Spring 2021

National Water Resources Plan – Framework Plan

AA Determination Statement

Tionscadal Éireann
Project Ireland
2040

Data disclaimer: This document uses best available data at time of writing. Some sources may have been updated in the interim period. Irish Water is satisfied that given the scope of the Framework Plan there are no lacunae or gaps in the information required for the AA. 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 to data in applicable policy documentation.

Table of Contents

1 AA Determination Statement

1 Introduction

This Appropriate Assessment (AA) Determination Statement is provided for the public and relevant bodies to establish that an AA has been conducted in relation to the National Water Resources Plan – Framework Plan (Framework Plan), in accordance with relevant regulations.

The EU Habitats Directive (Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora in particular the provisions of Article 6(3), as transposed into Irish law through the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) (2011 Regulations) sets out the requirement for AA.

In the context of Article 6(3), an AA screening must be carried out to assess whether, on the basis of objective scientific information the plan, individually or in-combination with other plans or projects, is likely to have a significant effect on a European site.

Specifically, Regulation 42(1) of the 2011 Regulations states:

"A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.".

Regulation 42(6) of the 2011 Regulations goes on to provide that:

"*The public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.*"

The AA screening carried out in relation to the Framework Plan determined that it could not be excluded, on the basis of objective scientific information, that the Framework Plan, individually or in-combination with other plans and projects, would have a significant effect on a European site(s). Accordingly, the AA screening determined that full AA of the Framework Plan in view of the relevant sites' conservation objectives was required.

Regulation 42(16) of the 2011 Regulations provides that a public authority shall undertake or adopt a plan only after having determined that the relevant plan shall not adversely affect the integrity of a European site.

To inform its determination on AA, in accordance with the 2011 Regulations, Irish Water prepared a Natura Impact Statement (NIS), which is a report comprising the scientific examination of the Framework Plan and the relevant European Site or European Sites, to identify and characterise any possible implications of the Framework Plan individually or in combination with other plans or projects in view of the conservation objectives of the site or sites, and any further information including, but not limited to, any plans, maps or drawings, scientific information or data required to enable the carrying out of an Appropriate Assessment.

In carrying out AA, the 2011 Regulations require Irish Water to take into account each of the following matters:

a) the NIS;
b) any other plans that may, in-combination with the Framework Plan, adversely affect the integrity of a European site;
c) any supplemental information furnished in relation to any such report or statement;
d) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to the NIS[1];
e) any information or advice obtained by the public authority;
f) if appropriate, any written submissions or observations made to the public authority in relation to the Framework Plan; and
g) any other relevant information.

The methodology and guidance documents for undertaking the assessment is presented in Chapter 2 of the NIS. European Sites potentially affected are presented in Chapter 4 and listed in Appendix B of the NIS. A full list of the Conservation Objectives (Cos) and Qualifying Interests (QIs)/Special Conservation Interests (SCIs) that each European site is designated for, as well as the attributes and targets to maintain or restore the QIs/SCIs to a favourable conservation condition are available from the NPWS website and used in the assessment. Plans with potential in-combination effects are assessed in Chapter 7 of the NIS. No further supplemental information was used (or furnished) and no additional information or advice was sought in relation to the NIS. The full documentation pack is available at https://www.water.ie/nwrp/

2 The Framework Plan

Irish Water's National Water Resources Plan (NWRP) is the first resources plan for the public water supply in the Republic of Ireland. It allows Irish Water to integrate government policy, legislation and external factors that have the potential to impact Irish water supplies into the planning and operation of our 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 (the Plan) is being delivered in two phases. In this first Phase, the NWRP - Framework Plan, sets out the methodologies developed in order to identify need and find solutions to address need across all of their supplies. The second Phase comprises four Regional Water Resources Plans (RWRPs). Each of these Regional Plans identifies the need for each WRZ and applies the methodology developed in the Framework Plan to each water supply. This allows for the development of plan-level Preferred Approaches (solutions to identified need) for each supply. The development of four RWRPs is a mechanism for efficient delivery of the NWRP. The outputs of the four RWRPs will be combined for prioritisation and progression through the future cycles of capital investment planning.

The Framework Plan identified the need in terms of Quantity, Quality, Reliability and Sustainability for all of Irish Water's supplies nationally by:

- Assessing quantity need using Supply Demand Balance (SDB);
- Assessing quality and reliability need using Barrier Assessment (BA);
- Addressing sustainability by ensuring that all new options for water supply are based on conservative approaches to protecting water sources;

[1] This requirement applies only to AAs of projects and not plans.

