
Chapter 1 Introduction

Irish Water's vision

Through responsible stewardship, efficient management and strong partnerships, Ireland has a world-class water infrastructure that ensures secure and sustainable water services, essential for our health, our communities, the economy and the environment.

Transforming the Delivery of Water Services

Water is one of our most valuable resources and essential for sustaining life. Water circulates through the landscape influencing the locations of our towns and cities and fuelling our social and economic growth. Access to clean water and effective management of wastewater is a requirement for a modern society. However, clean water is expensive to produce and deliver. It is a complex process to turn the water from our rivers, lakes and groundwater (referred to as raw water) into clean drinking water and deliver it safely to each customer's tap. Wastewater must then be collected and treated before it can be reintroduced safely back into our environment.

The water services which each customer receives require significant funding for both the operation of the existing treatment plants and pipe networks and for investment in maintaining existing infrastructure and providing new infrastructure for water services. Irish Water, as a new national utility, must promote an understanding and acceptance of the need for a new fully funded entity to deliver the water services of this country in the 21st century.

The creation of Irish Water has, for the first time, enabled a transformation of the way that water services are delivered in Ireland. A national utility has the scale to effectively and efficiently address the many issues and risks to delivering water services. Despite the work of the local authorities over the last 130 years, substantially more investment is needed across the country to address weaknesses in the current systems, including high leakage rates, varying drinking water quality standards, disruptions to supply and unacceptable wastewater discharges.

This Water Services Strategic Plan provides an opportunity to take, for the first time, a high level view of how water services should be provided, taking a national rather than local perspective and looking at a 25 year time frame as well as considering priorities for short term investment. The plan sets out the framework for future implementation plans and projects. It has been subjected to a Strategic Environmental Assessment and an Appropriate Assessment and these documents are also published and are available at <http://www.water.ie>.

Supporting Social and Economic Development

Reliable water services with the capacity for expansion will enable urban communities, business and industry to grow and attract investment. Within the lifetime of this strategic plan, the emerging problems of water stress around the world will become more acute and sustainably planned water services in Ireland will be a key global competitive advantage. Future development of water services must be in line with agreed national and regional development plans. We will therefore work with regional and local planning authorities and other agencies in the forward planning of water services infrastructure to meet social and economic growth. Importantly, we will be an active consultee in the preparation of the National Planning Framework (which will replace the National Spatial Strategy) and will continue to support national and regional spatial planning policy as it evolves.

Our Responsibilities

Irish Water is responsible for the public supply of drinking water to over 80% of the population. Our water supply responsibilities extend from the abstraction of (raw) water from wells, rivers, lakes and reservoirs, to treatment of this water such that it is suitable for human consumption and onward delivery to our customers' homes and business premises.

