# Cork Strategic Drainage Study

## Appendix 4 Network Modelling Report

**321120AW**

**October 2025**

# Cork Wastewater Strategy

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## Contents

# Abbreviations

| | |
|---|---|
| **CWS** | Cork Wastewater Strategy |
| **ECJ** | European Court of Justice |
| **DAP** | Drainage Area Plan |
| **EPA** | Environmental Protection Agency |
| **EO** | Emergency Overflow |
| **AER** | Annual Environmental Report |
| **GIS** | Geographical Information System |
| **IPPC** | Integrated Pollution Prevention and Control |
| **UE** | Uisce Eireann |
| **l/h/day** | Litres per head per day |
| **MBV** | Model Build and Verification |
| **NRV** | Non-Return Valve |
| **PS** | Pumping Station |
| **PS EO** | Pumping Station Emergency Overflow |
| **RTC** | Real Time Control |
| **SDS** | Strategic Drainage Study |
| **SWO** | Storm Water Overflows |
| **TSR** | Time Series Rainfall |
| **CCC** | Cork County Council |
| **WwTP** | Wastewater Treatment Plant |

| | |
|---|---|
| **RDZ** | Residential Development Zone |
| **UDG** | Urban Drainage Group |
| **UWWTR** | Urban Wastewater Treatment Regulations |

# 1. Overview

## 1.1. Scope and Purpose of the Study

Uisce Éireann (Irish Water) commissioned Jacobs Engineering Ireland to undertake a Wastewater Strategy of the Cork Metropolitan Area (CMA). The aim of the Cork Wastewater Strategy (CWS) is to implement a sustainable drainage strategy to support the growth of the CMA. This report outlines the current and future wastewater drainage requirements for the proposed design horizons of 2030, 2055 and 2080.

The CMA is a major regional area that is envisaged to become the fastest-growing region in Ireland. The projected population and associated economic growth will result in a significant increase in Water and Wastewater infrastructure demand, to facilitate this projected growth of the region. There is already a high demand on the existing wastewater infrastructure within the area, which is being challenged to keep pace with growth and an increased demand for new serviced lands. Consequently, this has led to compliance challenges for some of the wastewater treatment plants and sewerage networks in the area. As wastewater treatment capacity requirements increase, the need to accommodate current and future wastewater loads and address associated pressures on the quality of receiving waters becomes more apparent.

The overall objective of the optioneering and solutions development process is to identify and evaluate feasible solutions and determine the optimum strategic drainage and treatment solution(s) for the study area as a whole for horizon years of 2030, 2055 and 2080.

This report will outline how the future design horizons have been created, the current and future horizon assessments of Uisce Éireann assets, the works necessary for all Storm Water Overflows (SWOs) to meet DoEHLG and rUWWTD criteria and limit annual SWO spills from each agglomeration to be no more than 4 % of the annual collected urban wastewater load in 2025 calculated in dry weather conditions, which is equivalent to 2% of the load as per rUWWTD standards.

This report also assesses the impact of upgrading the existing drainage network to mitigate issues such as network surcharge and network flooding, with these incorporated into the final solutions proposed, so that all flows are conveyed to each Wastewater Treatment Plant (WwTP). This will assist with determining final design criteria for any WwTP upgrades as part of the CWS.

Please note: This report has been prepared outside of Strategic Solutions using the best available information gathered from various sources throughout the project. For future reference, any solutions proposed in this report should be reviewed in accordance with the UE detailed design specifications. This includes conducting appropriate workshops and optimising the solutions as necessary, once further surveys or additional information become available during the design stages for each catchment/SWO location.

## 1.2. Study Area

The Cork Wastewater Strategy includes 26 Uisce Éireann operated WwTPs, ranging in size from less than 100 population equivalent (PE) treatment capacity to greater than 400,000 PE treatment capacity. These WwTPs provide varying levels of treatment such as primary, secondary, tertiary, and nutrient reduction, and discharge

to a range of water bodies. In addition, there are other settlements in the study area that are not currently served.

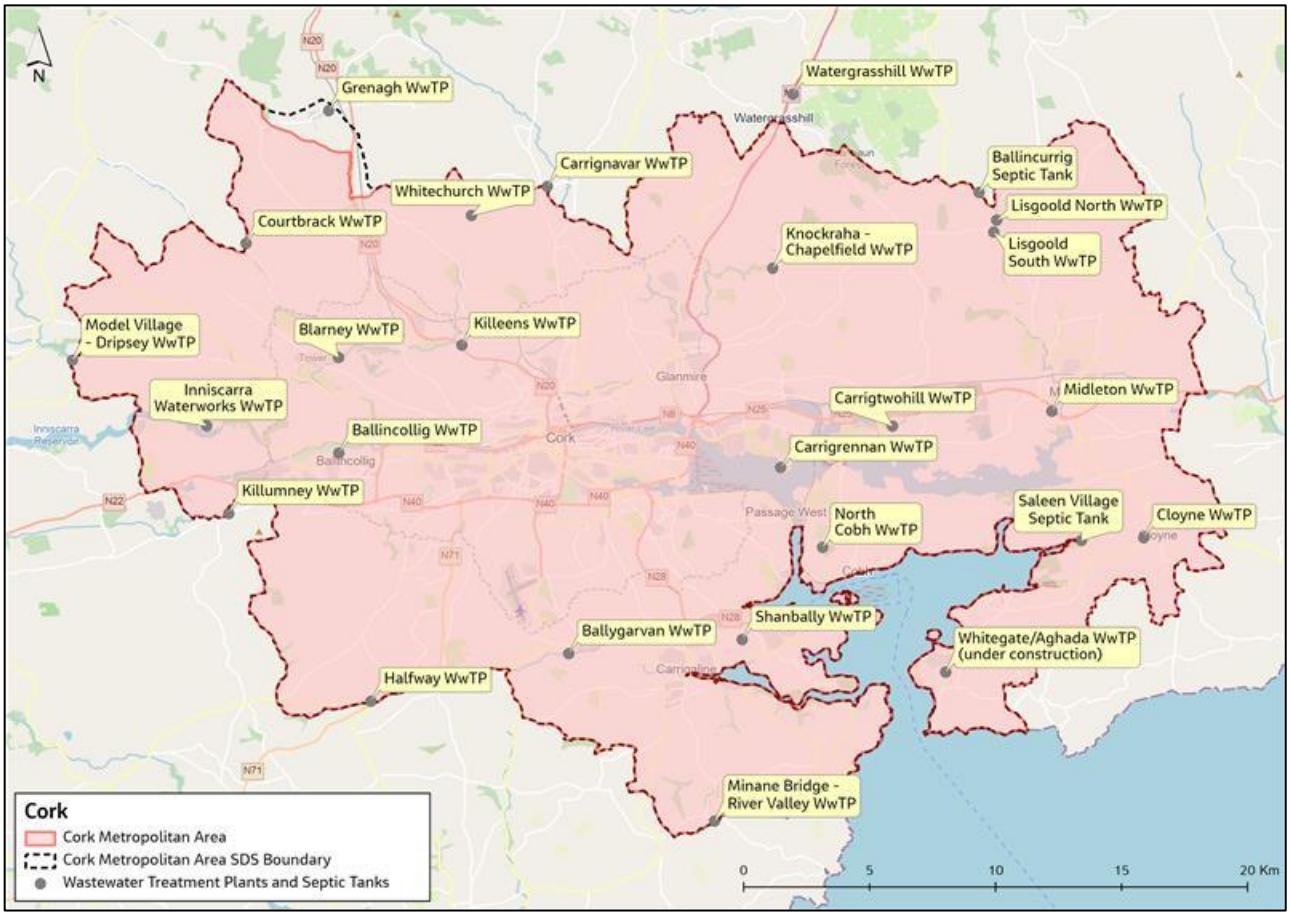



**Figure 1-1. Locations of WwTPs and Septic Tanks within the CMA**

These existing WwTPs currently experience a range of issues that include non-compliance with environmental quality standards and exert significant pressure on their receiving waters. It is recognised that the projected growth in population, commercial developments and industry in the Cork Metropolitan Area will further exasperate wastewater treatment issues and lead to a shortfall in the capacity of the existing and planned WwTPs leading to a deterioration in the quality of the receiving waters.

## 1.3. Model Background

The model build was undertaken in accordance with the Urban Drainage Group Code of Practice (UDG CoP) for the Hydraulic Modelling of Sewer Systems and Uisce Éireann's Wastewater Network Hydraulic Model Build and Verification Standard – IW-TEC-800-06 (formerly IW-TEC-200-001).

The 2023 baseline model is made up of six network models –

- Four verified models (Cork City, Carrigtwohill, Ballincollig and Midleton)
- One unverified model (Cork Lower Harbour)
- Twenty-four 24 newly built drainage networks which had no existing Uisce Éireann models

Out of the twenty-four drainage areas with no existing network models, nineteen network models have been created using available geographic information system (GIS) records and the Uisce Éireann InfoAsset database. As per the Terms of Reference (ToR), five settlements within the study area had no existing Uisce Éireann sewerage network or treatment facility. For these areas, simplified network models have been built to develop the overall drainage model for the study area in accordance with Uisce Éireann's modelling standards.

Each catchment required varying levels of model build and updates to achieve a robust Type I model i.e. simplified networks with limited details focussing on the main structural and hydraulic components. All network schemes constructed after the development of the existing model were incorporated into the network models using the supplied as constructed and proposed drawings. Any user controls, unless otherwise specified, have been assumed. Above-ground modelling parameters, i.e., WWG (wastewater group), trade profiles, per capita consumption rate and infiltration rates for the verified models remain unchanged. Likewise, there have been no changes to the existing model verification and calibration values and profiles applied. Model simulations were undertaken for all networks to identify and address any instabilities and assess network performance. A list of WwPS's, SWOs and EOs in each catchment can be found in the Baseline Hydraulic Modelling and Network Assessment Report.

# 2. Future Design Horizons

## 2.1. Methodology

As part of the Cork Wastewater Startegy (CWS), future development design horizon scenarios for 2030, 2055 and 2080 were created in agreement with Uisce Éireann on residential growth distribution locations across each catchment. The methodology for the development of the future design models was as follows:

- For existing DAP network models, ongoing/recent developments post model verification were included within the design horizon scenarios.
- Scenarios for growth projections for each specific catchment were created, incorporating data from the Population Projections and Land Use Report and the Design Flows and Loads Report for the proposed CWS Study Horizons of 2030, 2050 and 2080.
- Future design model networks were updated with agreed/committed and proposed network upgrades not contained within the existing baseline network model for the 2030, 2055 and 2080 design horizons.
- Per capita consumption (PCC) for Cork City was 140 l/h/d was used as wastewater flow generation contributing to the sewers for all the future population projections, in line with industry standard UDG guidance. This was agreed with Uisce Éireann in advance.
- Infiltration of 40 l/h/d was applied for new developments.
- Design multipliers (WWG and Trade) were set as flat profiles:
    - Domestic (WWG) was set to a multiplier of 2.5.
    - Commercial flows were set to a multiplier of 3 to represent peak flow conditions.
- Commercial flows were calculated at 16% of the total zone flows, and an assumed Trade Profile 3 (Office/Commercial, 8am to 5pm, Weekday only) was applied to all commercial dummy catchments.
- All subcatchments within new developments were modelled to represent a separate system type. An allowance was made for all network models to account for potential misconnections from the surface water to the foul/combined networks, in line with Uisce Éireann's Technical Guidance Note on the Application of Urban Creep Allowances for Future Scenarios in Wastewater Network Modelling.
- Model networks were updated with agreed capital schemes for 2030, 2055 and 2080 design horizons.
- Climate change was applied in accordance with Uisce Éireann's Guidance Note on the Application of Rainfall Data for Wastewater Network Modelling. Climate change was included in the model as a separate set of rainfall events, which were used to assess the Full Development Model for each of the 2030, 2055 and 2080 Design Horizons.
- Model simulations were undertaken for a full set of design runs and durations from 1 to 30 years, and Time Series Rainfall (TSR) was used to assess system capacity with regard to flooding and Storm Water Overflow (SWO) performance for each design horizon scenario.

Refer to appendix A of the report for development details across all catchments for 2030, 2055 and 2080 scenarios.

# 3. Network Optioneering

## 3.1. Methodology

In advance of developing proposed network solutions, a strategy meeting was held between Jacobs and Uisce Éireann to review network capacity and assess network risk arising from the proposed future development plans for defined design horizons. Following the review, the development strategic solutions process was undertaken, aimed at providing future network capacity and SWO compliance. The focus was to develop a strategic drainage plan for the Cork Wastewater Strategy. This plan aims to create a resilient future network that complies with Uisce Éireann's future flooding drivers and environmental regulations as set out in the new recast Urban Wastewater Treatment Regulations (UWWTR).

The process adopted for solutions development was as follows:

- Agreement between Jacobs and Uisce Éireann on the overarching strategy for network upgrades based on the capacity risk assessment.
- A preliminary strategic optioneering exercise to evaluate various network scenarios.
- Testing multiple options scenarios for individual catchments in conjunction with the wider Cork Metropolitan Area Strategy.
- Agreement on final strategic recommendations for the wastewater drainage system.

Key outcomes of the detailed Strategic Solutions Development:

- Identifying upgrades to strategic wastewater treatment plants and any new outfalls.
- Identifying existing pumping station upgrade requirements and potential site locations for new network pumping stations.
- Defining strategic network upgrades and proposed rising main route selection for new terminal pumping stations.
- Proposing strategic SWO upgrades or decommissioning to ensure existing and future compliance.
- Evaluating the impact of areas not currently served by Uisce Éireann on the overall drainage system.
- Identifying real-time control opportunities for network optimisation of key assets such as pipelines, tunnels, pumping stations, and wastewater treatment plants.

Please note: This report has been prepared outside of Strategic Solutions using the best available information gathered from various sources throughout the project. For future reference, any solutions proposed in this report should be reviewed in accordance with the UE detailed design specifications. This includes conducting appropriate workshops and optimising the solutions as necessary, once further surveys or additional information become available during the design stages for each catchment/SWO location.

## 3.2. Cork City (including Northern Settlements)

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing upgrade documentation and/or council planning materials related to proposed development sites, the following network modifications were implemented. Where essential data for network modelling was unavailable, assumptions were made using engineering judgement.

**Cork City:**

- Where available, foul dummy development networks associated with future development sites were incorporated from the Cork City Combined Upgrades Infrastructure Model across all three scenarios.
- Large residential development zone networks were modelled using application no. 2442632[1].

**Blarney:**

- Networks associated with the 2030 development zones were modelled using planning application no. 195413[2]. For the larger zones in the 2055 scenario, dummy development networks were included in the model.
- Blarney/Tower Sewerage Scheme WW Network Upgrade documents[3] were used to model network upgrades, namely pipe upsizing throughout the catchment.

**Watergrasshill:**

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 225878[4], 196149[5] which includes Church View WwPS.

**Knockraha:**

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 144508[6] and 225216[7].
- The Chapefield Septic Tank was removed from the model, and the upstream network was redirected to connect with the proposed Knockraha Wastewater Treatment Plant (WwTP). Similarly, the Radharc na Tuaithe Septic Tank was excluded, and a modeled connection to the new WwTP was assumed.
- The main trunk of the Knockraha network was removed from the model, as its previous inclusion was based solely on assumptions to connect the Ard Abhainn development to the WwTP. However, updated development plans indicate a proposed route featuring a wastewater pumping station (WwPS) discharging into the new Glenmore development. Additionally, planning applications for properties along the original trunk route specify private septic tank connections rather than a public foul sewer.

[1] Cork City Council Planning Application, File. No.2442632, https://planning.corkcity.ie/AppFileRefDetails/2442632/0
[2] Cork County Council Planning Application, File. No.195413, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/195413/0
[3] MCW0959RP0003 and associated documents, Assessment of Blarney Network Infrastructure Requirements (Site R - 02)
[4] Cork County Council Planning Application, File. No.225878, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/225878/0
[5] Cork County Council Planning Application, File. No.196149, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/196149/0
[6] Cork County Council Planning Application, File. No.144058, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/144058/0
[7] Cork County Council Planning Application, File. No.225216, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/225216/0

### 3.2.1. Cork City DAP Infrastructure Solutions

As part of Stage 4 of the Cork City DAP, an infrastructure solution model was developed, presenting a comprehensive list of interventions across the catchment. These solutions address multiple Storm Water Overflow (SWO) and Wastewater Pumping Station (WwPS) compliance issues, while also mitigating flood risks within the catchment up until 2043 design horizon. Additionally, the model was used to develop a robust solution for non-compliant SWOs under Cork Wastewater Strategy Study for 2030, 2055, and 2080 development scenarios, ensuring flood resilience in Cork City and the northern settlement catchments considering future development impacts.

The following is a list of ancillary upgrades proposed and modelled as part of the Cork City DAP Stage 4 solutions development. These upgrades now form part of the strategic solution across the 2030, 2055, and 2080 design horizons. Please note that this list provides a high-level summary of proposed solutions at network ancillaries. Further associated upgrades, such as network upsizing, installation of new sewers, sewer cleaning, bifurcations, and stormwater system enhancements, are detailed in the Wastewater Infrastructure reports of the Cork City DAP.

**WwTP Upgrades:**

- **Carrigrennan WwTP**: A new 10,000 $m^3$ storage tank is proposed, with return flow to the network.
- **Ballyvolane to Carrigrennan Network Upgrade**: The design report outlines a new inlet works configuration, with a modelled capacity of 166.5 L/s for the 2055 horizon. The WwTP Flow to Full Treatment (FFT) is increased from 1,930 L/s to 4,000 L/s.

