP 2050 (Business as Usual +)	Alternative 3 – Do more/faster (WSSP 2050+)	Alternative 4 – Do things differently
Strategic Objective 4 Sustainable Services Fit for the Future	No reasonable alternatives were identified that would meet legislative requirements for Actions 4.3-4.10. Considered for Actions 4.1 and 4.2	Considered for all Actions. Taken forward in the Draft WSSP 2050 for Action 4.3 and 4.6.	Taken forward in the Draft WSSP 2050 for Actions 4.1, 4.2, 4.4, 4.5 and 4.7-4.10. (Action 4.3 and 4.6 within Alternative 2 is the same as in Alternative 1)	No reasonable alternatives identified for Actions 4.1, 4.3, 4.4, 4.6 and 4.10. Considered for Actions 4.2, 4.5 and 4.7-4.9.	No reasonable alternatives identified.

For Actions 3.3, 3.7, 4.3 and 4.6, Alternative 1 (Business as Usual) has been incorporated into the Draft WSSP 2050. This reflected areas where it was recognised that current processes or plans had already been developed to meet and go beyond requirements with the aim to meet future pressures and challenges. For most actions, Alternative 2 (Business as Usual +) has been identified as the proposed approach for the Draft WSSP 2050 as there is recognition of opportunities to enhance and address future challenges. In some cases Alternative 2 (Business as Usual +) was also largely based on current process or plans, such as for Action 1.4 including the implementation of the National Water Resources Plan. This is already part of the Business as Usual (Alternative 1) but additional supporting elements had been identified for Business as Usual + (Alternative 2).

For some actions, scope for going further to support plan and SEA objectives was identified in Alternatives 3 and 4. These were not included as part of the Draft WSSP 2050 as they were either; outside current Uisce Éireann scope of activities, based on technology not yet available, not considered feasible to apply or needing other priority actions to be undertaken as a first next step.

This followed extensive iteration to develop the Draft WSSP 2050 actions to provide a balance of ambition in achieving the Strategic Objectives and supporting SEA Objectives while being pragmatic and deliverable within the scope of Uisce Éireann’s responsibilities for water and wastewater services, and access to resources.

NTS 6.2 Summary of Environmental Assessment of Draft WSSP 2050

The proposed Draft WSSP 2050 Actions for each Strategic Objective are set out in Tables NTS 6.1 to 6.4 below.

Table NTS 6.1 Strategic Objective 1 - Actions

Strategic Objective 1: Safe and Reliable Drinking Water
Action 1.1: Undertake risk assessments across our supplies and implement appropriate measures to manage risk.
Action 1.2: Conform with the Drinking Water Directive and other legislative requirements relating to drinking water quality.
Action 1.3: Coordinate catchment management measures and champion nature-based solutions for improving source water quality.
Action 1.4: Implement and continue to review our National Water Resources Plan, delivering improvements in water supply infrastructure to ensure resilient supplies into the future.
Action 1.5: Develop contingency plans to improve reliability of our water supplies.
Action 1.6: Improve operational resilience through preventative measures and developing and implementing improved incident response processes.
Action 1.7: Use less water through promoting water conservation to help customers reduce their use.
Action 1.8: Use less water through developing and implementing an enhanced Water Stewardship Programme.
Action 1.9: Lose less water through delivering leakage reduction.

Table 6.2 Strategic Objective 2 – Actions

Strategic Objective 2: Support our Customers, Communities and the Economy
Action 2.1: Understand customer needs and expectations.
Action 2.2: Enhance customer communications to address our customer expectations and provide real-time information to customers on usage, incidents, and water quality.
Action 2.3: Support our customers to play their part in protecting water as a precious resource and enabling better water services.
Action 2.4: Develop a community education and engagement programme to raise awareness on the value of water and the water services we provide.
Action 2.5: Continue to develop amenity value in our assets with local communities, where safe and appropriate.
Action 2.6: Engage and collaborate with key stakeholders to support national, regional and local planning policy.
Action 2.7: Engage with housing and industry stakeholders to support delivery of new homes and economic growth.
Action 2.8: Develop and embed demand analysis capability to inform, forecast and plan for future investment requirements.

