UISCE ÉIREANN : IRISH WATER

Capital Investment Plan 2020-2024

Explanatory Booklet

July 2021

Part of ervia group

Foreword

Irish Water is your national public water services utility, responsible for providing and developing water services throughout Ireland. We deliver water services consistent with public policy as required by the Water Services Acts and other legislation and in accordance with our statutory and other responsibilities.

We are regulated from an economic perspective by the Commission for Regulation of Utilities (CRU) and from an environmental perspective by the Environmental Protection Agency (EPA). The Department of Housing, Local Government and Heritage (DHLGH) is responsible for water policy and legislation and following on from the Water Services Act 2017, the Department is responsible for oversight of the State funding to Irish Water.

As required under the regulatory framework, in November 2018 Irish Water submitted business plans to the CRU for both operating and capital costs for the period 2020-2024. This is referred to as Revenue Control 3 or RC3. The CRU held a public consultation on these submissions and in December 2019 the CRU published its Decision Paper on RC3. Following a further submission from Irish Water in April 2020, the CRU published an update to Irish Water's Capital Investment Plan – Revenue Control 3.5 in August 2020.

This document is not intended to replace or replicate these original submissions and decision papers. This is a separate explanatory overview of the main issues and details of Irish Water's capital investment and reflects the current position as at July 2021.

We recommend reading this document in conjunction with the original decisions and relevant submissions which are all available on the CRU website at https://www.cru.ie/document_group/irish-water-revenue-control-3-2020-2024/

Contents

Irish Water – Your National Utility

Irish Water is your national water utility responsible for providing and developing public water services throughout Ireland.

Supplying **1.7 billion litres** of treated water and treating **1.2 billion litres** of wastewater every day

Serving **1.8 million** households and **184,000** businesses across Ireland

755 Water Treatment Plants
1,711 Water Pumping Stations
1,426 Water Reservoirs

1,062 Wastewater Treatment Plants
2,206 Wastewater Pumping Stations
2,000 Storm Water Overflows

63,000 Kms of water mains
26,000 Kms foul/combined sewer network

Operation of water services by Local Authority staff under 31 Service Level Agreements

What is the Capital Investment Plan?

The Capital Investment Plan 2020-2024 is Irish Water's investment plan for water and wastewater assets and infrastructure for the next 5 years.

As the national water utility, Irish Water aims to deliver improvements to water services throughout Ireland where they are needed most urgently based on a clearly defined set of priorities. Our primary function is to provide clean drinking water to customers and to treat and return wastewater safely to the environment. In providing these services we play a central role in enabling economic growth, protecting both the environment and the health and safety of our customers and the public.

Irish Water operates within a regulatory framework which is set out in legislation. This requires Irish Water to submit plans in advance to our economic regulator, the CRU, for our proposed operational and investment spending in revenue funding "cycles". We are currently in the third of these funding cycles – Revenue Control 3 or RC3. This is a five-year funding period covering 2020 to 2024.

The Capital Investment Plan sets out where we prioritise investment to deliver the most urgently needed improvements in drinking water quality, leakage reduction, water availability, wastewater compliance, efficiencies and customer service.

It is made up of investment in individual projects such as building new or upgrading existing water and wastewater treatment plants and upgrading existing networks, and national programmes where activities are being delivered in a consistent and efficient manner across the country. Some examples of these programmes are the Leakage Reduction Programme, the National Disinfection Programme, the Small Towns and Villages Growth Programme, and the National Certification Authorisation Programme.

The projects and programmes contained in the Capital Investment Plan 2020-2024 are listed in Appendix 3.

How was the Capital Investment Plan developed?

Irish Water has an approved amount of €5.35 billion to invest in public water and wastewater infrastructure between 2020 and 2024. This is a huge amount of money, but there are many areas where urgent investment is needed. Even investing at this level, it will not be possible to deliver all the works that are needed to address all the issues with the public water and wastewater infrastructure in Ireland within this investment cycle. For this reason, some tough decisions were needed on where the investment priorities should be.

The Capital Investment Plan was developed in stages over a period of approximately two years, commencing in 2018.

Stage 1: Identify Need

The first step involved identifying what is needed across all the Irish Water asset portfolios to deliver water and wastewater quality, conservation, growth and future-proofing. Irish Water looked at the national policies and plans that have a direct impact on where investment should be prioritised (such as the *Water Services Policy Statement 2018-2025*, *Project Ireland 2040*, *River Basin Management Plan 2018-2021*) or which have a dependence on the public water and wastewater infrastructure such as housing policies, job growth policies, and climate action plans.

We also looked at the regulatory standards and policies that we must be compliant with such as the drinking water and wastewater standards and regulations. There are also Irish Water strategies (such as the 25 Year *Water Services Strategic Plan*) and other third party plans, such as the city and county development plans, that have a role in determining the investment planning.

A full list of these plans and policies and links to the individual documents are in **Appendix 2.**

Stage 2: Develop Solutions

The list compiled from all of the relevant policies and plans and from consultation with the various policy and plan owners resulted in over 40,000 options to be considered. This required Irish Water to develop solutions and estimate costs to fix, maintain and improve public water services across Ireland.

Stage 3: Constrain and Review

There are more projects and options than there is available funding under either the Strategic Funding Plan or the National Development Plan. Each portfolio covering water and wastewater assets and infrastructure had to be constrained and prioritised for projects and programmes that could be delivered under this Capital Investment Plan with the remainder held over for future investment plans. The draft Investment Plan was reviewed and refined to ensure it met the objectives of the relevant policies and strategies; to make sure it made sense to all our various stakeholders; that it was delivering the most benefit to the largest population for the right cost; and that it looked reasonable and had the right balance.

Stage 4: External Review and Approval

The draft Investment Plan, including the proposed outputs and outcomes, was then submitted to the Commission for Regulation of Utilities (CRU). This was based on the best estimate of delivery dates for outcomes and outputs that we had in 2019. Our submission was reviewed and challenged by the CRU supported by public consultation and the CRU's specialised external consultants where they determined if these were the right priorities. The CRU published their final decision on the Capital Investment Plan 2020-2024 in August 2020 which provides approval of c. €5.35bn[1] of investment and sets a target for efficiencies to be gained.

[1] In nominal monies and excluding finance charges.

What investment choices have we made for RC3?

Irish Water is focused on key deliverables that will bring our water infrastructure and services to a good standard, while supporting economic and social development as our economy continues to grow. We must focus on delivering a quality service to customers.

In the period from 2021-2025 almost €6bn investment will be undertaken by Irish Water under the National Development Plan 2021-2030. This investment includes the projects and programmes committed to in Irish Water's Capital Investment Plan 2020-2024.

This investment will be delivered in parallel with the continued transformation of water services to ensure there is consistent application of maintenance standards; significant operational changes and operating cost savings are achieved; and water conservation and sustainable water resource management are embedded into water policy.

How did we prioritise investment for RC3?

In developing the RC3 Investment Plan, we firstly took into consideration the investments and projects that were commenced in the interim Regulatory Control Periods 1 and 2 (2014-2016 and 2017-2019) but not yet completed. These projects carried over into the RC3 period and funding was allocated based on the estimated cost to completion.

The remaining funding in the RC3 Investment Plan was then allocated based on the following criteria:

1. **Strategic Priorities**

   These are based on legislative, policy, and Shareholder direction in line with the *Water Services Policy Statement* and *Water Services Strategic Plan*. This includes funding for:

   1. Legislative and compliance commitments such as investment addressing the European Court of Justice cases for Urban Wastewater and Trihalomethanes, removal of water supplies from the EPA's Remedial Action List, Lead compliance, agglomerations with inadequate or no wastewater treatment, addressing the

requirements of the River Basin Management Plan and removal of agglomerations from the EPA's Priority Areas List for wastewater.

2. Delivery of leakage commitments made in the WSSP.
3. Support for rural development growth commitments including Government initiatives such as the Local Infrastructure Housing Activation Fund, the Small Towns and Villages Growth Programme and Irish Water's Connection Policy.
4. Progression of significant projects to address capacity constraints in the Eastern and Midlands Region (Water Supply Project Eastern and Midlands Region and Greater Dublin Drainage Project).

2. Tactical Priorities

These were identified using a risk-based approach to prioritise within asset portfolios. This includes funding allocated to deliver:

1. Quality and capacity investments including infrastructure projects such as Lower Liffey Valley Sewerage scheme, GDRDP Blanchardstown Sewerage Scheme, Upper Liffey Valley Sewerage Scheme, Cork City Water Supply, Saggart Reservoir and Ballycoolen Trunk main.
2. Organisational and IT investments to support organisational and digital transformation and develop enhanced asset management capability.

3. Operational Priorities

These were developed from bottom up analysis of need based on specific asset classes. This includes funding to:

1. Address asset and service risk to customers through capital maintenance and programmes for failed and failing asset replacement.
2. Support asset and operational priorities such as energy efficiency, sludge management, invest to save initiatives and the National Telemetry Programme.
3. Allocate funding for Emerging Needs to address unforeseen or unfunded needs arising through the RC3 period.

Figure 1: Funding Allocation

What does the Investment Plan look like as a result?

Based on the prioritisation approach outlined above, the allocation of funding across the portfolio is shown in Table 2 and Figure 2 below.

Table 2 – Allocation of Funding across Portfolio by Priority

Priority	Rationale	Examples of typical investments	% of RC3
Strategic – Legislative	Funding mandated to deliver commitments arising from WSSP	• Remedial Action List • European Court of Justice case for Urban Wastewater • European Court of Justice Case for Trihalomethanes in Drinking Water • Untreated Agglomerations • Wastewater Priority Areas for Action • River Basin Management Plan • Lead	33%
Strategic– Leakage	Funding mandated to deliver leakage commitments arising from WSSP	• Leakage Reduction Programme • Mains Rehab • Operational leakage management and spend in addition to capital spend.	8%
Strategic – Growth	Funding mandated to support Government initiatives and IW connection policy.	• Local Infrastructure Housing Activation Fund • Multi Unit Housing Developments • Small Towns and Villages Growth Programme. • Network Extensions, New Connections.	13%
Strategic – Significant Projects	Funding mandated to address risk of growth constraints in GDA and Eastern Midlands	• Water Supply Project, Eastern & Midlands Region • Greater Dublin Drainage Project	15%

Tactical – Growth/Quality	Funding allocated to deliver quality and capacity investments	• GDRDP Blanchardstown SS • Upper Liffey Valley SS • Cork City WS • Saggart Reservoir • Ballycoolen Trunk main	9%
Tactical - Non Network	Funding allocated to deliver organisational and IT transformation	• Single Public Utility/Transformation • Fleet/Facilities/Labs • IT	6%
Operational – Capital Maintenance	Funding allocated to address asset and service risk to customer	• Water and Wastewater Capital Programmes • Failed asset replacement	8%
Operational – Asset and Operational Needs	Funding allocated to support asset and operational priorities	• Sludge, Energy Efficiency • Planning and Studies • Invest to Save, Health & Safety • National Telemetry Programme.	6%
Operational – Emerging Needs	Funding allocated to address unknown needs arising in RC3	• Budget to address unplanned issues as they arise e.g. Leixlip WTP following BWN	2%