**WwPS Upgrades:**

- **Eastgate WwPS**: PFF increased from 333 L/s to 700 L/s; includes screening upgrade, flow diversion, and a new 1,000 $m^3$ storage tank.
- **Glanmire WwPS**: Pump On/Off levels amended; new 3,000 $m^3$ storage tank.
- **Well Road WwPS**: Pass Forward Flow (PFF) increased from 8 l/s to 30 l/s; 300 $m^3$ emergency storage added and the rising main diverted 348 m to Carrigrennan WwTP.
- **Clash Road WwPS**: PFF increased from 6 l/s to 10 l/s.
- **Flaxford Road WwPS**: PFF increased from 504 l/s to 616 l/s and a new 2,100 $m^3$ storage tank.
- **Ballytrasna WwPS**: PFF increased from 30 l/s to 111 l/s; rising main upsized from 150 mm to 350 mm over 322 m.
- **Courtstown WwPS**: PFF increased from 19 l/s to 30 l/s and a new 700 $m^3$ storage tank.
- **Rising Tide WwPS**: Storage increased from 32 $m^3$ to 100 $m^3$.
- **Fitzpatrick's WwPS**: PFF increased from 18 L/s to 25 L/s.
- **Wallingstown WwPS**: PFF increased from 150 L/s to 190 L/s.

- **Ronaynes Court WwPS**: PFF increased from 736 L/s to 1,150 L/s; overflow SW72695406 decommissioned; a new 1,350 mm storm rising main (1,500 L/s) to rehabilitated 10,500 $m^3$ tidal tank for storm storage.
- **Mahon South WwPS**: Rising main discharge diverted to Balinure Header Chamber (BHC) inlet.
- **Mahon North WwPS**: PFF reduced from 170 L/s to 115 L/s.
- **Bessborough WwPS**: PFF increased from 160 L/s to 169 L/s; and new 300 $m^3$ storage tank.
- **City Printer's WwPS**: PFF increased from 6 L/s to 12.5 L/s.
- **Gilabbey Rock WwPS**: New 75 $m^3$ storage tank with overflow to existing outfall.
- **Curraheen WwPS**: PFF increased from 19 L/s to 30 L/s.
- **Garrane Darra WwPS**: PFF increased from 21 L/s to 42 L/s, with inclusion of a new 450 $m^3$ storage tank.
- **Wilton WwPS**: Pump ON levels amended; new 2,050 $m^3$ storage tank.
- **Adrostig WwPS**: New WwPS replacing existing; PFF increased from 14 L/s to 30 L/s, with the storage tank upsized from 250 $m^3$ to 500 $m^3$.
- **Ballyvolane WwPS**: Twin rising main to new WwTP inlet at Carrigraline with additional 405 $m^3$ storage tank.
- **Killeens New WwPS**: New 11 L/s flow transfer WwPS with 325 $m^3$ storage tank.
- **Rochestown Inn WwPS**: Discharge increased from 28 L/s to 40 L/s with a new 500 $m^3$ storage tank.
- **Glencurrig WwPS**: New 18 $m^3$ and 100 $m^3$ storage tanks; new storm pump set.
- **Rochestown WwPS**: New 40 L/s WwPS replacing Rochestown Inn WwPS; new 500 $m^3$ storage tank with overflow and screening.
- **Carmen Lawn WwPS**: Decommissioned with a gravity main flow diversion over 172 m to Rochestown Inn WwPS.
- **Courtwood WwPS**: Decommissioned with a gravity main flow diversion over 540 m to Rochestown Inn WwPS.
- **Greenhills WwPS**: Demolish and rebuild of the existing pumping stations to Uisce Éireann standards, including a new 100 $m^3$ storage tank. Retaining the existing 10 L/s PFF; installation of 80 L/s storm pumps and upgraded SWO with a new screen.
- **Gartan Park WwPS**: Pump ON levels lowered.

**SWO Upgrades:**

- **Skehard Road SWO**: Weir levels adjusted and existing storage capacity increased.
- **Woodbrook Gurrane Lane SWO**: New 915 $m^3$ storage tank with new weir and 5 L/s return pump.
- **Glendale SWO**: New 400 $m^3$ storage tank with 9 L/s return pump.
- **South Douglas Road SWO**: New 400 $m^3$ storage tank.

- **South Ring Road SWO**: New SWO with 44 $m^3$ storage tank replacing existing; existing overflow sewer converted to foul and diverted; new 2,100 $m^3$ attenuation storage added.
- **Camden Place SWO (SW67725101)**: New SWO with three weirs, 350 $m^3$ storage tank, and connection to new storm return WwPS.
- **Rock Cottages SWO**: Upgraded SWO with two weirs, 340 $m^3$ storage tank, and return pump.
- **Popham's Road SWO**: New 220 $m^3$ storage tank.
- **Turner's Cross SWO**: New 670 $m^3$ storage tank.
- **Rosebank SWO**: Rebuilt to include new screen, larger pipes, lower invert, and additional weir discharging to a new 150 $m^3$ storage tank.
- **Orchard Court SWO**: New SWO with weir.
- **Glasheen Bridge SWO**: Reconstructed to accommodate a new screen and larger inlet/outlet pipes.
- **O'Donovan Rossa Road SWO**: Overflow level lowered.
- **Gaol Walk SWO**: Overflow level raised.
- **Flannery's Pub SWO**: Overflow level raised.
- **Belgard Downs SWO**: Overflow level reduced; new 600 mm diversion sewer installed; gullies diverted.
- **Riverbank SWO**: New 1,200 mm diversion sewer, two siphons under Douglas River Culvert, and replacement SWO chamber.
- **Wise's Quay SWO (SW66727002)**: New SWO constructed.

*Note: This above list is not exhaustive. Refer to Cork Wastewater Infrastructure Solution reports, which was part of the Drainage Area Plan stage 4 conducted between 2022 and 2023.*

### 3.2.2. Course Screening Route Selection & Options

**Original Proposed Northern Orbital Sewer (NOrb) Route & Arrangement**

The initially proposed route and configuration of the Northern Orbital Sewer (NOrb) is illustrated in **Figure 3-1 Original Northern Orbital Sewer Route**. In this figure:

- **Solid red lines** represent the proposed NOrb rising main,
- **Dashed red lines** indicate the proposed route for the Terminal Wastewater Pumping Station (WwPS),
- **Solid purple lines** indicate proposed new orbital gravity sewer.

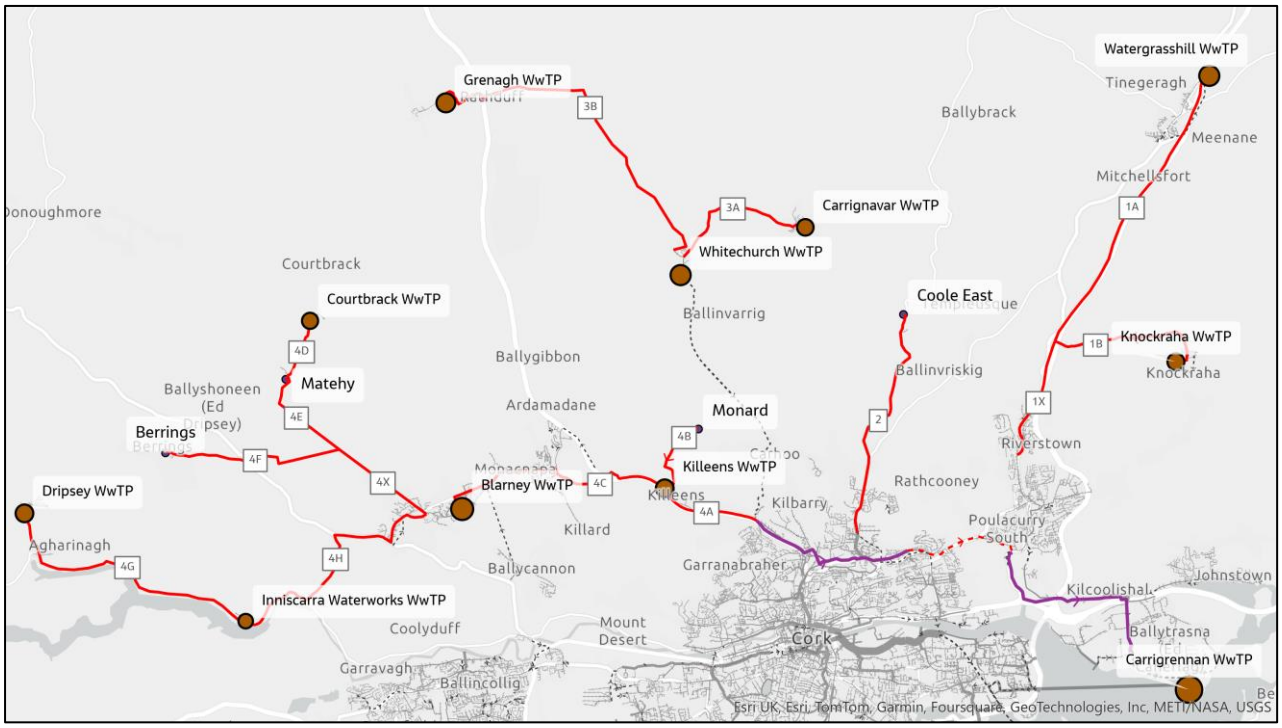



**Figure 3-1 Original Northern Orbital Sewer Route**

**Identified Limitations of the Original Route**

**Unfavourable Gradient in Gravity Sewer** -The first section of the proposed gravity sewer begins at an upstream ground level of approximately 20 mAOD, while the downstream end lies at round 60 mAOD. This results in a negative gradient, which would necessitate excavation to depths exceeding **50 m**—rendering the option technically and economically unfeasible.

**Environmental and Flooding Risks** - The discharge manhole of the Terminal WwPS is located within a river/marshland area, and the proposed gravity sewer route traverses this same terrain. This introduces a significant infiltration risk, which could:

- Increase the frequency and volume of Storm Water Overflow (SWO) events, and
- Exacerbate downstream flooding within the network.

**Conclusion and Recommendation**

Due to the above constraints, the original NOrb route and configuration have been abandoned in favor of a revised alignment, which has been selected for fine screening. However, should the original route be reconsidered in the future, it is recommended to shift the gravity sewer alignment slightly eastward, where a large undeveloped area with a ground level of approximately 20 mAOD exists. This would offer a more favourable gradient for a gravity main leading to Flaxford Road WwPS.

### 3.2.3. Revised Northern Orbital Sewer (NOrb) Route and Configuration

Several alternative configurations to the originally proposed NOrb route have been evaluated during the strategic options appraisal:

- **Option 1**: NOrb flows are pumped to Carrigrennan WwTP via Ballyvolane WwPS.

- **Option 1A**: Assumes the Southern Orbital Sewer (SOrb) does not proceed. This represents the worst-case scenario.
- **Option 1B**: Incorporates the Southern Orbital Sewer (SOrb) as part of the overall strategy.

- **Option 2**: NOrb flows are pumped directly to Ballyvolane WwPS, which then discharges into the Glanmire network.

#### 3.2.3.1. NOrb Option 1A

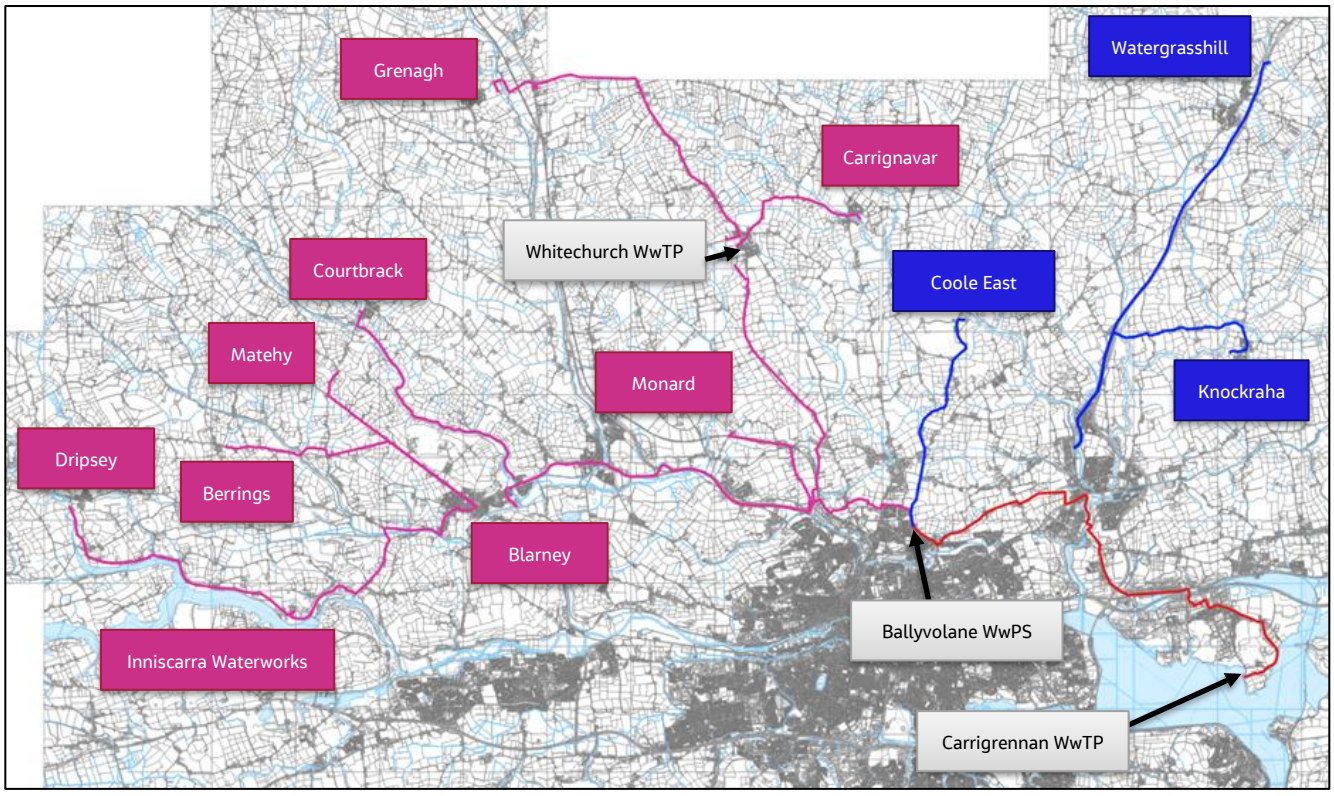
To eliminate the need for constructing a new Terminal Wastewater Pumping Station (WwPS), it is proposed that rising mains from the settlements west of Cork City be extended directly to Ballyvolane WwPS. This station already has a planned upgrade project for 2050, which includes a twin rising main connection to Carrigrennan WwTP and a new inlet works.

Under this revised arrangement which can be seen in Figure 3-2:

- Dripsey, Inniscarra, Berrings, Matehy, Courtbrack, Blarney, Monard, Grenagh, Carrignavar, and Whitechurch would discharge directly to Ballyvolane WwPS (routes marked in pink).
- Coole East, Watergrasshill, and Knockraha (combined flow of 24 L/s) would pump into the Cork City gravity network (routes marked in blue), discharging at two separate locations.
- Ballyvolane WwPS, as proposed already, pumps flow via rising main (route marked in red) directly to the new Carrigrennan WwTP inlet.

Option 1A is the worst-case scenario and includes all South Cork flows.

**Figure 3-2 Revised NOrb Route, Option 1A & 1B**



#### 3.2.3.2. NOrb Option 1B

Option 1B is an alternative solution proposed to demonstrate the diversion of a portion of Cork City flows to Cork Lower Harbour WwTP, thereby relieving capacity constraints at the siphon chamber and reducing the required storage volume at the Atlantic Pool Pumping Station. This option, like Option 1A, also includes the northern settlement catchments.

#### 3.2.3.3. Option 2

Option 2, illustrated in Figure 3-3, proposes that flows from the settlements are directed straight to Ballyvolane WwPS. From there, Ballyvolane WwPS would pump the flows to a discharge point within the Glanmire network, specifically in a new development area located south of the Glashaboy WwPS. Flows would then continue via a gravity sewer to Flaxford Road WwPS, where they would be pumped onward to Carrigrennan WwTP.

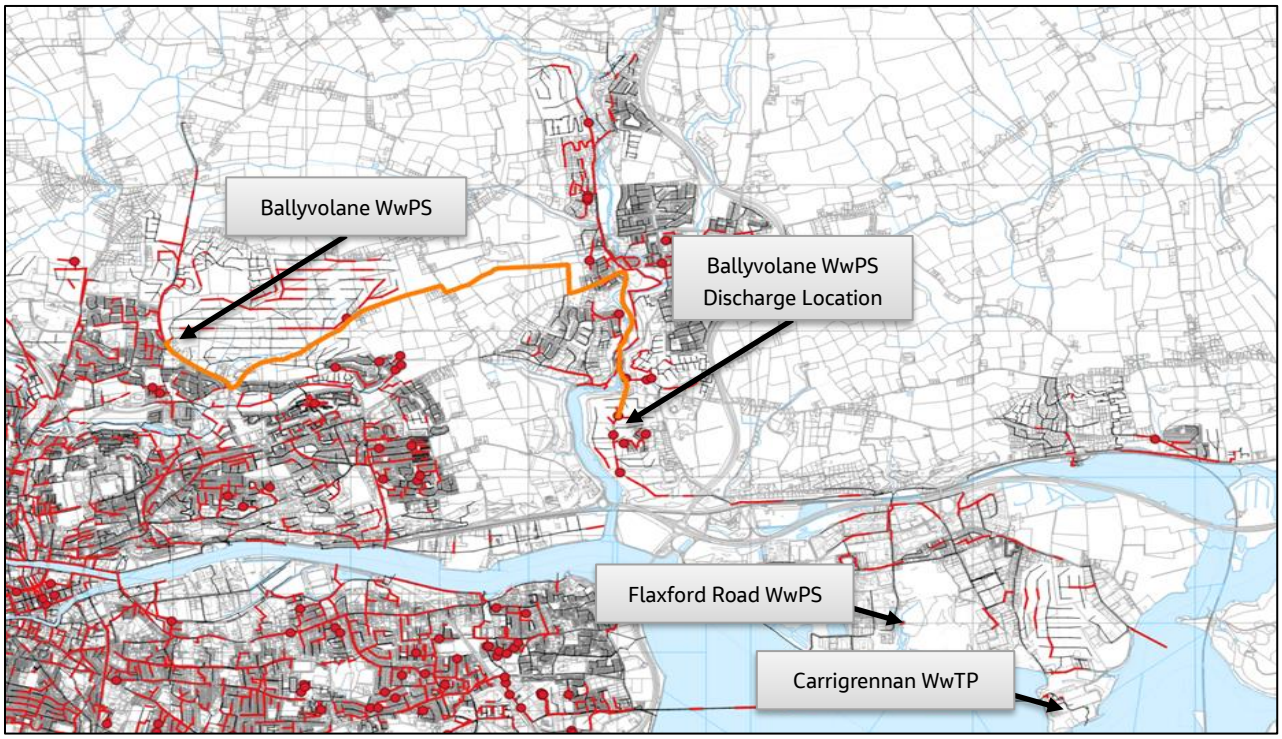



**Figure 3-3 Revised NOrb Route, Option 2**

This option was not pursued due to the risk of increased flooding and surcharge in the Glanmire and Little Island areas, as well as the significant downstream infrastructure upgrades that would be required. Additional constraints identified include:

- Extensive Network Upgrades: Approximately 3 km of foul sewer network would need upgrading in Glanmire and Little Island. This includes the main trunk sewer between the proposed discharge point near Glashaboy WTP and Evergreen Business Park in Little Island, just upstream of Flaxford Road WwPS.