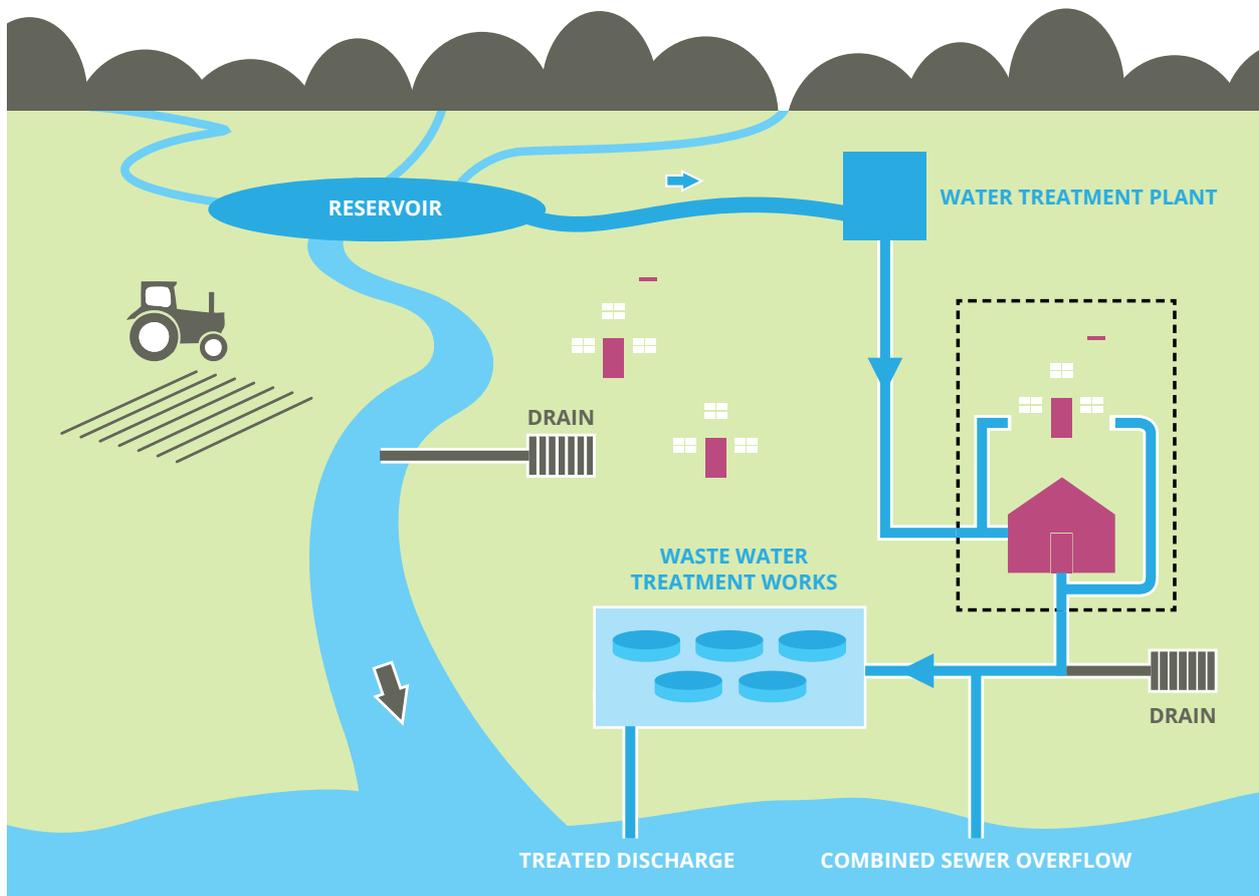
Our responsibilities for wastewater commence when effluent reaches the public wastewater network. We are responsible for its transfer to wastewater treatment plants, its treatment and the subsequent discharge of the treated effluent back into the water environment. We are also responsible for the treatment and disposal of the sludge that is generated from both our water and wastewater treatment plants.

Our environmental responsibilities are to ensure that the quantities of water that we abstract are sustainable and that sufficient water remains in water bodies to support the needs of the ecology and other water users. Our discharges to surface & ground water and emissions to the atmosphere must comply with current legislation, including meeting our discharge license requirements in relation to the EU Water Framework Directive objective to achieve "Good" water quality status for all water bodies. We must also meet national targets for energy efficiency set by the Government.

We are not responsible for Group Water Schemes or private water schemes. While we do provide water to those Group Water Schemes which are supplied from the public network, we are not responsible for their distribution networks and other infrastructure such as reservoirs and pumping stations. We are also not responsible for private wells or septic tanks. The surface water drainage network and flood prevention works remain the responsibility of the relevant local authority or the Office of Public Works. Our responsibility in this area relates only to flooding from our combined sewers (foul sewers receiving stormwater flows), that are generally found in older urban areas. We intend to establish a memorandum of understanding with both the Office of Public Works and local authorities to reflect the complex nature of urban flood management and the responsibilities of each of the parties.

The extent of our responsibilities is illustrated in dark blue in the graphic below.

Figure 1 Extent of Irish Water's Responsibilities



Our Assets

Control of water services infrastructure assets, with a value of more than €11 Billion, transferred from 34 local authorities to Irish Water in January 2014. This large portfolio includes several thousand assets including reservoirs/ water storage facilities, water and wastewater treatment plants, pumping stations, approximately 60,000 km of water pipelines and 25,000 km of wastewater pipelines. At present, we supply drinking water to 3.3 million people through around 900 water treatment plants as well as the collection and treatment of wastewater from over 1,000 separate agglomerations (urban settlements). Due to the previously fragmented nature of the management of water services across the local authorities, the level and quality of data and records vary widely. Consequently, we will be carrying out asset surveys to increasing levels of detail, prioritising critical assets.