Figure 2 - Allocation of Funding across Portfolio by Priority

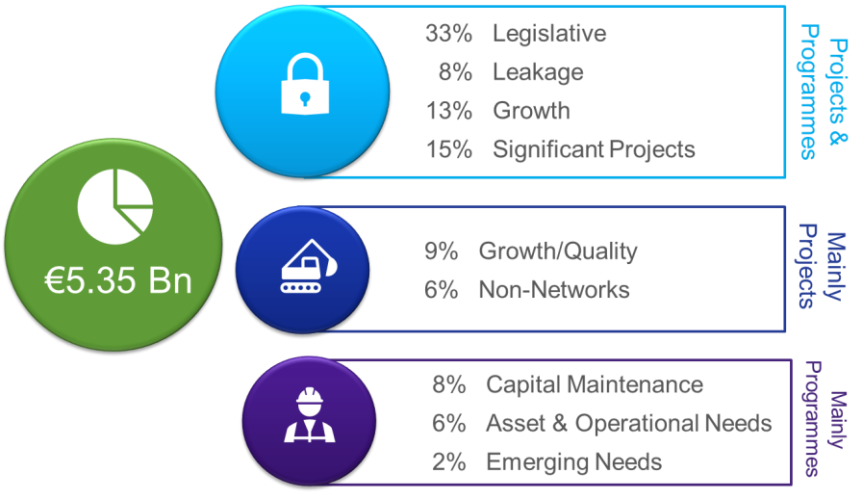
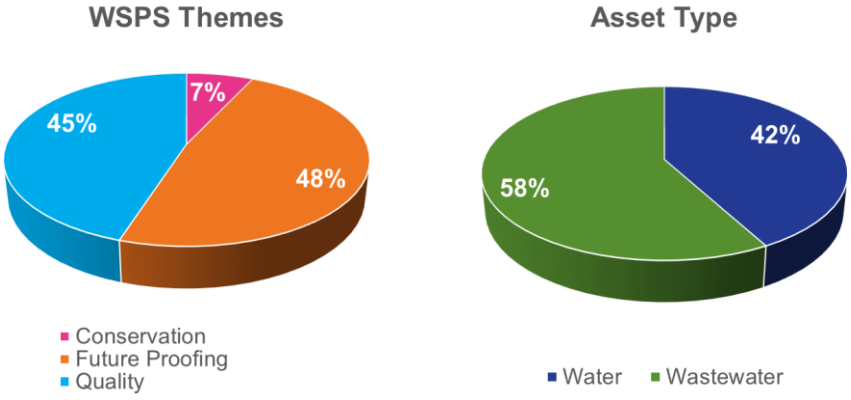


Figure 3. Spend by Policy Theme and Asset Type.



What will be the key deliverables and key benefits from this investment?

Investment in our country's water services is critical in meeting the needs of our growing economy across the regions, of our people and their health and the protection and enhancement of the quality of our environment.

In real terms this investment underpins almost all economic, employment and housing development in Ireland. The funding is being directly invested into improving the quality of Ireland's existing water and wastewater infrastructure; increasing water and environmental conservation activities; and building resilience and sustainability into public water and wastewater services to meet the future population and economic needs of the country.

Through investments to date we are eliminating the highest risks for the largest amount of people. Much has been achieved, but we need to continue this investment to bring public water infrastructure assets up to a good standard for all users of public water services and for the environment.

For this investment plan, Irish Water will deliver a mixture of projects and programmes, as detailed in Table 2 and in Appendix 3. Specific metrics and performance indicators for each is agreed with the CRU and are reported to the CRU and the Department who monitor Irish Water's progress. These deliverables are referred to as outputs and outcomes. These are the high-level objectives that matter most to consumers of water and wastewater services.

Some of the spend committed to in this RC3 period is for projects and programmes that have completion dates beyond 2024. These are not identified as committed outcomes for the RC3 period.

There will be outcomes from the Plan which cover areas such as growth, capital maintenance and service improvements. These cannot be fully forecast or quantified in advance, but these investments will be captured and reported on retrospectively over the course of the Plan.

Tracking Irish Water's Progress against Committed Outcomes

Irish Water's progress against these investment plan targets is tracked on an annual basis by our regulators and our Shareholder, the Department of Housing, Local Government and Heritage. The CRU also publishes its annual Monitoring Report on Irish Water's Capital Investment Plan.

These are the main benefits from the proposed investment.

Improved drinking water quality

- Prioritisation of investment so public water schemes with identified weakness are fixed and then removed from the EPA's Remedial Action List.
- Better protection of drinking water sources to reduce risk of contamination and manage the impacts of climate change.
- New and upgraded water treatment plants and better performance of disinfection processes under all operating conditions.
- Move to Drinking Water Safety Plans to provide an integrated framework for operating and managing water supply systems.
- Ongoing removal of lead pipes and reduction in risk from Trihalomethanes.

Improved Wastewater

- Ending of untreated wastewater discharges in identified areas across the country, providing these communities with a public wastewater treatment system for the first time.
- Better treatment of wastewater through higher compliance with the Urban Wastewater Treatment Regulations under which the EPA sets controls on Irish Water discharges.
- Prioritisation of investment to remove agglomerations from the EPA's Priority Areas List (PAL)

Water Conservation

- Prioritisation of measures to reduce network leakage and encourage customer conservation and behavioural change.

- Progression of the national Leakage Reduction Programme which targets resources at areas of highest leakage and lowest headroom across water networks.

Environmental Conservation

- We are implementing measures to adapt to future climate change and develop a resilient and sustainable water and wastewater service, including climate change mitigation through reducing our emissions of carbon dioxide and other greenhouse gases.
- Irish Water is one of the largest energy users in the country. Energy consumption in water and wastewater services will continue to increase in line with economic activity and population growth. Energy efficiency improvement is a key mitigation measure as part of our climate change policy. Our sustainable energy policy sets out our commitment and our objectives for improving energy efficiency and reducing our carbon emissions.

Supporting Social and Economic Growth

- Investment in water services is a key factor in enabling proper planning and sustainable development in the national, regional and local context. We are investing in a range of programmes that will support this growth as identified in the appropriate national, regional and local level statutory plans as part of a balanced portfolio of investment across the three themes of the WSPS.
- Irish Water will review the proposed investments in this Investment Plan against the demand and population estimates when the updated statutory Core Strategies of the individual Local Authority Development Plans are available and as project delivery timelines require.
- In addition to specific growth programmes, many investments driven by quality objectives will include an allowance for growth in the sizing of the proposed assets.
- All newly/modified connecting customers will enter a connection agreement in line with Irish Water's national connection policy (as approved by the CRU).

Improving Capacity and Resilience

- Irish Water recognises the need for a good quality, resilient water supply for all our customers. The National Water Resources Plan (NWRP)

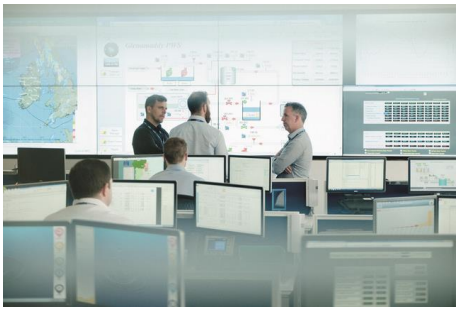
identifies sustainable, reliable future sources of water which will require significant investment to meet current and growing future demands.

- It is expected that the "Water Supply Project – Eastern and Midlands Region" will support national development with long term sustainable and reliable water supplies across the Eastern and Midlands region.
- Wastewater capacity and resilience are being provided across the investment programme as a part of quality driven investment. In the Greater Dublin Area, additional capacity will be provided by the Greater Dublin Drainage project.
- The Water Framework Directive requires Ireland to have a system in place for the registration and control of abstraction of water and the Department of Housing, Local Government and Heritage has commenced this process. Irish Water will start to address water supply zones that are currently under pressure from over abstraction by prioritising investment to deliver the greatest environmental improvements.
- Our target is to provide 24-hour production capacity at all water treatment plants so as to accommodate projected demand needs. This will include a factor of safety to allow for periods of high demand.

Managing our existing assets

- Optimising the life of all existing assets is an essential part of Asset Management. This ensures we get the maximum value from our assets for our customers. The objectives of an asset management approach include maintaining the current levels of service to our customers and the environment; increasing understanding and applying consistent approaches to management of the asset life cycle; and ensuring the safety, health and well-being of our employees, customers and the public.

Are there any reasons why these benefits may not be realised?



We have carefully considered every element of the capital investment plan and we are committed to achieving the agreed outcomes, efficiencies and benefits.

However, it is not possible to control the future. All we can do is identify the possible risks, closely monitor them and make sure we take any actions that we can to reduce or manage these risks.

We will keep our stakeholders informed of our progress through the monitoring groups and proposed change management process which are detailed later.

Impact of the Coronavirus Pandemic

When the Investment Plan was being drafted in 2018 and 2019 the risk of a worldwide pandemic, the impact of which would last years, was not factored into the planning process. Since March 2020, public water and wastewater services have continued uninterrupted. However, the impact of the COVID-19 pandemic is not yet fully known:

- Increased economic growth pre-Covid had already contributed to increased construction activity which was driving up tender prices at a rate higher than the broader inflation indices. The Covid-19 impact on raw material manufacture, transport costs and on-site Covid protocol and labour costs is expected to further add to construction inflation. We are working collaboratively with our supply chain and commercial teams to capture these costs accurately in line with Government advice.
- This will also impact on our ability to meet capital efficiency targets.
- Irish Water engaged with the Government to deliver a number of 'shovel ready' projects as part of the national Stimulus Package in 2020. This has positively delivered a number of projects across the State and realised a large number of jobs to support the economy. However, this may have an impact on some programmes in later stages of the investment plan if Irish Water is required to balance the overall funding for these programmes to account for the entirety of this work.

Other risks being considered

As the investments are rolled out, there will inevitably be challenges and occurrences that may impact delivery of the proposed investment during the period. Some of these risks, and the actions Irish Water is taking to manage these, include:

- **Emerging needs**
    - The Plan only has provision for a very limited number of **emerging needs** on an annual basis. These are instances where capital will need to be spent to address issues that may arise with an asset that was not planned for. By their nature, these emerging needs are high priority and will displace existing projects.
    - Some developments that will positively inform future investment decisions include:
        - The **National Water Resources Plan** and the related Regional Water Resources Plans will identify water supplies that have a supply/demand deficit
        - Irish Water's **Leakage Management** System where leakage data at a national level is now based on recorded values using a standard calculation methodology.
        - Irish Water is developing and implementing a **Climate Change and Adaptation Strategy** to meet climate change policy commitments.
        - We also monitor the **growth assumptions** in our investment planning to ensure we make the necessary adjustments to align them with actual growth rates.