- Conflict with Existing Plans: A planned upgrade for Ballyvolane WwPS already includes a direct rising main to Carrigrennan WwTP with a new inlet[8]. Discharging into the Glanmire network would conflict with these existing plans.
- Flaxford Road WwPS Capacity: This option would require a major upgrade of Flaxford Road WwPS, increasing its Pump Forward Flow (PFF) from 504 L/s to 841.6 L/s by 2080, an increase of 337.6 L/s.

#### 3.2.3.4. Critical Asset Impact

Options 1A and 1B were examined in greater detail, and a critical asset impact assessment was conducted. The results of this assessment are presented in tables below.

**Note on Differences Between Modelled PE and Calculated WwTP Loading**

There is a difference between the modelled population equivalent (PE) and the calculated wastewater treatment plant (WwTP) loading. This discrepancy arises due to the differing methodologies used.

**Modelled PE Calculation**

Modelled PE is derived from the sum of:

P – Population

G – Per capita consumption (PCC)

E – Trade flows

I – Infiltration

Where flow survey data is available, modelled PE is verified using the dry weather flow (DWF) divided by the PCC used during verification.

For non-verified models and future loading standard values are applied:

PCC: 140 L/hd/day, Infiltration: 40 L/hd/day and Trade: Sum of known trade flows and commercial flows calculated within the catchment

**WwTP Loading Calculation**

WwTP loading is assessed using three different methods, depending on the availability and quality of flow and load data:

**Measured Data Approach**

Where existing flow and load data are available, we analyse:

DWF (10th percentile)

Average Daily Flow (ADF)

[8] Uisce Éireann Document No. 10036134-20240711-RYH-FSR-0001-S3-P01, Ballyvolane to Carrigrennan Network Upgrade – Stage 2

Full Flow to Treatment (FFT – 90th percentile)

Future flows are projected by applying measured PCCs to the projected future PE.

**Hybrid Approach**

Current PE loading is based on measured flow data.

Future horizon PE loading is estimated using theoretical PCCs (e.g., 175 L/PE/day).

**Theoretical Approach**

Used when measured data is unavailable or unreliable.

Applies theoretical PCCs(175l/PE/day)

Assumes DWF:ADF ratio of 1.25

**Carrigrennan WwTP: Hydraulic Design Parameters**

| | Baseline | 2080 | Option 1A | Option 1B |
|---|---|---|---|---|
| Modelled PE | 560,799 | 856,804 (+296,005) | 890,761 (+329,962) | 780,883 (+220,084) |
| FFT | 1,930l/s | 3,891l/s* (+1,961/s) | 4,964l/s (+3,034l/s) | 4,276l/s (+2,346l/s) |
| Formula A | 3,959l/s | 5,481l/s (+1,522l/s) | 5,659l/s (+1,700l/s) | 4,962l/s (+1,004l/s) |
| 3DWF | 3,194l/s | 4,711l/s (+1,517l/s) | 4,889l/s (+1,696l/s) | 4,276l/s (+1,082l/s) |
| DWF | 1,376l/s | 1,934l/s (+558l/s) | 2,003l/s (+626l/s) | 1,745l/s (+369l/s) |

**Ballinure Header Chamber: Hydraulic Design Parameters**

| | Baseline | 2080 | Option 1A | Option 1B |
|---|---|---|---|---|
| Modelled PE | 453,566 | 693,435 (+239,869) | 674,910 (+221,344) | 565,031 (+111,465) |
| Formula A | 3,401l/s | 4,630l/s (+1,229l/s) | 4,530l/s (+1,129l/s) | 3,824l/s (+432l/s) |
| 3DWF | 2,639l/s | 3,864l/s (+1,225l/s) | 3,764l/s (+1,126l/s) | 3,151l/s (+512l/s) |
| DWF | 1,169l/s | 1,617l/s (+448l/s) | 1,577l/s (+408l/s) | 1,320l/s (+151l/s) |

**Atlantic Pond WwPS: Hydraulic Design Parameters**

| | Baseline | 2080 | Option 1A | Option 1B |
|---|---|---|---|---|
| Modelled PE | 356,347 | 561,281 (+204,934) | 542,856 (+186,509) | 518,012 (+161,665) |

| | Baseline | 2080 | Option 1A | Option 1B |
|---|---|---|---|---|
| PFF | 2,450l/s | 2,550l/s (+100l/s) | 2,550l/s (+100l/s) | 3,450l/s (+1,000l/s) |
| Formula A | 2,752l/s | 3,748l/s (+996l/s) | 3,648l/s (+896l/s) | 3,515l/s (+763l/s) |
| 3DWF | 2,094l/s | 3,104l/s (+1,010l/s) | 3,004l/s (+910l/s) | 2,872l/s (+778l/s) |
| DWF | 940l/s | 1,285l/s (+345l/s) | 1,245l/s (+306l/s) | 1,193l/s (+254l/s) |

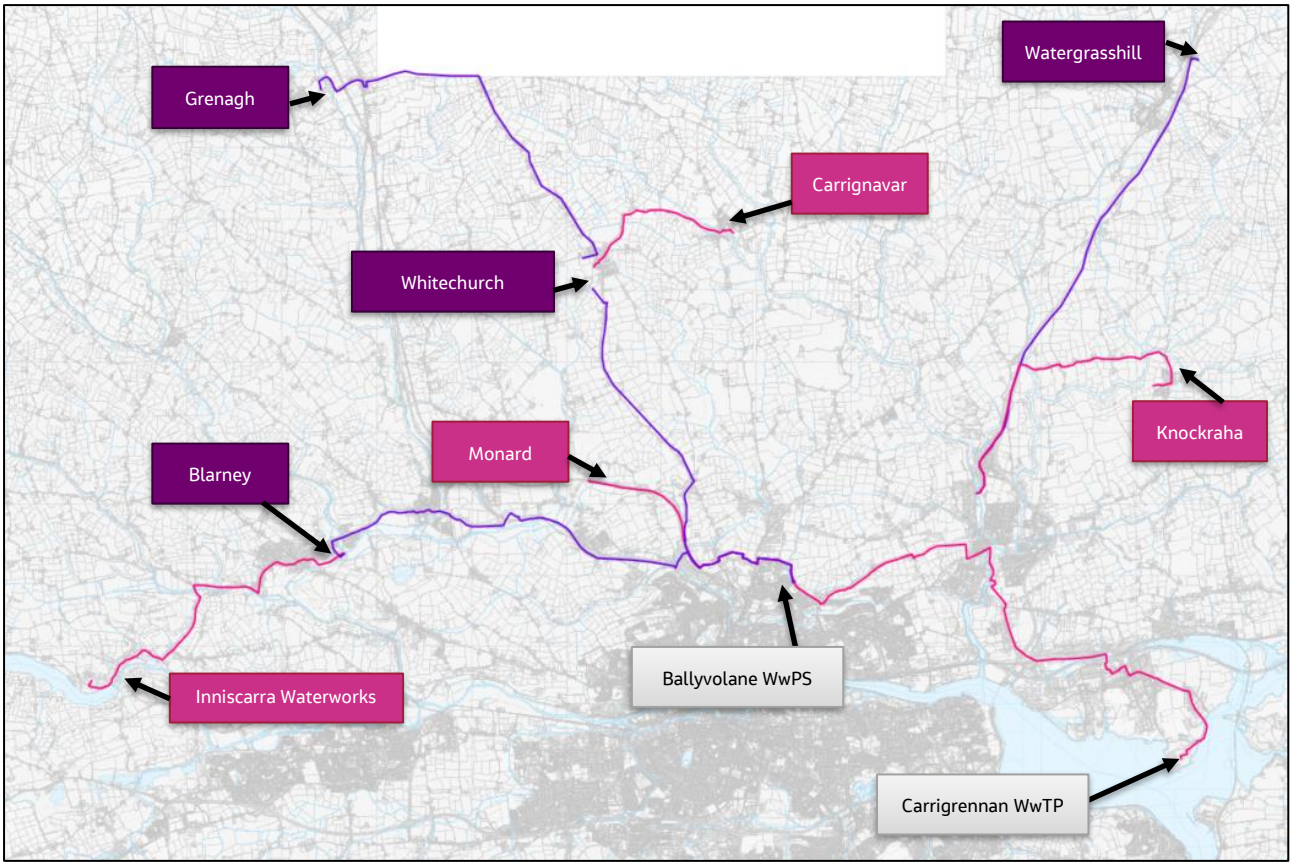
### 3.2.4. Preferred Solution – Cork Northern Orbital Sewer (NOrb)

The preferred solution for the Cork Northern Orbital Sewer is Option 1A, with further details provided below. Several refinements have been made to Option 1A to establish the final preferred NOrb configuration. The current proposed NOrb rising main layout is illustrated in **Figure 3-4** below.

Key amendments include:

- **Dripsey and Courtbrack** have been excluded from the flow transfer strategy and are now being considered for standalone catchment solutions. Details of the preferred solutions for these catchments are provided in Sections 3.12 and 3.11 of this report.
- **Matehy, Berrings, and Coole East** are also no longer part of the flow transfer. Preferred solutions for these catchments are outlined in Sections 3.13, 3.8, and 3.10 respectively.
- The NOrb flow transfer will be implemented in phases:
    - **2030 (pink routes in Figure 3-4)**: Inniscarra (to Blarney), Monard (to Ballyvolane WwPS), Carrignavar (to Whitechurch), and Knockraha (to Cork City network).
    - **2055 (purple routes in Figure 3-4)**: Blarney (to Ballyvolane WwPS), Watergrasshill (to Cork City network), and Grenagh (to Whitechurch).
- The Ballyvolane WwPS pump rate is now proposed to increase to 337.6 L/s in 2080 horizon, and the Carrigrennan WwTP FFT is proposed to increase to 4,964 L/s in 2080 horizon.

**Figure 3-4 Preferred Solution NOrb Routes**




#### 3.2.4.1. 2030 Preferred Solutions

**Northern Settlements**

This section outlines the proposed upgrade solutions for the northern settlements that are planned to transfer flows to Carrigrennan WwTP, either via Ballyvolane WwPS or, in the case of Carrignavar and Grenagh, via Whitechurch WwPS.

The catchments included in this strategy are:

- Blarney (BLA)
- Inniscarra (INN)
- Grenagh (GRE)
- Carrignavar (CRG)
- Knockraha (KNO)
- Monard (MON)
- Watergrasshill (WAT)

#### 3.2.4.1.1. Blarney

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development, the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ancillary Infrastructure Upgrades**

**Blarney WwTP**

- **Upgrade Ref. BLA/30/A/1**: Installation of a new 10,500 $m^3$ storage tank with Real-Time Control (RTC) return to inlet.
- FFT increased to 77.5 l/s (equivalent to 3DWF).

**Gothic Bridge WwPS**

- **Upgrade Ref. BLA/30/C/1**: Storage capacity increased from 11.5 $m^3$ to 296 $m^3$.

**Kerry Pike WwPS**

- **Upgrade Ref. BLA/30/D/1**: Storage capacity increased from 13.1 $m^3$ to 1,005 $m^3$.

**Cloghroe WwPS**

- **Upgrade Ref. BLA/30/E/1**: Storage capacity increased from 15.2 $m^3$ to 201.6 $m^3$.

**Network Capacity and Flood Mitigation Measures**

To further mitigate flooding and enhance network capacity, the following upgrades are proposed.

- **Upgrade Ref. BLA/30/U/1**: Removal of 70% network infiltration, equivalent to 42 ha.
- **Upgrade Ref. BLA/30/U/2**: Storm separation of hardstanding area covering 0.997 ha.

**Foul Sewer Upsizing Works**

- Upgrade Ref. BLA/30/U/10 - Upsize 226.7m of Foul sewer from 300mm to 675mm diameter.
- Upgrade Ref. BLA/30/U/11 - Upsize 123.2m of Foul sewer from 300mm to 525mm diameter.
- Upgrade Ref. BLA/30/U/12 - Upsize 864.5m of Foul sewer from 225mm to 300mm diameter.
- Upgrade Ref. BLA/30/U/13 - Upsize 169.6m of Foul sewer from 225mm to 300mm diameter.
- Upgrade Ref. BLA/30/U/14 - Upsize 961.5m of Foul sewer from 225mm to 300mm diameter.
- Upgrade Ref. BLA/30/U/15 - Upsize 116.8m of Foul sewer from 225mm to 525mm diameter.
- Upgrade Ref. BLA/30/U/16 - Upsize 143.1m of Foul sewer from 225mm to 450mm diameter.
- Upgrade Ref. BLA/30/U/17 - Upsize 95.4m of Foul sewer from 150mm to 450mm diameter.
- Upgrade Ref. BLA/30/U/3 - Upsize 388.4m of Foul sewer from 225mm to 300mm diameter.
- Upgrade Ref. BLA/30/U/4 - Upsize 45.4m of Foul sewer from 225mm to 525mm diameter.

- Upgrade Ref. BLA/30/U/5 - Upsize 70.2m of Foul sewer from 420mm to 750mm diameter.
- Upgrade Ref. BLA/30/U/6 - Upsize 112.5m of Foul sewer from 225mm to 450mm diameter.
- Upgrade Ref. BLA/30/U/7 - Upsize 1,875.6m of Foul sewer from 450mm to 750mm diameter.
- Upgrade Ref. BLA/30/U/8 – Upsize 347.7m Foul sewer from 300mm to 450mm diameter.
- Upgrade Ref. BLA/30/U/9 - Upsize 10.9m of Foul sewer from 450mm to 675mm diameter.

#### 3.2.4.1.2. Carrignavar

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Carrignavar WwTP (to become Carrignavar Terminal WwPS)**

- **Upgrade Ref. CRG/30/A/1**: Decommissioning of the existing Carrignavar Wastewater Treatment Plant (WwTP).
- **Upgrade Ref. CRG/30/B/1**: Construction of a new Terminal WwPS with 600 $m^3$ storage capacity, designed to pump flows to Whitechurch WwPS via a 3.9 km rising main at a flow rate of 5.7 L/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. CRG/30/U/1** - Upsize 382m of Foul sewer from 150mm to 225mm dia.
- **Upgrade Ref. CRG/30/U/2** - Upsize 482m of Foul sewer from 150mm to 375mm dia.
- **Upgrade Ref. CRG/30/U/3** - Upsize 34m of Foul sewer from 180mm to 375mm dia.
- **Upgrade Ref. CRG/30/U/4** - Upsize 60m of Foul sewer from 150mm to 225mm dia.
- **Upgrade Ref. CRG/30/U/5** - Increase Manhole SW67812703 storage from 0.6$m^3$ to 11.5$m^3$.

#### 3.2.4.1.3. Grenagh

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Grenagh WwTP:**

- **Upgrade Ref. GRE/30/A/1**: Upgrade storage capacity at Grenagh WwTP from 90 $m^3$ to 500 $m^3$, future-proofed to accommodate flow transfer in 2055 horizon.

**Development WwPS**

- **Upgrade Ref. GRE/30/C/1** - Construction of a new WwPS for a dummy development (Grenagh_X-01), with 70 $m^3$ storage capacity, pumping flows via a 0.1 km rising main at a rate of 15 L/s.

To support flood resilience and improve network performance, the following upgrades are also proposed.

- **Upgrade Ref. GRE/30/U/7** - 759m of New 225mm diameter Foul sewer including 11 new manholes.

- **Upgrade Ref. GRE/30/U/1** - Upsize 385m of Foul sewer from 150mm to 225mm diameter.
- **Upgrade Ref. GRE/30/U/2** - Upsize 1,971m of Foul sewer from 150mm to 300mm diameter.
- **Upgrade Ref. GRE/30/U/5** – Upsize 5m of Foul sewer from 275mm to 450mm diameter.
- **Upgrade Ref. GRE/30/U/6** - Upsize 106m of Foul sewer from 300mm to 375mm diameter.

#### 3.2.4.1.4. Inniscarra

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Inniscarra WwTP (to become Inniscarra Terminal WwPS)**

- **Upgrade Ref. INN/30/A/1**: Decommissioning of the existing Inniscarra Wastewater Treatment Plant (WwTP).
- **Upgrade Ref. INN/30/B/1**: Construction of a new Terminal WwPS with 220 $m^3$ storage capacity, designed to pump flows to Blarney via a 7.8 km rising main at a flow rate of 1.3 L/s.

**Environment Building WwPS**

- **Upgrade Ref. INN/30/C/1**: Decommissioning of the existing emergency overflow (EO), including abandonment of the 100 mm diameter foul sewer (SW53727303_PS1.2).
- **Upgrade Ref. INN/30/C/2**: Installation of 35 $m^3$ of new storage.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. INN/30/U/1** - Increase Manhole SW53727401 storage capacity from 1.5$m^3$ to 8.5$m^3$.