Table 6.3 Strategic Objective 3 - Actions

Strategic Objective 3: Protect and Restore our Environment
Action 3.1: Work with regulators and stakeholders to develop a Wastewater Strategy Framework.
Action 3.2: Develop and implement Integrated Urban Wastewater Management Plans.
Action 3.3: Ensure sustainable abstractions and manage water treatment residuals.
Action 3.4: Protect and restore water bodies through collaboration.
Action 3.5: Manage wastewater services throughout the asset lifecycle to achieve regulatory requirements.
Action 3.6: Manage water services throughout the asset lifecycle to achieve regulatory requirements.
Action 3.7: Manage our assets to have biodiversity 'net gain'.
Action 3.8: Champion nature-based solutions and catchment measures in the delivery of water and wastewater projects.

Table 6.4 Strategic Objective 4 - Actions

Strategic Objective 4: Sustainable Services Fit for the Future
Action 4.1: Develop and implement a Net Zero Road Map.
Action 4.2: Work with our supply chain to embed sustainability in the delivery of water and wastewater infrastructure.
Action 4.3: Review and implement the National Wastewater Sludge Management Plan.
Action 4.4: Maximise circular economy benefits.
Action 4.5: Manage activities on our assets in a coordinated manner across their full lifecycle, with the aim of achieving ISO 55000 certification.
Action 4.6: Ensure risk and value-based decision making across the lifecycle of assets.
Action 4.7: Develop a culture of innovation in the water services sector to enable a sustainable future.
Action 4.8: Continue to develop foresight and horizon scanning capability.
Action 4.9: Quantify and articulate long-term investment needs for our water and wastewater assets.
Action 4.10: Secure multi-annual funding approach.

Table NTS 6. provides a summary of the assessment provided in the SEA Environmental Report. The SEA Environmental Report assesses each of the 35 Actions within the 14 Strategic Aims and four SEA Objectives. Table NTS 6.5 takes the assessment from each Action and provides the range of this assessment, presenting lowest and best score across the four Strategic Objectives.

Table NTS 6.5 WSSP 2050 SEA assessment summary

SEA Topic	Strategic Objective 1 (Strategic Aims 1-3)		Strategic Objective 2 (Strategic Aims 4-6)		Strategic Objective 3 (Strategic Aims 7-9)		Strategic Objective 4 (Strategic Aims 10-14)		Comments on assessment Note reference to identification of mitigation and supportive measures in the Environmental Action Plan (EAP) (See Table 8.1)
	Actions 1.1-1.9	Actions 2.1-2.8	Actions 3.1-3.8	Actions 4.1-4.10					
Water Environment – Water quality and quantity	+/-	++	+/-	++	+/-	++	+/-	++	Most actions across all Strategic Objectives 1-4 specifically support meeting SEA water environmental objectives for water quality and resource objectives. Actions related to implementing contingency plans such as drought and supporting growth, wastewater plans, sludge management could have both positive and negative effects depending on the resources and locations involved. Mitigation measures EAP1 to EAP 4 and EAP 6 & 7

SEA Topic	Strategic Objective 1 (Strategic Aims 1-3)		Strategic Objective 2 (Strategic Aims 4-6)		Strategic Objective 3 (Strategic Aims 7-9)		Strategic Objective 4 (Strategic Aims 10-14)		Comments on assessment Note reference to identification of mitigation and supportive measures in the Environmental Action Plan (EAP) (See Table 8.1)
	Actions 1.1-1.9	Actions 2.1-2.8	Actions 3.1-3.8	Actions 3.1-3.8	Actions 4.1-4.10	Actions 4.1-4.10			
Water Environment – Flood Risk	0	0	+/-	+	+				Most actions are expected to be neutral with respect to flood risk. Actions related to wastewater services could have potentially positive or negative effects depending on proposals and location but these actions also include opportunities to reduce flood risk through the implementation of integrated drainage plans and collaboration with local authorities. Actions on supporting use of nature-based solutions and wider catchment measures can also provide benefits in retaining water in the catchment depending on the specific measures proposed and their location. Mitigation measures EAP 1-4 and 6, 7, 10.
Population, Economy, and Tourism and Recreation	+	++	+	++	+		+	++	Actions contribute to meeting SEA objectives for the provision of reliable good quality water supply and wastewater services for economic and population growth and supporting housing and tourism/recreation.
Health and Wellbeing	+	++	+	++	+	++	+	++	Actions contribute to meeting SEA objectives for supporting health and wellbeing in terms of access to reliable good quality water supply and wastewater services and also amenity access provision where appropriate.
Climate Change Mitigation	+/-	++	0	+	+/-	++	+/-	++	Actions include those involving investments requiring materials and energy use but also with potential to improve energy efficiency and provide rationalisation. Actions contributing to reduction in carbon emissions include support for use of nature-based solutions and catchment management measures,