- **Changes in the regulatory and policy landscape**
    - **Abstraction Legislation** is being introduced by the Government which will provide for the control of the abstraction of water on a risk-based approach and will update the regime for the abstraction of water for public water supply by Irish Water. This may have an impact on the supply/demand deficit of individual public water supplies. Critical projects such as the 'Water Supply Project - Eastern and Midlands Region' are also dependent on the proposed legislation being enacted.

- The planning for the **River Basin Management Plan 2022-2027** has commenced and any requirements arising may impact in the 2022-2024 period.
- We will review projects in planning and delivery as the Core Strategies of the individual **city/county development plans** at Local Authority level are updated and finalised.
- The European Commission adopted a proposal for a **revised Drinking Water Directive** to improve the quality of drinking water and provide greater access and information to citizens. This may have an impact on project designs and scope which could impact delivery and planning timelines.

- **Financial and economic constraints**
  - The proposed levels of investment in the RC3 period are ramping up to the highest levels in the history of the water industry in Ireland. The **supply chain capacity** is currently experiencing unprecedented pressure from increased activity in areas such as housing and transport as well as water and wastewater.
  - The risk of unforeseen delays to **planning and statutory approvals** or planning refusals and the need for complex stakeholder engagement may result in uncertainty around the estimated delivery dates for some projects.

All of these may involve changes to our investment priorities and impact on the delivery of our committed outcomes. A change management process to provide governance of change during delivery is in place within Irish Water and the CRU has also set out an enhanced process to review all changes made to the investment plan on an annual basis.

Can the Plan be changed?

The overall allocation of the funding across the various investment headings has been agreed and independently approved by the CRU and cannot be changed. These in turn are linked to the agreed investment plan outcomes.

Periodic review of the Investment Plan will be required to mitigate the risks to delivery identified and re-balance with the most up to date information and assessment of emerging needs.

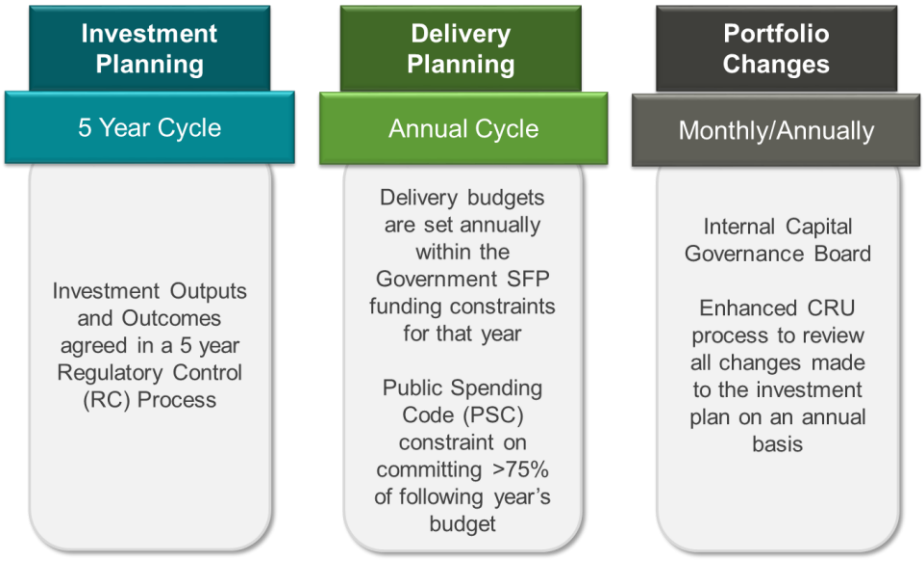
Irish Water has a Portfolio Balancing process in place as part of our internal governance procedures. A Capital Governance Board reviews the current state of the Investment Portfolio on a quarterly basis with respect to:

- Progress against achieving agreed Investment Plan outcomes; and
- Progress against spend and delivery targets.

The Capital Governance Board will also review any emerging issues, needs or risks, agree any funding allocation, and agree if any projects or programmes need to be amended, delayed or reprofiled as a result.

These changes are then brought through an external review process including the Delivery Monitoring Group and the CRU.

Figure 4: Capital Investment Governance



Who monitors Irish Water's progress against the Plan?

We report our progress on the delivery of our Investment Plan outcomes to the Minister on a quarterly basis through the Delivery Monitoring Group.

Delivery Monitoring Group

This Group is Chaired by the Department of Housing, Local Government and Heritage (DHLGH) in line with its role in policy development and financial governance of Irish Water, particularly with regard to capital investment, and includes key stakeholders EPA, CRU and NewERA, as well as Irish Water. The purpose of the Group is to ensure that there is a common understanding of the outputs expected from investment by Irish Water, while respecting the particular statutory roles of the participants in the Group.

Change Management Review Process with the Regulators (CRU and EPA)

The CRU has set out an enhanced process to review all changes made to the investment plan on an annual basis. We also report our progress against agreed outcomes such as the RAL and the PAL to the EPA on a quarterly basis.

There are also **Statutory Oversight Bodies** that Irish Water provides regular updates to on progress.

The **Water Advisory Body (WAB)** was established under the Water Services Act 2017 and is an independent State Body. The purpose of the WAB is to advise the Minister for Housing, Local Government and Heritage on measures needed to improve the transparency and accountability of Irish Water. In addition to this the WAB also reports to an Oireachtas Committee focusing on the performance of Irish Water on the implementation of its business plan including infrastructure delivery.

An Foram Uisce, the National Water Forum, was also established as a statutory body in June 2018 to facilitate stakeholder engagement and debate on issues relating to water as a resource, water quality, rural water concerns, issues affecting customers of Irish Water and issues associated with the implementation of the Water Framework Directive.

Where does the funding for the Capital Investment Plan come from?

In 2017 the Government formed the Joint Oireachtas Committee on the Future Funding of Water Services. They determined that Irish Water be funded through Government subvention and continuation of charges from businesses and new connections. This was enacted into legislation under the Water Services Act 2017.

The Water Services Policy Statement (by the Minister) and the Strategic Funding Plan (by Irish Water and approved by the Minister) provide some certainty regarding the level of Government funding that will be available to Irish Water over a multi-year period.

The CRU, through its revenue control process, decides on the revenue that Irish Water can receive through this funding over the period of the revenue control. At the end of each revenue control period, the CRU evaluates Irish Water's spending to determine whether it was within the pre-determined allowance and whether it delivered its defined outputs and outcomes for the revenue allowed by the CRU.

Why is the Capital Investment Plan for 5 years?

This is to match the current revenue control period, RC3.

The CRU has carried out two revenue controls to date (IRC1 and IRC2). Both of these revenue controls have been 'interim' or short term revenue controls in recognition that Irish Water, as a newly-formed utility, did not yet have the relevant data to facilitate a longer revenue control period (typically 5-6 years).

This third revenue control period is 5 years starting from January 2020. This longer revenue control period provides a greater level of certainty to Irish Water and will help us plan for and complete the work necessary to drive service improvements and cost efficiencies over a number of years.

What happens after the 5 years (2025 and beyond)?

Work is already commencing in preparation for the next revenue control period – Revenue Control 4, which is also anticipated to be for five years.

This is RC3, so what about RC1 and RC2?

The CRU has carried out two revenue controls to date (IRC1 and IRC2). Both of these revenue controls have been 'interim' or short term revenue controls due to the fact that Irish Water was a newly-formed utility.

The revenue control process involves the CRU engaging with and reviewing Irish Water's submissions, benchmarking Irish Water's proposed costs against comparator companies, completing a public consultation process, and thereafter setting appropriate revenue allowances for operating costs, capital costs and other items.

At the end of a revenue control period, the CRU evaluates Irish Water's spending to determine whether it was within the pre-determined allowance and whether it delivered its defined outputs and outcomes for the revenue allowed by the CRU.

IRC1

Interim Revenue Control 1 (IRC1) was from 1st October 2014 to 31st December 2016. Under IRC1 Irish Water invested €1.615 billion in capital projects and programmes to improve public water and wastewater services as set out in its Investment Plan.

IRC2

Interim Revenue Control 2 (IRC2) was from 1st January 2017 to 31st December 2019. In this period, Irish Water directly invested a further €2.072 billion in capital expenditure in improving public water services.

Irish Water has delivered significant improvements since 2014 from this investment, eliminating long term boil water notices, already ending up to half of all discharges of untreated wastewater into open water bodies and delivering higher quality and new capacity for drinking water and wastewater treatment. However significant challenges still remain, such as Ireland's non-compliance with European water and wastewater directives.

Significant capital projects have been delivered which have improved water and wastewater quality and capacity across the country. Examples of these include new sewerage schemes at Belmullet, Youghal, Killybegs, Bundoran and Kinvara, and upgraded wastewater infrastructure at Dundalk, Drogheda, Oberstown, Swords, Ennis and Enniscorthy. Significant upgrades were made to water treatment plants at Drogheda, Dundalk, and Skibbereen, for example, and the construction of a new award-winning water treatment plant for Central Kerry was completed.

Irish Water has also worked to gather data on all public water and wastewater assets including capacity and resilience, and to develop specific long-term strategies and plans. This in turn has allowed it to plan for population and economic growth and to better understand and identify the investment needed to address statutory compliance requirements and asset maintenance.

Some key Outputs from IRC1 and IRC2 (2014 to 2019)

- Public water schemes on the EPA's RAL reduced from 121 in 2014 to 52 in December 2019.
- 98 water treatment plants have been built or upgraded since 2014.
- A total of 45 wastewater treatment plants were built or upgraded.
- 15 agglomerations with no wastewater treatment were connected to newly constructed treatment plants.
- Works were completed on 36 agglomerations listed in the 2018-2021 River Basin Management Plan.
- From 2014-2019 estimated gross leakage savings[2] of 150.3 Ml/day on the private side and 153.5 Ml/day on the public side have been delivered as a result of specific initiatives to address national water leakage.
- A total of 1,783 km of water mains were laid or rehabilitated.
- A total of 204 km of sewer were laid or replaced.

More information on IRC1 and IRC2 is available on the CRU website at www.cru.ie

[2] Irish Water measures leakage reduction outputs from the works completed through its Leakage Reduction Programme in millions of litres per day (MLD) in gross water savings, which is calculated as the amount of water saved at a local District Meter Area (DMA) level.

How can I find out what is happening in my area?

Irish Water is committed to keeping all our customers and stakeholders informed of our progress against our commitments in the investment plan.

We will also make all reasonable efforts to inform you in advance of any planned works that may have a direct impact on your supply or your community.

There are many sources of information including:

Irish Water Website www.water.ie

We have recently introduced changes to our website that allows you to **set your location** and then all the relevant information for that location will be displayed. This includes information on local projects and programmes.

The website also contains copies of all the **strategies** and **business plans** for you to download. Our **Services and Supply** section is also updated to show any planned works underway and is updated when any unplanned incidents are known.

Public consultations

Public consultations run by Irish Water will be advertised in national or local newspapers (depending on the issue being consulted on), on our website and on social media.

Project updates

We hold open days for projects in local communities where staff from Irish Water attend to share plans and answer any questions. Due to Covid-19 we have had to move some of these online but they are still underway. Details of the open days are advertised locally and online in advance.