We do know that the condition of our assets varies from very good to 'at risk of failure' or in some cases the asset has actually failed. The scale of the remedial works required to eliminate the risk of failure has not yet been fully quantified. Of particular concern is the fact that a significant number of water supply zones are vulnerable to microbiological contamination. Leakage from our water supply networks is at unacceptable levels and well above international norms. Many of our wastewater treatment plants do not meet the legal requirements for discharging effluent to the water environment. Infiltration of groundwater into our wastewater collection network also presents difficulties for the adequate treatment of wastewater.

Our Partners in Delivering Water Services

Irish Water took over the overall responsibility for water services from the 34 local authorities (subsequently amalgamated to 31) in January 2014. Irish Water operates the service on a daily basis through the implementation of Service Level Agreements with the local authorities (LAs) which will run for up to 12 years. Irish Water will prepare annual service plans with the local authorities and the plans will be delivered under these SLAs. Irish Water is currently implementing a transformation plan with the LAs to move towards a single way of working based on the utility model of delivering water services in Ireland into the future.

Our Legal Context

Irish Water will plan, develop and operate our water service functions in line with the requirements of prevailing relevant national and European legislation. Relevant legislation includes multiple statutes, regulations and European directives, some of the most pertinent legislation is included below to illustrate the legislative context in which we operate and which is covered by this plan. The requirements of this legislation are elaborated on in the following chapters where relevant and a more comprehensive list of relevant European legislation is included at Appendix B of the SEA Environmental Report of the WSSP.

Water Services Acts 2007- 2014

Irish Water was incorporated in July 2013 as a semi-state company under the Water Services Act, 2013. The Act sets the governance and funding arrangements for the company in addition to the requirements for water metering. The Water Services (No. 2) Act, 2013 provides for the transfer of water services functions and infrastructure assets from the Local Authorities to Irish Water. This Act also gives Irish Water the authority to charge all customers who are in receipt of public water and waste water services and requires that Irish Water submits a plan for the charging of customers for the provision of water services to the Commission for Energy Regulation (CER) for approval. The CER has been given the responsibility for the approval of a Code or Codes of Practice dealing with the standards of performance to be achieved by Irish Water in the delivery of its functions

Section 33 of the Water Services (No. 2) Act, 2013 requires Irish Water to prepare a Water Service Strategic Plan (WSSP). The WSSP shall state the objectives of Irish Water in relation to the provision by it of water services in respect of the period of 25 years following the approval of the plan by the Minister for the Environment, Community and Local Government. A review of the implementation and operation of the WSSP shall be conducted every 5 years. Section 34 of the Act requires Irish Water to prepare Investment Plans at intervals as directed by the CER. The Investment Plan sets out the investment in water services that Irish Water considers necessary for the effective performance of its function over the investment period. The Investment Plan forms a significant part of Irish Waters submission to the CER in relation to approval of charges to customers for water services. The WSSP and the Investment Plans must take into account statutory spatial planning policy and the requirements of river basin management plans prepared under the Water Framework Directive (see Figure 3).

European legislation pertinent to the operation of Irish Water

As a member state of the European Union, the **Irish state** is required to comply with Directives set by the EU which are transposed into national legislation through Statutory Instruments. The principal directives and resultant national legislation pertinent to the activities of Irish Water are summarised below and discussed further in the Chapters 4, 5, 6 and 7.

