Uisce Éireann
Irish Water

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

LASNTG
Local Authority Services National Training Group

Integrated Urban Drainage Plans

Presenters Name: Francis Finnerty, Peter Ivers

Organizations: Uisce Éireann
Dublin City Council

WSTG 2023 Conference
12th October 2023
Clayton White's Hotel Wexford

UWWTD Proposal - Problem Definition

Current UWWTD:

- Focused on organic load collected and **treated in centralised facilities**
- **Less attention given to rain waters**, smaller agglomerations and individual appropriate systems

Problem Summary

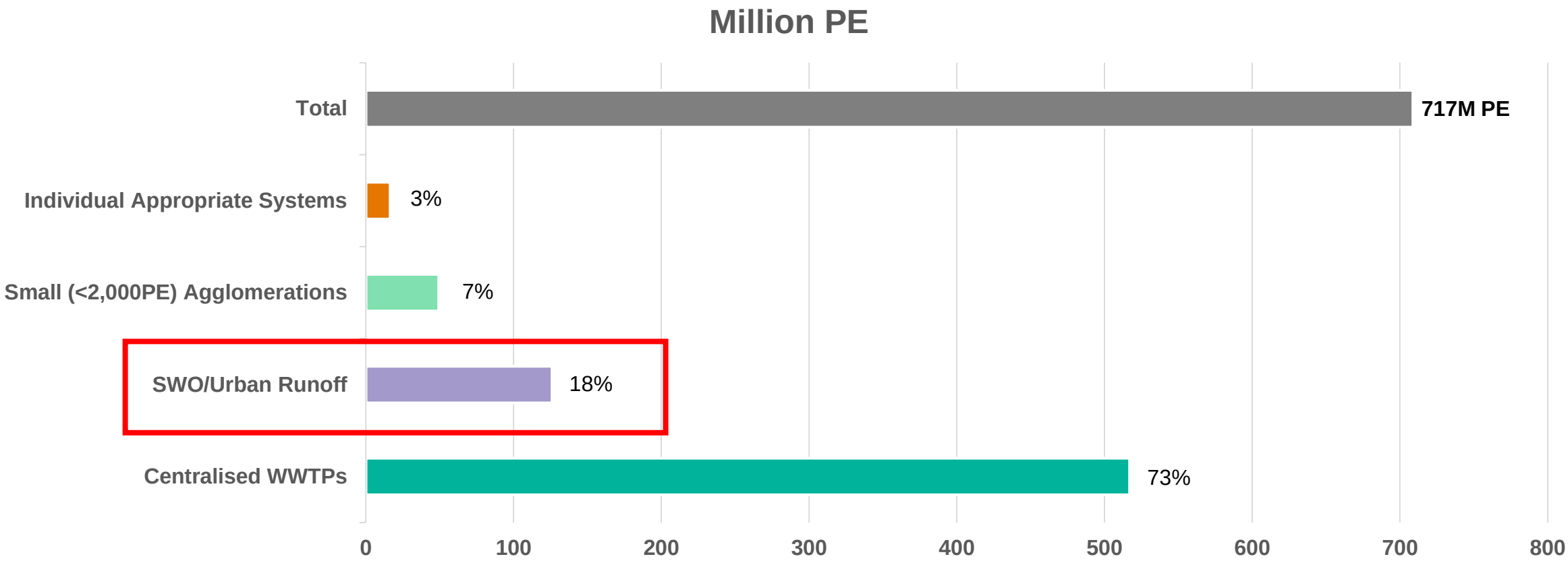
1. **Remaining Pollution from Urban Sources**

   Storm Water Overflow(SWO), Urban Runoff, small agglomerations

2. **Insufficient alignment to new societal ambitions and the Green Deal objectives**

3. **Insufficient/uneven level of governance of the sector** - Monitoring, reporting

Initial Load Generated across Member States



Source: Commission Staff Working Document, Impact Assessment, accompanying proposal for recast UWWTD

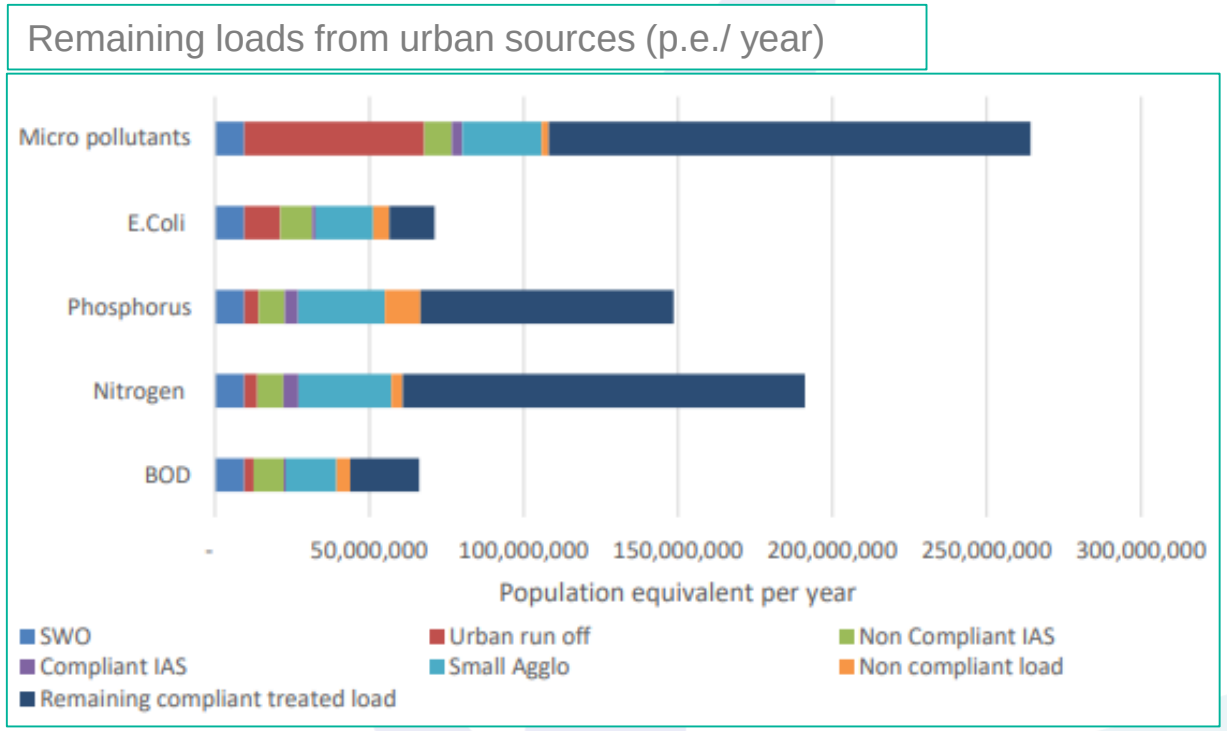
Remaining Loads from Urban Sources sent to the Environment

SWO & Urban Runoff represent

- 19% of BOD
- 7% of Nitrogen
- 9.5% of Phosphorus
- 30% of E Coli
- 25% of Micro-pollutants

…..for future…….

- + Urbanisation
- + Climate Change



Source: JRC, Impact Assessment Annex 4, October 2022

Source: Commission Staff Working Document, Impact Assessment, Oct 2022

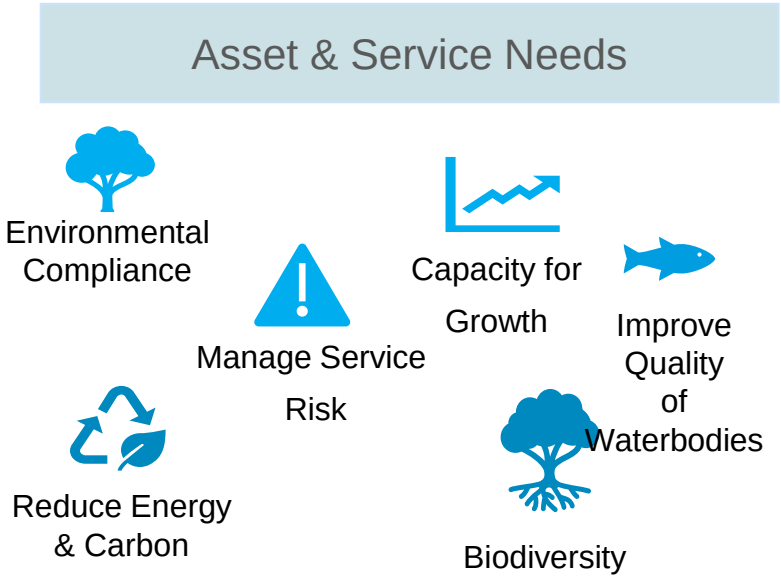
Integrated Urban Wastewater Management Plans

Objectives*

- **SWO Pollution Reduction**
  An indicative objective that SWO represents no more than 1%* of annual collected load calculated in dry weather conditions

- **Urban Runoff Pollution Reduction**
  Progressive elimination of untreated urban run-off discharges unless it can be demonstrated that no adverse impact on receiving water quality

- **Integrated quantitative and qualitative wastewater and urban runoff management**



* recast UWWTD final draft Oct 2022, European Commission. 1% is the proposal of the Commission. The final figure may be different.

Integrated Urban Wastewater Management Plans

rUWWTD (Commission), Article 5 & Annex 5*

(1) Agglomerations > 100,000pe
IUWMPs by end 2030

(2) 'Risk' Agglomerations 10,000 - 100,000pe

- List of 'risk' agglomerations reported by end 2025
- IUWMPs by end 2035

'Risk' :

a) SWO or Urban runoff : 'poses a risk' to environment or human health
b) SWO or Urban runoff prevents fulfilment of DWD, BWD, EQS, WFD
c) SWO > 1% of the annual collected load

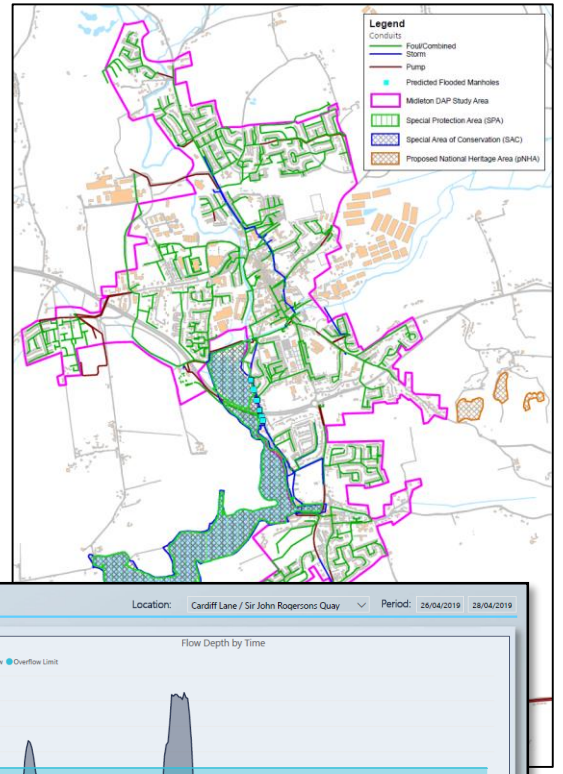
Agglomeration Size	#
> 100,000 pe	~6
100,000 > 10,000 pe	~50

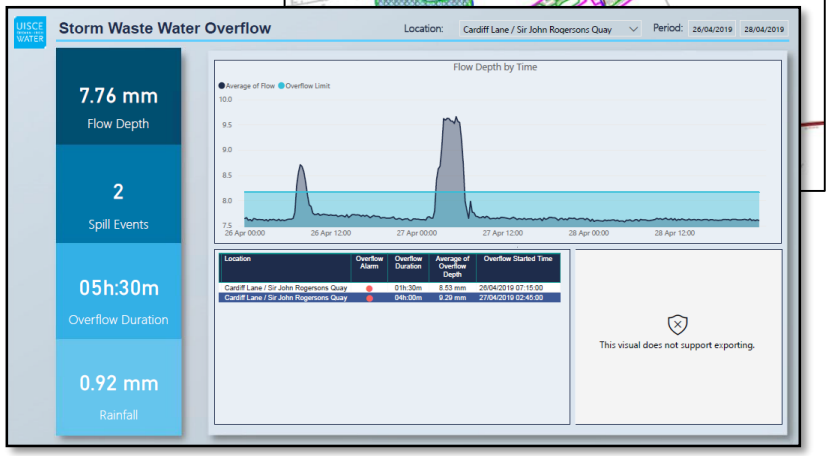
* recast UWWTD final draft Oct 2022, European Commission.