#### 3.2.4.1.5. Killeens

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Killeens WwTP (to becomes Killeens WwPS):**

- **Upgrade Ref. KIL/30/A/1** - Decommission WwTP.
- **Upgrade Ref. KIL/30/B/1** - New WwPS with a storage capacity of 525$m^3$, pumping flows to Cork City network via a 2.6km rising main with a flow rate of 11l/s.

**Rathpeacon WwPS:**

- **Upgrade Ref. KIL/30/C/1** - Increase storage capacity from 6.4 $m^3$ to 155 $m^3$ and adjust pump activation and deactivation levels.

**Carrig Rua WwPS:**

- **Upgrade Ref. KIL/30/D/1** - Decommission WwPS.

#### 3.2.4.1.6. Knockraha

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Knockraha WwTP (to becomes Knockraha Terminal WwPS):**

- **Upgrade Ref. KNO/30/A/1** - Decommission WwTP
- **Upgrade Ref. KNO/30/B/1** - New Terminal WwPS facility with a storage capacity of 45m³, pumping flows to Cork City network via a 7.3km rising main with a flow rate of 3.57l/s.

**Glenmore WwPS:**

- **Upgrade Ref. KNO/30/C/1** - Increase pump rate from 0.83 L/s to 5 L/s, expand storage capacity from 2 m³ to 25 m³, and revise the pump switch-off level.

#### 3.2.4.1.7. Monard

To facilitate future development, the following upgrade measures have been proposed. Refer to Appendix C for detailed solution drawings.

**Monard Terminal WwPS:**

- **Upgrade Ref. MON/30/A/1** - New Terminal WwPS with a storage capacity of 6,612m³, pumping flows to Ballyvolane WwPS via a 3.3km rising main with a flow rate of 19.8l/s.

#### 3.2.4.1.8. Watergrasshill

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Watergrasshill WwTP:**

- **Upgrade Ref. WAT/30/A/1** - Expand storage capacity at the WwTP from 9.7 m³ to 594 m³ to future-proof for flow transfer planned in 2055.

**The Orchard WwPS:**

- **Upgrade Ref. WAT/30/C/1** - Upgrade Storage at The Orchard WwPS from 50m³ to 1,450m³.

**Church View WwPS:**

- **Upgrade Ref. WAT/30/D/1** - Upgrade Storage at Church View WwPS from 5.1m³ to 40.5m³.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. WAT/30/U/1** - Upsize 192m of Foul sewer from 150mm to 225mm diameter.
- **Upgrade Ref. WAT/30/U/2** - Upsize 31m of Foul sewer from 200mm to 500mm diameter.
- **Upgrade Ref. WAT/30/U/3** - Upsize 95m of Foul sewer from 225mm to 300mm diameter.
- **Upgrade Ref. WAT/30/U/4** - Upsize 3m of Foul sewer from 225mm to 400mm diameter.
- **WAT/30/U/5** - Stormwater separation includes 0.289 ha of road, 1.874 ha of hardstanding, and 0.828 ha of permeable surface area.

- **WAT/30/U/6** - Stormwater separation includes 0.027 ha of road, 0.159 ha of roof and 0.009 ha of hardstanding area.

#### 3.2.4.1.9. Cork City

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Atlantic Pond WwPS:**

- **Upgrade Ref. COR/30/H/1** - Increase storm tank storage capacity from 1,353 $m^3$ to 81,353 $m^3$.

**Ballyvolane WwPS:**

- **Upgrade Ref. COR/30/B/1** - Pump Rate Increase from 47l/s to 64.5l/s & Upgrade Storage from **390$m^3$ to 750$m^3$**

**Grand Parade WwPS:**

- **Upgrade Ref. COR/30/D/1 -** Upgrade Wet Well Storage from 63$m^3$ to 251$m^3$.
- **Upgrade Ref. COR/30/U/16 -** Reduce tidal infiltration (F0806-Tide) by 50%, equivalent to a flow reduction of 7.5 L/s.
- **Upgrade Ref. COR/30/U/17 -** Reduce tidal infiltration (F0805-Tide) by 50%, equivalent to a flow reduction of 8 L/s.

**Silversprings SWO:**

- **Upgrade Ref. COR/30/F/1** - Increase Hydro Brake Discharge Rate from 85l/s to 260l/s.

**Coal Quay WwPS:**

- **Upgrade Ref. COR/30/U/1 -** Decommission 24.8m of 225m diameter storm sewer between manholes SW67720001 and SW67720005.
- **Upgrade Ref. COR/30/U/2** - Installation of 99.7 m of new 225 mm diameter storm sewer between manholes SW67720001 and SW67720114.
- **Upgrade Ref. COR/30/U/3:** 50% reduction in tidal infiltration from F0802_Tide, equivalent to 7.5 L/s.
- **Upgrade Ref. COR/30/U/4:** 50% reduction in tidal infiltration from F0803_Tide_South, equivalent to 5.5 L/s.
- **Upgrade Ref. COR/30/U/5:** 50% reduction in tidal infiltration from F0798_Tide_South, equivalent to 13 L/s.
- **Upgrade Ref. COR/30/U/6:** 50% reduction in tidal infiltration from D2017_Tide_South, equivalent to 31.3 L/s.
- **Upgrade Ref. COR/30/U/7:** 50% reduction in tidal infiltration from F0807_Tide_South, equivalent to 34 L/s.

The following storm separation measures have also been proposed to support SWO compliance and reduce flood risk at multiple ancillary locations.

- **Upgrade Ref. COR/30/U/13** – Storm Separation Road (0.149ha) & Roof (0.516ha) Removed.

- **Upgrade Ref. COR/30/U/14** – Storm Separation Road (0.139ha), Roof (0.343ha) & Permeable Area (0.685ha) Removed.
- **Upgrade Ref. COR/30/U/15** – Storm Separation Road (0.151ha) Removed.
- **Upgrade Ref. COR/30/U/59** – Storm Separation Road (1.283ha) & Permeable Area (3.779ha) Removed.
- **Upgrade Ref. COR/30/U/18** – Storm Separation Road (0.175ha), Roof (0.050ha) & Permeable Area (0.213ha) Removed.
- **Upgrade Ref. COR/30/U/19** – Storm Separation Roof (0.252ha) Removed.
- **Upgrade Ref. COR/30/U/20** – Storm Separation Roof (0.265ha) Removed.
- **Upgrade Ref. COR/30/U/21** – Storm Separation Roof (0.219ha) Removed.
- **Upgrade Ref. COR/30/U/22** – Storm Separation Roof (0.665ha) Removed.
- **Upgrade Ref. COR/30/U/23** – Storm Separation Roof (1.912ha) Removed.
- **Upgrade Ref. COR/30/U/24** – Storm Separation Roof (0.302ha) Removed.
- **Upgrade Ref. COR/30/U/25** – Storm Separation Roof (0.163ha) Removed.
- **Upgrade Ref. COR/30/U/26** – Storm Separation Roof (0.274ha) Removed.
- **Upgrade Ref. COR/30/U/27** – Storm Separation Roof (0.104ha) Removed.
- **Upgrade Ref. COR/30/U/28** – Storm Separation Roof (0.061ha) Removed.
- **Upgrade Ref. COR/30/U/29** – Storm Separation Roof (0.069ha) Removed.
- **Upgrade Ref. COR/30/U/30** – Storm Separation Roof (0.071ha) Removed.
- **Upgrade Ref. COR/30/U/31** – Storm Separation Roof (0.080ha) Removed.
- **Upgrade Ref. COR/30/U/32** – Storm Separation Roof (0.074ha) Removed.
- **Upgrade Ref. COR/30/U/33** – Storm Separation Roof (0.074ha) Removed.
- **Upgrade Ref. COR/30/U/34** – Storm Separation Roof (0.080ha) Removed.
- **Upgrade Ref. COR/30/U/35** – Storm Separation Roof (0.085ha) Removed.
- **Upgrade Ref. COR/30/U/36** – Storm Separation Roof (0.168ha) Removed.
- **Upgrade Ref. COR/30/U/37** – Storm Separation Roof (0.616ha) & Hard Standing (0.078ha) Removed.
- **Upgrade Ref. COR/30/U/38** – Storm Separation Roof (0.182ha) & Hard Standing (0.023ha) Removed.
- **Upgrade Ref. COR/30/U/39** – Storm Separation Roof (0.234ha) & Hard Standing (0.032ha) Removed.
- **Upgrade Ref. COR/30/U/40** – Storm Separation Roof (0.212ha) & Hard Standing (0.038ha) Removed.
- **Upgrade Ref. COR/30/U/41** – Storm Separation Roof (0.103ha) & Hard Standing (0.009ha) Removed.
- **Upgrade Ref. COR/30/U/42** – Storm Separation Roof (0.061ha) & Hard Standing (0.014ha) Removed.
- **Upgrade Ref. COR/30/U/43** – Storm Separation Roof (0.052ha) & Hard Standing (0.003ha) Removed.

- **Upgrade Ref. COR/30/U/44** – Storm Separation Roof (0.162ha) & Hard Standing (0.002ha) Removed.
- **Upgrade Ref. COR/30/U/45** – Storm Separation Roof (0.088ha) & Hard Standing (0.001ha) Removed.
- **Upgrade Ref. COR/30/U/46** – Storm Separation Roof (0.055ha) & Hard Standing (0.005ha) Removed.
- **Upgrade Ref. COR/30/U/47** – Storm Separation Roof (0.057ha) & Hard Standing (0.017ha) Removed.
- **Upgrade Ref. COR/30/U/48** – Storm Separation Roof (0.089ha) & Hard Standing (0.021ha) Removed.
- **Upgrade Ref. COR/30/U/49** – Storm Separation Permeable Area (3.750ha) Removed.
- **Upgrade Ref. COR/30/U/50** – Storm Separation Permeable Area (0.228ha) Removed.
- **Upgrade Ref. COR/30/U/51** – Storm Separation Permeable Area (0.500ha) Removed.
- **Upgrade Ref. COR/30/U/52** – Storm Separation Permeable Area (3.750ha) Removed.
- **Upgrade Ref. COR/30/U/53** – Storm Separation Permeable Area (7.500ha) Removed.
- **Upgrade Ref. COR/30/U/54** – Storm Separation Permeable Area (2.250ha) Removed.
- **Upgrade Ref. COR/30/U/55** – Storm Separation Permeable Area (1.500ha) Removed.
- **Upgrade Ref. COR/30/U/56** – Storm Separation Permeable Area (7.500ha) Removed.
- **Upgrade Ref. COR/30/U/57** – Storm Separation Permeable Area (10.000ha) Removed.
- **Upgrade Ref. COR/30/U/58** – Storm Separation Permeable Area (10.000ha) Removed.
- **Upgrade Ref. COR/30/U/8** – Storm Separation Road (0.380ha), Roof (0.263ha) & Hard Standing (0.001ha) Removed.
- **Upgrade Ref. COR/30/U/9** – Storm Separation Road (0.215ha) & Roof (0.267ha) Removed.
- **Upgrade Ref. COR/30/U/10** – Storm Separation Road (0.368ha) & Roof (1.172ha) Removed.
- **Upgrade Ref. COR/30/U/11** – Storm Separation Road (0.216ha) & Roof (0.345ha) Removed.
- **Upgrade Ref. COR/30/U/12** – Storm Separation Road (0.501ha) Removed.

#### 3.2.4.2. 2055 Preferred Solutions

**Northern Settlements**

##### 3.2.4.2.1. Blarney

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Blarney WwTP (becomes Blarney Terminal WwPS):**

- **Upgrade Ref. BLA/55/A/1** - Decommission WwTP.
- **Upgrade Ref. BLA/55/B/1** – The new terminal wastewater pumping station (WwPS) will convey flows to Carrigrennan Wastewater Treatment Plant (WwTP) via Ballyvolane WwPS, using a 12.2 km rising main operating at a flow rate of 144 l/s. Storage capacity will be increased from 10,500 $m^3$ to 12,000 $m^3$

#### 3.2.4.2.2. Grenagh

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Grenagh WwTP (becomes Grenagh Terminal WwPS)**

- **Upgrade Ref. GRE/55/A/1** - Decommission WwTP.
- **Upgrade Ref. GRE/55/B/1** - New Terminal WwPS facility pumping flows to Whitechurch via a 9.1km rising main with a flow rate of 6.5l/s.

#### 3.2.4.2.3. Monard

To facilitate future development, the following upgrade measures have been proposed. Refer to Appendix C for detailed solution drawings.

**Monard Terminal WwPS:**

- **Upgrade Ref. MON/55/A/1** - Pump Rate Increase from 19.8l/s to 70.1l/s.

#### 3.2.4.2.4. Watergrasshill

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Watergrasshill WwTP (to becomes Watergrasshill Terminal WwPS)**

- **Upgrade Ref. WAT/55/A/1** - Decommission WwTP.
- **Upgrade Ref. WAT/55/B/1** - New Terminal WwPS facility pumping flows to Carrigrennan WwTP via Cork City network via a 10.6km rising main with a flow rate of 18.3l/s.

#### 3.2.4.2.5. Whitechurch

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Whitechurch WwTP (to becomes Whitechurch Terminal WwPS)**

- **Upgrade Ref. WHI/55/A/1** - Decommission WwTP.
- **Upgrade Ref. WHI/55/B/1** - Divert and Extend Existing 6.8km & 22.5l/s Rising Main by 0.1km to Ballyvolane WwPS.

#### 3.2.4.2.6. Cork City

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ballyvolane WwPS:**

- **Upgrade Ref. COR/55/B/1** - Pump rate increased from 64.5 l/s to 320.1 l/s, with storage capacity upgraded from 750 $m^3$ to 900 $m^3$

**Grand Parade WwPS:**

- **Upgrade Ref. COR/55/D/1** - Pump Rate Increase from 62 l/s to 150 l/s.

#### 3.2.4.3. 2080 Preferred Solutions

**Northern Settlements**

##### 3.2.4.3.1. Blarney

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development, the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Blarney Terminal WwPS:**

- **Upgrade Ref. BLA/80/B/1** - Storage Increase from 12,000$m^3$ to 14,000$m^3$.

##### 3.2.4.3.2. Monard

**Monard Terminal WwPS:**

To facilitate future development, the following upgrade measures have been proposed. Refer to Appendix C for detailed solution drawings.

- **Upgrade Ref. MON/80/A/1** - Pump Rate Increase from 70.1 l/s to 87.6 /s.

##### 3.2.4.3.3. Cork City

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development, the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ballyvolane WwPS:**

- **Upgrade Ref. COR/80/B/1** - Pump rate increased from 320.1 l/s to 337.6 l/s.

## 3.3. Cork Lower Harbour (including the Southern Settlements)

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing upgrade proposals and/or council planning documents related to the proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement

**Cork Lower Harbour:**

- Networks associated with the 2030 development zones were modelled using the following planning application numbers: 196901[9] (which includes the proposed Kilmoney WwPS), 195738[10], 155414[11], 156753[12] (which includes the proposed Mill Road WwPS), 196612[13], 224809[14], 215936[15], 205451[16], 204650[17], 215556[18] and 136168[19]. For the larger development zones projected for 2055 and 2080, a dummy network was included to facilitate flow distribution.
- The existing Rose Lawn WwPS configuration within the Janeville Development was updated based on planning application numbers 224809, 215936, 205451, 204650, 215556 This update included the modelling of a new storage tank.
- Previously assumed network details for a section in Monkstown were revised using planning application number 167217[20], which includes a connection to the Glenbrook WwPS.
- Assumed network information for a section in Crosshaven was updated based on planning application number 215852[21].

**Minane Bridge**

- The networks associated with the 2030 development zones were modelled based on planning application number 204658[22].

### 3.3.1. Coarse Screening Findings - Southern Orbital Sewer (SOrb)

To alleviate future loading on the Carrigrennan Wastewater Treatment Plant (WwTP) and support a more integrated wastewater network, the development of a Southern Orbital Sewer (Sorb) for the Cork Metropolitan Area was evaluated.

**Original Proposed Routes from Coarse Screening**

A Coarse Screening Workshop took place between Jacobs and Uisce Éireann on 7th January 2025, to discuss the list of proposed options and which to take forward for detailed optioneering. The coarse screening identified four potential scales of options for the Sorb sewer; these are listed below:

- Option 1A: Cork Lower Harbour + Cork City South + Ballincollig + Killumney + Southern Settlements
- Option 1B: Cork Lower Harbour + Southern Settlements + Cork City South only
- Option 2: Cork Lower Harbour + Southern Settlements + Cork City South (New Developments Only), Ballincollig + Killumney
- Option 3: Cork Lower Harbour + Southern Settlements only

[9] Cork County Council Planning Application, File. No. 196901, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/196901/0
[10] Cork County Council Planning Application, File. No. 195738, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/195738/0
[11] Cork County Council Planning Application, File. No. 155414, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/155414/0
[12] Cork County Council Planning Application, File. No. 156753, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/156753/0
[13] Cork County Council Planning Application, File. No. 196612, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/196612/0
[14] Cork County Council Planning Application, File. No. 224809, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/224809/0
[15] Cork County Council Planning Application, File. No. 215936, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/215936/0
[16] Cork County Council Planning Application, File. No. 205451, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/205451/0
[17] Cork County Council Planning Application, File. No. 204650, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/204650/0
[18] Cork County Council Planning Application, File. No. 215556, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/215556/0
[19] Cork County Council Planning Application, File. No. 136168, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/136168/0
[20] Cork County Council Planning Application, File. No. 167217, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/167217/0
[21] Cork County Council Planning Application, File. No. 215852, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/215852/0
[22] http://planning.corkcoco.ie/ePlan/AppFileRefDetails/204658/0

Following coarse screening evaluation, Option 1A was selected for testing. This option represents a worst-case scenario in terms of flows and loads at Cork Lower Harbour WwTP, as it involves transferring the full untreated wastewater load from Ballincollig, Killumney, and the Tramore Valley area of the Cork City catchment to Cork Lower Harbour WwTP. This is illustrated in Figure 3-5 below.