- Using a rigorous and conservative Options Assessment Process; and
- A rigorous and conservative Preferred Approach Development Process.

A detailed description of the Framework Plan is included in the NIS.

3 Potential Impacts

The screening for Appropriate Assessment identified water resources management option types in the Framework Plan which can, by itself or in-combination with other plans and projects, affect European sites in light of their conservation objectives.

Option types included demand management, catchment management of surface and/or groundwater, storage reservoirs, aquifer storage recovery, desalination, effluent reuse, water transfers and water treatment plants improvement to capacity, efficiency or deployable output.

The implementation of the Framework Plan may give rise to measures that could result in a variety of possible effect pathways, including but not limited to:

- Physical loss of habitats/supporting habitat;
- Mortality;
- Habitat degradation - changes in water quality (pollution);
- Habitat degradation - hydrological/ hydrogeological changes;
- Change in hydrology - water table/availability; and
- Disturbance (including biological disturbance).

4 Data Sources and Guidance Documents

The following desktop data sources have been used:

- The National Parks and Wildlife Service (NPWS) website (https://www.npws.ie/), where site synopses, Natura 2000 data forms and conservation objectives were obtained.
- National Biodiversity Data Centre (http://www.biodiversityireland.ie/)
- Environmental Protection Agency maps website (https://gis.epa.ie/EPAMaps/)
- River Basin Management Plans (www.wfdireland.ie)
- Catchments (www.catchments.ie)
- Planning website (www.eplanning.ie and http://www.waterfordcouncil.ie/departments/planning/planning-enquiries/online-planning-enquiries.htm)
- OPW drainage maps (http://maps.opw.ie/drainage/map/)

The Natura Impact Statement was prepared with reference to the following documents:

- Practice Note (PN) 01 Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021);
- AA of Plans and Projects in Ireland: Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010);
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2002);
- Communication from the Commission on the Precautionary Principle (European Commission, 2000);

- Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission (European Commission, 2007);
- Marine Natura Impacts Statements in Irish Special Areas of Conservation. A working Document (Department of Arts, Heritage and the Gaeltacht, 2012); and
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission, 2018).

The following circulars also outline the AA requirements:

- AA under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10 (Department of Environment, Heritage and Local Government, 2010);
- AA of Land Use Plans. Circular Letter SEA 1/08 & NPWS 1/08 (Department of Environment, Heritage and Local Government, 2008a);
- Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites. Circular Letter PD 2/07 and NPWS 1/07;
- Guidance on Compliance with Regulation 23 of the Habitats Directive. Circular Letter NPWS 2/07 (Department of Environment, Heritage and Local Government, 2007); and
- Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Circular L8/08 Department of Environment, Heritage and Local Government (2008b).

5 AA Screening and AA

An AA screening was conducted on the Framework Plan. The conclusion of that screening was that it could not be excluded on the basis of objective scientific information that the Framework Plan, individually or in-combination with other plans or projects, would have a significant effect on a European site or European sites. This conclusion was reached given the strategic nature of the Framework Plan and in light of a number of uncertainties relating to the implementation of the Framework Plan going forward. It was therefore concluded that, in accordance with Article 6(3) of the Habitats Directive, the implications of the Framework Plan for the relevant European sites were required to be subject to AA in view of the relevant sites' conservation objectives.

At Stage 2 of the AA process the assessment evaluated the potential of the Framework Plan (and water management option types arising from the Framework Plan) to adversely affect the integrity of a European site, taking account of the potential for direct, indirect and cumulative impacts alone or in-combination with other plans and projects. The Framework Plan considered the Option Assessment Methodology to be applied nationally. Therefore, all European sites within the Republic of Ireland were initially considered to be potentially within the Zone of Influence (ZoI) of the Framework Plan as any option types could be applied in any region of the country. Transboundary impacts to Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in Northern Ireland were also considered.

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of annexed habitats and annexed species of community interest for which an SAC or SPA has been designated. The Conservation Objectives (COs) for a European site are set out to ensure that the Conservation Objectives and Qualifying Interests (QIs)/Special Conservation Interests (SCIs) of that site are maintained or restored to a favourable conservation condition. Maintenance of favourable conservation condition of habitats and species at a site level in turn contributes to maintaining or

restoring favourable conservation status of habitats and species at a national level and ultimately at the European site network level. The COs and QIs/SCIs that each European site is designated for, as well as the attributes and targets to maintain or restore the QIs/SCIs to a favourable conservation condition were taken into consideration.