Integrated Urban Wastewater Management Plans

Content

- Detailed description of the network, **urban wastewater and urban run-off** storage capacities and treatment capabilities in case of rainfall
- Dynamic flow analysis for rainfall in use of hydrological, hydraulic and water quality models including estimate of pollution load released
- Stakeholders and responsibilities clearly identified





Integrated Urban Wastewater Management Plans

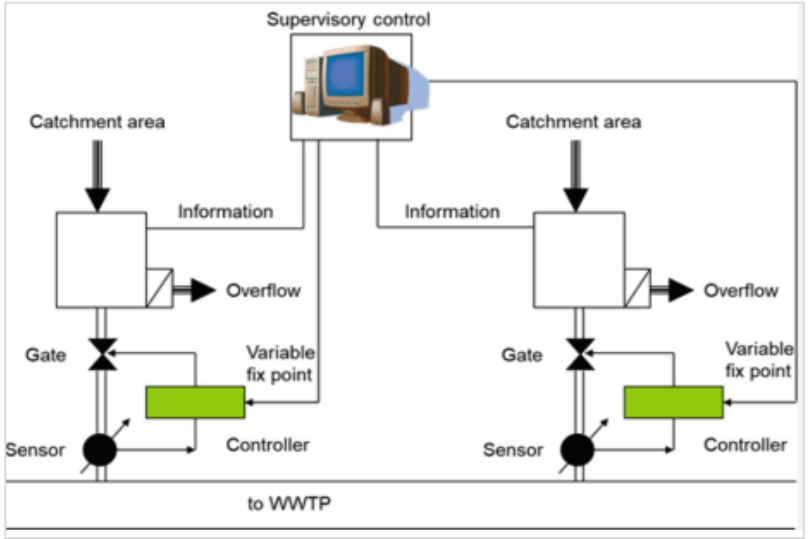
Measures / Solutions

Measures in the plans to be based on

1) **Reduce rain water inflow**: source control, retention, harvesting, limit impermeable area

2) Adapt existing infrastructure: **Real time control** (active system control) to optimize storage and reduce polluted discharges

3) New infrastructure "with **a priority to green infrastructure…. to support biodiversity**"



rUWWTD*: Other Network Related Articles

Monitoring (Article 21.2)

- Agglomerations >10,000pe: monitor pollutant concentration & loads from SWOs & Urban Runoff discharges

Information to the Public (Article 24 & Annex VI)

- Report untreated urban wastewater load, p.e. and %
- Justification needed for untreated wastewater load
- SWO and Urban Runoff discharge load estimate for certain parameters

Urban Wastewater Surveillance (Article 17)

- Public Health monitoring as determined by competent authorities

* recast UWWTD final draft Oct 2022, European Commission.

Key Requirements

Partnerships

UE, LAs, Others

Communication

Web-based platforms – internal, external

Digitalisation Strategies

Modelling, Monitoring, RTC, SCADA/Telemetry, Predictive Analytics, Forecasting (load, weather)