SEA Topic	Strategic Objective 1 (Strategic Aims 1-3)		Strategic Objective 2 (Strategic Aims 4-6)		Strategic Objective 3 (Strategic Aims 7-9)		Strategic Objective 4 (Strategic Aims 10-14)		Comments on assessment Note reference to identification of mitigation and supportive measures in the Environmental Action Plan (EAP) (See Table 8.1)
	Actions 1.1-1.9	Actions 1.1-1.9	Actions 2.1-2.8	Actions 2.1-2.8	Actions 3.1-3.8	Actions 3.1-3.8	Actions 4.1-4.10	Actions 4.1-4.10	
									<p>circular economy approaches, awareness raising on water conservation and the development of the Net Zero Road map will develop further actions for working to meeting the ambition for net zero carbon by 2040.</p> <p>Mitigation measures EAP 1, 4, 6, 8 & 10</p>
Climate Change Adaptation	+	++	0	+	+/-	++	+		<p>Most proposed actions support the SEA objective on climate change adaptation both in terms of supply resilience and environmental resilience both are linked, including developing contingency plans and operational resilience, managing risks and engaging with stakeholders on water conservation, supporting Use Less, Loose Less approaches for water supply meeting. Actions supporting planned growth are identified as mixed positive and negative as there will be opportunities for improving sustainable services but also increased demand in some localities. Actions supporting provision of biodiversity net gain, nature-based solutions and catchment management can all contribute to environmental resilience to climate change.</p> <p>Mitigation measures - EAP 1, 4 & 6</p>
Biodiversity	+/-	++	+/-	+	+/-	++	+/-	+	<p>Most actions supporting meeting SEA water environmental objectives for water quality and resources can also benefit aquatic biodiversity. Actions related to implementing contingency plans such as drought and supporting growth, wastewater plans, sludge management could have both positive and negative effects depending on the resources and locations involved and potential for increased pressure for abstraction or on water quality and investment requiring construction The Draft WSSP 2050 includes Actions that address potential negative effects including the commitment to biodiversity net gain, use of nature-based</p>

SEA Topic	Strategic Objective 1 (Strategic Aims 1-3)		Strategic Objective 2 (Strategic Aims 4-6)		Strategic Objective 3 (Strategic Aims 7-9)		Strategic Objective 4 (Strategic Aims 10-14)		Comments on assessment Note reference to identification of mitigation and supportive measures in the Environmental Action Plan (EAP) (See Table 8.1)
	Actions 1.1-1.9		Actions 2.1-2.8		Actions 3.1-3.8		Actions 4.1-4.10		
									<p>solutions and support for catchment management. Actions to protect and improve source water quality and meet future recast UWWTD requirements can also support the SEA objective for Biodiversity.</p> <p>Mitigation measures EAP 1-4, 5, 6 & 7, 9</p>
Fisheries	+	++	+/-	+	+	++	+/-	+	<p>Pressures on water resources from meeting growth and from sludge disposal including land spreading could have positive or negative effects depending on proposals and locations. Most actions support meeting SEA water environmental and biodiversity objectives for water quality and quantity also benefit aquatic biodiversity and fisheries particular the commitment to sustainable abstraction, wastewater treatment and removal of barriers to fish migration, will be supportive to freshwater, estuarine and marine fisheries.</p> <p>Mitigation measures EAP 1-4, 6 & 7</p>
Material Assets – Resource Use and Waste Management	+/-	++	+		+	++	+	++	<p>Actions involving significant infrastructure investment are associated with resource use and waste generation, some of this investment also provide rationalisation and efficiency improvements. Actions specifically addressing net zero carbon and developing circular economy approaches can help to address potential negative effects.</p> <p>Mitigation measures EAP 4, 7, 11</p>
Material Assets – Asset use	+/-	++	+	++	+		+	++	<p>Actions involving significant infrastructure investment include developing new assets, rationalisation and upgrading existing assets and can have mixed beneficial and negative effects. Actions specifically addressing asset management and the net zero road map and circular economy approach will support overall beneficial contribution to SEA objective.</p> <p>Mitigation measures EAP 4, 11</p>