A high-level assessment of potential effect pathways (habitat loss/degradation, mortality, water quality/availability, disturbance) of the various management types proposed in the Framework Plan was undertaken. These potential effect pathways can only occur where an option is either progressed within a European site (for example, surface water abstraction from a SAC) or within the ZoI (for example, an option that is hydrologically linked to an SAC or SPA). Potential effect pathways were identified for all but one option type (see bullet point list below), but in the case of the catchment management option, which if implemented properly, should only have a positive effect on aquatic receptors through improved water quality in the catchment. Therefore, this option was not discussed further.

The management option types are:

- Leakage reduction;
- Water efficiency;
- Surface water;
- Groundwater;
- Reservoirs;
- Catchment management;
- Effluent reuse;
- Desalination;
- Water transfers;
- Network improvements; and
- Water treatment plants.

The leakage reduction option, would for the most part, promote actions that would have overall positive implications for the environment as a reduction in leakage could subsequently result in less water needing to be abstracted from ground or surface water sources. Even though much of the network is located in existing road there is still potential for direct and indirect negative effects on SACs and SPAs from construction related activities associated with upgrading the network.

Water efficiency and effluent reuse options would promote actions that would have overall positive implications for the environment, including education and awareness around water savings and management, identifying options for reducing water use and the re-use of grey water. Although discharging back to the river of recycled wastewater effluent may have a positive impact in terms supporting river flow, the construction of a new outfall could have a direct or indirect negative impact on aquatic QI species associated with construction of the outfall but also by altering the flow regime within the river, potentially changing supporting habitat, in particular for fish. In addition, there is the potential for health risks from untreated grey water from the presence of bacteria for example. Some level of grey water treatment would be required therefore increasing costs of this option.

Surface water and groundwater options may include the extension/increase of existing abstractions or the provision of new water abstractions. Groundwater options may also include the storage of water in groundwater aquifers. Where new or increased surface or groundwater abstractions are required there is potential for direct, indirect, construction and operational effects on SACs and SPAs. Aquatic and ground water dependent QI species (and their supporting habitats) and groundwater dependent terrestrial

habitats (GWDTHs) would be most at risk with the latter option. The options could result, for example, in negative changes in hydrology potentially altering the aquatic environment, thus affecting aquatic and water dependent QI and their supporting habitats. However, water treatment plants options, including network improvements, have the potential for positive impacts but there is potential for direct and indirect effects on SACs and SPAs associated with the construction or upgrade of treatment plants and infrastructure for network improvements for example.

Potential impacts from the desalination option type are associated with water intake and outfall discharges to sea as the desalination treatment plants are located in coastal areas. The intake of seawater can result in impingement and entrainment of fish and other marine life. Large losses of, for example, fish and fish eggs could reduce food sources locally, having an indirect impact on seabirds and other marine mammals in addition to reducing fish populations.

Water transfer options may include the transfer of water from/to water resource zones (WRZs), transfer of water on a regional scale, national bulk transfers and tankering to small Water Supply Zones (WSZs). For the most part, transferred water would first be treated. Currently, transfer of raw water from one catchment to another is unlikely to be a viable option as Irish Water currently do not allow cross-water transfers (see Table 5.1 in the Framework Plan NIS).

6 Avoidance and Reduction of Impacts

The Option Assessment Methodology has aimed to identify options that avoid or minimise impacts on European sites.

The setting of sustainable abstraction limits for any new or increased abstractions arising as a result of the Framework Plan have been set to ensure impacts on aquatic QI species and habitats requiring high status water quality are avoided. The allowable abstraction standard of 10% of Q95 has been applied with the exception of waterbodies requiring “High” status under the Water Framework Directive where a higher threshold of 5% of Q95 has been applied. The application of these abstraction standards will help to ensure that any new or increased abstractions from rivers designated as SACs (which require “Good” and/or “High” status water quality) will align with the conservation objectives of these designated sites. Allowable abstraction standards for lakes are set at 50% of Q95 in line with the water quality standards applicable to lakes.