The original scope of Option 1A included:

- Approximately 25 km of gravity sewer (shown in purple),
- Multiple new pumping stations,
- A relocated discharge point for Ronaynes Court WwPS, and
- A new 7 km rising main (shown in dashed red).

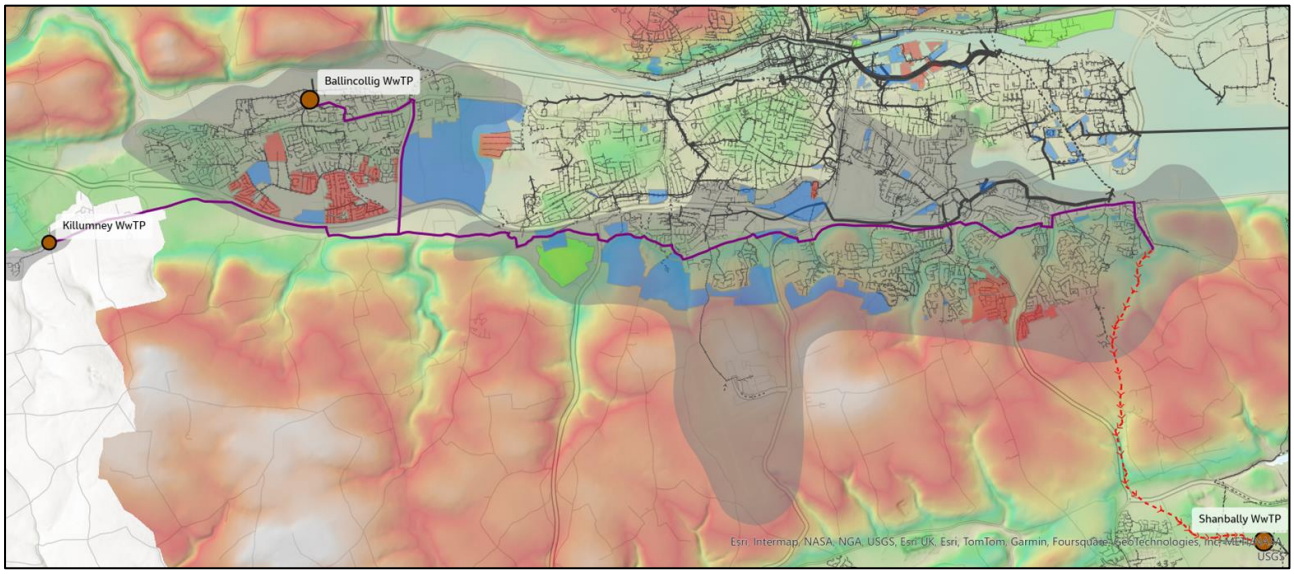



**Figure 3-5 Original Proposed SOrb Route**

### 3.3.2. Southern Orbital Sewer Fine Screening

Following a review of the constructability of the SOrb option, several modifications were made to the original proposal to develop the preferred solution:

- **Exclusion of Killumney and Ballincollig Catchments**:

The Killumney and Ballincollig catchments have been excluded from the SOrb option. While Killumney will continue to discharge into the Ballincollig network, all flows reaching Ballincollig WwTP will now be treated at a newly proposed quaternary treatment plant, rather than being transferred to Cork Lower Harbour WwTP.

- **New Flow Transfers Considered**:

Flow transfers from Ballymore, Minane Bridge, Halfway, and Ballygarvan are now included in the transfer option. All except Ballymore involve pumped transfers to Church Road WwPS. Ballymore WwPS is proposed to discharge to the existing North Cobh network, which will then convey flows to Cork Lower Harbour WwTP via a new North Cobh WwPS.

- **Revised SOrb Route Alignment**:

The original SOrb route has been realigned to follow the Cork South Ring Road corridor. This adjustment avoids built-up areas and benefits from more favourable elevations, as illustrated in the adjacent figure (highlighted in green).

- **Optimised Gravity Sewer Length**:

The required length of new gravity sewer has been reduced by 1.8 km. This was achieved by utilising an existing 1800 mm diameter pipe with available capacity, located just before the Douglas Estuary Bridge. The revised SOS route now discharges into this pipe at MH SW71690706, conveying flows to Ronaynes Court WwPS via the existing sewer.

- **Use of Existing Terminal Pumping Station**:

The original proposal included a new terminal pumping station. However, Ronaynes Court WwPS—already serving as a terminal station for the Tramore Valley area—has been repurposed to pump directly to Cork Lower Harbour WwTP. No additional upgrades are required beyond those already planned under Cork City Infrastructure improvements.

**Final Preferred Option Selection**

Uisce Éireann raised concerns regarding the constructability and operational challenges associated with the proposed gravity pipeline routes and rising main from Ronaynes Court WwPS to Cork Lower Harbour WwTP, particularly due to the potential disruption during construction. As a result, **Option 3** from the coarse screening process was selected as the **final preferred solution** for the Cork Lower Harbour area.

This option focuses solely on the existing Cork Lower Harbour catchment, along with the additional flow transfer catchments noted above. The proposed elements of Option 3 are detailed in the following sections. **Option 1B** remains as an alternative, which includes accepting flows from the Tramore Valley area via Ronaynes Court WwPS.

### 3.3.3. Preferred Solutions for Cork Lower Harbour

#### 3.3.3.1. 2030 Preferred Solution

**Southern Settlements**

This section outlines the proposed upgrade solutions for the southern settlements that are planned to transfer flows to Cork Lower Harbour Wastewater Treatment Plant (WwTP) via the Cork Lower Harbour network. The contributing catchments include Halfway (HAL), Ballygarvan (BGV), Minane Bridge (MIN), and Ballymore (BLM).

##### 3.3.3.1.1. Ballygarvan

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

- **Upgrade Ref. BGV/30/A/1 -** Decommission WwTP
- **Upgrade Ref. BGV/30/B/1 -** New Terminal WwPS facility with a storage capacity of 143m$^3$, pumping flows to Church Road WwPS via an 8.2km rising main with a flow rate of 25l/s.

- **Upgrade Ref. BGV/30/U/1 -** Upsize 2,190m of Foul sewer from 225mm to 450mm dia.
- **Upgrade Ref. BGV/30/U/2 -** Upsize 576m of Foul sewer from 225mm to 600mm dia.
- **Upgrade Ref. BGV/30/U/3 -** 515m of New 225mm dia Foul Sewer.
- **Upgrade Ref. BGV/30/U/4** - 607m of New 225mm dia Foul Sewer.

#### 3.3.3.1.2. Ballymore

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

- **Upgrade Ref. BLM/30/A/1 -** New Terminal WwPS facility with a storage capacity of 858m³, pumping flows to North Cobh WwTP via a 6.1km rising main with a flow rate of 15l/s.
- **Upgrade Ref. BLM/30/B/1 -** New Dummy Development (BM-RD_ResidentialDemand), a new WwPS with a storage capacity of 35m³, pumping flows via a 0.3km rising main with a flow rate of 10l/s.
- **Upgrade Ref. BLM/30/U/1 -** Upsize 1,065m of Foul sewer from 225mm to 300mm dia.
- **Upgrade Ref. BLM/30/U/2 -** Upsize 749m of Foul sewer from 225mm to 375mm dia.
- **Upgrade Ref. BLM/30/U/3** - 769m of New 225mm dia Foul sewer.

#### 3.3.3.1.3. Minane Bridge

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

- **Upgrade Ref. MIN/30/A/1 -** Decommission WwTP
- **Upgrade Ref. MIN/30/B/1 -** New Dummy Development (ME-RD_ResidentialDemand), a new WwPS with a storage capacity of 5.8m³, pumping flows via a 0.09km rising main with a flow rate of 0.8l/s.
- **Upgrade Ref. MIN/30/C/1 -** New Terminal WwPS facility with a storage capacity of 7m³, pumping flows to Church Road WwPS via an 8.8km rising main with a flow rate of 12.6/s.
- **Upgrade Ref. MIN/30/D/1 -** New Dummy Development (T-01!), a new WwPS with a storage capacity of 1.3m³, pumping flows via a 0.3km rising main with a flow rate of 0.1l/s.
- **Upgrade Ref. MIN/30/U/1** - Upsize 36m of Foul sewer from 225mm to 375mm dia.

#### 3.3.3.1.4. Cork Lower Harbour

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Church Road WwPS:**

- **Upgrade Ref. CLH/30/D/1** - Pump Rate Increase from 278l/s to 380l/s.

**Cork Road WwPS:**

- **Upgrade Ref. CLH/30/F/1** - Upgrade Storage from 11m³ to 16m³.

**Dock Cottages WwPS:**

- **Upgrade Ref. CLH/30/I/1** - New 220mm dia Flap Valve at overflow outfall.

**Old Town Hall WwPS:**

- **Upgrade Ref. CLH/30/J/1** - New 275mm diameter flap valve on the overflow outfall.

**Town Parks WwPS (Attenuation Tank)**

- **Upgrade Ref. CLH/30/E/1** - Upgrade storage from 364m$^3$ to 4,354m$^3$.

#### 3.3.3.2. 2055 Preferred Solution

**Southern Settlements**

##### 3.3.3.2.1. Halfway

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Halfway WwTP:**

- **Upgrade Ref. HAL/55/A/1** - New 156m$^3$ storage at WwTP, future proofed for flow transfer in 2080.

##### 3.3.3.2.2. Cork Lower Harbour

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**North Cobh WwTP:**

- **Upgrade Ref. CLH/30/B/2 –** Decommission WwTP.
- **Upgrade Ref. CLH/30/C/1 -** A new wastewater pumping station (WwPS) is proposed for North Cobh to replace the existing North Cobh WwTP and also intercept previously untreated flows. The facility will include 402 m$^3$ of storage and will convey flows at a rate of 50 l/s via a 1.8 km rising main to the Estuary Crossing WwPS, with a new connection to the existing outfall.

**Crosshaven 1 WwPS:**

- **Upgrade Ref. CLH/55/G/1** – Pump Rate Increase from 26l/s to 75l/s.

**Crosshaven 2 WwPS (Car Park):**

- **Upgrade Ref. CLH/55/H/1** – Pump Rate Increase from 39l/s to 60l/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. CLH/55/U/1** - Upsize 1,324m of Foul sewer from 225mm to 375mm dia.
- **Upgrade Ref. CLH/55/U/2** - Upsize 334m of Foul sewer from 300mm to 375mm dia.
- **Upgrade Ref. CLH/55/U/3** - Upsize 589m of Foul sewer from 375mm to 525mm dia.

- **Upgrade Ref. CLH/55/U/4** - Upsize 56m of Foul sewer from 375mm to 1050mm dia.
- **Upgrade Ref. CLH/55/U/5** - Upsize 14m of Foul sewer from 450mm to 1050mm dia.
- **Upgrade Ref. CLH/55/U/6** - Upsize 12m of Foul sewer from 525mm to 1050mm dia.

#### 3.3.3.3. 2080 Preferred Solution

**Southern Settlements**

##### 3.3.3.3.1. Halfway

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Halfway WwTP (to becomes Halfway Terminal WwPS):**

- **Upgrade Ref. HAL/80/A/1 -** Decommission WwTP.
- **Upgrade Ref. HAL/80/B/1 -** New Terminal WwPS facility pumping flows to Ballygarvan WwPS via a 8.4km rising main with a flow rate of 6l/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. HAL/80/U/1 -** Upsize 290m of Foul sewer from 150mm to 225mm dia.
- **Upgrade Ref. HAL/80/U/2** - Upsize 118m of Foul sewer from 225mm to 300mm dia.

##### 3.3.3.3.2. Cork Lower Harbour

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

- **Upgrade Ref. CLH/80/U/1 -** Upsize 142m of Combined sewer from 225mm to 375mm dia.
- **Upgrade Ref. CLH/80/U/2 -** Upsize 64m of Combined sewer from 300mm to 375mm dia.
- **Upgrade Ref. CLH/80/U/7** - Upsize 1,750m of Combined sewer from 900mm to 1500mm dia.

## 3.4. Ballincollig (incl. Killumney)

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing upgrade proposals and/or council planning documents related to the proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement

**Ballincollig:**

Foul dummy development networks corresponding with the future development sites were copied in from the Ballincollig Infrastructure Model[23] for both 2030 and 2055.

[23] >Balincollig>Existing Model(s) & Files>Balincollig Infrastructure 20072021>06_Updated Stage 3 Models (07062021)>Ballincollig Model Network!>Ballincollig Model Network_Current_Model!!

**Killumney:**

Planning Application no. 206894[24] was used to model an extent of a new development foul network for the 2030 scenario onwards. Engineering judgement was applied to connect the proposed and existing network. Dummy development networks only were modelled for the 2055 scenario.

### 3.4.1. 2030 Preferred Solution

#### 3.4.1.1. Killumney

It is understood that Uisce Éireann is currently undertaking a flow transfer project from Killumney to Ballincollig as part of the Small Towns and Villages Growth Programme (STVGP) to enhance wastewater infrastructure in smaller urban areas.

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations, particularly those affected by proposed development, the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

- **Upgrade Ref. KLM/30/A/1 –** Decommission WwTP.
- **Upgrade Ref. KLM/30/B/1 –** New Terminal WwPS facility with a storage capacity of 165m$^3$, pumping flows to Ballincollig via a 4.5km rising main with a flow rate of 25l/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. KLM/30/U/1 -** Upsize 1,036m foul sewer from 225mm to 300mm dia.
- **Upgrade Ref. KLM/30/U/2** – Upsize 1,879m of foul sewer from 225mm to 525mm dia.

#### 3.4.1.2. Ballincollig

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development, the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ballincollig WwTP:**

- **Upgrade Ref. BAL/30/A/1** - Upgrade Storm Storage at WwTP from 2,847m$^3$ to 3,156m$^3$

**R09 Development WwPS:**

- **Upgrade Ref. BAL/30/D/1** - Pump Diversion, i.e., Extend the Rising Main Route from 1.1km to 1.5km, away from Maglin WwPS, downstream to the gravity network in order to alleviate pressure on Maglin WwPS.

**Maglin WwPS:**

- **Upgrade Ref. BAL/30/B/3** - Upgrade Storage from 18.5m$^3$ to 675m$^3$.

[24] Cork County Council Planning Application, File. No. 206894, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/206894/0

**Harrington Street Storage:**

- **Upgrade Ref. BAL/30/C/1** - New 250m³ Storage with a Weir and RTC controlled 6l/s return pump. Located at a public car park near Harrington Street in order to mitigate flooding caused by existing hydraulic constraints and proposed new developments.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. BAL/30/U/1 –** Upsize 1,281m of foul sewer from 450mm to 600mm dia.
- **Upgrade Ref. BAL/30/B/2** - 50% Network Infiltration Removal, equivalent to 10ha.

*NOTE: The solution proposed for the 2030 scenario has proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2055 and 2080 scenarios.*

## 3.5. Midleton

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing upgrade proposals and/or council planning documents related to the proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement.

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 216874[25], 225839[26], 217265[27] & 217264[28].
- Midleton North WwPS and Midleton South WwPS were modelled based on feasibility study[29] and pipeline plan documentation. Similarly, the foul network upstream of Midleton South WwPS was also developed using the study documents.

### 3.5.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Riversfield SWO**

- **Upgrade Ref. MID/30/B/1** - 2.4m - Decommission Riversfield SWO, i.e., abandon 150mm dia storm sewer between manholes SW88731601 and SW88731630.

**Drury's Avenue SWO**

- **Upgrade Ref. MID/30/C/1** - 87.8m - Decommission Drury's Avenue SWO, i.e., abandon 300mm dia storm sewer between manholes SW87736104 and SW87736001.

[25] Cork County Council Planning Application, File. No. 2161874, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/216874/0
[26] Cork County Council Planning Application, File. No. 225839, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/225839/0
[27] Cork County Council Planning Application, File. No. 217265, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/217265/0
[28] Cork County Council Planning Application, File. No. 217264, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/217264/0
[29] LIHAF Midleton Project, Atkins Feasibility Study Report (5196947DG0094).

**Bailick No.1 WwPS**

- **Upgrade Ref. MID/30/D/1 –** Pump Rate Decrease at Bailick No.1 WwPS from 92l/s to 63l/s.
- **Upgrade Ref. MID/30/D/2 -** New 1.8km Bypass Pump Diversion at Bailick No.1 WwPS (to Waterrock WwPS via Midleton South WwPS) with a pump rate of 63l/s.
- **Upgrade Ref. MID/30/D/3** - Upgrade Storage at Bailick No.1 WwPS from 1,800m³ to 5,300m³.

**Bailick No.2 WwPS**

- **Upgrade Ref. MID/30/E/1 -** Upgrade Storage at Bailick No. 2 WwPS from 450m³ to 1,650m³.
- **Upgrade Ref. MID/30/E/2** - Pump Rate Increase at Bailick No.2 WwPS from 21l/s to 40l/s.

**Abbeywood WwPS**

- **Upgrade Ref. MID/30/F/1** – Pump Rate Increase at Abbeywood WwPS from 1l/s to 7.4l/s.

*NOTE: The solution proposed for the 2030 scenario has proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2055 scenarios.*

### 3.5.2. 2080 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Dwyer's Road WwPS:**

- **Upgrade Ref. MID/80/G/1** - Pump Rate Increase at Dwyer's Road WwPS from 9l/s to 17l/s.
- **Upgrade Ref. MID/80/G/2** - New 350m³ Storage at Dwyer's Road WwPS.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. MID/80/U/1** – Upsize 294m of foul sewer from 150mm to 225mm dia.
- **Upgrade Ref. MID/80/U/2** – Upsize 420m of foul sewer from 225mm to 300mm dia.
- **Upgrade Ref. MID/80/U/3** – Upsize 88m of foul sewer from 225mm to 450mm dia.
- **Upgrade Ref. MID/80/U/4** – Upsize 7m of foul sewer from 250mm to 450mm dia.
- **Upgrade Ref. MID/80/U/5** – Upsize 55m of foul sewer from 300mm to 750mm dia.
- **Upgrade Ref. MID/80/U/6** – Upsize 477m of foul sewer from 450mm to 600mm dia.
- **Upgrade Ref. MID/80/U/7** – Upsize 396m of foul sewer from 450mm to 750mm dia.
- **Upgrade Ref. MID/80/U/8** – Upsize 393m of foul sewer from 225mm to 300mm dia.