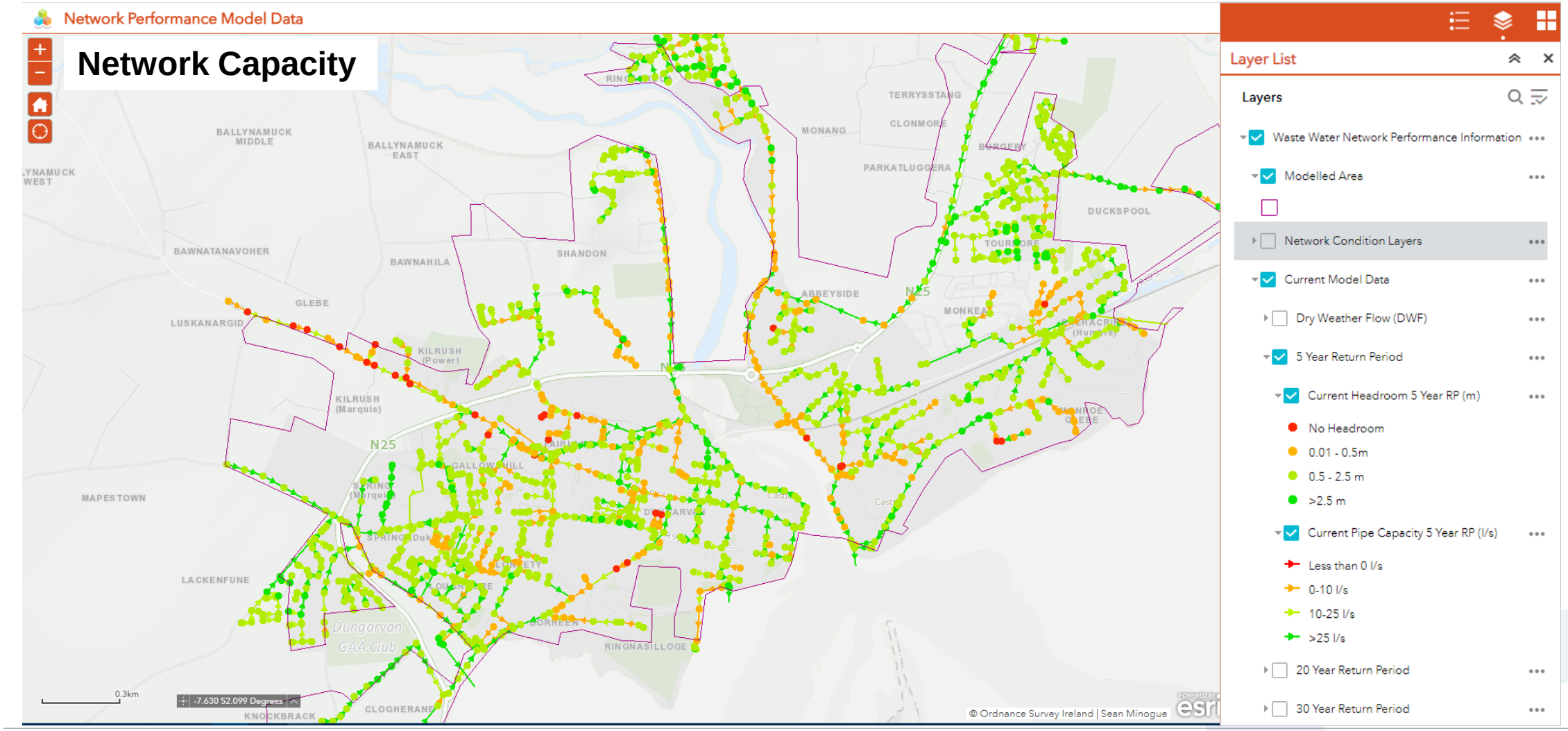
Drainage Strategies

Wastewater, Surface water

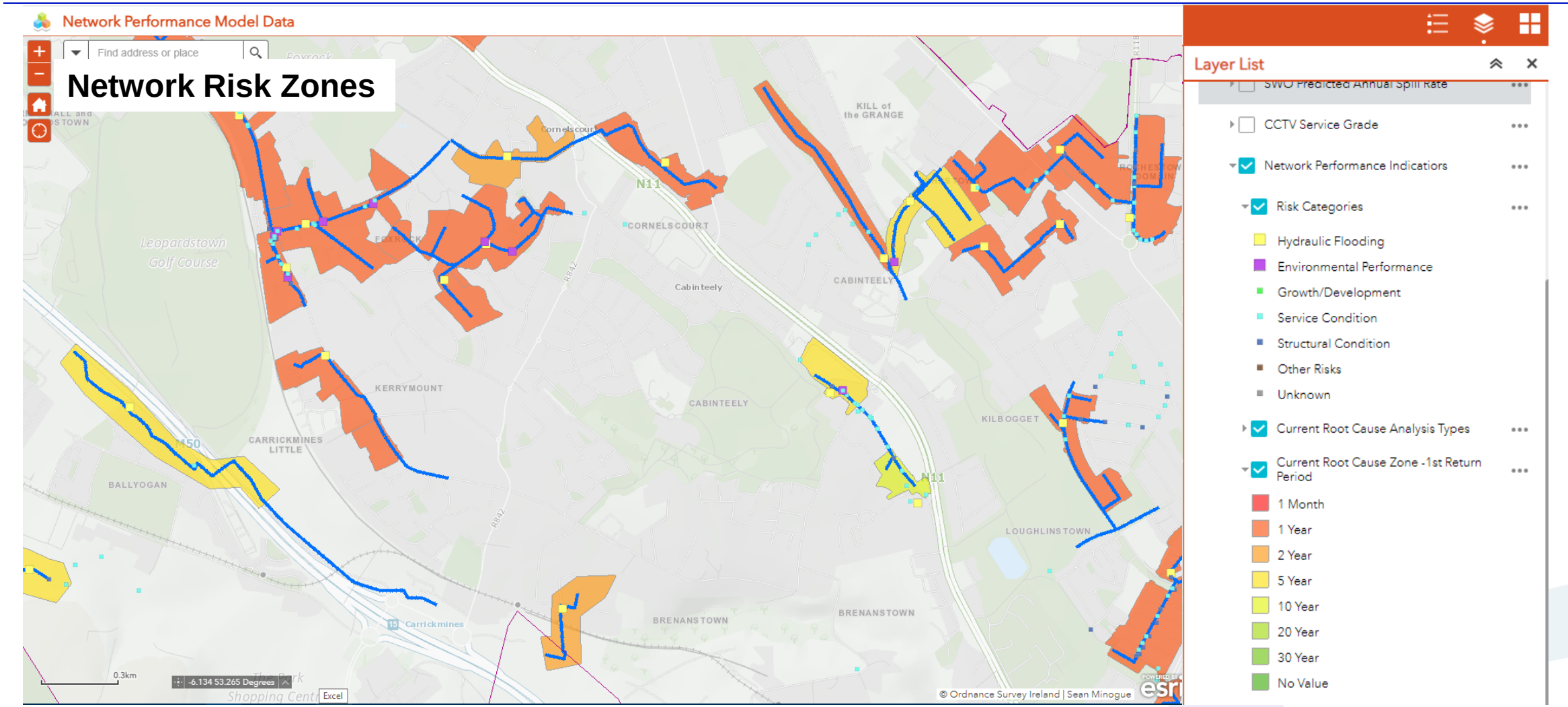
IT Systems

Models/Monitor/RTC
Comms Platforms

Stakeholder Web-based Platforms – Internal UÉ Example



Stakeholder Web-based Platforms – Internal UÉ Example



Stakeholder Web-based Platforms – Internal UÉ Example

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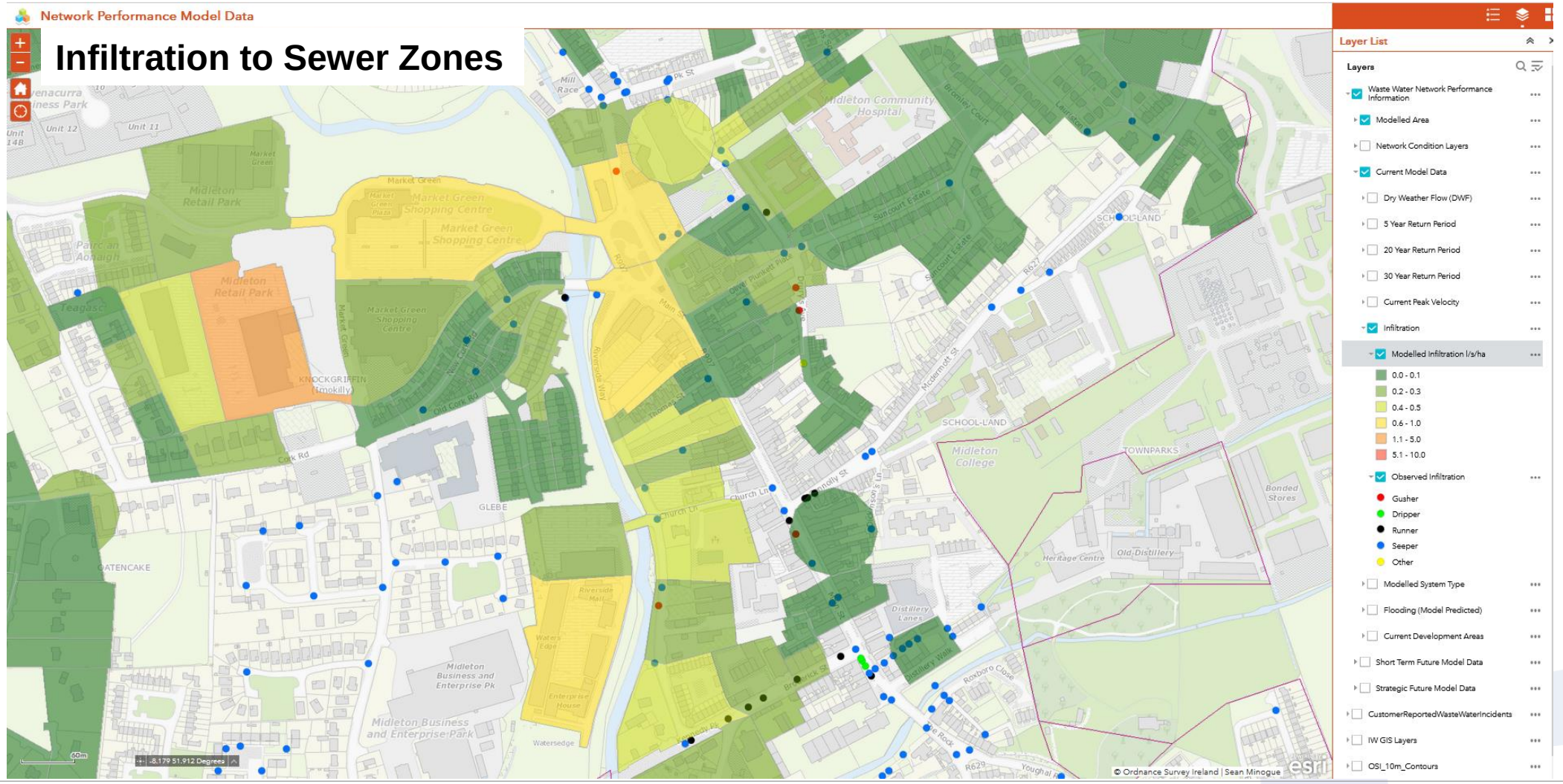
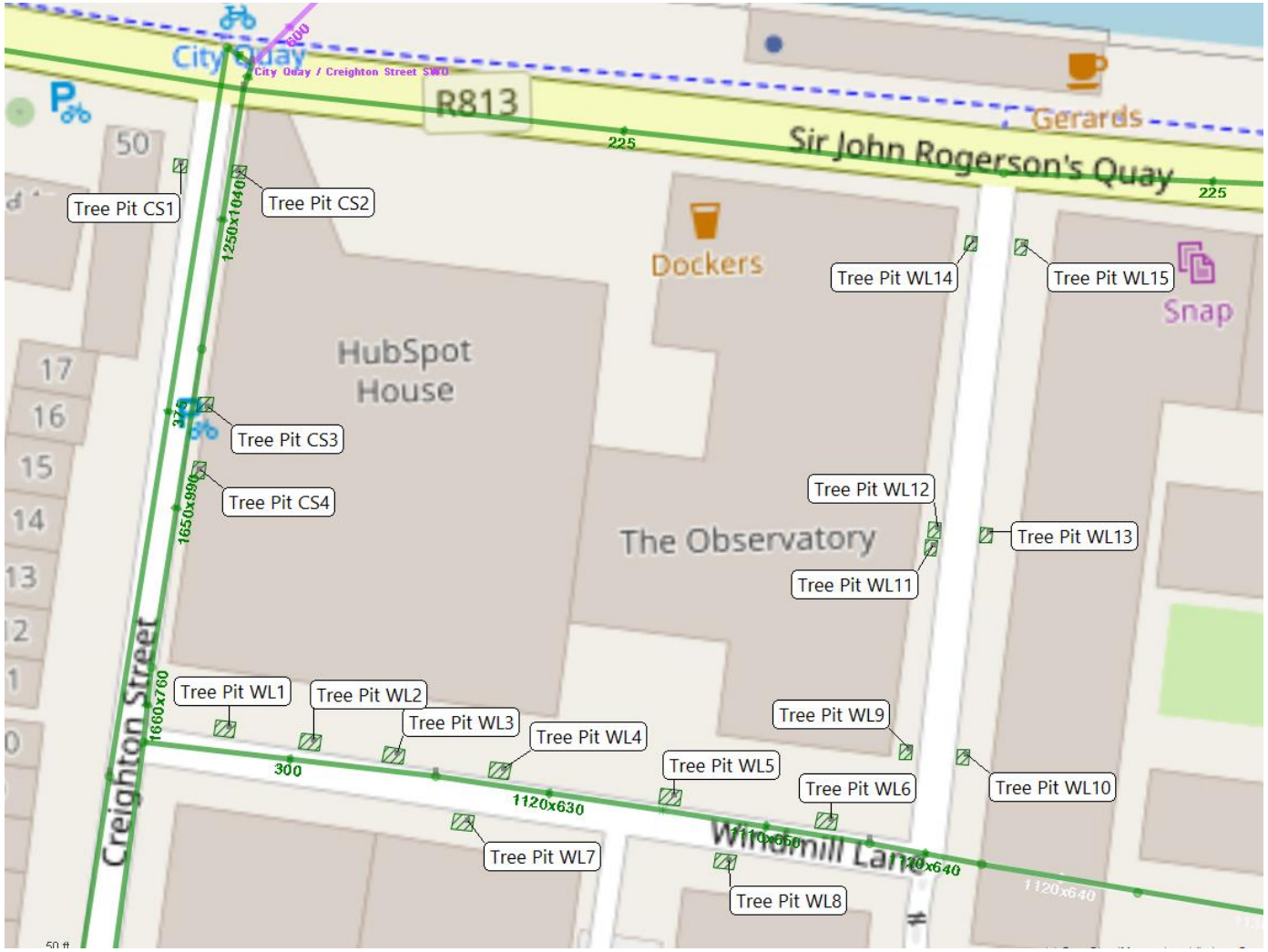


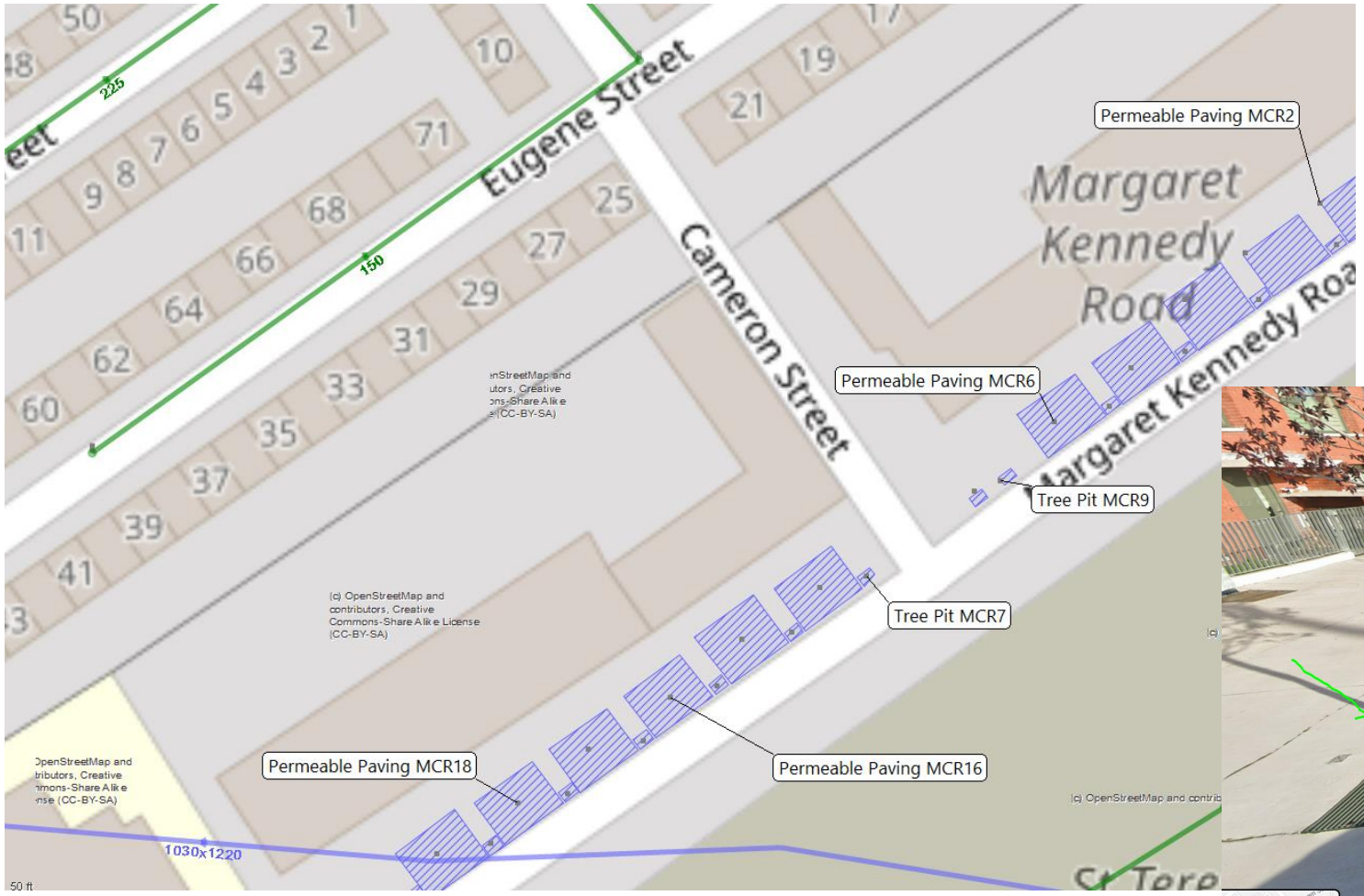
UÉ - DCC Collaboration – SuDS in Sewer Record Database



Tree Pits in Combined Sewer area

(Dublin City Centre)

UÉ - DCC Collaboration – SuDS in Sewer Record Database



Tree Pits and

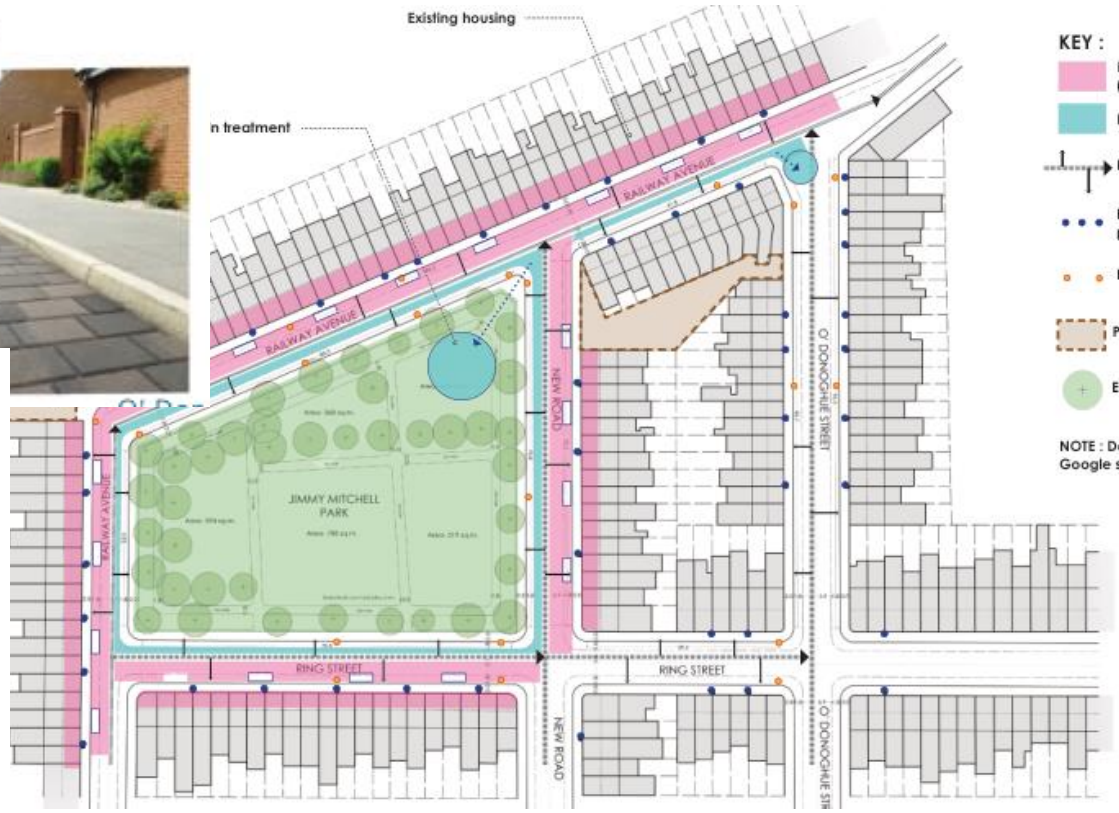
Permeable Paving (car park spaces)

UÉ SuDS Option in Dublin to Reduce Flooding and SWO Risk

PLANTED WATER BUTT

PERMEABLE PAVING

PROPOSED STREET SCENE (with rain gardens + permeable paving)



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Managing Stormwater Through Nature-Based Solutions

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Santry River Restoration and Greenway Project

Catchment-scale project, Multi-objective, Multi-disciplinary,
www.santryriver.ie

Objectives of Project

1. Achieve Good Status under WFD
2. Mitigate Flooding
3. Maximise Habitat and Biodiversity
    - While maintaining and improving it where it exists.
4. Deliver Recreational Greenway
5. Deliver Social and Recreational Amenity

Flood Hazard

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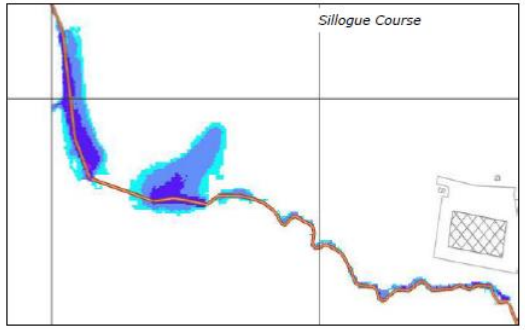