- The European Drinking Water Directive (DWD), Council Directive 98/83/EC concerns the quality of water intended for human consumption and sets out quality requirements for same. It applies to all water intended for human consumption apart from natural mineral waters and waters which are medicinal products. The Directive is transposed into national legislation by the European Union (Drinking Water) Regulations 2014.
- The Urban Wastewater Treatment Directive (91/271/EEC) has the objective to protect the environment from the adverse effects of urban wastewater discharges through the regulation of the collection, treatment and discharge of urban wastewater. The Directive is transposed into national legislation by the Urban Waste Water Treatment Regulations 2001.
- The Water Framework Directive (2006/11/EEC) establishes a catchment based approach to the protection, improvement and sustainable use of rivers, lakes, transitional waters (estuaries), coastal waters and groundwater and is given effect through the preparation and implementation of River Basin Management Plans. It adopts the 'polluter pays' principle while the provisions of Article 22 of the Directive facilitates incorporating the requirements of a number of existing Directives into the wider objectives of the WFD. The Directive is transposed into Irish legislation by EU (Water Policy) Regulations 2003 and 2014, EU Surface Water Regulations 2009 and EU Groundwater Regulations 2010. The European Union Water Policy Regulations 2014 added Irish Water as a Public Authority for the purposes of cooperating with the Minister, the EPA and Local Authorities in the preparation and implementation of River Basin Management Plans. Irish Water participates within Tiers 2 and 3 of the new Governance structure summarised below:

Figure 2 Irish Water's involvement in River Basin Management Plans

<p>TIER 1 National Governance</p>	<ul style="list-style-type: none"> • Policy, regulations and resources • <i>Led by DECLG</i>
<p>TIER 2 Technical Coordination</p>	<ul style="list-style-type: none"> • Coordination of monitoring, assessment, reporting and implementation • <i>Led by EPA</i> 
<p>TIER 3 River Basin District Actions</p>	<ul style="list-style-type: none"> • Implementation of Programmes of Measures, tracking and reporting • <i>Led by the lead Coordinating Local Authority</i> 

- The Habitats Directive (92/43/EEC) places an obligation on all Member States of the EU to establish the Natura 2000 network and require protection of defined habitats and species. The network is made up of Special Protection Areas (SPAs), established under the EU Birds Directive (79/409/EEC), and Special Areas of Conservation. The Directives were transposed into Irish national regulations and have been subsequently revised and consolidated in the European Communities (Birds and Natural Habitats) Regulations 2011.
- Environmental Liability Directive (2004/35/EC) transposed by the European Communities (Environmental Liability) Regulations 2008 which establishes a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage. A key aspect is that it requires all businesses to put in place management plans to prevent pollution of the environment and control spills of toxic substances.
- Aarhus Convention (1998) which lays down a set of basic rules to promote the involvement of citizens in environmental matters and to improve enforcement of environmental law. The provisions of the Aarhus Convention are broken down into three pillars: access to information, public participation in decision-making and access to justice. All members of the public are required to have access to review procedures to challenge decisions relating to the environment, made by public bodies or private persons. These procedures must be 'fair, equitable, timely and not prohibitively expensive'.

Additional national legislation pertinent to the operation of Irish Water

- Water Supplies Act, 1942. The abstraction of water from any lake, river, stream, well, or spring by a sanitary authority (Irish Water has the status of a sanitary authority) for a public water supply is governed by the Water Supplies Act which requires a sanitary authority wishing to abstract water for public supply to apply to the Minister (now An Bord Pleanála (ABP)) for a water abstraction order. When determining whether or not the sanitary authority can take a supply and the volume and abstraction rate for that supply, ABP must consider the potential impact of the abstraction on riparian owners, on the water body itself and on the navigability of navigable rivers or canals. ABP may refuse the granting of an abstraction order or alter the terms of the abstraction. The Water Supplies Act, 1942 also allows the sanitary authority to protect the source of their abstraction from pollution or interference with the flow.
- Planning and Development Act, 2000 and Regulations, 2001 (as amended). Irish Water is a prescribed body for the purpose of the making of making Regional Planning Guidelines, county development plans, local area plans and planning schemes. Irish Water is also a prescribed body for development management and can be asked by the planning authorities and ABP to make observations on planning applications. In addition, Irish Water must comply with the statutory requirements of the Act and Regulations when planning the development of water services infrastructure.

Our Commitment

"We believe that all of our customers should receive a safe and reliable supply of drinking water and have their wastewater collected and safely returned to the environment.

We will protect the environment in discharging our responsibilities and support Ireland's social and economic growth through appropriate investment in water services."