## 3.6. Carrigtwohill

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing proposed upgrade documents and/or council planning documents related to proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement.

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 217130[30], 215047[31] which includes the new Terrysland WwPS, 234514[32], 225005[33], 175399[34], 195707[35], 184693[36], 144666[37]

### 3.6.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Old Cobh Road WwPS**

- **Upgrade Ref. CAR/30/B/1** - Pump Rate Increase at Old Cobh Road WwPS from 97l/s to 295l/s.
- **Upgrade Ref. CAR/30/B/3** - Upgrade Storage at Old Cobh Road WwPS from 613m³ to 743m³.
- **Upgrade Ref. CAR/30/B/2** - Spill Pump Rate Increase at Old Cobh Road WwPS from 69l/s to 200l/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. CAR/30/U/1 –** Upsize 17m of combined sewer from 350mm to 750mm dia.
- **Upgrade Ref. CAR/30/U/2** – Upsize 292m of combined sewer from 375mm to 600mm dia.

### 3.6.2. 2055 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Carrigtwohill WwTP**

- **Upgrade Ref. CAR/30/A/1** - Extend Existing Outfall to 3.5km at Carrigtwohill WwTP, exact discharge location to be confirmed.

[30] Cork County Council Planning Application, File. No. 217130, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/217130/0
[31] Cork County Council Planning Application, File. No. 215047, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/215047/0
[32] Cork County Council Planning Application, File. No. 234514, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/234514/0
[33] Cork County Council Planning Application, File. No. 225005, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/225005/0
[34] Cork County Council Planning Application, File. No. 175399, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/175399/0
[35] Cork County Council Planning Application, File. No. 195707, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/195707/0
[36] Cork County Council Planning Application, File. No. 184693, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/184693/0
[37] Cork County Council Planning Application, File. No. 144666, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/144666/0

*NOTE: The solution proposed for the 2030 and 2055 scenarios have proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2080 scenario.*

## 3.7. Ballincurrig, Lisgoold and Leamlara

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing proposed upgrade documents and/or council planning documents related to proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement.

- Using the STVGP-WS0 WwTP Upgrade Brief[38] document, Ballincurrig WwTP was decommissioned and replaced with a Terminal WwPS into Lisgoold North. Lisgoold North WwTP was also decommissioned and connected to a new gravity main from Lisgoold North to Lisgoold South WwTP.
- Lisgoold South WwTP upgrades modelled as per project costing sheets provided by UÉ & the same project brief, as well as old, proposed upgrade drawings[39] from 2022.

### 3.7.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Leamlara Terminal WwPS**

- **Upgrade Ref. LEA/30/A/1** - New Terminal WwPS facility with a storage capacity of 418m$^3$, pumping flows to Lisgoold via a 3.9km rising main with a flow rate of 1.5l/s.

**Leamlara (LL_RD) Development WwPS**

- **Upgrade Ref. LEA/30/B/1** - New WwPS with a storage capacity of 25m$^3$, pumping flows via a 0.2km rising main with a flow rate of 1.4l/s.

**Lisgoold South WwTP**

- **Upgrade Ref. LIS/30/A/1** - Upgrade Storage at Lisgoold South WwTP from 36m$^3$ to 250m$^3$.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. LEA/30/U/1 –** Upsize 202m of Foul sewer from 225mm to 450mm dia.
- **Upgrade Ref. LIS/30/U/1 –** Upsize 110m of Foul sewer from 102mm to 300mm dia.
- **Upgrade Ref. LIS/30/U/2 –** Upsize 22m of Foul sewer from 200mm to 300mm dia.
- **Upgrade Ref. LIS/30/U/4** – Upsize 168m of Foul sewer from 300mm to 450mm dia.

[38] Ballincurrig & Lisgoold Project Brief WS0 050522
[39] OBW Construction, Drawing BISC0206-01

#### 3.7.2. 2055 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ballincurrig WwPS**

- **Upgrade Ref. BLN/55/B/1** - Pump Rate Increase at Ballincurrig WwPS from 0.8l/s to 1.3l/s.

**Leamlara Terminal WWPS**

- **Upgrade Ref. LEA/55/A/1** - Pump Rate Increase at Leamlara WwPS from 1.5l/s to 2.2l/.

#### 3.7.3. 2080 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Leamlara Terminal WwPS**

- **Upgrade Ref. LEA/80/A/1** - Pump Rate Increase at Leamlara WwPS from 2.2l/s to 2.7l/.

## 3.8. Berrings

Whilst initially considered as a flow transfer catchment for the Northern Orbital Sewer, the results of fine screening found that this would not be the most optimal solution for Berrings. Therefore, without any treatment or overflows within the catchment, the only solutions proposed relate to flooding mitigation.

#### 3.8.1. 2030 Preferred Solution

To resolve and network flooding, the following upgrade solutions have been proposed. Refer to Appendix C for detailed solution drawings.

- **Upgrade Ref. BER/30/U/1** – Upsize 154m of Foul sewer from 150mm to 225mm dia.
- **Upgrade Ref. BER/30/U/2** - 307m of New Foul 225m dia Sewer, incl. 3 new Manholes.

*NOTE: The solution proposed for the 2030 scenario has proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2055 and 2080 scenarios.*

## 3.9. Cloyne and Saleen

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing proposed upgrade documents and/or council planning documents related to proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement.

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 236364[40] and 197974[41].

- In conjunction with engineering judgement, Cloyne WwTP upgrades were modelled using the FSR[42] document, based on the recommended 'Option B' solution.

### 3.9.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Saleen Village Septic Tank (becomes Saleen Terminal WwPS)**

- **Upgrade Ref. SAL/30/A/1** - Decommission Saleen Village Septic Tank.
- **Upgrade Ref. SAL/30/B/1** - New Terminal WwPS facility with a storage capacity of 700m³, pumping flows from Saleen to Cloyne via a 4.3km rising main with a flow rate of 4.8l/s.

**Cloyne WwTP**

- **Upgrade Ref. CLO/30/A/4** - New 225mm Orifice at Cloyne WwTP limiting discharge to 26.3l/s.
- **Upgrade Ref. CLO/30/A/3** - Extend Existing Outfall from Cloyne WwTP to Rostellan, Exact Location Unknown.
- **Upgrade Ref. CLO/30/A/2** - New 659m³ Storage with a new overflow and a 0.03km Return Pump with a pump rate of 18.6l/s.

**Saleen (SN-RD) Development WwPS:**

- **Upgrade Ref. SAL/30/C/1** - New WwPS with a storage capacity of 13.5m³, pumping flows via a 0.1km rising main with a flow rate of 3.5l/s.

**Cloyne (CY-R-02) Development WwPS:**

- **Upgrade Ref. CLO/30/D/1** - New WwPS with a storage capacity of 70m³, pumping flows via a 0.1km rising main with a flow rate of 1.7l/s.

**Cloyne (CY-RAP-01) Development WwPS:**

- **Upgrade Ref. CLO/30/C/1** - New WwPS with a storage capacity of 5m³, pumping flows via a 0.2km rising main with a flow rate of 2l/s.

**Cois na Cruma WwPS:**

- **Upgrade Ref. CLO/30/B/1** - Upgrade Storage at Cois na Cruma WwPS from 4m³ to 319m³.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. SAL/30/U/1** - 433m - Upsize Foul sewer from 150mm to 225mm diameter.

[40] Cork County Council Planning Application, File. No 236364, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/236364/0
[41] Cork County Council Planning Application, File. No 197074, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/197074/0
[42] Wastewater Engineering Design Services for Cloyne WwTP, AECOM Feasibility Study Report

- **Upgrade Ref. SAL/30/U/2** - 795m - Upsize Foul sewer from 225mm to 300mm diameter.
- **Upgrade Ref. SAL/30/U/3** - 866m - Upsize Foul sewer from 225mm to 450mm diameter.
- **Upgrade Ref. SAL/30/U/4** - 449m - Upsize Foul sewer from 300mm to 525mm diameter.
- **Upgrade Ref. CLO/30/U/1** - 258m - Upsize Foul sewer from 150mm to 225mm diameter.
- **Upgrade Ref. CLO/30/U/2** - 1562m - Upsize Foul sewer from 150mm to 375mm diameter.
- **Upgrade Ref. CLO/30/U/4** - 70m - Upsize Foul sewer from 225mm to 300mm diameter.

#### 3.9.2. 2055 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Saleen Terminal WwPS**

- **Upgrade Ref. SAL/55/B/1** - Pump Rate Increase from 4.8l/s to 5.5l/s & Storage Upgrade from 700m$^3$ to 1,410m$^3$.

#### 3.9.3.2080 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Saleen Terminal WwPS**

- **Upgrade Ref. SAL/80/B/1** - Pump Rate Increase from 5.5l/s to 5.9l/s.

### 3.10. Coole East

Whilst initially considered as a flow transfer catchment for the Northern Orbital Sewer, the results of fine screening found that this would not be the most optimal solution for Coole East. Therefore, without any treatment or overflows within the catchment, the only solutions proposed relate to flooding mitigation.

#### 3.10.1. 2080 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Coole East Septic Tank:**

- **Upgrade Ref. COL/80/A/1** - Upgrade Storage at Septic Tank from 30m$^3$ to 360m$^3$.

## 3.11. Courtbrack

Whilst initially considered as a flow transfer catchment for the Northern Orbital Sewer, the results of fine screening found that this would not be the most optimal solution for Courtbrack. Therefore, the proposed solution focuses on the upgrade of the WwTP and mitigating flooding within the catchment.

### 3.11.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Courtbrack WwTP:**

- **Upgrade Ref. COU/30/A/1** - New 1,380m³ Storage with RTC Operated 1l/s Return.

**Courtbrack (CK-RD) Development WwPS:**

- **Upgrade Ref. COU/30/B/1** - New WwPS with a storage capacity of 12.5m³, pumping flows via a 0.3km rising main with a flow rate of 1l/s.

**Foul Sewer Upsizing Works**

- **Upgrade Ref. COU/30/U/1** – Upsize 116m of Foul sewer from 225mm to 375mm dia.
- **Upgrade Ref. COU/30/U/2** – Upsize 91m of Foul sewer from 225mm to 450mm dia.
- **Upgrade Ref. COU/30/U/3** - 68m of New 450mm dia Foul Sewer.
- **Upgrade Ref. COU/30/U/4** - 964m of New 300mm dia Foul Sewer incl. 20 Manholes.
- **Upgrade Ref. COU/30/U/5** - Increase Manhole SW55798501 storage from 2.3m³ to 15m³.
- **Upgrade Ref. COU/30/U/6** - Increase Manhole SW55796501 storage from 2.6m³ to 6.8m³.
- **Upgrade Ref. COU/30/U/7** - Increase Manhole SW55797602 storage from 4.1m³ to 10.6m³.
- **Upgrade Ref. COU/30/U/8** - Increase Manhole SW55798502 storage from 2.9m³ to 7.6m³.

*NOTE: The solution proposed for the 2030 scenario has proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2055 and 2080 scenarios.*

## 3.12. Dripsey

Whilst initially considered as a flow transfer catchment for the Northern Orbital Sewer, the results of fine screening found that this would not be the most optimal solution for Dripsey. Therefore, the proposed solution focuses on the upgrade of the WwTP, SWO compliance and mitigating flooding within the catchment.

### 3.12.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Dripsey WwTP:**

- **Upgrade Ref. DRI/30/A/2** - Upgrade Storage at Storm Tank from 57m³ to 100m³ with existing pump return of 1l/s and upgraded RTC

**Foul Sewer Upsizing Works**

- **Upgrade Ref. DRI/30/U/1** – Upsize 256m of Foul sewer from 150mm to 225mm dia
- **Upgrade Ref. DRI/30/U/2** – Upsize 11m of Combined sewer from 225mm to 450mm dia

### 3.12.2. 2055 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Dripsey WwTP:**

- **Upgrade Ref. DRI/55/A/1** - Raise Inlet SWO Screen Level from 58.3m to 59.0m to reduce spills.
- **Upgrade Ref. DRI/55/A/2** - Upgrade Storage at Storm Tank from 100m³ to 168m³

*NOTE: The solution proposed for the 2030 scenario has proven effective in achieving compliance with stormwater overflow (SWO) requirements and mitigating flood risk. Therefore, no additional solutions are proposed for the 2055 and 2080 scenarios.*

## 3.13. Matehy

Whilst initially considered as a flow transfer catchment for the Northern Orbital Sewer, the results of fine screening found that this would not be the most optimal solution for Matehy. Therefore, without any treatment or overflows within the catchment, and without significant flooding detriment, no solutions have been proposed.

## 3.14. Whitegate/Aghada

**Network Scheme and Use of Planning Applications in Model Development**

Based on existing proposed upgrade documents and/or council planning documents related to proposed development sites, the following network modifications were implemented. Where data required for network modelling was unavailable, assumptions were made using engineering judgement.

- The Whitegate Aghada Sewerage scheme was modeled using a combination of Foreshore Licence[43] documents, Planning Application no. 20646344 an EPA WWDL Application[45] documents.

[43] FS007027 Irish Water Whitegate to Aghada, https://www.gov.ie/en/department-of-climate-energy-and-the-environment/foreshore-notices/fs007027-irish-water-whitegate-to-aghada/
[44] Cork County Council Planning Application, File. No. 206463, http://planning.corkcoco.ie/ePlan/AppFileRefDetails/206463/0
[45] EPA WWDL Application D0423-02, https://epawebapp.epa.ie/terminalfour/wwda/wwda-view.jsp?regno=D0423-02

- Networks corresponding with the 2030 development zones have been modelled using the following planning application nos. 21687346 and 22422547
- Whitegate WwPS, Rostellan WwPS, Whitegate WwTP and Lower Aghada WwPS were modelled using 'For Planning' documents for the sewerage scheme, which included site layouts and cross-sections of proposed upgrades.
- Glebe Manor developed foul network modelled using planning application no. _, connected to existing network using engineering judgement. Likewise, Ardnabourkey Estate Septic Tank decommissioned and connected sewer modelled to existing network.

Despite compliance with the Storm Water Overflow (SWO) requirements, significant flooding impacts were observed within the Whitegate/Aghada catchment area—particularly at the Whitegate Wastewater Pumping WwPS, which is the most downstream station responsible for conveying all flows from the catchment. Below are the upgrades proposed for each scenario.

### 3.14.1. 2030 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Ardnabourkey Septic Tank:**

- **Upgrade Ref. WHI/30/C/1** - Decommission Septic Tank.

**Whitegate WwTP:**

- **Upgrade Ref. WHI/30/A/1** - Reduce Storm Tank Return Rising Main Pump Rate from 20l/s to 5l/s.
- **Upgrade Ref. WHI/30/A/1** – Upgrade WwTP Outfall FV from 300mm to 450mm diameter.

**Whitegate WwPS:**

- **Upgrade Ref. WHI/30/B/1** - Reduce Rising Main Pump Rate from 17l/s to 13.1l/s & Upgrade Storm Tank Storage from 255m$^3$ to 1,400m$^3$.
- **Upgrade Ref. WHI/30/B/2** - New 1,200m$^3$ Inlet Storage.
- **Upgrade Ref. WHI/30/B/3** - Upgrade FV on outfall from 200mm to 450mm diameter.
- **Upgrade Ref. WHI/30/B/3** - Upgrade Wet well Storage from 12.8m$^3$ to 20m$^3$.

**Lower Aghada WwPS:**

- **Upgrade Ref. WHI/30/C/1** – Upgrade Inlet Storage from 26m$^3$ to 169m$^3$ & Upgrade Inlet Sluice.
- **Upgrade Ref. WHI/30/C/2** – Upgrade Wet well Storage from 8.7m$^3$ to 20.3m$^3$.

**Rostellan WwPS:**

- **Upgrade Ref. WHI/30/D/1** - Upgrade Wet well Storage from 8.4m$^3$ to 42m$^3$.
- **Upgrade Ref. WHI/30/D/2** - Upgrade Storm Tank Storage from 55.4m$^3$ to 154m$^3$.