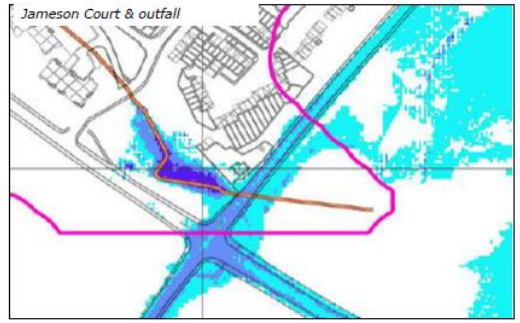

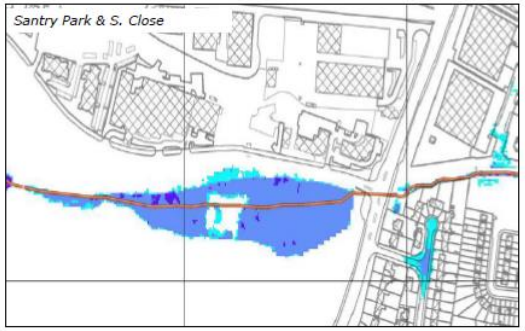

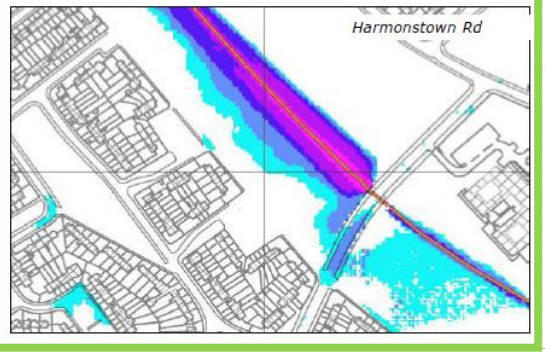

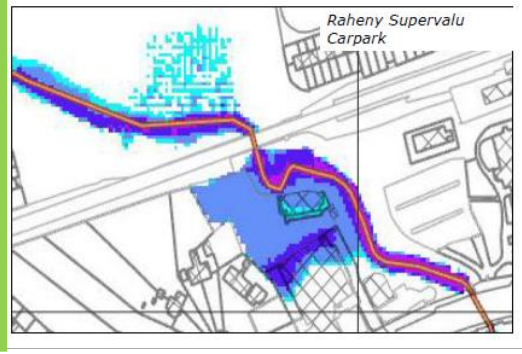

Flood Risk Management Options

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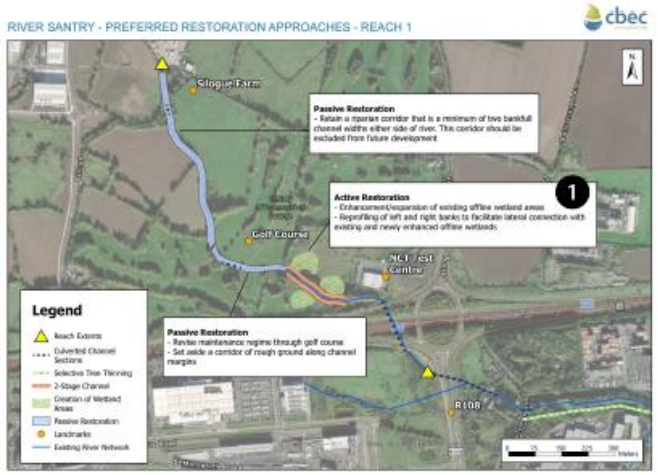
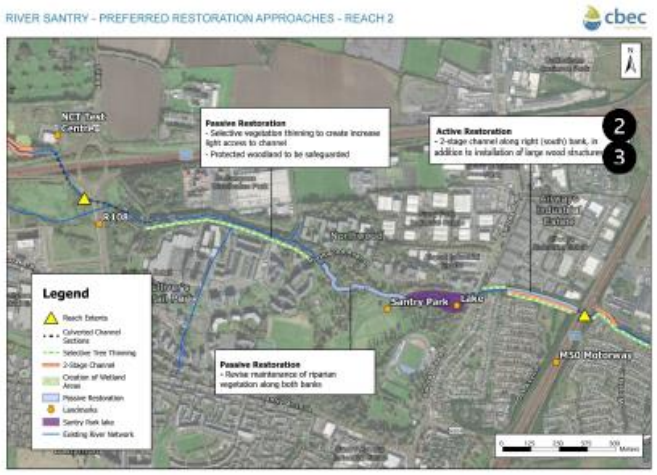
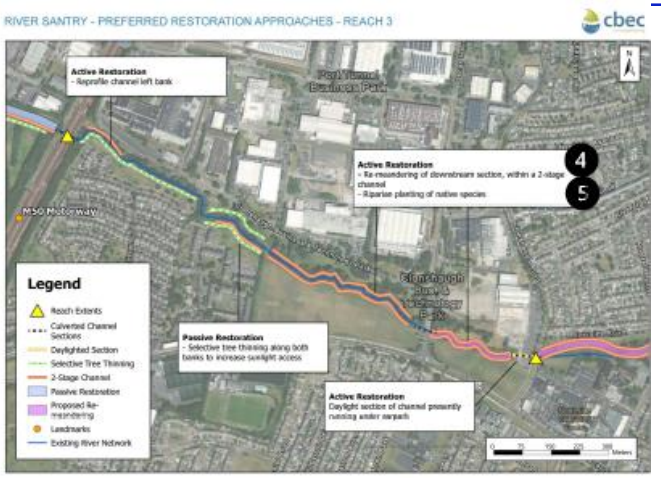
OPTION 1

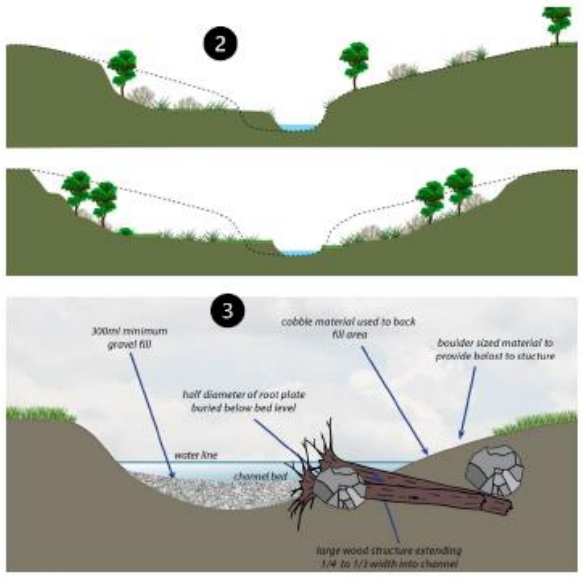
OPTION 2

River Restoration Options









Dotted line represents existing entrenched condition of the Santry River.

Early Observations

1. River Restoration alone insufficient to mitigate flooding
2. Some hard/traditional flood defences required, Especially around Raheny
3. Pluvial Flooding is a significant pressure in the catchment
4. River Restoration alone will not bring river to Good Status
5. In-catchment greening approaches necessary to intercept urban runoff
    - SUDS

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Rainscapes GI/SUDS Pilot Project

Objectives

- Retrofit GI/SUDS into urban/residential areas
- Intensive monitoring programme over 2+ years
  - Flow
  - Water quality
  - Biodiversity, including soil biodiversity
  - Public Perception
- Intercept and treat urban runoff

McAuley-Ribh-Lein

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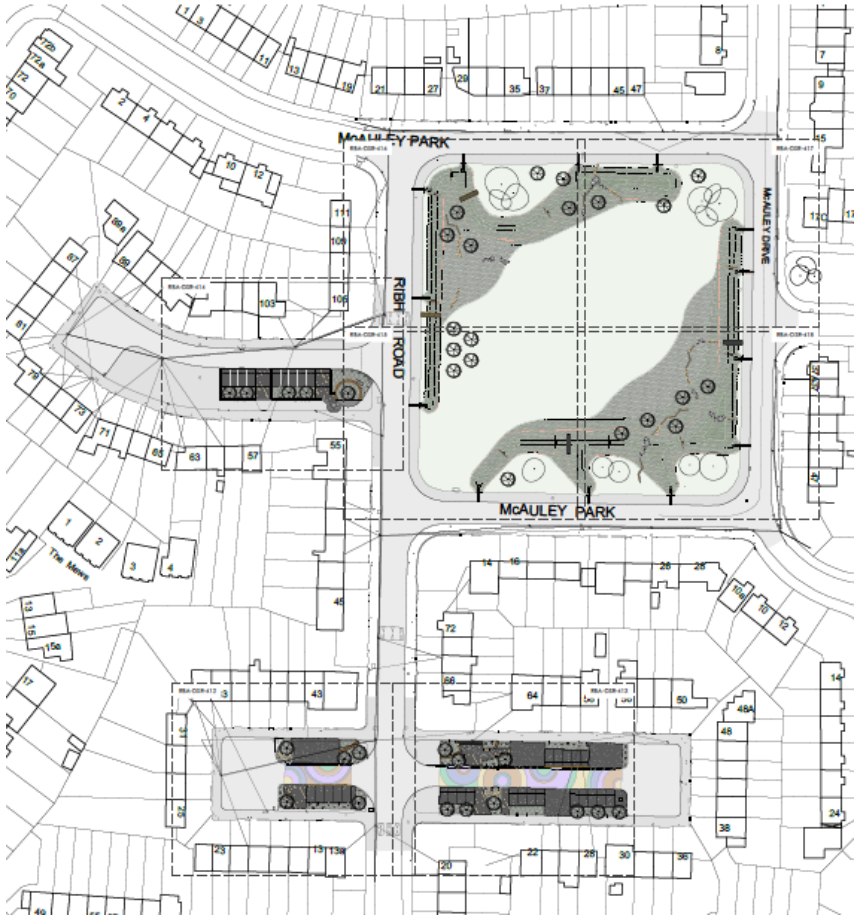

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Before Ribh Rd, Cul-de-sac

Uisce Éireann
Irish Water

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Dublin City Council

Challenges to Greening Strategies

Interpretation – what do we mean by ‘greening’?

Change in perception of how we do things

Public understanding and buy-in

Early stakeholder engagement essential

Thank you.

Q&A will be through Slido via QR Code on the back of your lanyard or go to slido.com and enter the number #2557172

Remember to enter the name of the person the question is addressed to

Session 3 Presentation 2

Catalysing a culture of Sustainability in the Water sector

Presenters Name: Charlie Coakley

Organization: Uisce Éireann

WSTG 2023 Conference
12th October 2023
Clayton White's Hotel Wexford

Key Business Trends in Sustainability

Performance is now being measured on balance of value creation and societal impacts

We have to meet our climate ambition and national targets: ‘Net zero by 20XX’ (2050 or better)

Measurement and Reporting of Climate risk and finance (TCFD)

ESG Public Disclosures are the New Normal – Regulations (e.g. CSRD) make it mandatory

Climate now a competitive issue in value chains and consumers buying greener

Natural Capital (e.g. biodiversity) increasingly seen as an asset to be measured (TNFD)

New technologies enabling climate innovation up and down the value chain

Decarbonisation of Electricity and Fuel accelerating via new technology wave

The topic is now in mainstream media and part of core political and social discourse. Conscious Consumerism

Wave of ESG investment Covid-19 / extreme weather has accelerated issues and awareness

See the Big Picture

Kate Raworth puts forward a new vision where wealth is understood as being multiple and not just financial:

- **Natural**
- **Social**
- **Human**
- **Physical**
- **Financial**

Our wellbeing is dependent on all of the above.

Sustainability Framework Pillars

Environment

We value our natural ecosystems and seek to embed a low carbon and restorative water service to protect and enhance our environment.

Social

We are committed to providing a safe working environment with equal opportunities for all. We promote a diverse, inclusive and fair workplace and ensure that our services enable communities to thrive.

Collaboration

We are committed to actively engaging with our supply chain and all our stakeholders to ensure sustainability initiatives and innovations are embedded in the design, build and operations of UÉ assets.