SEA Topic	Strategic Objective 1 (Strategic Aims 1-3)		Strategic Objective 2 (Strategic Aims 4-6)		Strategic Objective 3 (Strategic Aims 7-9)		Strategic Objective 4 (Strategic Aims 10-14)		Comments on assessment Note reference to identification of mitigation and supportive measures in the Environmental Action Plan (EAP) (See Table 8.1)
	Actions 1.1-1.9		Actions 2.1-2.8		Actions 3.1-3.8		Actions 4.1-4.10		
Landscape, Townscape and Seascape	+/-	+	+/-	0	+/-	++	0		<p>Actions involving significant infrastructure investment include developing new assets, rationalisation and upgrading existing assets and decommissioning and can have mixed beneficial and negative effects on the SEA landscape objective. There are also potential benefits from actions supporting water source quality protection, nature-based solutions and catchment management and provision of biodiversity net gain.</p> <p>Mitigation measures EAP 1 and 4 and 7</p>
Cultural Heritage – Archaeological and Architectural	+/-	0	+/-	0	+/-	+	0		<p>Actions involving significant infrastructure investment include developing new assets, rationalisation and upgrading existing assets can have mixed beneficial and negative effects on cultural heritage and archaeological assets.</p> <p>Mitigation measures EAP 1 and EAP 4</p>
Geology and Soils	+/-	+	0		+		+	++	<p>Actions involving significant infrastructure investment include developing new assets, rationalisation and upgrading existing assets can have mixed beneficial and negative effects on soils and geological asset assets. However, actions supporting catchment management, nature-based solutions and treated sludge disposal through land spreading and circular economy approached can support SEA objectives in relation to</p> <p>Mitigation measures EAP 1, 4 and 7</p>
Air Quality	0		0		+/-	+	+		<p>Actions involving wastewater treatment can have mixed to positive contribution to the SEA objective in terms of odour.</p> <p>Mitigation measures EAP 1 and EAP 4</p>

Many of the proposed actions aimed at improving delivery of sustainable water are closely linked or supported by other actions across the Strategic Objectives and Aims. These include the commitment to cross cutting actions on Biodiversity Net gain, Nature-based solutions and catchment management, Net zero carbon road map and the circular economy.

NTS 6.3 Transboundary Assessment

There are considered to be potential for transboundary impacts from the implementation of the Draft WSSP 2050. For the Draft WSSP 2050 specific proposals and locations of actions are not known. The potential for significant transboundary effects for each action in terms of whether positive, negative or mixed is therefore considered based on the types of action and if there is a potential pathway for an effect to occur. The potential pathways are identified in Appendix D of the SEA Environmental Report.

Lower tier plans have already assessed, or will assess, transboundary effects related to specific locations and proposals. Additional mitigation recommended for this high-level plan is provided in the Environmental Action Plan (see section NTS 8).

NTS 6.4 Appropriate Assessment Summary

The Natura Impact Statement concludes that with the mitigation measures presented in the Appropriate Assessment, the Draft WSSP 2050 will have no adverse effects on any European Site(s) either alone or in combination with other plans and programmes.

NTS 7 Cumulative Effects Assessment

NTS 7.1 Intra-plan Effects

Many of the Draft WSSP 2050 proposed actions combine to be supportive in contributing to SEA objectives, especially SEA Objectives for Water, Biodiversity, Fisheries, Climate Change Mitigation, Climate Adaptation, Population and Economy, and Health and Wellbeing.