[46] Cork County Council Planning Application, File. No. 216873, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/216873/0
[47] Cork County Council Planning Application, File. No. 224225, https://planning.corkcoco.ie/ePlan/AppFileRefDetails/224225/0

**Foul Sewer Upsizing Works**

- **Upgrade Ref. WHI/30/U/1** – Upsize 335.4m of Foul Sewer from 150mm to 225mm diameter
- **Upgrade Ref. WHI/30/U/10** - Upsize 22.7m of Foul Sewer from 160mm to 900mm diameter
- **Upgrade Ref. WHI/30/U/11** - Upsize 18.7m of Foul Sewer from 160mm to 300mm diameter
- **Upgrade Ref. WHI/30/U/12** - Upsize 9.3m of Foul Sewer from 160mm to 225mm diameter
- **Upgrade Ref. WHI/30/U/13** - 56.8m - Upsize Foul Sewer from 225mm to 750mm diameter
- **Upgrade Ref. WHI/30/U/14** – Upsize 1.9m of Foul Sewer from 150mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/15** – Upsize 115.1m of Foul Sewer from 150mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/16** - Increase SW85655001 Manhole Storage from 0.6m$^3$ to 22.4m$^3$
- **Upgrade Ref. WHI/30/U/17** – Upsize 134.2m of Foul Sewer from 150mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/18** - Upsize 420.6m of Foul Sewer from 150mm to 300mm diameter
- **Upgrade Ref. WHI/30/U/19** - Upsize 246.6m of Foul Sewer from 150mm to 200mm diameter
- **Upgrade Ref. WHI/30/U/2** - Upsize 39.8m of Foul Sewer from 225mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/20** - Upsize 182.4m of Foul Sewer from 225mm to 300mm diameter
- **Upgrade Ref. WHI/30/U/21** - Upsize 1.5m of Foul Sewer from 250mm to 900mm diameter
- **Upgrade Ref. WHI/30/U/22** - Upsize 2.8m of Foul Sewer from 300mm to 900mm diameter
- **Upgrade Ref. WHI/30/U/23** - Upsize 33.7m of Foul Sewer from 315mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/24** - Upsize 7.7m of Foul Sewer from 350mm to 800mm diameter
- **Upgrade Ref. WHI/30/U/25** - Upsize 2.4m of Storm Sewer from 200mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/26** - Upsize 1.8m of Foul Sewer from 200mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/27** - Upsize 439.4m of Foul Sewer from 225mm to 600mm diameter
- **Upgrade Ref. WHI/30/U/28** - Upsize 638.2m of Foul Sewer from 225mm to 600mm diameter
- **Upgrade Ref. WHI/30/U/29** - Upsize 30.5m of Foul Sewer from 300mm to 400mm diameter
- **Upgrade Ref. WHI/30/U/3** - Upsize 52.7m of Foul Sewer from 225mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/30** - Upsize 1,117.2m of Foul Sewer from 300mm to 450mm diameter
- **Upgrade Ref. WHI/30/U/31** - Upsize 131.6m of Foul Sewer from 225mm to 900mm diameter
- **Upgrade Ref. WHI/30/U/32** - Upsize 1,237.3m of Foul Sewer from 225mm to 525mm diameter
- **Upgrade Ref. WHI/30/U/33** - Upsize 103.3m of Foul Sewer from 300mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/4** - Upsize 33.4m of Foul Sewer from 225mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/5** - Upsize 22.8m of Foul Sewer from 225mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/6** - Upsize 78.3m of Foul Sewer from 225mm to 375mm diameter

- **Upgrade Ref. WHI/30/U/7** - Upsize 82.8m of Foul Sewer from 225mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/8** - Upsize 184.6m of Foul Sewer from 225mm to 375mm diameter
- **Upgrade Ref. WHI/30/U/9** - Upsize 714.2m of Foul Sewer from 225mm to 375mm diameter

### 3.14.2. 2055 Preferred Solution

To ensure compliance with Storm Water Overflow (SWO) regulations and address flooding risks at critical locations—particularly those affected by proposed development—the following upgrade solutions have been proposed. Detailed drawings of these solutions can be found in Appendix C.

**Whitegate WwPS:**

- **Upgrade Ref. WHI/55/B/1 - Upgrade Storm Tank Storage from 1,400m$^3$ to 1,592m$^3$**

### 3.14.3. 2080 Preferred Solution

To achieve compliance with Storm Water Overflow (SWO) and flooding requirements at key ancillary sites, the following upgrade solutions have been proposed. Refer to Appendix C for detailed solution drawings.

**Whitegate WwPS:**

- **Upgrade Ref. WHI/80/B/1** - Upgrade Storm Tank Storage from 1,592m$^3$ to 4,000m$^3$

# 4. Flood Assessment

The tables below provide a catchment summary of the worst-case cumulative catchment out of sewer flood volumes for the 30-year design storm (including climate change) for the various design horizons within the Cork Metropolitan area. The worst case 30-year design storm cumulative catchment flood volume has also been provided for the 2080 design horizon solution model. The table below highlights how existing network capacity issues will be exacerbated across all catchments with the proposed development through the design horizons of 2030, 2055 and 2080. For completeness the 2080 design horizon Solution model, predicted flooding results have also been included to document the flood reductions from the proposed solutions.

For the 2080 solution scenario, residual model predicted flooding remains in some areas of the network. These however are in areas of the model which are currently classed as low-confidence, or model predicted only flooding which are currently unconfirmed on site. Both the low confidence areas and model predicted locations have been modelled using engineering judgment. To improve model confidence in these areas, it is recommended that further investigation and surveys be undertaken. Catchments such as Kileens and Midleton predict a decrease in flood volumes for the 2030 development scenario compared to the current 2024 scenario. This reduction is attributed to ongoing network upgrades within these catchments, which have been incorporated into the 2030 development model and thus resolve some of the existing network capacity issues. Similar upgrades have been implemented across all catchments for 2030, 2055, and 2080 design horizons as part of the ongoing national investment program.

**Table 4.1 Flood Volume Analysis for 5 Year Return Period**

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Ballincollig | 2,498 | 2,893 | 1,932 | 1,932 |
| Midleton | 1,669 | 1,495 | 1,707 | 1,617 |
| Carrigtwohill | | | | |
| Cork Lower Harbour* | 10,192 | 10,033 | 10,238 | 8,435 |
| Cork City - Little Island | 13,575 | 20,166 | 21,442 | 640 |
| Cork City - Tramore Valley | 10,305 | 10,979 | 11,003 | 198 |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Cork City - North & South (incl. Killeens & Whitechurch) | 63,426 | 73,014 | 76,754 | 1,336 |
| Cork City - Bessborough & Mahon | 2,571 | 2,676 | 2,813 | - |
| Cork City - Gilabbey Rock WwPS | 10,284 | 12,862 | 15,961 | 224 |
| Ballincurrig* | - | - | - | - |
| Ballygarvan* | 233 | 242 | 251 | - |
| Ballymore* | 98 | 98 | 99 | - |
| Berrings* | - | - | - | - |
| Blarney* | 17,617 | 30,720 | 34,781 | - |
| Carrignavar* | 400 | 424 | 441 | - |
| Cloyne* | 1,271 | 1,503 | 2,049 | - |
| Coole East | 28 | 52 | 156 | - |
| Courtbrack* | 420 | 431 | 442 | - |
| Dripsey* | - | - | - | - |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Grenagh* | 549 | 580 | 643 | - |
| Halfway* | - | - | - | - |
| Inniscarra* | 337 | 461 | 612 | - |
| Killumney* | 148 | 425 | 1,072 | - |
| Knockraha* | - | 101 | 311 | - |
| Leamlara* | - | - | - | - |
| Lisgoold* | 234 | 73 | 83 | - |
| Matehy* | - | - | - | - |
| Minane Bridge* | - | - | - | - |
| Myrtleville* | 72 | 73 | 74 | - |
| Saleen* | 170 | 171 | 172 | - |
| Watergrasshill* | 3,459 | 4,968 | 5,159 | - |
| Whitegate-Agada* | 3,424 | 3,496 | 3,519 | - |

**Table 4.2 Flood Volume Analysis for 10 Year Return Period**

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Ballincollig | 3,958 | 4,433 | 3,204 | 3,407 |
| Midleton | 2,205 | 2,074 | 2,295 | 2,107 |
| Carrigtwohill | | | | |
| Cork Lower Harbour* | 13,342 | 13,227 | 13,669 | 10,841 |
| Cork City - Little Island | 16,769 | 23,762 | 23,880 | 862 |
| Cork City - Tramore Valley | 15,153 | 16,157 | 15,679 | 319 |
| Cork City - North & South (incl. Killeens & Whitechurch) | 90,816 | 102,563 | 101,252 | 2,058 |
| Cork City - Bessborough & Mahon | 3,834 | 3,956 | 4,045 | 29 |
| Cork City - Gilabbey Rock WwPS | 15,715 | 19,763 | 21,902 | 460 |
| Ballincurrig* | - | - | - | - |
| Ballygarvan* | 363 | 374 | 251 | - |
| Ballymore* | 158 | 136 | 99 | - |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Berrings* | - | - | - | - |
| Blarney* | 23,437 | 37,183 | 34,781 | - |
| Carrignavar* | 517 | 541 | 441 | - |
| Cloyne* | 1,695 | 1,976 | 2,049 | - |
| Coole East | 40 | 65 | 169 | - |
| Courtbrack* | 585 | 572 | 583 | - |
| Dripsey* | - | - | - | - |
| Grenagh* | 713 | 750 | 820 | - |
| Halfway* | 27 | 27 | 28 | - |
| Inniscarra* | 384 | 506 | 654 | - |
| Killumney* | 237 | 541 | 1,211 | - |
| Knockraha* | - | 105 | 315 | - |
| Leamlara* | - | - | - | - |
| Lisgoold* | 296 | 149 | 160 | - |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Matehy* | - | - | - | - |
| Minane Bridge* | - | - | - | - |
| Myrtleville* | 105 | 107 | 108 | - |
| Saleen* | 231 | 233 | 233 | - |
| Watergrasshill* | 4,588 | 6,095 | 6,293 | - |
| Whitegate-Agada* | 4,410 | 4,498 | 4,519 | - |

Table 4.3 Flood Volume Analysis for 30 Year Return Period

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Ballincollig | 4,668 | 5,181 | 5,181 | 3,448 |
| Midleton | 3,228 | 3,313 | 3,429 | 3,231 |
| Carrigtwohill | 562 | 604 | 624 | 376 |
| Cork Lower Harbour* | 29,459 | 37,287 | 38,946 | 16,074 |
| Cork Settlements | 29,343 | 44,635 | 50,710 | - |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Cork City - Little Island | 20,595 | 27,660 | 28,935 | 2,409 |
| Cork City - Tramore Valley | 27,042 | 27,736 | 27,786 | 3,206 |
| Cork City - North & South (incl. Killeens & Whitechurch) | 142,716 | 150,898 | 156,705 | 8,027 |
| Cork City - Bessborough & Mahon | 7,323 | 6,962 | 7,143 | 1,198 |
| Cork City - Gilabbey Rock WwPS | 28,903 | 33,120 | 36,543 | 2,229 |
| Ballincurrig* | - | - | - | - |
| Ballygarvan* | 433 | 444 | 454 | - |
| Ballymore* | 247 | 248 | 249 | - |
| Berrings* | - | - | - | - |
| Blarney* | 29,332 | 44,183 | 48,432 | - |
| Carrignavar* | 633 | 657 | 676 | - |
| Cloyne* | 2,084 | 2,407 | 2,967 | 109 |
| Coole East | 53 | 77 | 181 | |
| Courtbrack* | 745 | 757 | 768 | - |

| Catchment | 2030 Design Horizon | 2050 Design Horizon | 2080 Design Horizon | 2080 Solution Scenario |
|---|---|---|---|---|
| | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) | Cumulative Flood Volume (m3) |
| Dripsey* | - | - | - | - |
| Grenagh* | 977 | 1,018 | 1,090 | - |
| Halfway* | 43 | 44 | 44 | - |
| Inniscarra* | 412 | 534 | 680 | - |
| Killumney* | 320 | 650 | 1,363 | - |
| Knockraha* | - | 109 | 319 | - |
| Leamlara* | 37 | 38 | 38 | - |
| Lisgoold* | 322 | 188 | 199 | - |
| Matehy* | - | - | - | - |
| Minane Bridge* | - | - | - | - |
| Myrtleville* | 236 | 239 | 241 | - |
| Saleen* | 352 | 355 | 357 | 57 |
| Watergrasshill* | 5,683 | 7,232 | 7,434 | - |
| Whitegate-Agada* | 5,702 | 5,781 | 5,830 | 248 |

# 5. Environmental Risk – Storm Water Overflows Summary

Table within Appendix B compares compliant and non-compliant overflows and their impact on catchments across various development scenarios, including the solution model for 2080. It highlights network capacity issues, shown by incremental non-compliant overflows with increasing development in the 2030, 2055, and 2080 scenarios. All SWOs have been addressed in accordance with environmental regulations and the recast Urban Wastewater Treatment Directive (rUWWTD). A detailed analysis of model predicted spill volume, spill frequency, and compliance criteria for each SWO is available in the Appendix B.

# 6. Model Scenarios

Table 6.1 below outlines the scenarios which were accessed as part for the study.

| Model | Scenario Name | Scenario Description |
|---|---|---|
| Cork City | CC 2030 Dev | The 2030, 2055, and 2080 development scenarios—covering population growth, commercial expansion, runoff areas, and new network requirements—were individually modelled for each respective scenario. |
| | CC 2055 Dev | |
| | CC 2080 Dev | |
| | CC 2030 Dev_Infra | Cork City DAP stage 4 infrastructure solution model added with the 2030, 2055, and 2080 development scenarios—covering population growth, commercial expansion, runoff areas, and new network requirements—were individually modelled for each respective scenario. |
| | CC 2055 Dev_Infra | |
| | CC 2080 Dev_Infra | |
| | CC Preferred Sol - 2030 | The Cork City DAP Stage 4 infrastructure solution network was employed to develop a comprehensive strategy addressing non-compliant Storm Water Overflows (SWOs) under the 2030 development scenario, while also mitigating flood risks associated with future development impacts across Cork City and the northern settlement catchments. |
| | CC Preferred Sol – 2055 (1A) | The Cork City DAP Stage 4 infrastructure solution network was employed to develop a comprehensive strategy addressing non-compliant Storm Water Overflows (SWOs) under the 2055 and 2080 development scenario, while also mitigating flood risks associated with future development impacts across Cork City and the northern settlement catchments. Option 1A represents the worst-case scenario, encompassing all Cork City catchments along with the northern settlements. Despite its conservative assumptions, this option was selected as the preferred solution within the study. |
| | CC Preferred Sol – 2080 (1A) | |
| | CC Preferred Sol – 2055 (1B) | The Cork City DAP Stage 4 infrastructure solution network was utilized to develop a strategy within the study area to address non-compliant Storm Water Overflows (SWOs) under the 2055 and 2080 development scenario, as well as to mitigate flooding risks associated with future development impacts. Option 1B is an alternative solution proposed to demonstrate the diversion of a portion of Cork City flows to Cork Lower Harbour, thereby relieving capacity constraints at the siphon chamber and reducing the required storage volume at the Atlantic Pool Pumping Station. This option, like Option 1A, also includes the northern settlement catchments. |
| | CC Preferred Sol – 2080 (1B) | |
| Cork Lower Harbour | CLH 2030 Dev | The 2030, 2055, and 2080 development scenarios covering population growth, commercial expansion, runoff areas, and new network requirements were individually modelled for each respective scenario. |
| | CLH 2055 Dev | |
| | CLH 2080 Dev | |
| | CLH Preferred Sol - 2030 | A solution was developed as part of a comprehensive strategy to address non-compliant Storm Water Overflows (SWOs) |
| | CLH Preferred Sol - 2055 | |

| Model | Scenario Name | Scenario Description |
|---|---|---|
| Ballincollig | CLH Preferred Sol - 2080 | under the 2030, 2055 and 2080 development scenario, while also mitigating flood risks associated with future development impacts across the Cork Lower Harbour and the southern settlement catchments. |
| | CC Alternate Option- 2055 (1B) | A solution was developed as part of a comprehensive strategy to address non-compliant Storm Water Overflows (SWOs) under the 2055 and 2080 development scenario respectively, while also mitigating flood risks associated with future development impacts across the Cork Lower Harbour and the southern settlement catchments. Option 1B is an alternative solution proposed to demonstrate the diversion of a portion of Cork City flows to Cork Lower Harbour, thereby relieving capacity constraints at the siphon chamber and reducing the required storage volume at the Atlantic Pool Pumping Station. This option, like preferred option, also includes the southern settlement catchments. |
| | CC Alternate Option- 2080 (1B) | |
| | BLG 2030 Dev | The 2030, 2055, and 2080 development scenarios—covering population growth, commercial expansion, runoff areas, and new network requirements—were individually modelled for each respective scenario. |
| | BLG 2055 Dev | |
| | BLG 2080 Dev | |
| | BLG Preferred Sol - 2030 | |
| | BLG Preferred Sol - 2055 | A solution was developed as part of a comprehensive strategy to address non-compliant Storm Water Overflows (SWOs) under the 2030, 2055 and 2080 development scenario, while also mitigating flood risks associated with future development impacts across the Ballincollig and the Killumney catchment. |
| | BLG Preferred Sol - 2080 | |
| Middleton & Carrigtwohill | MLD & CRG 2030 Dev | The 2030, 2055, and 2080 development scenarios—covering population growth, commercial expansion, runoff areas, and new network requirements—were individually modelled for each respective scenario. |
| | MLD & CRG 2055 Dev | |
| | MLD & CRG 2080 Dev | |
| | MLD & CRG Preferred Sol - 2030 | A solution was developed as part of a comprehensive strategy to address non-compliant Storm Water Overflows (SWOs) under the 2030, 2055 and 2080 development scenario, while also mitigating flood risks associated with future development impacts across the Middleton and the Carrigtwohill catchments. |
| | MLD & CRG Preferred Sol - 2055 | |
| | MLD & CRG Preferred Sol - 2080 | |
| Cork Settlements | CS 2030 Dev | The 2030, 2055, and 2080 development scenarios—covering population growth, commercial expansion, runoff areas, and new network requirements—were individually modelled for each respective scenario. |
| | CS 2055 Dev | |
| | CS 2080 Dev | |
| | CS Preferred Sol - 2030 | A solution was developed as part of a comprehensive strategy to address non-compliant Storm Water Overflows (SWOs) under the 2030, 2055 and 2080 development scenario, while also mitigating flood risks associated with future development impacts across the Cork settlement catchments. |
| | CS Preferred Sol - 2055 | |
| | CS Preferred Sol - 2080 | |

# 7. Limitations and Recommendations

Below are limitations and recommendations from the study.

- The primary limitation of this model is the absence of comprehensive survey data, which has led to a reliance on assumptions regarding network connectivity and ancillary structures. While GIS and InfoAsset data provided a foundation for the network model, the lack of detailed surveys meant that significant portions of the network had to be inferred using engineering judgment. This could affect some of the proposed solutions which involve pipe upsizes/conveyance options, as the existing wastewater infrastructure is not fully understood

- While some of the model databases used have undergone full verification, others—such as the Cork Lower Harbour and Cork Settlements databases—remain unverified. This introduces uncertainty regarding the accuracy of flow predictions to key assets within the wastewater network, which could influence the reliability of proposed solutions during detailed design stage.