Our Sustainability Targets

UÉ Targets

Environment

- **Carbon**
  Net Zero 2040
- **Biodiversity**
  Net Gain across all new projects by 2030
- **Customer**
  Reduce Leakages to below 20% by 2030 Dublin and 2034 Nationally

Social

- **Employee**
  D, I & Equality Achieve inclusion index of 80% by 2030
- **Community**
  Educate 1m people on the value of water by 2030

Collaboration

- **Circular Economy**
  Ensure circular solutions are considered at each phase in all UÉ capital projects by 2026

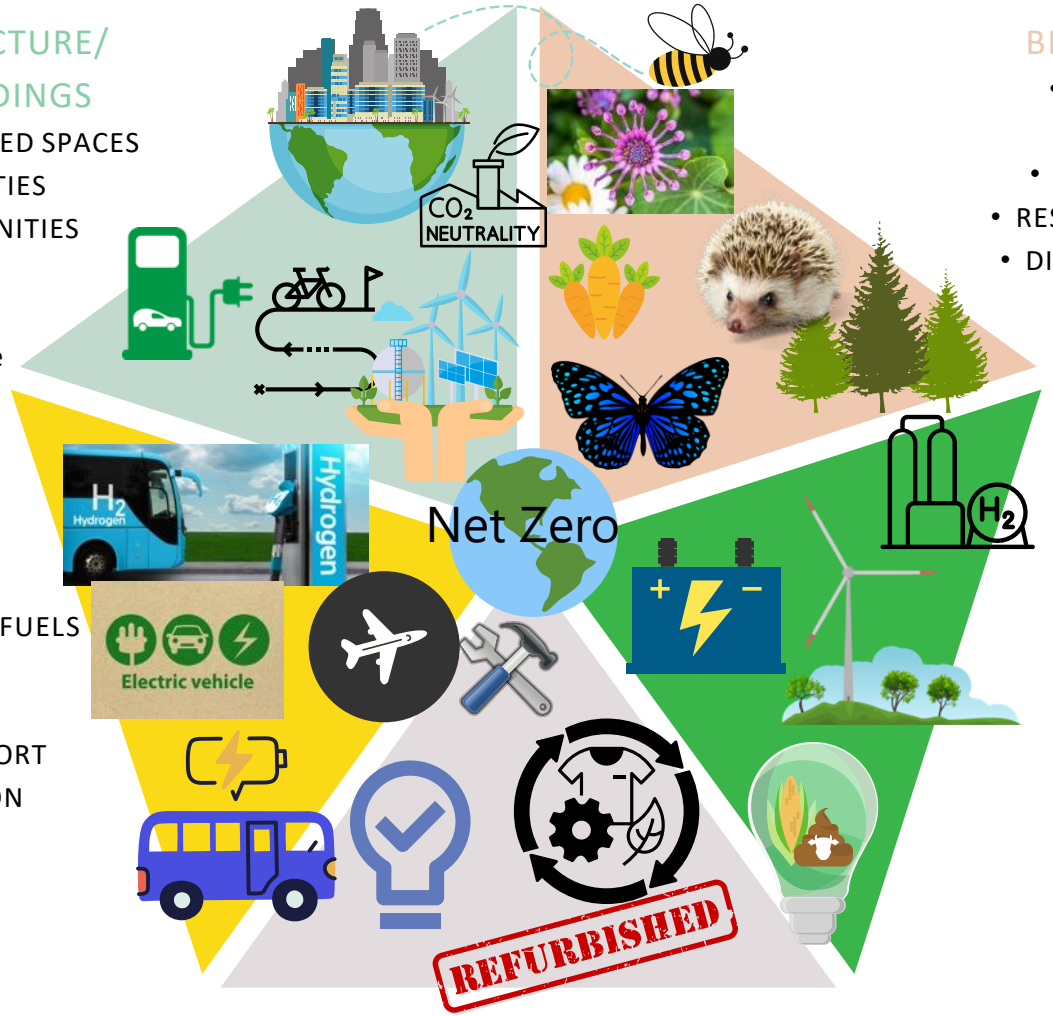
Net Zero Landscape

INFRASTRUCTURE/ NZEB BUILDINGS

- WELL DESIGNED SPACES & COMMUNITIES
- SHARED AMENITIES
- SMART
- Blue Green infrastructure

BIODIVERSITY

- SUSTAINABLE ECOSYSTEM
- REFORESTATION
- RESTORE SOIL HEALTH
- DIET AND LESS FOOD WASTE



MOBILITY & LOGISTICS

- ZERO CARBON FUELS
- EFFICIENT, CONVENIENT PUBLIC TRANSPORT
- COLLABORATION

RENEWABLES

- GRID
- SELF GEN
- HYDROGEN
- BIOFUEL
- DSM

CIRCULAR ECONOMY

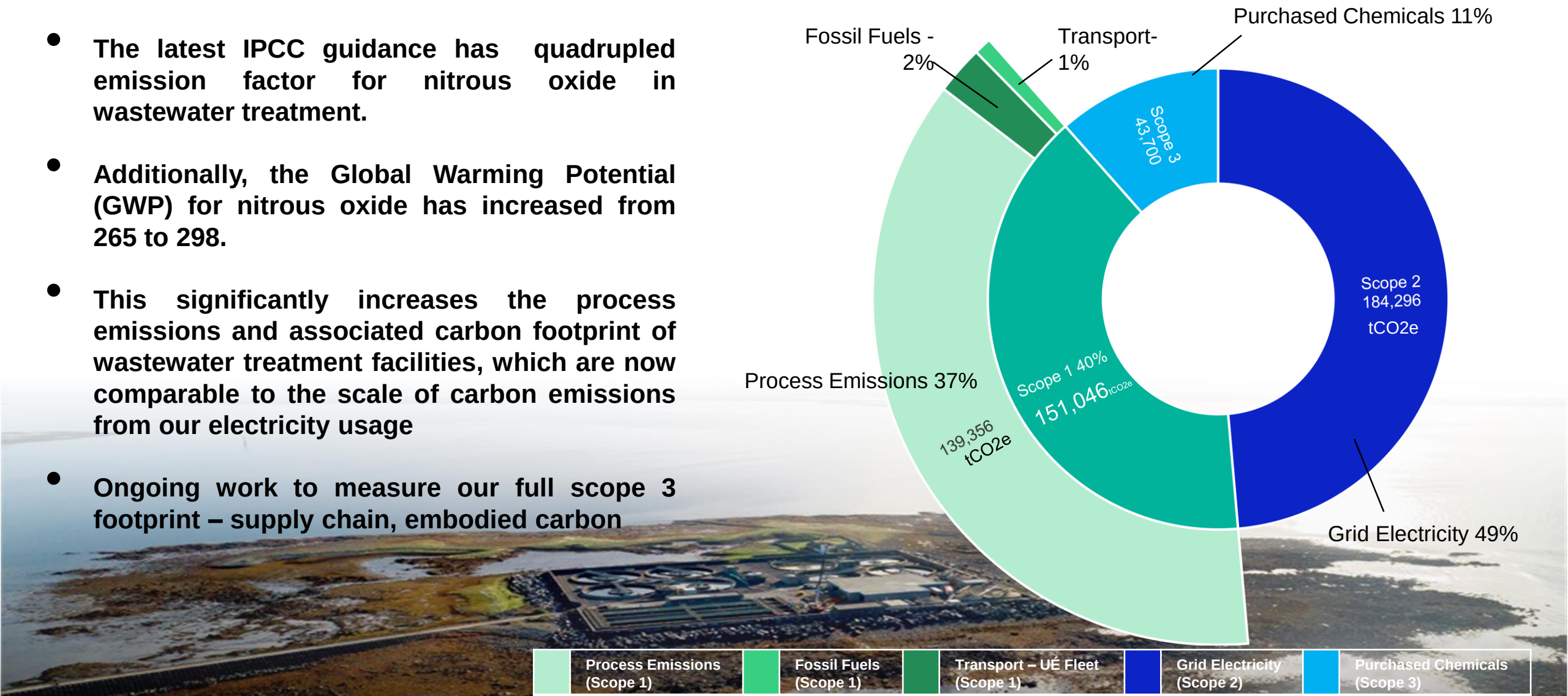
ZERO WASTE
DESIGN THINKING
COLLABORATION
QUALITY

LASNTG Local Authority Services National Training Group

Uisce Éireann Irish Water

What is the breakdown of our carbon footprint?

- **The latest IPCC guidance has quadrupled emission factor for nitrous oxide in wastewater treatment.**
- **Additionally, the Global Warming Potential (GWP) for nitrous oxide has increased from 265 to 298.**
- **This significantly increases the process emissions and associated carbon footprint of wastewater treatment facilities, which are now comparable to the scale of carbon emissions from our electricity usage**
- **Ongoing work to measure our full scope 3 footprint – supply chain, embodied carbon**



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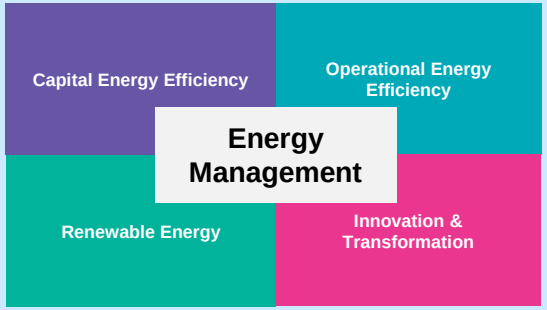
LASNTG

Collaboration is key to meeting our challenges and catalysing a sustainability culture

Rising to the Challenge:
Our Sustainable Energy Strategy

Sustainable Energy Strategy

- Largest consumer of electricity in public sector c. 21%
- 5 Strategic Pillars



Energy Action Plans

- EAPS are the structure for implementing the Sustainable Energy Strategy
- Facilities
- Energy Efficient Design
- Energy retrofit upgrades
- Renewable energy
- Process Optimisation.

Moving Forward

- 30% energy efficiency savings
- Challenge to meet 50% energy efficiency by 2030,
  Rising base energy demand
  Quick wins converted
- Challenge to meet 51% reduction in energy GHG emissions by 2030

  Thermal energy, fossil fuels

Rising to The Challenge:
SEAI Collaboration/Energy Efficient Design

Embedding EED as BAU

Electricity – 75% of energy consumption

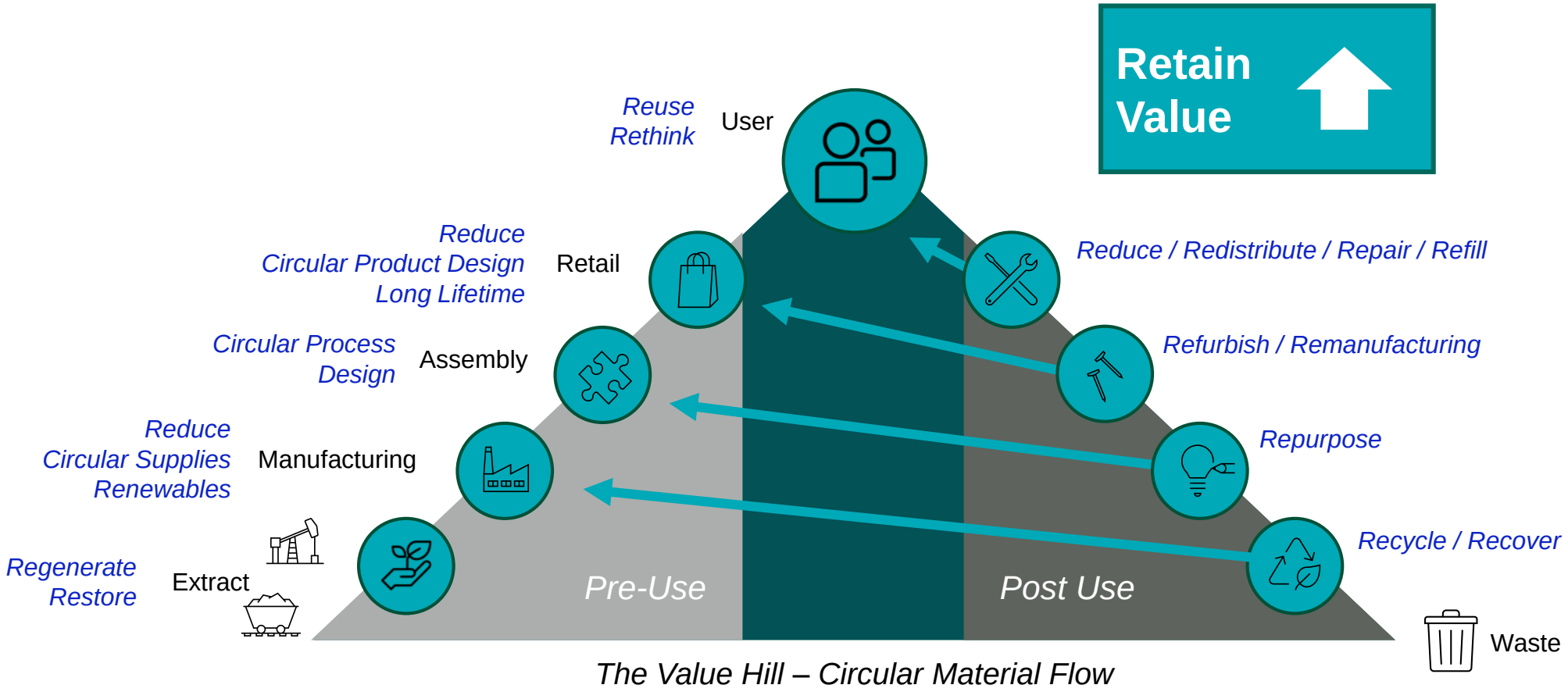
SEAI Strategic Partnership

Rising to The Challenge: Renewable Energy

- Developing solar PV programme
- Assessing & Developing– Hydro, Wind
- Optimising AD & Biogas
- CPPA

Rising to The Challenge: Nature-Based Solutions

Rising to the Challenge: Circular Economy



The Value Hill – Circular Material Flow

Our Sustainability Targets

UÉ Targets

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Collaboration

- **Circular Economy**
  Ensure circular solutions are considered at each phase in all UÉ capital projects by 2026

Thank you.