We also keep lists of individuals or groups who have permitted us to keep them informed about a particular project or strategy. We contact these directly using the contact details they have provided to us. If you are interested in being added to a stakeholder list for a particular project visit our website where the contact details for each project can be found.

Local updates

We provide updates to local media (press and radio) on activities in that area on a regular basis and also use social media to tailor information to specific locations. We also provide regular updates to local elected representatives and have a dedicated phone and email service for them to ask for information directly from us.

Appendices

Appendix 1. Glossary of Terms and Abbreviations

Abbreviation	Description
CAPEX	Capital Expenditure
CIP	Capital Investment Plan
CRU	The Commission for Regulation of Utilities (formerly the Commission for Energy Regulation)
DAP	Drainage Area Plan
DHLGH	Department of Housing, Local Government and Heritage (formerly Department of Housing, Planning and Local Government)
DPER	Department of Public Expenditure and Reform
DWSP	Drinking Water Safety Plan
ECJ	European Court of Justice
EPA	Environmental Protection Agency
IRC 1	Interim Revenue Control 1 (2014-2016)
IRC 2	Interim Revenue Control 2 (2017-2019)
LA	Local Authority
LIHAF	Local Infrastructure Housing Activation Fund
LRP	Leakage Reduction Programme
MUHDS	Major Urban Housing Development Sites
NDP	National Development Plan
NPF	National Planning Framework
NWRP	National Water Resources Plan
PE	Population Equivalent
RAL	EPA's Remedial Action List
RBMP	River Basin Management Plan
RC3	Revenue Control 3 (2020-2024)
SFP	Strategic Funding Plan
THM	Trihalomethane

Abbreviation	Description
UWWTD	Urban Wastewater Treatment Directive
WFD	Water Framework Directive
WSZ	Water Supply Zone
WSPS	Water Services Policy Statement
WSSP	Water Services Strategic Plan
WTP	Water Treatment Plant
WW	Wastewater
WWTP	Wastewater Treatment Plant

Term	Description
Abstraction	The removal of water from a river, lake or groundwater usually with the use of a pump.
Asset	Infrastructure (e.g. buildings, treatment plants) and equipment (e.g. pumps, screens, treatment units, disinfection systems and control panels) controlled and operated by IW to deliver drinking water and wastewater services. We divide these into Below Ground Assets such as pipework and valves and Above Ground Assets such as treatment plants.
Catchment	The area of land where surface water from rainfall converges to a single point at a lower elevation, usually a point in a river, lake or an estuary. The catchment includes all drainage channels, tributaries (smaller streams) and floodplains.
Discharge	Treated effluent from a wastewater treatment plant which is returned to the water environment. This is usually from a pipe and outflow structure into a river or the sea.
Drainage Area Plan	A detailed plan for a drainage catchment that prioritises a list of interventions based on risk using an approach established in the Sewerage Rehabilitation Manual.
Drinking Water Regulations	European Union (Drinking Water) Regulations 2014 - S.I. No. 122 of 2014.

European Directive	A legal act of the European Union which requires member states to achieve a particular result. Examples are the Drinking Water Directive, Urban Wastewater Treatment Directive and the Water Framework Directive.
Groundwater	Water located beneath the ground surface in soil and rock pore spaces and fractures within rock formations.
Headroom	Spare capacity in water and wastewater infrastructure (treatment plants and networks) to cope with adverse weather conditions or unplanned incidents such as a break in a trunk main or equipment failures at a treatment plant.
Intervention	Actions that will directly or indirectly reduce risk to service delivery and may include projects or programmes to build new assets, capital maintenance of existing assets, operational and process changes or investigative works to provide the evidence or information on appropriate solutions to reduce risk to service.
Interim Revenue Control 2 (IRC2)	The second interim review of IW allowed revenues by CER (now CRU), initially covering the two-year period from 2017 to 2018. The CRU decided to extend the revenue control (IRC2) by one year to cover the three year period from 2017 to 2019. [Reference CRU Information Paper CRU/17/332]
Investment Plan	An investment plan shall set out and particularise the investment in drinking water and wastewater services infrastructure that IW considers necessary for the effective performance by it of its functions
Minister	Reference to the Minister in this document means the Minister for Housing, Local Government and Heritage unless stated otherwise.
Network	The interconnection of pipes and pumping stations used for the distribution of treated water and the collection of wastewater.
Network Development Plan	A high level plan showing how it is expected that a water or wastewater network will be extended and reinforced over a 25 year design horizon. The plan will address both compliance and growth requirements and will consider the likely spatial distribution and quantum of growth based on data from multiple sources including engagement with planning authorities and new connections data.

Population Equivalent (PE)	Wastewater treatment plants are described in terms of their designed treatment capacity, which is generally expressed as population equivalents (PE). This is a measurement of total organic biodegradable load, including industrial, institutional, commercial and domestic organic load, on a wastewater treatment plant, converted to the equivalent number of population equivalents (PE). One person is considered to generate 60g of BOD per day (BOD is the 5 day biochemical oxygen demand) and 1 PE is defined as being equivalent to 60g of BOD per day.
Portfolio	A set of programmes or projects grouped under a common theme and used as a basis for building up of the Investment Plan, summarising costs and for reporting on the execution of the Investment Plan.
Raw Water	Water abstracted for drinking water purposes before treatment.
Resilience	The ability of a system (e.g. water supply zone or wastewater network) to cope with change or stress. In a drinking water and wastewater services context stress to the system or network could result from increased demand, partial failure of operating plant, climate change or local contamination of water sources.
Revenue Control 3 (RC3)	The third revenue control period for IW allowed revenues determined by the CRU for the period 2020-2024.
Water Body	A defined section of river, lake or groundwater identified in the water body characterisation of the River Basin Management Plans developed under the Water Framework Directive.
Water Supply Zone	The area supplied by an individual water supply scheme. This typically includes one or more abstractions (from a river, lake or groundwater), a treatment plant, storage in reservoirs and the distribution pipe network to deliver the water to each household or business.

Appendix 2: Policies and Plans Considered

In developing the Capital Investment Plan 2020-2024 Irish Water looked at the national policies and plans that have a direct impact on where investment should be prioritised or which have a dependence on the public water and wastewater infrastructure such as housing policies, job growth policies, and climate action plans.

We also looked at the regulatory standards and policies that we must be compliant with such as the drinking water and wastewater standards and regulations. There are also Irish Water business plans and other third party plans, such as the city and county development plans, that have a role in determining the investment planning.

A list of these plans and policies is below with links to the individual documents.

National and local policies and regulations:

- Water Services Policy Statement 2018-2025 (WSPS)
- National Development Plan (NDP) and National Planning Framework (NPF) that make up Project Ireland 2040.
- Water Framework Directive
- River Basin Management Plan for Ireland 2018 to 2021
- Urban Wastewater Treatment Directive (UWWTD)
- Drinking Water Directive
- Climate Action Plan and National Adaptation Framework
- Rebuilding Ireland, An Action Plan for Housing and Homelessness
- Regional Spatial and Economic Strategies (RSES)
- Core Strategies of the individual city/county development plans
- Connection Charging Policy

Irish Water's strategies and plans:

- Water Services Strategic Plan (WSSP) 2015-2040
- Irish Water Strategic Funding Plan (SFP)
- Irish Water Business Plan 2015-2021
- Irish Water National Plans such as:
    - National Water Resources Plan
    - National Wastewater Sludge Management Plan
    - Lead Mitigation Plan
    - Interim Pesticide Strategy

Other national and local policies and plans:

The following documents and plans were also considered in the process of identification of needs during the development of the Investment Plan and against which the Plan will continue to be assessed:

- *Flood Risk Management Plans* (29) published by OPW on 3 May 2018;
- *Remedial Action List for Public Water Supplies* published by the EPA;
- *Priority Areas List for Wastewater* published by the EPA;
- *Action Plan for Jobs 2018* published by the Department of Business, Enterprise and Innovation in March 2018;
- Ministerial Guidelines published under Section 28 of the Planning and Development Act, 2000, as amended, including the draft *Water Services - Guidelines for Planning Authorities* published for consultation in January 2018;
- *Realising our Rural Potential: Action Plan for Rural Ireland* published by the then Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs, in January 2017;
- *Food Harvest 2020 and Food Wise 2025*, published by the Department of Agriculture, Food and the Marine.

There have also been revisions to some of these policies since the original capital investment plan was drafted. We continue to assess the Plan against any new policy commitments. These include:

- Economic Recovery Plan 2021
- Our Rural Future: Rural Development Policy 2021-2025
- Pathways to Work Strategy 2021-2025

The following plans will continue to be referenced as projects are developed during delivery of the plan:

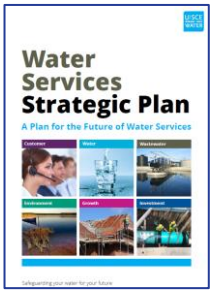
- At a regional level, the **Regional Spatial and Economic Strategies (RSES)** produced by the three regional assemblies and including their **Metropolitan Area Strategic Plans** for the five city areas.
- The updated **Core Strategies** of the individual city/county development plans at Local Authority level including their updating/review following the adoption of the RSESs.

In **Table 1** we have given more detail on some of the main documents as we hope this will help you to better understand some of the other tables and main points in the rest of this explanatory note.

Table 1: Overview of main policy and strategy documents.

Water Services Strategic Plan (WSSP)

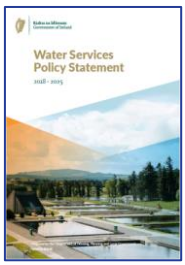
Under the Water Services Act 2013, Irish Water was required to prepare a 25 year plan. This is called the Water Services Strategic Plan (WSSP) and was published in 2015, along with a related 7 year business plan. It sets out the strategic objectives of Irish Water for the provision of water services over a period of 25 years over six headings:



- 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 WSSP provides strategic direction to the preparation of Investment Plans during this time. We will periodically review the WSSP to ensure it continues to stay aligned with other Government policies and strategies and any changes to legislation and regulations.

Water Services Policy Statement 2018-2025 (WSPS)



This is a requirement under the Water Services Act 2017 and was published by the Department of Housing, Planning and Local Government (DHPLG) on 21 May 2018. It is a high level statement of Government policy which identifies key policy objectives for the delivery of water and wastewater services in Ireland over the period to 2025. The services are to be delivered against the three key themes of:

- Quality – Improving compliance with public health and environmental standards;
- Conservation – Prioritising resource management, abstraction control source protection, tackling leakage and encouraging behavioural change; and
- Future Proofing – Ensuring water services investment decisions are aligned with the strategic aims of national planning and climate change policies.

Strategic Funding Plan

This is aligned to the WSPS. It is a Plan prepared by Irish Water which lays out both operational and capital costs associated with the arrangements and measures that we propose to make to implement the policy objectives of the WSPS. The SFP 2019-2024 was approved by the Minster for Housing, Planning and Local Government in November 2018.

Project Ireland 2040

Irish Water's investment planning is consistent with the National Planning Framework and National Development Plan. These are the Government's overarching policy initiatives for economic and social progress through a coordinated planning framework and programme of investment in infrastructure to support the projected growth in population of 1 million people by 2040.