While there could be potential for adverse in combination and cumulative effects from implementation of the plan, the actions are high level with no site-specific, location based or timing information for proposals. Therefore, these effects will need to be considered as part of the lower level of plans and strategies.

Interaction between actions with potential for cumulative effects on SEA Objectives have been assessed. The majority of the actions identified to have a combined effect are supportive of the SEA Objectives, with some actions identified to have combined mixed negative and positive effects. The potential additional impacts are addressed through the mitigation measures including in the Environmental Action Plan, Table NTS 8.1.

NTS 7.2 Inter-plan Effects

The interaction between the Draft WSSP 2050 and other plans is considered against the SEA Objectives to identify potential for inter-plan cumulative effects and is summarised in Table NTS 7.1.

The inter-plan assessment identifies largely supportive and positive interaction between the Draft WSSP 2050 proposals and the plans considered in relation to the SEA objectives. These plans are generally high level and aspirational national plans and, in many cases, are also reliant on lower level plans and programmes for implementation.

Table NTS 7.1 Cumulative assessment for other plans against the SEA Objectives

Plan/Project	SEA Objectives													
	Water quality and quantity	Flood risk	Population and economy	Health and wellbeing	Climate change mitigation	Climate change adaptation	Biodiversity	Fisheries	Resource use and waste management	Asset use	Landscape, Townscape and Seascape	Cultural heritage - archaeological and architectural	Geology and soils	Air quality
Climate Action Plan 2024 draft for consultation (Department of the Environment, Climate and Communications, 2024a)	+				+	+	+	+	+	+				+
Ag Climatise – A Roadmap towards Climate Neutrality (Department of Agriculture, Food and the Marine, 2020)	+				+	+	+	+	+	+				+
National Adaptation Framework (Department of the Environment, Climate and Communications, 2018)	+	+			+	+	+	+	+	+				+
Water Quality and Water Services Infrastructure, Climate Change Sectoral Adaptation Plan (Department of Housing, Local Government and Heritage, 2019)	+	+			+	+	+/-	+/-	+	+				+
National Biodiversity Action Plan 4th 2024 (Department of Housing, Local Government and Heritage, 2024a)	+						+		+					
National Development Plan 2021-2030 (Department of Public Expenditure and Reform, 2021)	+/-		+	+			+/-		+/-	+/-	+/-	+/-	+/-	+/-
National Planning Framework, Project Ireland 2040 and draft for consultation 2024 (Department of Housing, Local Government and Heritage, 2018b, 2024b)	+/-		+	+			+/-		+/-	+/-	+/-	+/-	+/-	+/-

Plan/Project	SEA Objectives													
	Water quality and quantity	Flood risk	Population and economy	Health and wellbeing	Climate change mitigation	Climate change adaptation	Biodiversity	Fisheries	Resource use and waste management	Asset use	Landscape, Townscape and Seascape	Cultural heritage – archaeological and architectural	Geology and soils	Air quality
River Basin Management Plan 2018-2021 (Department of Housing, Local Government and Heritage, 2018a) and Draft River Basin Management Plan 2022-2027 (Department of Housing, Local Government and Heritage, 2021)	+/-	+					+	+	+					
Catchment Flood Risk Assessment and Management Programme (Office of Public Works, 2018)		+					+/-	+/-						
National Marine Planning Framework (Department of Housing, Local Government and Heritage, 2023)							+/-	+				+/-		
National Strategic Plan for Sustainable Aquaculture Development 2030 (Department of Agriculture, Food and the Marine, 2023b)	+/-		+				+/-	+	+/-			+/-		
Forestry Programme 2023-2027 (Department of Agriculture, Food and the Marine, 2023a)	+/-						+				+/-		+/-	
National Peatlands Strategy (National Parks and Wildlife Service, 2015)	+					+	+				+		+	
Waste Action Plan for a Circular Economy (Department of the Environment, Climate and Communications, 2020)									+	+				