For further information or to get in contact
please email

chcoakley@water.ie

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Remember to enter the name of the person the question is addressed to

Collaboration around supporting growth

Presenters Name: John O'Shaughnessy
Organization: Asset Strategy

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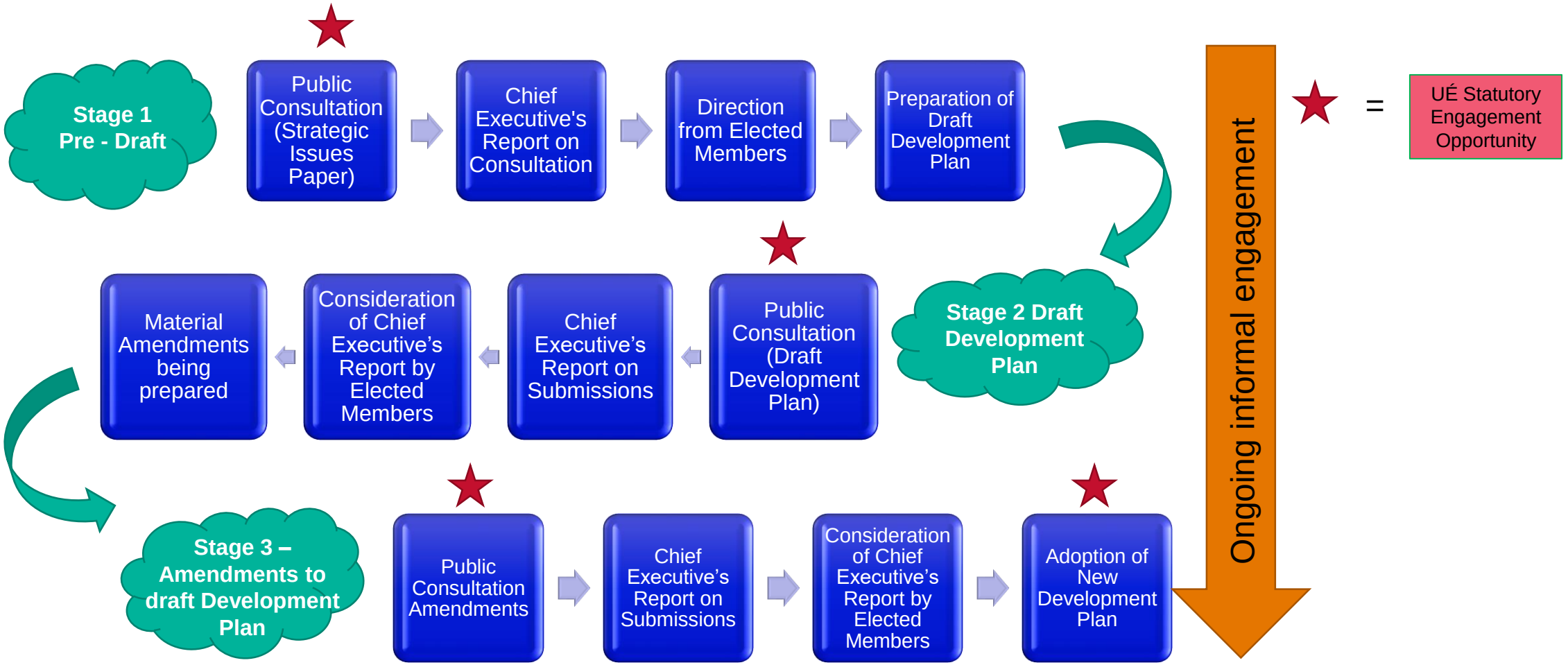
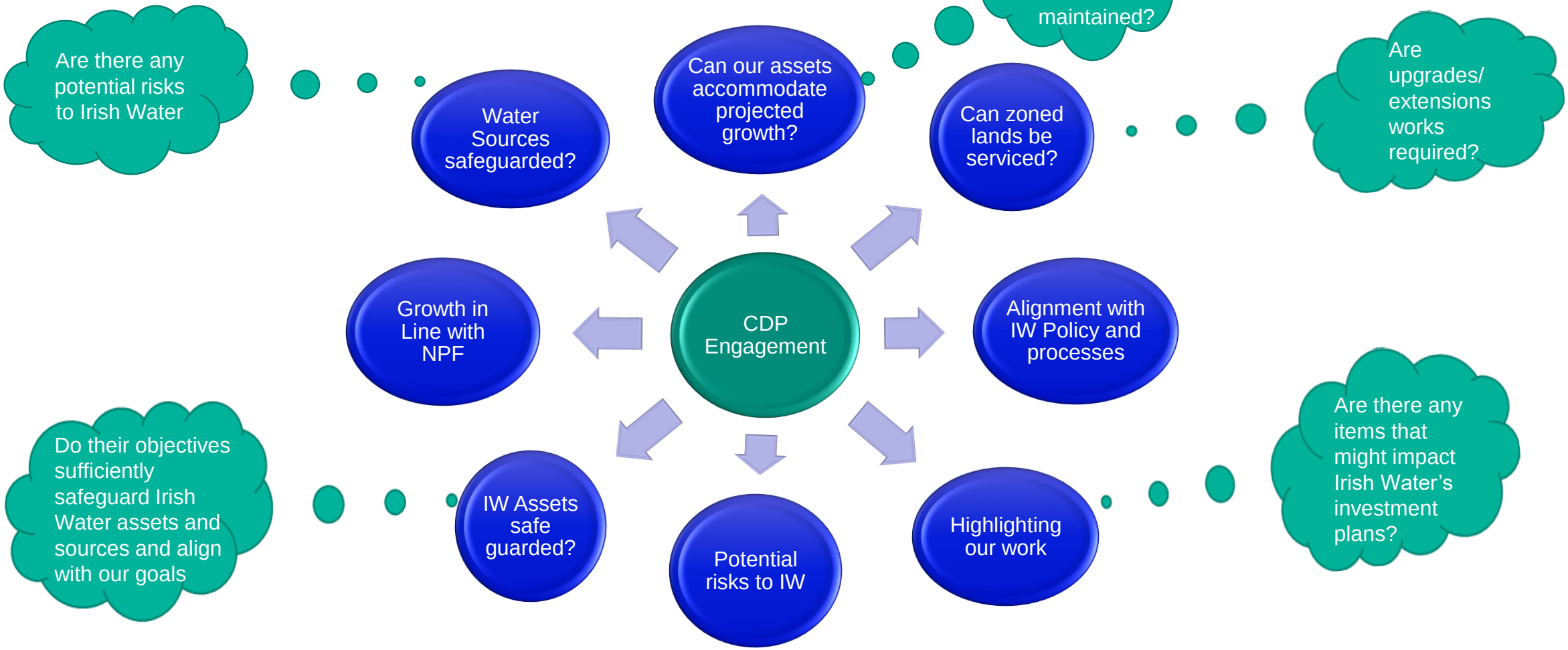
WSTG 2023 – County Development Plan Interactions



WSTG 2023 – Preparing our submission



WSTG 2023 - Capacity Register

Settlements with Waste Water Discharge Authorisations - Wastewater Treatment Capacity

Waste Water Discharge Licences (WWDL) and Certificates of Authorisation (CoA)

Jun-23

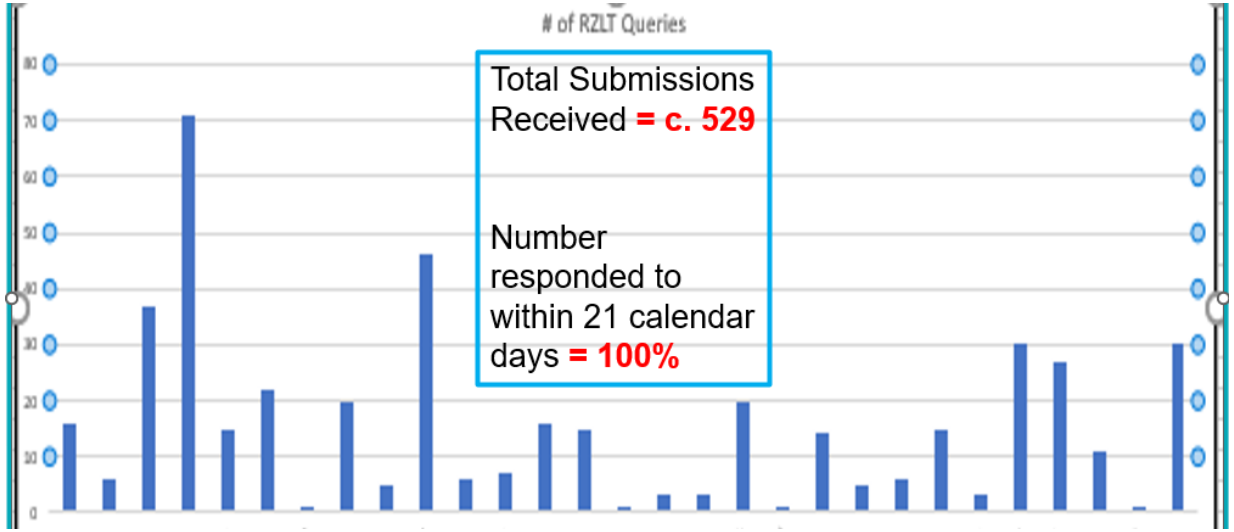
Region	County	Settlement	Census pop. (2016)	Wastewater Treatment Plant (WWTP)	Reg #	Serves other areas?	WWTP Capacity (PE)		Current Load	Headroom (PE)		Current project
							Today	Upon works completion	From Collected Load History	WWDL ELV Capability	UWW Standards Capal WW	
NW	Galway	**Tuam**	8,767	Tuam WWTP	D0031	No	24,834	=	11,387	13,447		
NW	Galway	**Ballinasloe**	6,662	Ballinasloe WWTP	D0032	No	13,600	=	8,841	4,759		
NW	Galway	**Loughrea**	5,556	Loughrea WWTP	D0194	No	9,500	=	7,529			
NW	Galway	**Oranmore**	4,490	Mutton Island WWTP	D0050	Yes	170,000	=	104,046	65,954		
NW	Galway	**Athenry**	4,445	Athenry WWTP	D0193	No	9,500	=	6,057			
NW	Galway	**Gort**	2,994	Gort WWTP	D0195	No	4,310	=	3,612	698		
NW	Galway	**Bearna**	1,998	Mutton Island WWTP	D0050	Yes	170,000	=	104,046	incl.		
NW	Galway	**Maigh Cuilinn**	1,704	Moycullen WWTP	D0191	No	4,000	=	2,071	1,929		
NW	Galway	**Clifden**	1,597	Clifden WWTP	D0198	No	6,000	=	2,779	3,221		
NW	Galway	**Portumna**	1,450	Portumna WWTP	D0196	No	3,100	=	2,269	831		
NW	Galway	**Oughterard**	1,318	Oughterard WWTP	D0192	No	2,400	=	1,561	839		
NW	Galway	**Baile Chláir**	1,248	Claregalway WWTP	D0543	No	6,000	=	2,282	3,718		
NW	Galway	**Headford**	973	Headford WWTP	D0197	No	3,000	=	1,437	1,563		
NW	Galway	**An Cheathrú Rua**	781	-	D0388	No	-	Not yet defined	793			
NW	Galway	**Mount Bellew**	774	Mountbellew WWTP	D0219	No	700	Not yet defined	1,072			
NW	Galway	**Kinvara**	734	Kinvara WWTP	D0276	No	2,050	=	705	1,345		
NW	Galway	**Ballygar**	687	Ballygar WWTP	D0371	No	360	1,500	702			
NW	Galway	**Dunmore**	600	Dunmore WWTP	D0370	No	3,000	=	809	2,191		
NW	Galway	**Moylough**	518	Moylough WWTP	D0403	No	1,000	=	560	440		
NW	Galway	**Glenamaddy**	480	Glenamaddy WWTP	D0379	No	700	=	640	60		
NW	Galway	**An Spidéal**	237	-	D0396	No	-	1,000	317	683		