River Basin Management Plan

The *River Basin Management Plan (RBMP) for Ireland 2018 to 2021* was published by the DHPLG in April 2018. It sets out and seeks to implement supporting measures to improve water quality in over 70 water bodies across Ireland on a prioritised basis.

Table 2: Other sources of information

DHLGH	**Water Services Policy Statement 2018-2025** ***https://www.housing.gov.ie/water/water-services/drinking-water/water-services-policy-statement-2018-2025-0*** **Irish Water Strategic Funding Plan 2019-2024** *https://www.housing.gov.ie/water/water-quality/irish-water/irish-water-strategic-funding-plan-2019-2024* **River Basin Management Plan 2018-2021** *https://www.housing.gov.ie/water/water-quality/river-basin-management-plans/river-basin-management-plan-2018-2021*
DPER	**Project Ireland 2040** *https://www.gov.ie/en/campaigns/09022006-project-ireland-2040/* **National Planning Framework** *https://www.gov.ie/en/publication/774346-project-ireland-2040-national-planning-framework/* **National Development Plan 2018-2027** *https://www.gov.ie/en/policy-information/07e507-national-development-plan-2018-2027/*

EPA	**Drinking Water Quality in Public Supplies 2019** *https://www.epa.ie/pubs/reports/water/drinking/drinkingwaterreport2019.html* **Drinking Water Remedial Action List** *https://www.epa.ie/pubs/reports/water/drinking/drinkingwaterralq32019.html* **Urban Waste Water Treatment in 2019** *https://www.epa.ie/pubs/reports/water/wastewater/uwwreport2019.html*
CRU	**Revenue Control** *https://www.cru.ie/professional/water-2/revenue-control/* **Revenue Control 3/RC3.5** *https://www.cru.ie/commission-for-regulation-of-utilities-publishes-irish-waters-updated-capital-investment-plan-revenue-control-rc3-5* **Irish Water Performance Assessment** *https://www.cru.ie/document_group/irish-water-performance-assessment* **Irish Water Capital Investment Monitoring** *https://www.cru.ie/document_group/irish-water-s-capital-investment-outputs-2016*
Irish Water	Irish Water has a comprehensive list of its projects, plans and strategies which can all be accessed at *https://www.water.ie/projects-plans/*. These include: **Water Services Strategic Plan** **Irish Water Business Plan** **National Water Resources Plan** **Lead Mitigation Plan** **Leakage Reduction Programme** **National Disinfection Programme** **Water Supply Project – Eastern & Midlands** **Vartry Water Supply Scheme Project** **Ringsend Waste Water Treatment Plant Upgrade** **Cork Lower Harbour Main Drainage Scheme** **Greater Dublin Drainage Project**

Appendix 3: Projects and Programmes

In preparing our Investment Plan, Irish Water has optimised investment decisions by prioritising the best possible service improvements, while maximising value-for-money. Irish Water is a regulated utility and as such has funding constraints so it must prioritise investment where it is needed most.

This section lists projects and programmes based on the methodology set out in this document and taking on board feedback received from stakeholders and regulators.

The projects and programmes listed are expected to be either commenced, progressed or completed during the 2020-2024 period. This list is continuously being refined and is subject to budget, technical and environmental constraints, as well as statutory approvals.

List of Capital Projects by Local Authority area

County	LA	Project Name	Project Type	Status as at July 2021
Carlow	Carlow	Carlow Wastewater Treatment Plant	Wastewater Project	Design
	Carlow	Muinebheag and Leighlinbridge Wastewater Treatment Plant	Wastewater Project	Design
	Carlow	Rathvilly Water Treatment Plant Upgrade	Water Project	Design
	Carlow	Tullow Wastewater Treatment Plant	Wastewater Project	Construction
Cavan	Cavan	Bailieborough Wastewater Treatment Plant	Wastewater Project	Design
	Cavan	Cootehill Wastewater Treatment Plant	Wastewater Project	Design
	Cavan	Kingscourt Wastewater Treatment Plant	Wastewater Project	Design
	Cavan	Virginia Wastewater Treatment Plant	Wastewater Project	Design
Clare	Clare	Ballyvaughan Sewerage Scheme	Wastewater Project	Design
	Clare	Clarecastle Sewerage Scheme	Wastewater Project	Design
	Clare	Kilfenora Wastewater Treatment Plant Upgrade	Wastewater Project	Design
	Clare	Kilkee Sewerage Scheme	Wastewater Project	Design
	Clare	Kilrush Sewerage Scheme	Wastewater Project	Design
	Clare	Lahinch Wastewater Treatment Plant	Wastewater Project	Design
	Clare	LIHAF/MUHDS Growth Programme (Wastewater) - Claureen, Ennis	Wastewater Project	Design
	Clare	Liscannor Sewerage Scheme	Wastewater Project	Construction
	Clare	Newmarket-on-Fergus Wastewater Treatment Plant	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Clare	Clare	Quin Wastewater Treatment Plant	Wastewater Project	Construction
	Clare	Shannon Wastewater Treatment Plant (Phase 2)	Wastewater Project	Construction
Cork	Cork City	Ballyvolane and Monard Wastewater Network	Wastewater Project	Design
	Cork City	Carrigrennan Wastewater Treatment Plant Upgrade	Wastewater Project	Construction
	Cork City	Cork City Water Supply Scheme - Eastern Strategic Trunk Watermain	Water Project	Construction
	Cork City	Cork City Water Supply Scheme - Lee Road Water Treatment Plant Upgrade	Water Project	Construction
	Cork City	Cork City Water Supply Scheme - Shanakiel Watermains Upgrades	Water Project	Construction
	Cork City	Cork City Water Supply Scheme - Western Trunk Watermain	Water Project	Construction
	Cork City	Lee Road Water Treatment Plant	Water Project	Construction
Cork	Cork County	Ballycotton Sewerage Scheme	Wastewater Project	Design
	Cork County	Ballyvourney/Ballymakeera Wastewater Treatment Plant	Wastewater Project	Construction
	Cork County	Bandon Sewerage Scheme - Wastewater Treatment Plant Upgrade	Wastewater Project	Construction
	Cork County	Bandon Watermain and Sewer Network Upgrade	Wastewater Project	Construction
	Cork County	Boherbue Wastewater Treatment Plant	Wastewater Project	Design
	Cork County	Castlemartyr Wastewater Treatment Plant Upgrade	Wastewater Project	Design
	Cork County	Castletownbere Sewerage Scheme	Wastewater Project	Construction
	Cork County	Castletownsend Sewerage Scheme	Wastewater Project	Design
	Cork County	Coachford Wastewater Treatment Plant	Wastewater Project	Construction
	Cork County	Cork Lower Harbour Main Drainage Project	Wastewater Project	Construction

County	LA	Project Name	Project Type	Status as at July 2021
Cork	Cork County	Dripsey Sewerage Scheme - Network and Wastewater Treatment Plant	Wastewater Project	Construction
	Cork County	Glengarriff Water Treatment Plant Upgrade	Water Project	Construction
	Cork County	Inchigeelagh Sewerage Scheme	Wastewater Project	Design
	Cork County	Innishannon Wastewater Treatment Plant Upgrade	Wastewater Project	Construction
	Cork County	Jones Bridge Water Treatment Plant Upgrade	Water Project	Design
	Cork County	Kinsale Outfall Extension	Wastewater Project	Design
	Cork County	Macroom Wastewater Treatment Plant	Wastewater Project	Design
	Cork County	Mallow Sewerage Scheme - Network	Wastewater Project	Construction
	Cork County	Mallow Wastewater Treatment Plant	Wastewater Project	Construction
	Cork County	Midleton Wastewater Treatment Plant	Wastewater Project	Design
	Cork County	Millstreet Sewerage Scheme - Wastewater Treatment Plant Upgrade	Wastewater Project	Complete
	Cork County	Mitchelstown Sewerage Scheme - Network Upgrade and Wastewater Treatment Plant Inlet works	Wastewater Project	Design
	Cork County	Network Extensions (Wastewater) - Midleton	Wastewater Project	Design
	Cork County	Network Extensions (Wastewater) - Whitechurch	Wastewater Project	Complete
	Cork County	Network Extensions (Water) - Whitechurch	Water Project	Design
	Cork County	Skibbereen Regional Water Supply Scheme (Phase 4) - Treatment, Storage and Network	Water Project	Construction
	Cork County	Whitegate/Aghada Sewerage Scheme	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Donegal	Donegal	Ballybofey/Stranorlar Sewerage Scheme - Wastewater Treatment Plant and Network	Wastewater Project	Complete
	Donegal	Ballyshannon Regional Water Supply Scheme (Phase 1) - Water Treatment Plant and Network	Water Project	Complete
	Donegal	Buncrana Wastewater Network	Wastewater Project	Design
	Donegal	Buncrana Wastewater Treatment Plant	Wastewater Project	Design
	Donegal	Burtonport Wastewater Treatment Plant	Wastewater Project	Design
	Donegal	Carrigart Wastewater Treatment Plant	Wastewater Project	Design
	Donegal	Coolatee Wastewater Treatment Plant	Wastewater Project	Design
	Donegal	Donegal Countywide Watermain Rehabilitation	Water Project	Complete
	Donegal	Falcarragh Wastewater Treatment Plant	Wastewater Project	Design
	Donegal	Kerrykeel Wastewater Treatment Plant	Wastewater Project	Construction
	Donegal	Kilcar Wastewater Treatment Plant	Wastewater Project	Construction
	Donegal	Killybegs Regional Water Supply Scheme	Water Project	Design
	Donegal	Letterkenny Regional Water Supply Scheme	Water Project	Construction
	Donegal	Letterkenny Sewerage Scheme - Joe Bonnar Road	Wastewater Project	Complete
	Donegal	Letterkenny Sewerage Scheme - Network	Wastewater Project	Complete
	Donegal	Lettermacaward Regional Water Supply Scheme	Water Project	Design
	Donegal	Milford Wastewater Network	Wastewater Project	Design
	Donegal	Milford, Ramelton and Rathmullan Wastewater Treatment Plant	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Donegal	Donegal	Moville Wastewater Treatment Plant	Wastewater Project	Design
Dublin	Dublin City	9C Sewer Rehabilitation - Grand Canal, Luas & Regional Road Crossing	Wastewater Project	Complete
	Dublin City	Belmayne Wastewater Network	Wastewater Project	Design
	Dublin City	LIHAF/MUHDS Growth Programme (Wastewater) - Poolbeg West SDZ, Dublin	Wastewater Project	Design
	Dublin City	LIHAF/MUHDS Growth Programme (Water) - Poolbeg West SDZ, Dublin	Water Project	Design
	Dublin City	LIHAF/MUHDS Growth Programme (Water) - St. Michael's Estate, Dublin	Water Project	Construction
	Dublin City	LIHAF/MUHDS Growth Programme (Water) - St. Teresa's Garden, Dublin	Water Project	Construction
	Dublin City	Network Extensions (Wastewater) - Oscar Traynor Rd	Wastewater Project	Construction
	Dublin City	Saggart Reservoir	Water Project	Construction
	Dublin City	Strategic Development Zone - North Docklands Ancillary Water Services	Water Project	Design
Dublin	DLR	Dun Laoghaire-Rathdown Sewerage Scheme (Phase 1) - Network Upgrade	Wastewater Project	Design
	DLR	Local Network Reinforcement Project - DLRCC	Wastewater Project	Design
	DLR	Local Network Reinforcement Project - Goatstown Road	Wastewater Project	Design
	DLR	Local Network Reinforcement Project - Johnstown Road	Wastewater Project	Design
	DLR	Local Network Reinforcement Project - Landscape Road	Wastewater Project	Design
	DLR	Network Extensions (Wastewater) - Kilternan	Wastewater Project	Design
	DLR	Network Extensions (Wastewater) - Woodbrook, Shanganagh	Wastewater Project	Design
	DLR	Network Extensions (Water) - Cherrywood	Water Project	Construction