Plan/Project	SEA Objectives													
	Water quality and quantity	Flood risk	Population and economy	Health and wellbeing	Climate change mitigation	Climate change adaptation	Biodiversity	Fisheries	Resource use and waste management	Asset use	Landscape, Townscape and Seascape	Cultural heritage – archaeological and architectural	Geology and soils	Air quality
Draft Environment Strategy for Northern Ireland (Department of Agriculture, Environment and Rural Affairs of Northern Ireland, 2021a)	+						+	+			+	+	+	
Our Strategy 2021-2046 (Northern Ireland Water, 2021)	+	+					+/-	+	+	+				
Water Resource and Supply Resilience Plan (Northern Ireland Water, 2020) and Draft Water Resource and Supply Resilience Plan (Northern Ireland Water, 2024)	+						+	+	+	+				
Sustainable Water – A Long term water strategy for Northern Ireland (2015 – 2040) (Department for Regional Development, 2014)	+	+				+	+	+	+	+				
Draft Northern Ireland Flood Risk Management Plan 2021–2027 (Department for Infrastructure, 2021)		+						+/-	+/-					
United Kingdom Marine Policy Statement (Department for Environment, Food and Rural Affairs, 2011)	+						+/-	+/						
Draft 3rd cycle River Basin Management Plan 2021-2027 (Department of Agriculture, Environment and Rural Affairs of Northern Ireland, 2021b)	+		+				+	+						

NTS 8 Mitigation and Monitoring Plans

This section sets out the recommended actions for mitigation and enhancement within an Environmental Action Plan (EAP) and provides a Draft Monitoring Plan which is required to meet SEA regulations. The approach takes account of Environmental Protection Agency SEA monitoring guidance (2023) and comments at the scoping stage.

NTS 8.1 Environmental Action Plan

The Environmental Action Plan provides a basis for tracking recommendations from the SEA during the WSSP 2050 implementation. The actions for mitigation and support for meeting objectives are identified in the Environmental Report are summarised in Table NTS 8.1.

Table NTS 8.1 Recommended actions for mitigation/further study

Reference number	Recommended Action for Mitigation/Further Study
EAP1	Ensure mitigation hierarchy principles, enhancement aims and sustainability targets are included in approaches for developing lower tier plans.
EAP2	Source protection - embed processes to consider environmental baseline and quality objectives in assessment of risk to sources and assets. Develop guidance and processes for identifying risk solutions to consider relevant stakeholder engagement, wider catchment management measures and nature-based solutions where appropriate.
EAP3	Contingency planning - develop procedures to ensure drought and contingency planning and operation resilience measures take account of environmental constraints and objectives.
EAP 4	Monitoring and review of lower tier plans - implementation progress and environmental effects including: <ul style="list-style-type: none"> National Water Resource Plan Environmental Action Plan/monitoring plan implementation Water Treatment Plant residuals management monitoring (Included with the NWRP monitoring) National Wastewater Sludge Management Plan’s monitoring plan for the updated plan (once developed) Wastewater framework monitoring plan (once developed) Integrated Urban Wastewater Management Plans (once developed)
EAP 5	As part of assessment of suitability for amenity use consider environmental and social impacts including European sites, biodiversity, transboundary effects, cultural heritage and landscape impacts.
EAP 6	Consider strengthening collaboration and analysis on land use and economic planning to encourage balanced growth avoiding either unsustainable water and wastewater provision or additional cost and infrastructure requirements to address this.

Reference number	Recommended Action for Mitigation/Further Study
EAP 7	<p>Catchment Management and Nature Based solutions - develop guidance and processes to consider relevant stakeholder engagement, wider catchment management measures and nature-based solutions where appropriate.</p> <p>Link to catchment management initiatives to ensure awareness and application of existing guidance on land-spreading and measures to reduce diffuse pollution of water bodies.</p>
EAP 8	<p>Net Zero Road Map - ensure Net Zero road map actions are also linked across all investment plans, programmes and projects.</p>
EAP 9	<p>Include development of environmental valuation/quantification approaches to support existing qualitative assessments. Using approaches such as natural capital, ecosystems services, carbon calculation tools and automated and map based digital tools to support systems-based approaches and actions decision making.</p>
EAP 10	<p>Transboundary - consideration of potential for additional collaboration on innovation and research with relevant Northern Ireland bodies, especially in relation to shared challenges.</p>
EAP 11	<p>Adaptive planning - use information generated from monitoring plan reporting and the review and updating process for the WSSP 2050 and lower tier plans to support adaptive planning.</p>