Drogheda Wastewater Treatment Plant. Photo: Irish Water

Our Strategic Plan for 25 years

The preparation of this Water Services Strategic Plan is required under Section 33 of the Water Services (No. 2) Act, 2013, with the purpose of stating the objectives for Irish Water in the provision of water services and the means to achieve those objectives over the next 25 years. As a public plan, it has been subjected to Strategic Environmental Assessment (SEA) in accordance with the European Union (EU) SEA Directive (2001/42/EC) and Appropriate Assessment (under the EU Habitats Directive) and these documents are also published for review.

This is the first Water Services Strategic Plan of Irish Water and it will be reviewed on at least a five yearly basis to ensure that the plan continues to be appropriate and captures the strategic objectives needed to provide efficient and effective water services for Ireland. The reviews will also be informed by changes in legislation and better information, especially on asset performance, demographics and climate change. Future reviews will also benchmark our performance against the targets set out in this plan and allow for revision of these targets to achieve our long term objectives.

An interim review is also planned to ensure consistency with the new National Planning Framework, the new Regional Spatial and Economic Strategies and River Basin Management Plans which will be developed in the next few years.

Planning for the Future

This Water Services Strategic Plan sets the context for subsequent implementation plans. These implementation plans will detail the programmes of works to be completed in specific water service areas, for example, water resource planning, sludge management planning, climate change adaptation and mitigation and wastewater compliance. Each implementation plan will ensure that we comply with our legal obligations, meet the objectives of this Water Services Strategic Plan and our performance targets. The implementation plans will also take into account the findings of other relevant national, regional and local plans (e.g. river basin management plans and regional development plans) and will be subject to Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) legislation as required.

The relationship of this (Tier 1) Water Services Strategic Plan to the (Tier 2) implementation plans and the future (Tier 3) projects is illustrated in Figure 3 with their relationship to the national spatial planning framework included.

Figure 3 Relationship of this Tier 1 WSSP to the Tier 2 plans and Tier 3 projects and their relationship to the national planning framework