County	LA	Project Name	Project Type	Status as at July 2021
Dublin	DLR	Network Extensions (Water) - Kilternan Glenamuck	Water Project	Design
	DLR	Network Extensions (Water) - Woodbrook, Shanganagh	Water Project	Complete
	DLR	Old Connaught/Woodbrook Water Supply Scheme	Water Project	Design
Dublin	Fingal	Balbriggan Water Supply Scheme (Phase 2) - Jordanstown to Kilsough Trunk Watermain	Water Project	Complete
	Fingal	Balbriggan/Skerries Sewerage Scheme - Rush Road	Wastewater Project	Complete
	Fingal	Balbriggan/Skerries Sewerage Scheme (Phase 3) - Loughshinny	Wastewater Project	Construction
	Fingal	Ballycoolen to Kingstown Trunk Water Main	Water Project	Construction
	Fingal	Doldrum Bay Wastewater Network	Wastewater Project	Design
	Fingal	Blanchardstown Regional Drainage Scheme	Wastewater Project	Construction
	Fingal	Howth Water Supply Scheme (Phases 2 and 3)	Water Project	Construction
	Fingal	Liffey Siphon Refurbishment	Wastewater Project	Complete
	Fingal	LIHAF/MUHDS Growth Programme (Water) - Belmayne Main Street, Dublin	Water Project	Construction
	Fingal	Local Network Reinforcement Project - Fingal	Wastewater Project	Construction
	Fingal	Local Network Reinforcement Project - Portmarnock	Wastewater Project	Design
	Fingal	Malahide Water Supply Scheme - Malahide Reservoir	Water Project	Construction
	Fingal	Network Extensions (Wastewater) - Donabate Road	Wastewater Project	Construction
	Fingal	Network Extensions (Water) - Donabate Link Road	Water Project	Complete

County	LA	Project Name	Project Type	Status as at July 2021
Dublin	South Dublin	Local Network Reinforcement Project - SDCC	Wastewater Project	Construction
	South Dublin	Network Extensions (Wastewater) - Clonburris	Wastewater Project	Design
	South Dublin	Network Extensions (Water) - Kilcarbery/Corcagh Grange Housing Development	Water Project	Construction
	South Dublin	Wastewater Network (New) - Celbridge Link Road, Dublin	Wastewater Project	Design
	South Dublin	Water Network (New) - Celbridge Link Road, Dublin	Water Project	Design
Galway	Galway City	LIHAF/MUHDS Growth Programme (Wastewater) - Ardaun, Galway City	Wastewater Project	Design
	Galway City	LIHAF/MUHDS Growth Programme (Water) - Ardaun, Galway City	Water Project	Design
	Galway City	Terryland Water Treatment Plant	Water Project	Design
Galway	Galway County	Ahascragh Wastewater Treatment Plant	Wastewater Project	Design
	Galway County	Athenry Wastewater Network	Wastewater Project	Design
	Galway County	Ballinasloe Sewerage Scheme	Wastewater Project	Complete
	Galway County	Carraroe Wastewater Outfall	Wastewater Project	Design
	Galway County	Glenamaddy Sewerage Scheme	Wastewater Project	Complete
	Galway County	Roundstone Wastewater Treatment Plant and Network	Wastewater Project	Design
	Galway County	Spiddal Wastewater Treatment Plant	Wastewater Project	Design
	Galway County	Tuam Regional Water Supply Scheme Extension (Phase 1)	Water Project	Construction
Kerry	Kerry	Castlemaine Sewerage Scheme - Wastewater Treatment Plant Upgrade	Wastewater Project	Complete
	Kerry	Kenmare Wastewater Treatment Plant	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Kerry	Kerry	Kilcummin Sewerage Scheme	Wastewater Project	Design
	Kerry	Mountain Stage Water Treatment Plant	Water Project	Construction
	Kerry	Waterville Water and Wastewater Scheme - Treatment Plants	Wastewater Project	Complete
Kildare	Kildare	Bottleneck Project - Maynooth, Co. Kildare	Water Project	Construction
	Kildare	Leixlip Transfer Pipeline	Wastewater Project	Construction
	Kildare	Leixlip Water Treatment Plant Upgrade (Phase 1a)	Water Project	Construction
	Kildare	Leixlip Water Treatment Plant Upgrade (Phase 2)	Water Project	Construction
	Kildare	LIHAF/MUHDS Growth Programme (Wastewater) - East Maynooth, Co. Kildare	Wastewater Project	Design
	Kildare	LIHAF/MUHDS Growth Programme (Water) - East Maynooth, Co Kildare	Water Project	Design
	Kildare	Local Network Reinforcement Project - Celbridge	Wastewater Project	Design
	Kildare	Lower Liffey Valley Sewerage Scheme	Wastewater Project	Design
	Kildare	Maynooth Transfer Pipeline	Wastewater Project	Design
	Kildare	Network Extensions (Wastewater) - Celbridge (Ballyoulster)	Wastewater Project	Design
	Kildare	Network Extensions (Wastewater) - Kilcock, Boycetown	Wastewater Project	Design
	Kildare	Network Extensions (Water) - Kilcock, Boycetown	Water Project	Construction
	Kildare	Osberstown Wastewater	Wastewater Project	Construction
	Kildare	Srowland Water Pumping Station and Trunk Main	Water Project	Construction
	Kildare	Upper Liffey Valley Sewerage Scheme (Phase 3) - Contract 2A (Network)	Wastewater Project	Complete

County	LA	Project Name	Project Type	Status as at July 2021
Kildare	Kildare	Upper Liffey Valley Sewerage Scheme (Phase 3) - Contract 2B (Network)	Wastewater Project	Construction
Kilkenny	Kilkenny	Gowran Water Supply Scheme	Water Project	Design
	Kilkenny	Kilkenny Regional Water Supply Scheme - Troyswood Water Treatment Plant Upgrade	Water Project	Construction
	Kilkenny	Network Extensions (Wastewater) - Western Environs Development	Wastewater Project	Complete
Laois	Laois	Portlaoise Wastewater Treatment Plant	Wastewater Project	Design
Limerick	Limerick	Castletroy Wastewater Treatment Plant	Wastewater Project	Design
	Limerick	Foynes Sewerage Scheme	Wastewater Project	Design
	Limerick	Glin Sewerage Scheme	Wastewater Project	Design
	Limerick	LIHAF/MUHDS Growth Programme (Wastewater) - Mungret, Limerick	Wastewater Project	Design
	Limerick	LIHAF/MUHDS Growth Programme (Water) - Mungret, Limerick	Water Project	Complete
	Limerick	Bunlicky Wastewater Treatment Plant	Wastewater Project	Design
Longford	Longford	Ballymahon Wastewater Treatment Plant	Wastewater Project	Design
	Longford	Edgeworthstown Wastewater Treatment Plant	Wastewater Project	Design
	Longford	Lough Forbes Water Treatment Plant Upgrade	Water Project	Construction
	Longford	Lough Kinale Water Treatment Plant Updgrade	Water Project	Construction
	Longford	Smear Water Treatment Plant Upgrade	Water Project	Construction
Louth	Louth	Drogheda Water Supply Scheme - Emergency Works at Staleen Water Treatment Plant	Water Project	Complete
	Louth	Dundalk East Wastewater Network	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Louth	Louth	Dundalk Water Supply Scheme - Water Treatment Plant Upgrade	Water Project	Construction
	Louth	INTERREG SWELL Project	Wastewater Project	Construction
	Louth	LIHAF/MUHDS Growth Programme (Wastewater) - Mount Avenue, Dundalk	Wastewater Project	Design
	Louth	LIHAF/MUHDS Growth Programme (Water) - Mount Avenue, Dundalk	Water Project	Design
	Louth	Omeath Sewerage Scheme	Wastewater Project	Construction
	Louth	St. Helena's Pumping Station and Rising Main - Assessment & Replacement	Wastewater Project	Design
	Louth	Wastewater Network (Upgrade) - Drogheda, Louth	Wastewater Project	Design
Mayo	Mayo	Charlestown Sewerage Scheme	Wastewater Project	Complete
	Mayo	Claremorris Wastewater Treatment Plant	Wastewater Project	Design
	Mayo	Foxford Sewerage Scheme	Wastewater Project	Construction
	Mayo	Killala Sewerage Scheme - Network and Wastewater Treatment Plant	Wastewater Project	Complete
	Mayo	Newport Wastewater Treatment Plant	Wastewater Project	Design
Meath	Meath	Bottleneck Project - Ashbourne, Co. Meath	Water Project	Construction
	Meath	Enfield Wastewater Treatment Plant	Wastewater Project	Design
	Meath	LIHAF/MUHDS Growth Programme (Wastewater) - Farganstown, Navan	Wastewater Project	Design
	Meath	LIHAF/MUHDS Growth Programme (Water) - Farganstown, Navan	Water Project	Construction
	Meath	Navan and Mid-Meath Water Treatment Plant	Water Project	Construction
	Meath	Navan Wastewater Network	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Meath	Meath	Navan-Mid-Meath Programme - Duleek to Navan Trunkmain	Water Project	Design
	Meath	Navan-Mid-Meath Programme - Duleek to Rathoath	Water Project	Design
	Meath	Navan-Mid-Meath Programme - Proudstown to Navan	Water Project	Construction
	Meath	Stamullen Wastewater Treatment Plant	Wastewater Project	Design
	Meath	Trim Water Treatment Plant	Water Project	Design
Monaghan	Monaghan	Carrickmacross Wastewater Treatment Plant	Wastewater Project	Design
Offaly	Offaly	Birr Water Supply Scheme - Water Treatment Plant Upgrade	Water Project	Construction
	Offaly	Edenderry Wastewater Treatment Plant	Wastewater Project	Design
	Offaly	Tullamore Wastewater Network	Wastewater Project	Design
	Offaly	Tullamore Water Supply Scheme - Water Treatment Plant and Network	Water Project	Construction
Roscommon	Roscommon	Ballaghaderreen Wastewater Treatment Plant	Wastewater Project	Design
	Roscommon	Roscommon Main Drainage Scheme	Wastewater Project	Construction
Sligo	Sligo	Ballymote Wastewater Treatment Plant	Wastewater Project	Construction
	Sligo	Collooney Wastewater Treatment Plant	Wastewater Project	Construction
	Sligo	Foxes Den Water Treatment Plant (Phase 2)	Water Project	Construction
	Sligo	Grange/Strandhill/Tubbercurry Sewerage Scheme - Wastewater Treatment Plant Upgrades	Wastewater Project	Complete
	Sligo	Lough Talt Regional Water Supply Scheme - Water Treatment Plant Upgrade	Water Project	Complete
	Sligo	Sligo and Environs Sewerage Scheme - Network (Rosses Point)	Wastewater Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Tipperary	Tipperary	Ardfinnan Regional Water Supply Scheme - Mechanical and Electrical Works (Ballylooby)	Water Project	Complete
	Tipperary	Ballina Wastewater Treatment Plant	Wastewater Project	Design
	Tipperary	Cahir Wastewater Treatment Plant	Wastewater Project	Design
	Tipperary	Fethard Wastewater Treatment Plant	Wastewater Project	Design
	Tipperary	Goatenbridge Water Treatment Plant Upgrade	Water Project	Design
	Tipperary	Nenagh Wastewater Treatment Plant	Wastewater Project	Design
	Tipperary	Newport Wastewater Treatment Plant	Wastewater Project	Design
	Tipperary	Thurles Regional Water Supply Scheme - Water Treatment Plant	Water Project	Complete
Waterford	Waterford	Baile na nGall Pumping Stations and Rising Mains Upgrades	Wastewater Project	Design
	Waterford	LIHAF/MUHDS Growth Programme (Wastewater) - Gracedieu	Wastewater Project	Design
	Waterford	LIHAF/MUHDS Growth Programme (Wastewater) - Kilbarry	Wastewater Project	Construction
	Waterford	LIHAF/MUHDS Growth Programme (Water) - Kilbarry	Water Project	Complete
	Waterford	Wastewater Network Upgrade - Tramore	Wastewater Project	Construction
	Waterford	Waterford City Wastewater Treatment Plant	Wastewater Project	Design
Westmeath	Westmeath	Athlone Main Drainage - Wastewater Treatment Plant Upgrade	Wastewater Project	Design
	Westmeath	Athlone Water Treament Plant Upgrade (Phase 1)	Water Project	Construction
	Westmeath	Athlone Water Treatement Plant. Filter works	Water Project	Design