NTS 8.2 Monitoring Plan

The monitoring plan is required under the SEA regulations to provide a basis for identifying significant environmental effects during the implementation of the plan. This is required to review the predicted impacts of the Draft WSSP 2050 and the adequacy of the mitigation measures recommended. This allows additional mitigation to be applied where required.

The Public Water Supply in Ireland is a live asset base and is subject to continuous change. The development of solutions 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, hence, the Draft WSSP 2050 commits to continuous monitoring to ensure there is a feedback mechanism throughout the Plan. A review of the implementation of the WSSP 2050 is undertaken every five years. As part of this continuous monitoring process, any material amendments are assessed for significant impacts on the environment.

The WSSP 2050 will present Uisce Éireann’s Strategic Objectives to 2050. It will also consider how the Objectives might be achieved in the short and medium term and provide an area for focus for the longer-term. As the Draft WSSP 2050 does not involve the recommendation of specific investment options, this monitoring plan is intended to track the progress of implementing the SEA recommendations during implementation.

The monitoring plan covers the integration of environmental and sustainability considerations throughout implementation of the Draft WSSP 2050. As the WSSP is implemented through lower tier plans, more detailed monitoring actions can be found in these plans and are not repeated here.

A summary of the Draft Monitoring Plan included in the SEA Environmental Report is provided in Table 8.2. The Draft Monitoring Plan will be updated following consultation on the SEA Environmental Report and will form part of the SEA statement to be published with the Final WSSP 2050.

Table NTS 8.2 Draft Monitoring Plan - Summary

SEA Topics	SEA Indicators	SEA Targets	Reporting and timescale
Cross topics	Progress implementing WSSP 2050 actions, SEA Environmental Action Plan and monitoring plan	See below	Uisce Éireann Summary of performance against SEA indicators/ targets to be reported in the WSSP 2050 five year review. Tier 2 Plans - National Water Resources Plan and National Wastewater Framework (to be confirmed) and related plans and other Tier 2 plan reviews and monitoring reporting
Water Environment	<i>Resources and quality</i> River Basin Management Plan Significant Pressures - Categories Urban Wastewater, Abstraction & Water Treatment	Implementation of Measures identified for Uisce Éireann in River Basin Management Plan and sectoral action plans	Environmental Protection Agency (EPA) Water Framework Directive annual reports against key performance indicators (yet to be developed)
	<i>Flood risk</i> See Tier 2/3 Plans programmes & projects (location specific information) National Water Resources Plan & National Wastewater Strategy Framework	See Tier 2/3 Plans programmes & projects (location specific information) National Water Resources Plan & National Wastewater Strategy Framework Implementation (to be confirmed)	See Tier 2/3 Plans programmes & projects (location specific information) National Water Resources Plan & National Wastewater Strategy Framework (to be confirmed) - Monitoring reporting and related plans
Population, Economy, and Tourism and Recreation (including angling)	Performance assessment metrics reported to Commission for Regulation of Utilities (to be confirmed) National Water Resources Plan & National Wastewater Strategy Framework	Performance assessment metric targets Implementation of National Water Resources Plan & National Wastewater Strategy Framework	Commission for Regulation of Utilities performance assessment report Environmental Protection Agency Annual drinking water report Environmental Protection Agency Annual wastewater report National Water Resources Plan & National Wastewater Strategy Framework Monitoring reporting (to be confirmed)