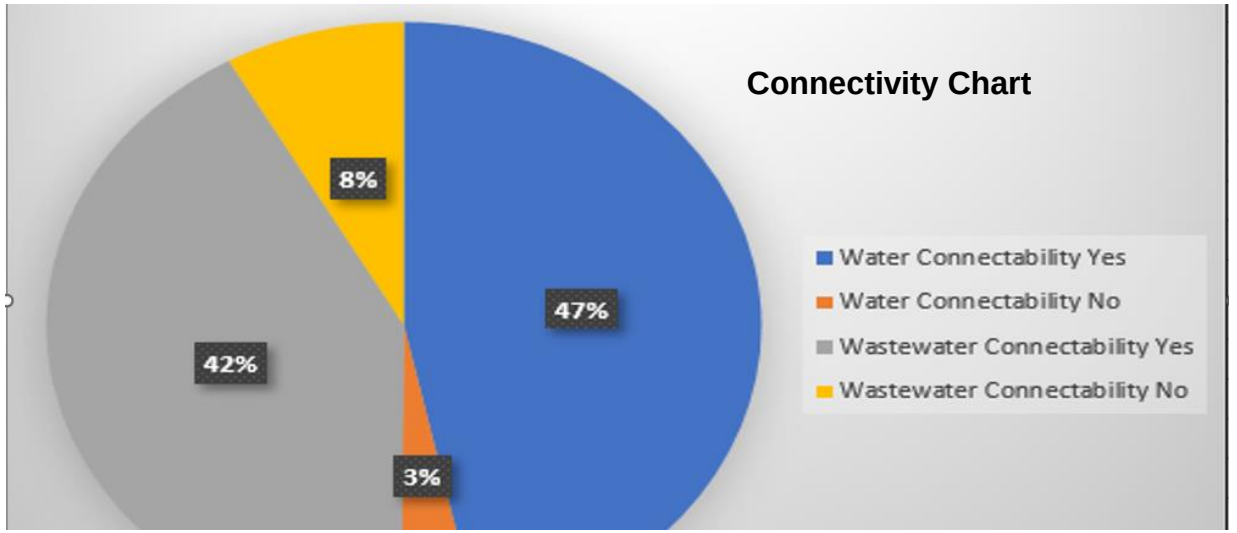
10-Year Water Supply Capacity Register

Published June 2023

Region	Local Authority	Settlement Name	Settlement Population (CSO 2016)	Target Settlement Population 2032	Water Resource Zone Name (WRZ)	WRZ ID	Indication of capacity available to support 2032 population targets
S	Kerry	Tralee	23,691	29,383	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Killarney	14,504	17,988	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Listowel	4,820	5,935	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Castleisland	2,486	3,175	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Kenmare	2,376	2,925	Kenmare / Kilgarvan	1300SC0019	Capital Investment Required
S	Kerry	Killorglin	2,199	2,812	Mid Kerry	1300SC0015	Potential Spare Capacity -LoS improvement required
S	Kerry	Dingle-Daingean Uí Chuis	2,050	2,601	An Baile Mor / An Daingean	1300SC0004	Potential Spare Capacity -LoS improvement required
S	Kerry	Ballybunion	1,413	1,805	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Cahirciveen	1,041	1,301	Cahersiveen	1300SC0032	Capacity Available
S	Kerry	Milltown	928	1,371	Mid Kerry	1300SC0015	Potential Spare Capacity -LoS improvement required
S	Kerry	Rathmore	790	954	Rathmore	1300SC0031	Potential Spare Capacity -LoS improvement required
S	Kerry	Ardfert	749	917	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Ballyheigue	724	888	Ardfert North/ Glenderry	1300SC0010	Capacity Available
S	Kerry	Lixnaw	696	830	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Fieries	558	667	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Tarbert	540	661	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Fenit	538	757	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Ballyduff	517	616	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Waterville-Spunkane	462	570	Waterville PWS 075H	1300SC0023	Capacity Available
S	Kerry	Spa	443	528	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Kilcummin	435	526	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Abbeydorney	418	498	Central Regional - Lough Guitane	1300SC0013	Capacity Available - LoS improvement required
S	Kerry	Ballylongford	391	484	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Newtownsandes	381	454	Listowel Regional Public Water Supply	1300SC0011	Potential Spare Capacity -LoS improvement required
S	Kerry	Annascaul	318	379	Annascaul / Ballintermon	1300SC0002	Potential Spare Capacity -LoS improvement required

WSTG 2023 - Residential Zoned Land Tax





RAG MAPPING (Cap Reg and Proximity to networks)

Maps generated based upon current Capacity Registers, previously issued to LAs.

IW will provide information with the following RAG status relating to Capacity.

Green – Capacity available.

Amber – WWT potential capacity available to at least UWWTD Standards. Potential availability of capacity in this case would be dependent on any additional load not resulting in a significant breach of the combined approach as set out in Regulation 43 of the Waste Water Discharge (Authorisation) Regulations 2007. Decision on impact by the LA. WS- potential capacity available Level of service improvements required.

Red – either Water Supply Capacity or Waste Water Treatment Capacity unavailable at this present time

IW provide information to LAs, LAs make the determination on whether to include or exclude the lands from the Residential Zoned Lands Tax.

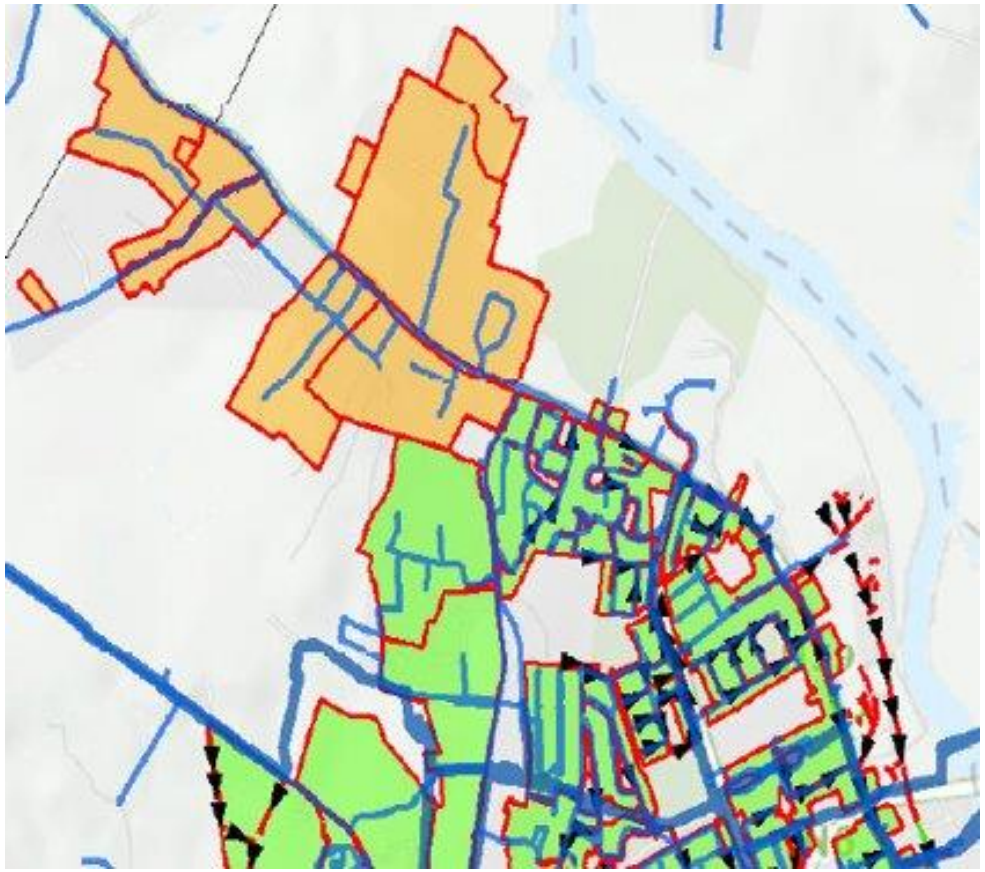
IW will provide information with the following RAG status relating to proximity to network (accuracy of some networks remains unconfirmed):

Green - within 10m of an Irish Water network

Amber - between 10m and 500m of network extension or upgrade required

Red – network greater than 500m away

WSTG 2023 – Example of RAG map for RZLT



Rules

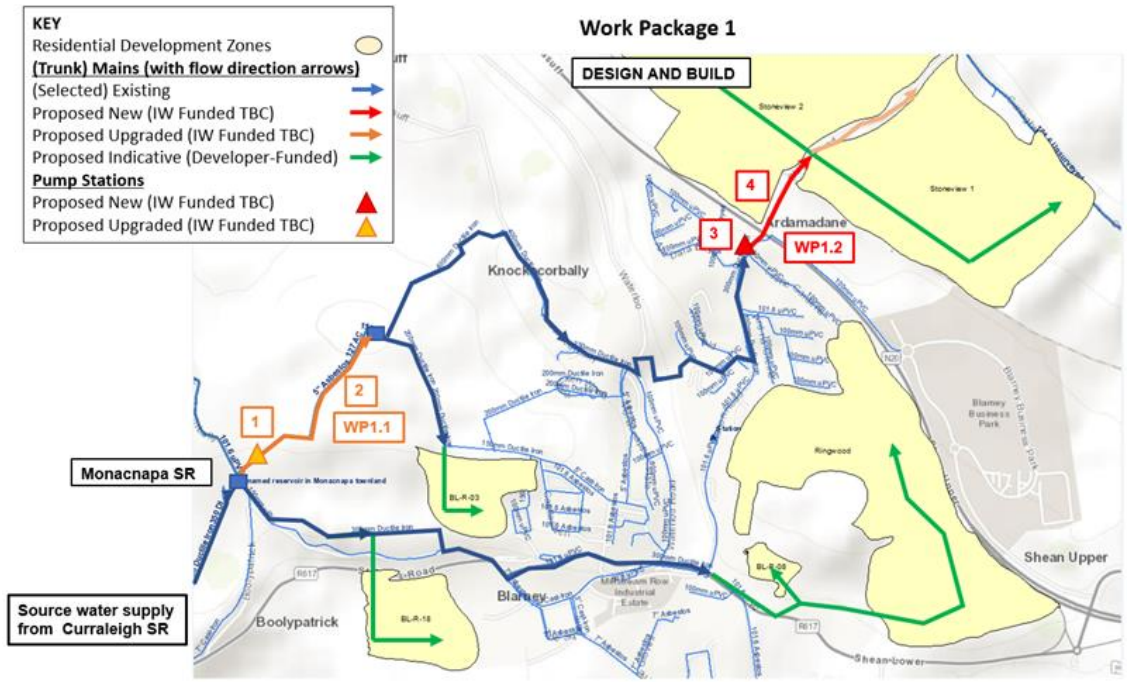
WW Capacity- Agglomeration boundary +100m buffer, matched with WWCR status

Manually add other significant towns without agglom boundaries

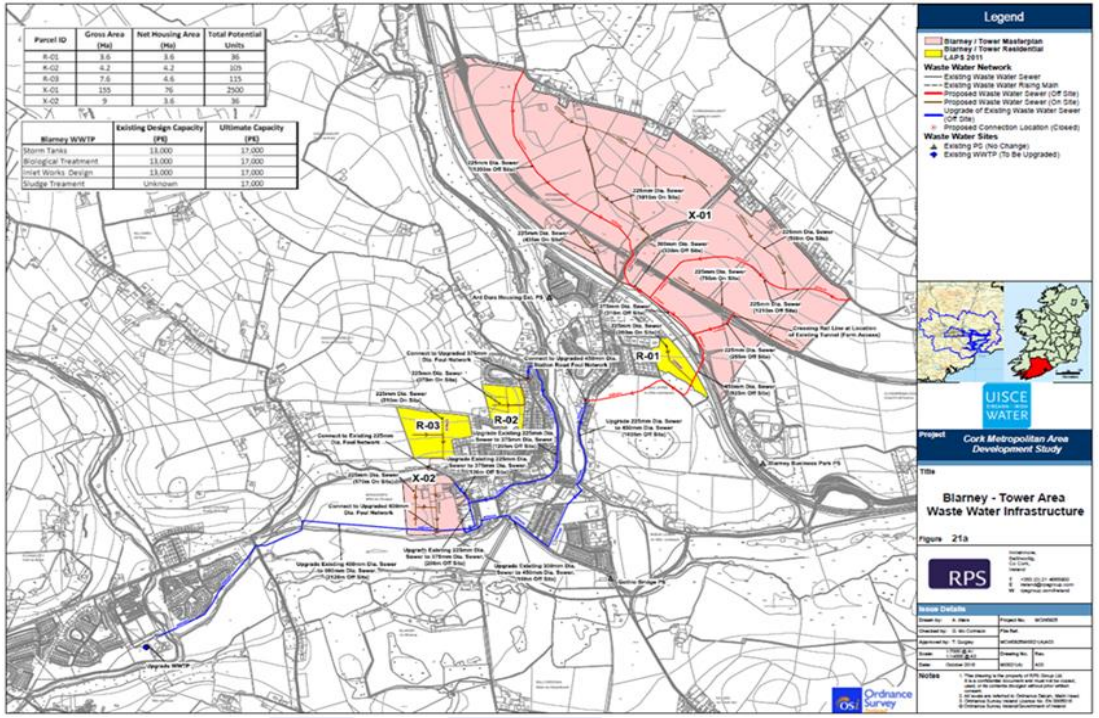
WS Capacity- WRZs with Cap Register status +100m buffer,
Network- proximity to network <10,>500m.

Exclude WW rising mains, WW outfalls, WS
Liquid Type- Raw water
Sense check required

WSTG 2023 - Network Infrastructure Plans & DAPs



WP1.1 – Design and Build – PS upgrade and main replacement from Monacnapa reservoir to Knockacorbally reservoir.
WP1.2 – New pump station and distribution main to pump direct to residential units in the Stoneview Area
WP2 – Design Only – New pump station and rising main to deliver treated water to a new reservoir & new gravity main to service the Stoneview area.