County	LA	Project Name	Project Type	Status as at July 2021
Wexford	Wexford	Arthurstown, Ballyhack and Duncannon Wastewater Treatment Plant	Wastewater Project	Construction
	Wexford	Enniscorthy and Sow Regional Water Supply Scheme	Water Project	Design
	Wexford	Enniscorthy Main Drainage	Wastewater Project	Design
	Wexford	Gorey Regional Water Supply Scheme - Water Treatment Plant, Reservoir and Pumping Station	Water Project	Construction
	Wexford	Kilmore Quay Village and Environs Wastewater Outfall	Wastewater Project	Design
	Wexford	Wexford Town Distillary Road Pumping Station Upgrade - Wastewater Network	Wastewater Project	Design
Wicklow	Wicklow	Arklow Wastewater Treatment Plant	Wastewater Project	Construction
	Wicklow	Aughrim/Annacurra Water Supply Scheme	Water Project	Design
	Wicklow	Avoca Wastewater Treatment Plant	Wastewater Project	Design
	Wicklow	Blessington Wastewater Treatment Plant	Wastewater Project	Construction
Regional	Greater Dublin Area	Greater Dublin Drainage Scheme	Wastewater Project	Design
	Greater Dublin Area	Ringsend Wastewater Treatment Plant Project	Wastewater Project	Design/Construction
	Greater Dublin Area	Regional Biosolids Storage Facility	Wastewater Project	Design
	Greater Dublin Area	Vartry Water Supply Scheme	Water Project	Construction
	Eastern and Midland	Water Supply Project - Eastern and Midlands Region	Water Project	Concept Design

List of National Programmes

Programme Name	Programme Category	Programme Description
Asset Data Capture Project	National Programmes	The project will involve carrying out detailed surveys, assessments and recording of data for the above ground assets at approximately 650 of IW's principal water and wastewater facilities(excluding DBO sites).
Business Information Insights Project	National Programmes	The primary goal of this project will be improvements to evidence based decision making by improvements in data accessibility, quality and analysis for decision makers, improved data intelligence, improved cross function collaboration.
Catchment Management Strategy	National Programmes	The IW Catchment Management Strategy is to deliver a risk based approach to prioritise, plan and deliver interventions that may help deliver drinking water quality and environmental performance outcomes in a sustainable, cost-effective manner. This strategy will complement emerging national catchment management policy and regulatory developments with regards the Water Framework Directive.
Digitising Centre of Excellence	National Programmes	The Data Capture Project - GIS will proactively improve the quality & extent of information on below ground assets in IW's Asset Management Systems through the establishment of the Data Capture Centre of Excellence.
Energy Efficiency Programme	National Programmes	Improved energy efficiency via the upgrading, replacement and optimisation of inefficient plant and processes.
HSQE	National Programmes	Programme targeted at addressing specific health, safety and welfare issues within the IW asset base.
Invest to Save	National Programmes	Capital Investment across multiple projects to deliver OPEX savings.

Programme Name	Programme Category	Programme Description
IW initiated Licence Reviews	National Programmes	Licence reviews for the amendment of licence conditions including emission limit values , in order to meet environmental requirements and deliver OPEX savings and CAPEX deferment.
Legacy Offices	National Programmes	Programme targeted at addressing specific health, safety and welfare issues within the IW asset base.
National Programme for INTERREG Projects	National Programmes	The SWELL (Shared Waters Enhancement & Loughs Legacy) project's aim is to improve the water quality within the shared waters of Carlingford Lough and Lough Foyle. Through strategic catchment investigations and modelling, the SWELL project is planned to deliver optimised, sustainable capital upgrades to wastewater assets.
Planned Maintenance Survey	National Programmes	The Planned Maintenance Programme seeks to ensure that existing planned maintenance activities across all applicable installations are systemised via the Maximo Asset Management system.
Renewable Energy - Hydro programme	National Programmes	Identify and install hydro power on feasible sites to help decarbonise our energy usage and its contribution to climate change whilst also improving energy efficiency and future proofing the business.
Renewable Energy - PV - National Solar Energy Programme	National Programmes	Install PV solar energy across feasible IW assets to help decarbonise our energy usage and its contribution to climate change whilst also improving energy efficiency and future proofing the business.
Renewable Energy - Wind - National Microgeneration Programme	National Programmes	Identify and install wind turbines on feasible sites to help decarbonise our energy usage and its contribution to climate change whilst also improving energy efficiency and future proofing the business.

Programme Name	Programme Category	Programme Description
Site Security Upgrades	National Programmes	Programme targeted at addressing specific health, safety and welfare issues within the IW asset base.
Site Welfare facilities	National Programmes	Programme targeted at addressing specific health, safety and welfare issues within the IW asset base.
Taking in Charge - DPI in Residential Estates	National Programmes	Taking in charge of residential estates that are serviced by Developer Provided Infrastructure (DPI) in the form of their own wastewater /water treatment
Urban Waste Water Compliance Strategy	National Programmes	Development of Urban Wastewater Compliance Strategy.
Water Quality Modelling & Monitoring Programme	National Programmes	Programme of water quality modelling and monitoring studies to establish discharge impacts on coastal/transitional/river receiving waters using computer modelling approaches.
Capital Maintenance - Waste Water Above Ground	National Wastewater Programmes	Programme targeted at maintaining existing network, treatment and metering assets in order to maintain levels of service to customers.
Critical Sewer Survey Programme	National Wastewater Programmes	Critical Sewer Surveys to assess condition of the critical infrastructure elements of the collection systems. The purpose of the programme is to target the highest priority critical sewers.
CSO Monitoring and Survey	National Wastewater Programmes	Storm Water Overflow Surveying and Monitoring Programme. To survey and assess all known SWO not covered under DAP Programme and all associated discharge locations, to enable the most significant overflows to be identified for monitoring and to protect the environment.

Programme Name	Programme Category	Programme Description
Drainage Area Plan Programme	National Wastewater Programmes	Provision for DAPs and their hydraulic models to appraise the performance of the wastewater collection networks and determine solutions with respect to hydraulic, structural, operational and environmental performance criteria and to meet regulatory requirements.
Infiltration Reduction Programme	National Wastewater Programmes	The scope is to reduce the infiltration flow entering the wastewater collection systems to benefit performance of collection system and/or wastewater treatment plants.
Inlet Works Programme	National Wastewater Programmes	Provide inlet works for existing WWTPs to improve compliance, increase capacity and prolong operational life of the plant.
Local Internal Property Flooding Protection	National Wastewater Programmes	Flood Protection Measures to reduce risk of property flooding using small scale interventions where there are incidents of repeat property flooding in localised areas.
Local Network Reinforcement Hotspots - Studies/Concept Design	National Wastewater Programmes	Studies/concept design for wastewater network upgrades to facilitate growth.
National Certificate Authorisation Programme	National Wastewater Programmes	Provision for investment in smaller wastewater treatment plants (<500 PE) to support future proofing and facilitate growth.
Network Survey & Monitoring	National Wastewater Programmes	Localised investigations of sewer networks (i.e. CCTV Surveys, flow monitoring, and connectivity surveys) to determine root cause of problematic networks.
New Connections - Wastewater	National Wastewater Programmes	Provision of new wastewater network connections, nationally, for significant and standard connection types to facilitate growth.

Programme Name	Programme Category	Programme Description
Phosphorus Removal Programme	National Wastewater Programmes	To provide phosphorus removal capability at selected sites based on set criteria.
Provision of Telemetry Systems	National Wastewater Programmes	Programme targeted at providing telemetry outstation equipment at wastewater assets to connect to the National Telemetry System.
Resolving odour and noise	National Wastewater Programmes	Provision for programme to address Odour/Septicity control focused on addressing repeat customer complaints due to malodours from collection systems and to undertake septicity control measures where asset condition is deteriorating due to corrosive conditions within the network.
Sludge Hub-Satellites	National Wastewater Programmes	Upgrade of identified satellites to receive and treat sludge from their respective hinterlands.
Sludge National Programme	National Wastewater Programmes	Provision for appropriate sludge management capabilities at WWTPs in order to bring sites into compliance or reduce risk of non-compliance.
Small Towns and Villages Programme (Wastewater)	National Wastewater Programmes	Programme for wastewater which will support the growth of identified settlements where these are prioritised in development plan core strategies at a county/city level.
Taking in Charge -Residential Estates Waste Water Infrastructure (Initial Works)	National Wastewater Programmes	Taking in charge of wastewater network in residential estates nationally that have yet to be Taken in Charge by the Planning Authorities in accordance with Section 180 of the Planning and Development Act 2000(as amended).
Upsizing/Synergies - Connection Assets (Extensions and Reinforcement)	National Wastewater Programmes	Wastewater network upsizing synergies resulting from extensions, reinforcements and third party driven works.