Irish Water tests the Feasible Options, individually and in-combination to determine the Preferred Approach to meet the need across the four spatial scales (Chapter 3 Figure 3.7 of the Framework Plan NIS). Irish Water test the options against six approaches which were selected to align the NWRP with all relevant government policy. The six approaches are Least Cost, Best Appropriate Assessment (Best AA), Quickest Delivery, Best SEA Environmental, Most Resilient and Lowest Carbon. The preferred options to meet the need for each of the six approaches are derived by ranking the options in order of lowest to highest total Net Present Value (NPV) cost and with regard to their applicable Multi-Criteria Analysis (MCA) scores for the six approaches. 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. Best Value is identified as the approach that provides the best performance overall, balancing across the range of NWRP and SEA objectives. Irish Water assess the Approaches against each other, following the eight step process set out in Figure 3.8 in Chapter 3 section 4.1 of the Framework Plan NIS, in order to develop a Preferred Approach for each WRZ.

The Best AA approach, i.e. the lowest score against the European Sites (Biodiversity) sub-criteria question (as fully detailed in the Chapter 3 section 5.4 of the Framework Plan NIS and Chapter 9 section 9.1 of the SEA Environmental Report) gives maximum consideration to those options with no potential for impacts on European Sites or options with likely significant effects that can be addressed with general/standard mitigation measures at the project level (based on desktop study). It puts avoidance of impacts on European sites at the forefront of the Options Assessment Methodology taking account for the fact that options with a high likelihood of having 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. Taking this approach any Feasible Option that meets the objectives of the Framework Plan and scores neutral or zero against the European Sites (Biodiversity) question is automatically picked as the Preferred Approach (this is in line with the provisions of Article 6(3) of the Habitats Directive to ensure the protection of European Sites). Any option with a European Sites (Biodiversity) score of -1 to -3 has identified likely significant effects and is taken forward to AA and assessed within the NIS. Because it is possible that all of the potential impacts identified for even a -3 score option can be entirely ruled out through project level investigation and analysis or avoided through project level mitigation, the -3 score option for biodiversity may be progressed as the Preferred Approach.

As part of the feedback loop, no option arising from the Framework Plan with the potential for adverse effects on site integrity identified at project level will be progressed as the Framework Plan will have identified other options that could be progressed at the project level if required. Such protective measures have been built into the plan to ensure adverse effects on site integrity are avoided as a result of adopting the Framework Plan.

A full list of general mitigation measures and option-specific mitigation measures are presented in the NIS. All options taken forward will be subject to project-level environmental assessment as and when they are implemented, which will include assessments of their potential to affect European sites during their construction or operation. These measures will ensure that the Framework Plan will not result in adverse effects on the integrity of any European site.

7 In-combination Assessment

Under Article 6(3) of the Habitats Directive an assessment of in-combination effects of the Framework Plan with other plans and projects is required (see Chapter 7 in the Framework Plan NIS). Given the strategic nature of a national level plan the assessment of in-combination effects focused on other Irish Water plans and other related plans, as listed below:

- Water Services Strategic Plan (WSSP);
- National Wastewater Sludge Management Plan (NWSMP) 2016-2021;
- Lead in Drinking Water Mitigation Plan (LDWMP);
- National Planning Framework (NPF);
- Regional Spatial and Economic Strategies;
- River Basin Management Plan (RBMP) (2018 -2021);
- Forestry Programme 2014 – 2020: IRELAND; and
- Water Resource and Supply Resilience Plan – Habitats Regulation Assessment.

Consideration has been given to the relevant plans that have clear potential to have an in-combination effect with the Preferred Approach options upon European sites and their supporting habitats. However,

it is still possible to exclude any AESI arising from the combination of the Framework Plan with those projects, because its methodology requires the RWRPs to take account of in-combination effects with those projects in identifying management options and their respective locations. This assessment used the best available information at the time of writing and Irish Water is satisfied that given the high-level nature of the Framework Plan there are no lacunae or gaps in the information required for the AA. The potential impacts of the plans and their in-combination effects were assessed by desktop study. The assessment found that with mitigation measures, there would be no in-combination effects with any other plan and therefore no adverse effects on any European site's integrity were possible.

8 Consultation

The NIS for the draft Framework Plan has been issued for public consultation and all comments and submissions received, reviewed and where appropriate, incorporated into the Framework Plan. A total of 84 consultation responses were received and these are presented in summary in the Consultation Two Report: An Approach to Addressing our Drinking Water Needs. No material changes were required to the assessment in the NIS in response to consultation. Where required consultation responses will be taken forward in the Regional Plans. None of the changes represented a material change to the draft Framework Plan and were added to improve understanding and clarity only in the final Framework Plan.