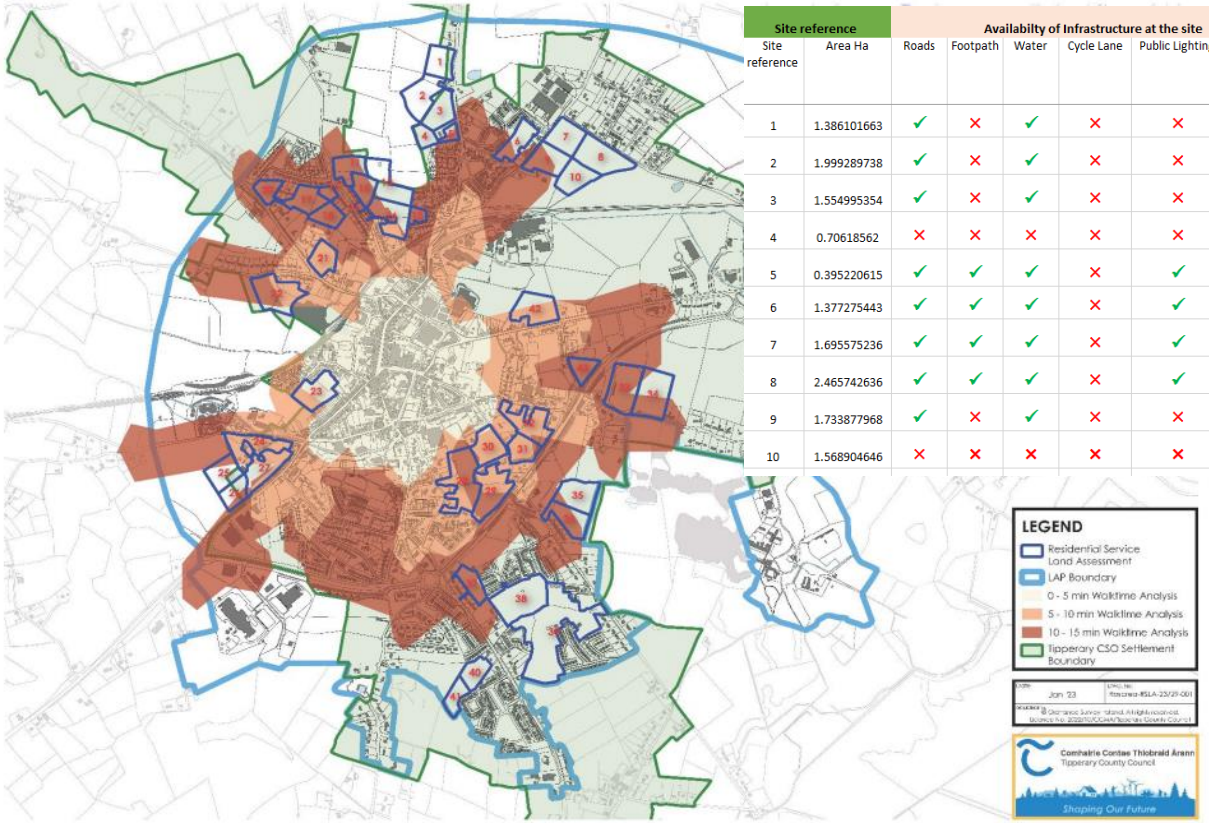


Work Package 1 - New SWO chamber required (U/S of WwTP Inlet) including Static Screen, Event logger and flow monitor.
Upgrades to existing Sewer (Medium Diameter >500mm, <900mm) Extensions to progress through separate project as need arise for specific developments
Upgrades to existing Sewer (Small Diameter <500mm)

WSTG 2023 - Settlement Capacity Audits

Example, Roscrea Serviced Land Assessment

Map A: SLA for lands available for 'New Residential' development



Site reference		Availabilty of Infrastructure at the site						Sustainable Planning Criteria applicable to the site				Determinination	Zoning from Zoning Map	Uisce Éireann Comment (based on existing ww collection network)
Site reference	Area Ha	Roads	Footpath	Water	Cycle Lane	Public Lighting	Foul Sewer	Compact Growth	Walking analysis 5 - 10 mins	Walking Analysis 10 - 15 mins	Sequential	T1/T2/SR/ Rezone		
1	1.386101663	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	Rezone	Town Environs	-
2	1.999289738	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	SR	Strategic Reserve	Capacity available in sewer on R421 Cnoc Mhuire (foul flows only assessed)
3	1.554995354	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	SR	Strategic Reserve	Capacity available in sewer on R421 Cnoc Mhuire (foul flows only assessed)
4	0.70618562	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	SR	Strategic Reserve	Capacity available in sewer on R421 Cnoc Mhuire (foul flows only assessed)
5	0.395220615	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	SR	Strategic Reserve	Capacity available in sewer on R421 Cnoc Mhuire (foul flows only assessed)
6	1.377275443	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	T1	Existing Residential	
7	1.695575236	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	T1	New Residential	require flow split between sewers on Fancroft Rd and Ashbury Avenue
8	2.465742636	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	SR	Strategic Reserve	require flow split between sewers on Fancroft Rd and Ashbury Avenue
9	1.733877968	✓	✗	✓	✗	✗	✓	✓	✗	✓	✗	T1	New Residential	require flow split between sewers on Fancroft Rd and Ashbury Avenue
10	1.568904646	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	SR	Strategic Reserve	require flow split between sewers on Fancroft Rd and Ashbury Avenue

WSTG 2023 - City Edge

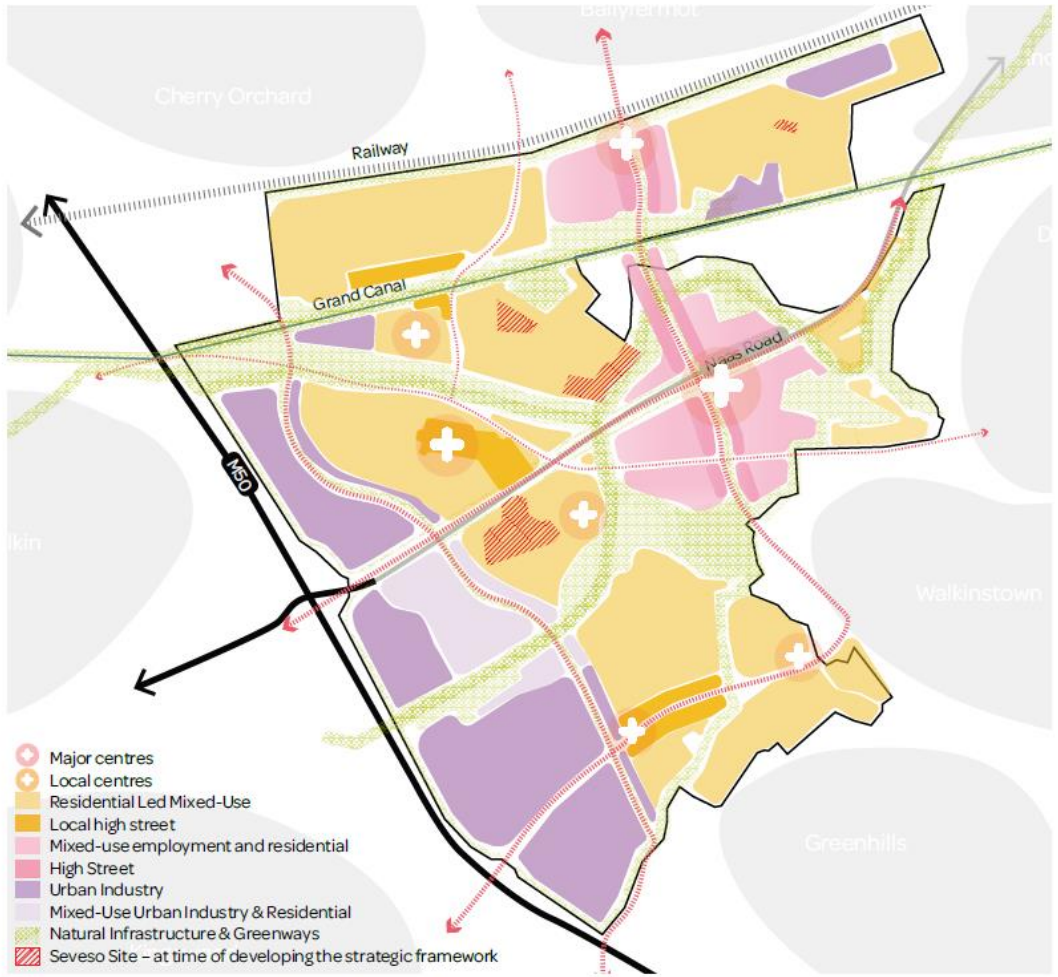


Figure 36. Indicative spatial considerations, including potential for a major commercial centre around Kylemore Road / Naas Road.

Capacity/ Growth figures	
Potential Population	75,000 – 85,000
Potential Employment	65,000 – 75,000
Population growth over time	30-40% delivery by 2040 60-70% delivery by 2070
Employment growth over time	30-40% delivery by 2040 60-70% delivery by 2070
Resources and infrastructure requirements	Schools Park areas Community infrastructure Retail Public transport and active travel facilities Utilities upgrade and provision

3.6.5 PREFERRED SCENARIO SPATIAL CONFIGURATION

The spatial manifestation of the preferred scenario places a major centre at the crossroads of Naas Road and Kylemore Road / Walkinstown Avenue, with a series of nodes across City Edge comprising a mix of uses from urban industry to residential to high density employment and workspace. The spatial configuration relates directly to existing, planned and proposed public transport, and to existing and proposed natural infrastructure. These will help form the setting in which the evolution of City Edge can prosper, supporting sustainable growth in the area.

WSTG 2023 - Growth & Demand Analysis Capability Project

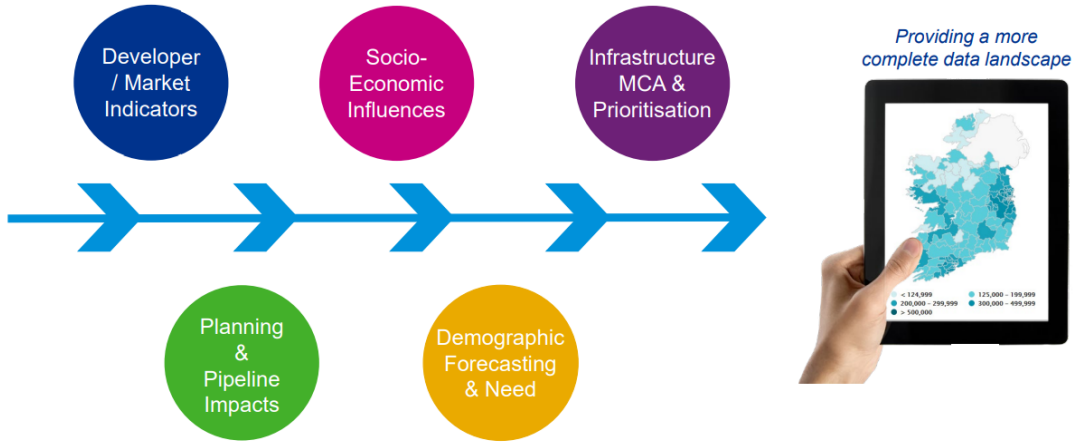
To understand, analyse and forecast demand in order to support strategic planning activities for new, or expanded, water and waste water infrastructure in future planning horizons, to meet changing demands.

Demand Analysis is used to inform and support: -

- Investment Planning (Right Investment at the Right Time)
- Programmes, projects and plans (NWRP, DAPs, W&WWTP Upgrades)
- Supporting National Growth and meeting customer needs and expectations

Key success factor to both the 'now' and the 'future' lies: -

- Easy to access accurate data,
- Clear process(es), governance and accountabilities,
- Understanding risk and risk appetite
- Good communication and reporting



WSTG 2023 - Small Towns and Villages Growth Programme

- Primary focus on wastewater treatment deficits
- In 2020, LAs were asked to rank qualifying candidate settlements. nationally. Workshops with each LA to review ranked settlements.
- To date, 39 projects have been confirmed to be delivered through the STVGP nationally
- Projects at an additional 11 candidate towns and villages will also be delivered through alternative Uisce Éireann programmes.
- Recently launched a dedicated STVGP webpage
- Continue addressing candidate sites over future investment periods, subject to approvals
- To take account of changes since 2020, in Q2 2023, LAs given opportunity to:
  - *Re-order ranking of candidate settlements*
  - *Add newly qualifying candidate settlements*
- LA submissions currently being reviewed
- Final list of candidate settlements to be ~300no. nationally

WSTG 2023 - Demand Management Strategy (In Development)

A Demand Management Strategy based on SMART objectives and mandates the development of subordinate procedures and initiatives. Provide a common mechanism for the evaluation of demand management initiatives and monitoring of outcomes.

- **Risk**: *Valuable resources could be wasted if demand can't be managed efficiently.*
- *Context:*
  - *(1) Water conservation is a key enabler for a Sustainable Water Service.*
  - *(2) A "network focussed" Leakage Strategy requires a complementary "connection focussed" Demand Management Strategy*
  - *(3) Existing and new initiatives need to be coordinated*
  - *(4) Demand management and water conservation are key enablers for the National Water Resources Plan*

Demand Segmentation

- Domestic & Non-Domestic

1. *Customer Supply Pipe Leakage*
2. *Plumbing Losses*
3. *Inefficient Fittings & Water Using Devices*
4. *Customer Behaviour*
5. *Substitution, Storage & Alternative Sources*
6. *Water theft*

WSTG 2023 -Walking the Walk – Water Efficiency in Uisce Éireann

Facilities:

- Waterwise Checkmark awarded to the Webworks and Colvill House offices
- Recognition of a commitment to water efficiency.

Staff Initiatives:

- UÉ staff water conservation initiatives 2023;

Future Opportunities:

- Water efficiency at Wastewater Treatment Plants;
- Water Stewardship for Communities;
- Water efficient public housing and services;
- Pilot new technologies for water conservation;

Uisce Éireann
Irish Water

Collaboration is the key to meet the challenges of the future

Thank you.

For further information or to get in contact please email

joshaugh@water.ie

Q&A will be through Slido via QR Code on the back of your lanyard or go to slido.com and enter the number #2557172
Remember to enter the name of the person the question is addressed to

Closing Address

Eamon Gallen, COO
Uisce Eireann

WSTG Conference 2023-12th October 2023

Thank you all for attending and Safe Home

& Please hand your lanyards back to LASNTG Staff as you leave