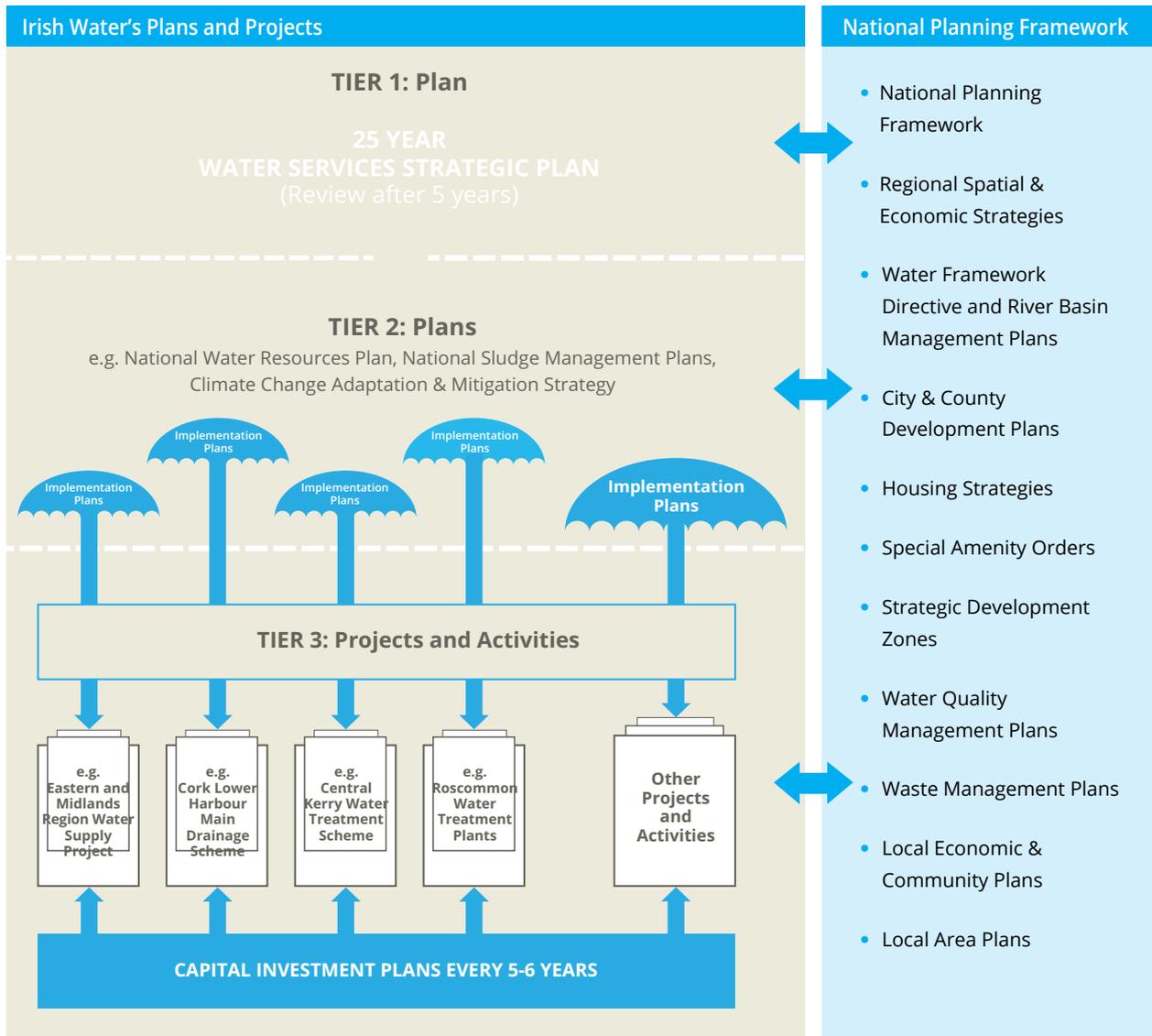


Table 1 A draft timetable for the delivery of implementation plans and strategies

Title of Plan/Strategy	Estimated Date Available	Strategy addressed
National Water Resources Plan	Q3 2017	WS1a
Drinking Water Safety Plans <i>Plans for 135 water supply zones (WSZ)</i> <i>Plans for the remaining WSZ</i>	Q1 2016 Q1 2021	WS1b
THM & Pesticides Strategies	Q3 2017	WS1f
National Water Treatment Plant Sludge Management Plan	Q3 2017	EN3c
Lead in Drinking Water Mitigation Plan	Q1 2016	WS1e
Wastewater Compliance Strategy	Q3 2017	WW1a
National Wastewater Sludge Management Plan	Q4 2015	EN3b
Climate Change Adaptation and Mitigation Strategy	Q2 2016	EN1c
Corporate Waste Management Strategy/Plan	Q4 2015	EN3a
Sustainable Energy Strategy	Q3 2015	EN1b



Our Strategic Objectives and Aims

The Minister for Environment, Community and Local Government has issued a Ministerial Direction (Water Services Strategic Plan Direction 2014) which sets out the form that this plan shall take and directs the plan to follow a customer-focussed approach with identifiable time-bound and measureable objectives. The direction also states that the plan should address the following seven thematic headings:

- **Challenges and Strategic Priorities;**
- **Meet Customer Expectations;**
- **Ensure a Safe and Reliable Water Supply;**
- **Provide Effective Management of Wastewater;**
- **Protect and Enhance the Environment;**
- **Support Social and Economic Growth; and**
- **Invest in Our Future.**

The latter six headings form our strategic objectives whilst not being in any particular order of priority. We will address these strategic objectives in partnership with our customers, our economic and environmental regulators, industry and other stakeholders to develop innovative, holistic, sustainable solutions whilst providing value for money.



How this Document is Laid Out

The document presents the challenges and strategic priorities in the next chapter. This highlights the current and future challenges which we face in the provision of water services to customers and for the protection and enhancement of the environment. Our current priorities are also identified.

The six strategic objectives are presented in separate chapters. For each objective, we detail our understanding of the current situation, key challenges, what our customers can expect from us in the future and our high level strategies to address the challenges. Indicators and targets, against which our performance can be assessed, complete each chapter.