Programme Name	Programme Category	Programme Description
Upsizing/Synergies - LA prioritised Network Extensions and Reinforcement	National Wastewater Programmes	Wastewater network upsizing synergies resulting from extensions, reinforcements and third party driven works.
Upsizing/Synergies - LA Roads	National Wastewater Programmes	Wastewater network upsizing synergies resulting from extensions, reinforcements and third party driven works.
Wastewater Above Ground Telemetry Programme	National Wastewater Programmes	Provision to upgrade existing systems or provide new telemetry systems on existing WWTP sites.
Wastewater Automation Programme	National Wastewater Programmes	Provision for automation and control equipment on sites with Activated Sludge treatment. The scheme will increase efficiency, reduce operational requirements, reduce risk of non-compliance and contribute towards standardised interfaces.
Wastewater Below Ground Capital Maintenance	National Wastewater Programmes	Provision for Capital Maintenance programmes covering capital maintenance of collection system assets (sewers, rising mains and pumping stations). These programmes target the replacement of failing assets and interventions are prioritised based on outputs of a risk assessment process. The programme will reduce the incidents of equipment failures, blockages, pipe collapses and the resultant flooding and pollution incidents.
Wastewater Disinfection Programme	National Wastewater Programmes	Provision to upgrade and standardise disinfection systems at multiple sites to improve quality of discharges from WWTPs into sensitive receiving waters to protect the environment and quality of receiving shellfish water.
WW Imports Programme	National Wastewater Programmes	Wastewater Imports 2020-2024 Programme to provide specific inlet works infrastructure to cater for the importation of tankered wastewaters.

Programme Name	Programme Category	Programme Description
WWPS National Upgrade Programme	National Wastewater Programmes	Upgrades prioritised based on the outcome of a national programme of condition assessments of wastewater pumping stations.
WWTP Storm Water Management Programme	National Wastewater Programmes	Provide appropriate storm water management facilities at existing WWTPs to improve compliance, increase capacity and prolong operational life of the plant.
Borehole Inspections	National Water Programmes	Inspection of existing boreholes to determine current condition to ensure a safe and reliable water supply.
Capital Maintenance - Water Supply Above Ground	National Water Programmes	Programme targeted at maintaining existing network, treatment and metering assets in order to maintain levels of service to customers.
Capital Maintenance - Water Supply Below Ground	National Water Programmes	Programme targeted at maintaining existing network, treatment and metering assets in order to maintain levels of service to customers.
Capital Maintenance of Domestic Meters	National Water Programmes	Provision for low level reactive maintenance of domestic meters and scheduled compliance testing.
CFC Process Improvements	National Water Programmes	Upgrade of the WTPs to ensure a safe and reliable water supply.
Chemical Management Improvements	National Water Programmes	Programme to address handling and storage of chemicals on site which has resulted in failed/failing assets, which pose a major risk to the business. This programme will mitigate the risk by upgrading chemical handling and storage assets.
Disinfection Programme	National Water Programmes	Provision to upgrade and standardise disinfection systems at multiple sites to minimise microbiological risk and ensure a safe and reliable water supply.

Programme Name	Programme Category	Programme Description
Distribution Inflow (D.I.) Meters - Capital Replacement	National Water Programmes	Planned Replacement of the key outflow meter leaving Water Treatment Plants/Reservoirs.
DMA Establishment	National Water Programmes	Provision to ensure DMAs are fully functioning and identifying and targeting the worst performing areas of the network.
Drinking Water Safety Plans	National Water Programmes	Provision for Drinking Water Safety Plans (DWSP) to protect human health by managing risks to water quality based on a whole catchment approach to risk management. To ensure a safe and reliable water supply.
Filtration Process Improvements	National Water Programmes	Programme to cover filtration process improvements at Water Treatment Plants nationally
Find & Fix	National Water Programmes	Provision for active leakage control through finding and fixing leaks to effectively reduce network leakage.
First Fix Programme	National Water Programmes	Provision for free repair of domestic customer-side leaks on service connections.
Generator Ready (Resilience & DSU)	National Water Programmes	Loss of electricity supply impacts on IW's ability to achieve its objectives. To reduce this risk, the proposal is to install new switchgear and ensure security of supply.
Group Water Scheme (GWS) Bulk Meters	National Water Programmes	Replacement of Group Water Supply (GWS) Bulk Meters.
Large Non Domestic Meters - Capital Replacement	National Water Programmes	Programme targeting renewal of bulk and non-domestic water meters.

Programme Name	Programme Category	Programme Description
Lead Improvement Processes	National Water Programmes	Provision of New/Upgraded processes at Water Treatment Plants / Service Reservoirs to reduce impact of lead in water to ensure a safe and reliable water supply.
Local Network Reinforcement Hotspots - Studies/Concept Design	National Water Programmes	Studies/concept design for WW Network upgrades to facilitate growth.
Mains Renewal (Rehab)	National Water Programmes	Provide leakage reduction and security of supply in areas of the network with frequent bursts and improve condition of the main to improve the water quality.
Metering of Multi Unit Developments (Apartments)	National Water Programmes	Programme targeting metering of multi-unit apartments .
Metering of Unmetered/Undocumented Non Domestic Properties	National Water Programmes	Programme targeting renewal of bulk and non-domestic water meters.
National Chlorine Gas Replacement Programme	National Water Programmes	The objective of this programme is to reduce risk presented by the use of chlorine gas by progressively reducing the number of sites using chlorine.
National Lead Programme	National Water Programmes	Provision for the replacement of lead services to ensure a safe and reliable water supply.
National Raw Water Monitoring Project	National Water Programmes	Advance investigation project to collect critical raw water quality data, taking into account the scale of contamination, including seasonal events/variations. Data facilitates the selection of the preferred option to address water quality and supply/demand deficits.

Programme Name	Programme Category	Programme Description
National Water Resources Plan	National Water Programmes	The National Water Resources Plan (NWRP) will define how IW will balance the needs of its customers and regulators in terms of a good quality and resilient water supply, delivered on the basis of environmentally sound principles, whilst maintaining maximum affordability.
Network Extensions - Water	National Water Programmes	The Water Network Extension programme aims to increase the reach of IW's mains network across Ireland by focusing on a number of prioritised settlements chosen in collaboration with Local Authorities in order to facilitate growth.
New Connections - Water	National Water Programmes	Provision of new water network connections, nationally, for significant and standard connection types to facilitate growth.
Pressure Management	National Water Programmes	Provision to reduce the occurrence of bursts and volume of water lost through leakage, by proper pressure management. Pressure will be measured at critical points in the network to determine if pressure management is required.
Provision of new Non Revenue Meters	National Water Programmes	Programme includes the provision of new District Meter Area (DMA) Meters on schemes to optimise leakage reduction approach and also includes for meter requirements arising from the taking in charge of Group Water Schemes.
Rationalisation Programme	National Water Programmes	Programme includes for rationalising a number of under-performing WTPs by laying a watermain connection to a neighbouring plant, where strategic investment achieves the outcome more efficiently.

Programme Name	Programme Category	Programme Description
Regularise Licencing for Existing Surface Water and Groundwater Sources	National Water Programmes	Programme to obtain water abstraction licences for all water sources. Each application will require key information (e.g. yield, abstraction impact) to demonstrate that abstractions are sustainable and that environmental impacts are minimised. This programme is a key enabler in the completion of licence applications.
Reservoir Refurbishment Programme	National Water Programmes	This programme is aimed at establishing an on-going programme of local inspections to determine the issues and subsequently running programmes of work based off the findings in order to appropriately upgrade IW's structural water storage assets.
Service Reservoirs Inspections and Associated Interventions	National Water Programmes	Provision for Service Reservoir Inspections and Cleaning. Includes drain down, cleaning, inspection and refurbishment of reservoirs to ensure security of supply.
Small Non Domestic Meters - Capital Replacement	National Water Programmes	Programme targeting renewal of bulk and non-domestic water meters.
Small Towns and Villages Programme (Water)	National Water Programmes	Programme for water which will support the growth of identified settlements where these are prioritised in development plan core strategies at a county/city level.
Source Protection Key Study	National Water Programmes	IW has over 700 groundwater sources. The Zone of Contribution (ZOC) is the land area that contributes to a well or spring. This study will utilise an algorithm, developed by the Geological Survey of Ireland, to map the ZOCs of groundwater sources to ensure a safe and reliable water supply.
Source Protection Programme	National Water Programmes	Provision for source water protection works to minimise contamination to abstracted water and increase capacity.

Programme Name	Programme Category	Programme Description
Taking in Charge - Group Water Schemes	National Water Programmes	IW is co-operating with local authorities nationally for the Taking in Charge of Group Water Schemes (GWS) following procedures agreed with the Department of Housing, Local Government and Heritage (DHLGH) and other stakeholders.
Taking in Charge - Residential Estates Water Infrastructure (Initial Works)	National Water Programmes	Taking in charge of watermains network in residential estates nationally that have yet to be Taken in Charge by the Planning Authorities in accordance with Section 180 of the Planning and Development Act 2000(as amended).
Taking in Charge - Small Water Supplies	National Water Programmes	Taking in Charge of small water supplies that are not exempted supplies under the Drinking Water Regulations SI No 122 of 2014
Telemetry - Dataloggers/Monitoring Systems	National Water Programmes	Replacement of telemetry dataloggers/monitoring systems which are used for both operational, billing and water conservation purposes.
Treated Water Storage Programme	National Water Programmes	Programme aimed at local inspections to determine structural defects and works at water storage assets to avoid interruption to supply.
Upsizing/Synergies - Connection Assets (Extensions and Reinforcement)	National Water Programmes	Water network upsizing synergies resulting from extensions, reinforcements and third party driven works to facilitate growth.
Upsizing/Synergies - LA prioritised Network Extensions and Reinforcement	National Water Programmes	Water network upsizing synergies resulting from extensions, reinforcements and third party driven works.
Upsizing/Synergies - LA Roads	National Water Programmes	Water network upsizing synergies resulting from extensions, reinforcements and third party driven works.

Programme Name	Programme Category	Programme Description
Water Network Hydraulic Modelling	National Water Programmes	Programme for building, calibration, and updating of hydraulic models for specific water supply schemes. The output from these models will assist in addressing growth potential, water conservation, pressure management, identification of bottle necks and facilitate growth.
Water Provision for Growth Programme	National Water Programmes	Removal of known water network constraints in order to facilitate growth.
Water Supply Above Ground Conceptual Design Studies	National Water Programmes	Programme targeted at Conceptual Design Studies for Water Treatment Plants
Water Supply Below Ground Conceptual Design Studies	National Water Programmes	Conceptual Design Studies for Water network below ground infrastructure.
WSP BC to Navan WSS (Connection 6A Phase 1)	National Water Programmes	Provision of multiple watermains and construction of service reservoir to address Interruption to Supply (24h Storage) issues in Meath and Louth areas.
WTP Sludge Treatment Programme	National Water Programmes	This programme will deliver a sustainable sludge treatment system for each of the existing sludge producing water treatment plants.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