The amendments, as presented in the Consultation Two Report, are as follows;

a. Some concerns have been raised as to how the boundaries for the regions have been determined and whether the identification of regions may hamper a wider strategic identification or prioritisation of projects. Clarification will be given that the development of four Regional Water Resources Plans is merely a mechanism for efficient delivery of this first iteration of the NWRP. The outputs of the four Regional Plans will be combined for prioritisation and progression through the future cycles of capital investment planning. The SEA Environmental Reports and NISs for each subsequent Regional Plan will account for the cumulative impacts and in combination effects of the preceding regional plan/plans and adjustments can be made to address those impacts.

b. Some concerns raised that surface water sources may be prioritised over ground water ("GW") sources. Reinforcement of text on GW as a viable water source for public water supplies and confirmation that hydrogeology expertise has been used in the formulation of the GW assessments used in the draft Framework Plan, with no one source, GW or otherwise, prioritised.
c. Clarification of text on desktop GW assessment, and on the approach taken to surface water sources, in assessments in Appendix C of the final Framework Plan.
d. Further explanation on climate change factors in Appendix C.
e. Reinforcement of the role of the Regional Economic and Spatial Strategies in implementing Project Ireland 2040.
f. Elaboration of approach in relation to leakage reduction targets in the short, medium and long term as part of the three-pillar approach adopted, including an explanation of differences between NWRP glide paths and CRU annual leakage targets.
g. Clarification on data uncertainties and how they will be addressed within each Regional Water Resources Plan and any future NWRPs to benefit from improved data as they become available.
h. Clarification of text to ensure the uncertainties in relation to upcoming legislation on water abstraction from the natural environment, and the recast Drinking Water Directive, are fully reflected in the approach being adopted.

i. Inclusion of a population metric for the 58% of Water Resource Zones that do not meet standards in relation to the weather planning scenarios set out in the draft Framework Plan, and how this impacts supplies.
j. Clarification of text on outage allowance, peaking, headroom, 10-year capacity register, per capita consumption ("PCC") and process losses within the final Framework Plan.
k. Clarification of text in relation to Interim Options that may need to be accelerated in advance of delivery of the Preferred Approached identified in the Regional Water Resources Plans.
l. Clarification that "in-flight" projects and programmes to address critical water quality issues such as the Remedial Action List and disinfection plans will not be delayed due to the rollout of the Preferred Approaches identified in the Regional Water Resources Plans.
m. Clarification of the implications of the Bradán Beo judgment in the text dealing with the identification of Preferred Approaches.
n. Reiteration of the need to address water quality issues within the timeframes set by the EPA Office of Compliance and Environmental Enforcement (including matters on the Remedial Action List).
o. Clarification of text on "Use Less" initiatives, also part of the three-pillar approach.
p. Simplification of explanation of Preferred Approach methodology.
q. Inclusion of text on prioritisation.
r. Inclusion of recently published policy and strategy reports, and clarification on the way in which SEA and AA criteria will be factored into the approach in the Regional Plans in the SEA Statement and AA Determination on the final Framework Plan.

9 Determination

Irish Water is satisfied that given the high-level nature of the Framework Plan that no additional information was required for the assessment and that the information presented in the NIS was sufficient for a complete, precise and definitive assessment to be carried out with no lacunae or gaps. As competent authority, Irish Water is satisfied that the Framework Plan will not result in adverse effects on the integrity of any European site in view of their conservation objectives, either alone or in-combination with other plans.

This decision is based on the following considerations:

a) assessment and conclusions as presented in the Natura Impact Statement which was written with the best available information at time of writing;
b) other relevant plans that may in-combination with the Framework Plan, adversely affect the integrity of a European site (noting that the in-combination effects of the NWRP and specific projects will be assessed during subsequent phases of the development of the NWRP);
c) no supplemental information was furnished in relation to any such report or statement, as Irish Water was satisfied that no such supplemental information was required to enable Irish Water to carry out the AA;
d) as the AA concerned a plan and not a project, there was no additional information sought by Irish Water from an applicant;
e) no other information or advice was obtained by Irish Water, as Irish Water was satisfied that no such information or advice was necessary to enable Irish Water to carry out the AA;
f) the written submissions or observations made to Irish Water in relation to the Framework Plan, to the extent relevant to AA matters, as detailed in the Consultation Two Report; and
g) Irish Water was satisfied that no other information was required for Irish Water to carry out the AA.