SEA Topics	SEA Indicators	SEA Targets	Reporting and timescale
Health and Wellbeing	<p>Drinking water and wastewater regulation compliance</p> <p>National Water Resources Plan & National Wastewater Strategy Framework</p> <p>Wastewater Discharge Authorisation Bathing water requirements</p>	<p>Compliance with Drinking Water & wastewater regulations</p> <p>Wastewater Discharge Authorisation Bathing waters requirements compliance</p>	<p>Commission for Regulation of Utilities Performance Assessment Report</p> <p>Uisce Éireann Wastewater Discharge Authorisation Annual Environmental Reports</p> <p>Environmental Protection Agency Annual drinking water report</p> <p>Environmental Protection Agency Annual urban wastewater treatment report</p> <p>Environmental Protection Agency Water Framework Directive app annual reports against key performance indicators (yet to be developed)</p>
Climate Change	<p><i>Mitigation</i></p> <p>Net zero road map</p> <p>Corporate Sustainability Reporting Directive metrics (to be confirmed)</p> <p>Commission for Regulation of Utilities performance assessment metrics</p>	<p>CSRD metrics</p> <p>Corporate Sustainability Reporting Directive targets (to be confirmed)</p> <p>Commission for Regulation of Utilities Performance metric targets</p>	<p>Uisce Éireann - Annual Report - Corporate Sustainability Reporting Directive metric reporting (to be confirmed)</p> <p>Uisce Éireann Annual report</p> <p>Commission for Regulation of Utilities Performance assessment report</p>
	<p><i>Adaptation</i></p> <p>National Water Resources Plan/ National Wastewater Strategy Framework (to be developed) reporting</p> <p>Corporate Sustainability Reporting Directive metrics</p> <p>Commission for Regulation of Utilities performance assessment metrics</p>	<p>National Water Resources Plan & National Wastewater Strategy Framework</p> <p>Corporate Sustainability Reporting Directive targets (to be confirmed)</p> <p>Commission for Regulation of Utilities Performance Targets</p>	<p>National Water Resources Plan & National Wastewater Strategy Framework (to be confirmed) - Monitoring reporting</p>
Biodiversity	<p>Biodiversity net gain metrics</p> <p>Corporate Sustainability Reporting Directive metrics (to be confirmed)</p>	<p>Biodiversity net gain targets</p>	<p>Uisce Éireann Annual Report – Corporate Sustainability Reporting Directive metrics (to be confirmed)</p>

SEA Topics	SEA Indicators	SEA Targets	Reporting and timescale
Fisheries	Wastewater Discharge Authorisation Shellfish water requirements	Waste Water Discharge Licence Shellfish Water requirements compliance	Uisce Éireann Wastewater Discharge Authorisation Annual Environmental Reports Environmental Protection Agency Urban wastewater annual report
	River Basin Management Plan Significant Pressures - Categories Urban Wastewater, Abstraction & Water Treatment	Implementation of Measures identified for Uisce Éireann in River Basin Management Plan and sectoral action plans	Environmental Protection Agency Water Framework Directive app annual reports against key performance indicators (yet to be developed)
Material Assets	<i>Resources</i> Corporate Sustainability Reporting Directive metrics (in development)	Corporate Sustainability Reporting Directive targets (in development)	Uisce Éireann Annual Report CSRD metric reporting (to be confirmed)
	<i>Asset use</i> Good practise Asset management	ISO 55000 compliance	Certificate of approval Uisce Éireann Annual Report (to be confirmed)
Landscape, Townscape and Seascap	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)
Cultural Heritage – Archaeological and Architectural	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)
Geology and Soils	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)
Air Quality	No. of upgraded wastewater treatment and new plants meeting odour standards	Wastewater treatment measures and new plants meeting required odour standards	Uisce Éireann annual submission as required by SI. No. 787 of 2005
	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)	See Tier 2/3 Plans programmes & projects (location specific information)

NTS 9 Next Steps

The SEA Environmental Report (including the SEA appendices), along with the Natura Impact Statement and Draft WSSP 2050 are available for comment and review during the current consultation period. The process and deadline for submitting observations are set out on the Uisce Éireann website.

Following the completion of the consultation period, all comments will be reviewed and considered as part of finalising the WSSP 2050. Responses to the consultation comments will be provided in a Consultation Report.

SEA requirements and consultation comments will be taken into account in finalising the WSSP 2050. Consultation responses and how the SEA has taken comments into account will be reported in the SEA Statement published with the final WSSP 2050.

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