- As part of the strategy solution development, several locations have been identified where reducing rainfall-induced infiltration and tidal ingress is proposed as part of a green solution. It is important to note that this study is strategic in nature, and no site visits or surveys were conducted. The proposed infiltration points are based on the available hydraulic models and other data sources. Further investigations are recommended for future users to accurately trace the exact locations of these infiltration sources before implementing the proposed solutions.

- The Cork City siphon chamber is currently operating at maximum capacity, which restricts the discharge rate from the major terminal pumping station, Atlantic Pond WwPS. This constraint places additional pressure on the station, particularly when considering future design horizons. Furthermore, the Storm Water Overflow (SWO) at the Atlantic Pond Pumping Station has been identified as non-compliant under both current and projected future conditions.

  A strategic assessment has determined that approximately 80,000 $m^3$ of additional storage capacity will be required at the Atlantic Pond Pumping Station to achieve SWO compliance without increasing flow through the downstream siphons. Although the preferred strategy does not include diverting flows from the Cork South area (specifically, Ronaynes Court WwPS) to Shanbally, implementing this diversion would allow more flow to pass through the siphon in the absence of Ronaynes Court WwPS contributions. As a result, the required storage volume at Atlantic Pool could be reduced from approximately 80,000 $m^3$ to 50,000 $m^3$.

# Appendix A – Development Sites

## 1. Cork City Development Details

Table 1: Development Updates for City Centre, Docklands.

| Zoning ID | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| CD-R-01 | 228 | 228 | 228 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| CD-R-02 | 714 | 714 | 714 | 1.6 | 1.6 | 1.6 | 0.3 | 0.3 | 0.3 |
| CD-R-03 | 1,027 | 1,027 | 10,27 | 2.3 | 2.3 | 2.3 | 0.4 | 0.4 | 0.4 |
| CD-R-04 | 2,347 | 2,347 | 2,347 | 5.2 | 5.2 | 5.2 | 0.8 | 0.8 | 0.8 |
| CD-R-05 | 1,395 | 1,395 | 1,395 | 3.1 | 3.1 | 3.1 | 0.5 | 0.5 | 0.5 |
| CD-R-06 | 774 | 774 | 774 | 1.7 | 1.7 | 1.7 | 0.3 | 0.3 | 0.3 |
| CD-T-01 | 229 | 307 | 307 | 0.5 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| Totals | 6,714 | 6,792 (+78) | 6,792 | 14.9l/s | 15.1l/s (+0.2l/s) | 15.1l/s | 2.5l/s | 2.5l/s | 2.5l/s |
| **2055 Development Details** | | | | | | | | | |
| CD-MU-01 | N/A | 85 | 85 | N/A | 0.2 | 0.2 | N/A | 0.0 | 0.0 |
| CD-MU-02 | N/A | 275 | 275 | N/A | 0.6 | 0.6 | N/A | 0.1 | 0.1 |
| CD-MU-03 | N/A | 118 | 171 | N/A | 0.3 | 0.4 | N/A | 0.0 | 0.1 |
| CD-MU-04 | N/A | 234 | 234 | N/A | 0.5 | 0.5 | N/A | 0.1 | 0.1 |
| CD-MU-06 | N/A | 1,333 | 1,333 | N/A | 2.9 | 2.9 | N/A | 0.5 | 0.5 |
| CD-MU-07 | N/A | 1,724 | 1,724 | N/A | 3.8 | 3.8 | N/A | 0.6 | 0.6 |
| CD-R-07 | N/A | 2,495 | 2,495 | N/A | 5.5 | 5.5 | N/A | 0.9 | 0.9 |

| Zoning ID | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| CD-R-08 | N/A | 543 | 543 | N/A | 1.2 | 1.2 | N/A | 0.2 | 0.2 |
| CD-R-09 | N/A | 239 | 239 | N/A | 0.5 | 0.5 | N/A | 0.1 | 0.1 |
| CD-R-10 | N/A | 1,466 | 1,466 | N/A | 3.2 | 3.2 | N/A | 0.5 | 0.5 |
| CD-R-11 | N/A | 385 | 385 | N/A | 0.8 | 0.8 | N/A | 0.1 | 0.1 |
| CD-R-12 | N/A | 388 | 388 | N/A | 0.9 | 0.9 | N/A | 0.1 | 0.1 |
| CD-R-13 | N/A | 169 | 169 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| Totals | N/A | 9,454 | 9,507 (+53) | N/A | 20.8l/s | 20.9l/s (+0.1l/s) | N/A | 3.3l/s | 3.4l/s (+0.1l/s) |
| 2080 Development Details | | | | | | | | | |
| CD-MU-05 | N/A | N/A | 579 | N/A | N/A | 1.3 | N/A | N/A | 0.2 |
| CD-LT-02 | N/A | N/A | 250 | N/A | N/A | 0.5 | N/A | N/A | 0.1 |
| CD-LT-01 | N/A | N/A | 1,778 | N/A | N/A | 3.9 | N/A | N/A | 0.6 |
| Totals | N/A | N/A | 2,607 | N/A | N/A | 5.7l/s | N/A | N/A | 0.9l/s |

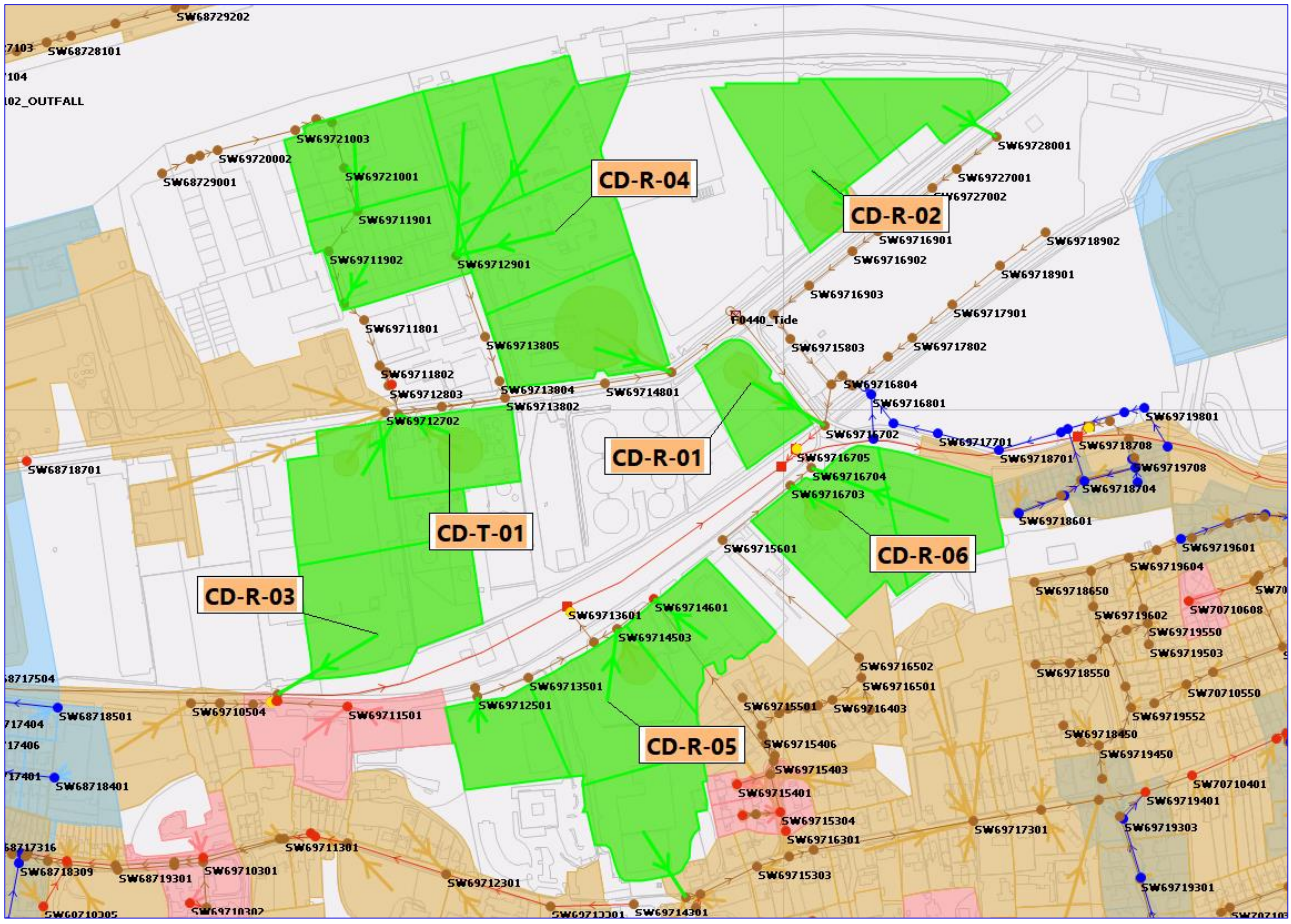



Figure 1: City Centre, Docklands 2030 Developments.

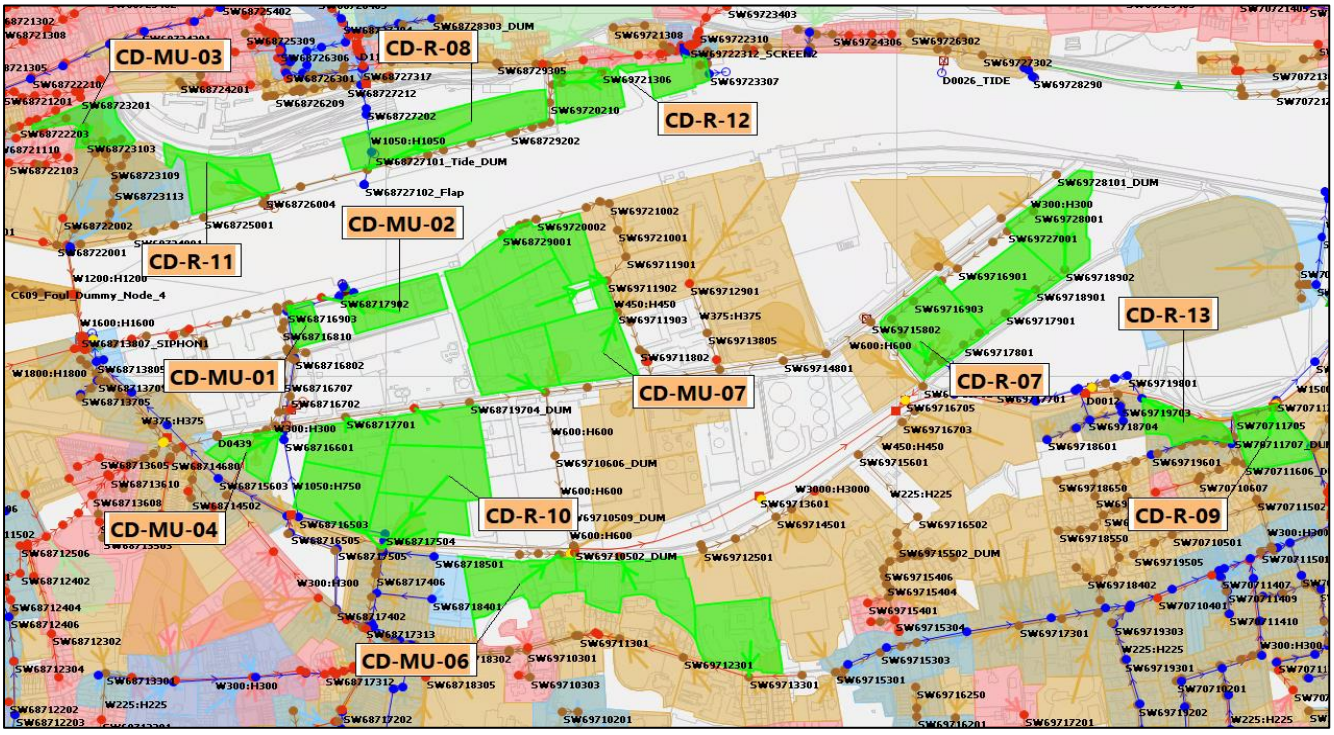


Figure 2: City Centre, Docklands 2055 Developments.

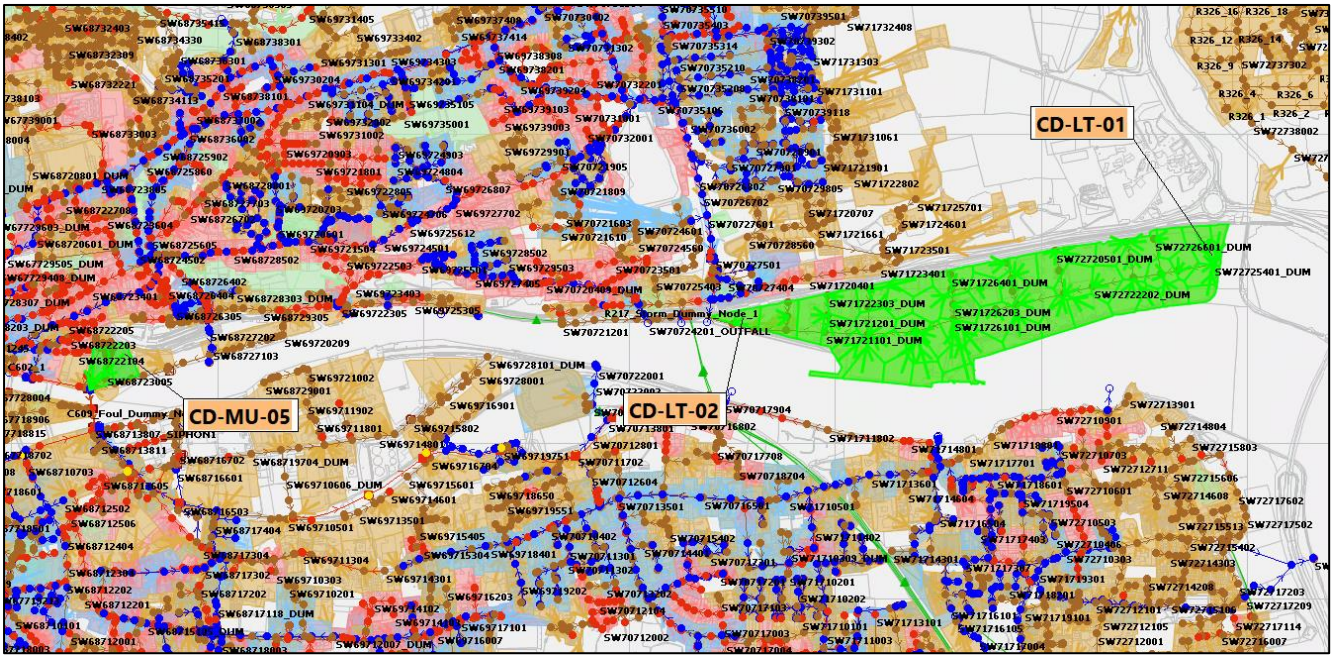



Figure 3: City Centre, Docklands 2080 Developments.

Table 2: Development Updates for Little Island and Glanmire (incl. Upper Glanmire and Glounthaune).

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| 2030 Development Details | | | | | | | | | |
| LI-RR-01 | 2,961 | 2,961 | 2,961 | 6.5 | 6.5 | 6.5 | 1.0 | 1.0 | 1.0 |
| GE-R-02 | 2,995 | 3,028 | 3,028 | 6.6 | 6.7 | 6.7 | 1.1 | 1.1 | 1.1 |
| GE-R-05 | 635 | 635 | 635 | 1.4 | 1.4 | 1.4 | 0.2 | 0.2 | 0.2 |
| GE-R-07 | 413 | 413 | 413 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |
| GE-R-08 | 244 | 244 | 244 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| GE-T-01 | 127 | 127 | 127 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| GE-USC-01 | 192 | 192 | 192 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| UG-MU-01 | 158 | 179 | 179 | 0.3 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| UG-R-01 | 86 | 86 | 86 | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| GN-R-01 | 443 | 443 | 443 | 1.0 | 1.0 | 1.0 | 0.2 | 0.2 | 0.2 |
| GN-R-02 | 821 | 821 | 821 | 1.8 | 1.8 | 1.8 | 0.3 | 0.3 | 0.3 |
| GN-R-03 | 554 | 554 | 554 | 1.2 | 1.2 | 1.2 | 0.2 | 0.2 | 0.2 |
| GN-R-04 | 351 | 351 | 351 | 0.8 | 0.8 | 0.8 | 0.1 | 0.1 | 0.1 |
| GN-RD | 240 | 1,120 | 1,460 | 0.5 | 2.5 | 3.2 | 0.1 | 0.4 | 0.5 |
| Totals | 10,220 | 11,154 (+934) | 11,494 (+340) | 22.4l/s | 24.6l/s (+2.2l/s) | 25.3l/s (+0.7l/s) | 3.6l/s | 3.9l/s (+0.3l/s) | 4.0l/s (+0.1l/s) |
| 2055 Development Details | | | | | | | | | |
| LI-X-01 | N/A | 1,004 | 1,389 | N/A | 2.2 | 3.1 | N/A | 0.4 | 0.5 |
| GE-R-01 | N/A | 5,465 | 5,465 | N/A | 12.0 | 12.0 | N/A | 1.9 | 1.9 |
| GE-USC-02 | N/A | 199 | 199 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| GE-R-06 | N/A | 59 | 59 | N/A | 0.1 | 0.1 | N/A | 0.0 | 0.0 |
| GE-R-03 | N/A | 90 | 90 | N/A | 0.2 | 0.2 | N/A | 0.0 | 0.0 |
| GlanmireDummyRZD | N/A | 2,392 | 4,671 | N/A | 2.9 | 34.9 | N/A | 0.5 | 5.6 |
| UpperGlanmireDummyRZD | N/A | 246 | 341 | N/A | 5.3 | 10.3 | N/A | 0.8 | 1.6 |
| Totals | N/A | 9,455 | 12,214 (+2759) | N/A | 23.1l/s | 61l/s (+37.9l/s) | N/A | 3.7l/s | 9.7l/s (+6l/s) |

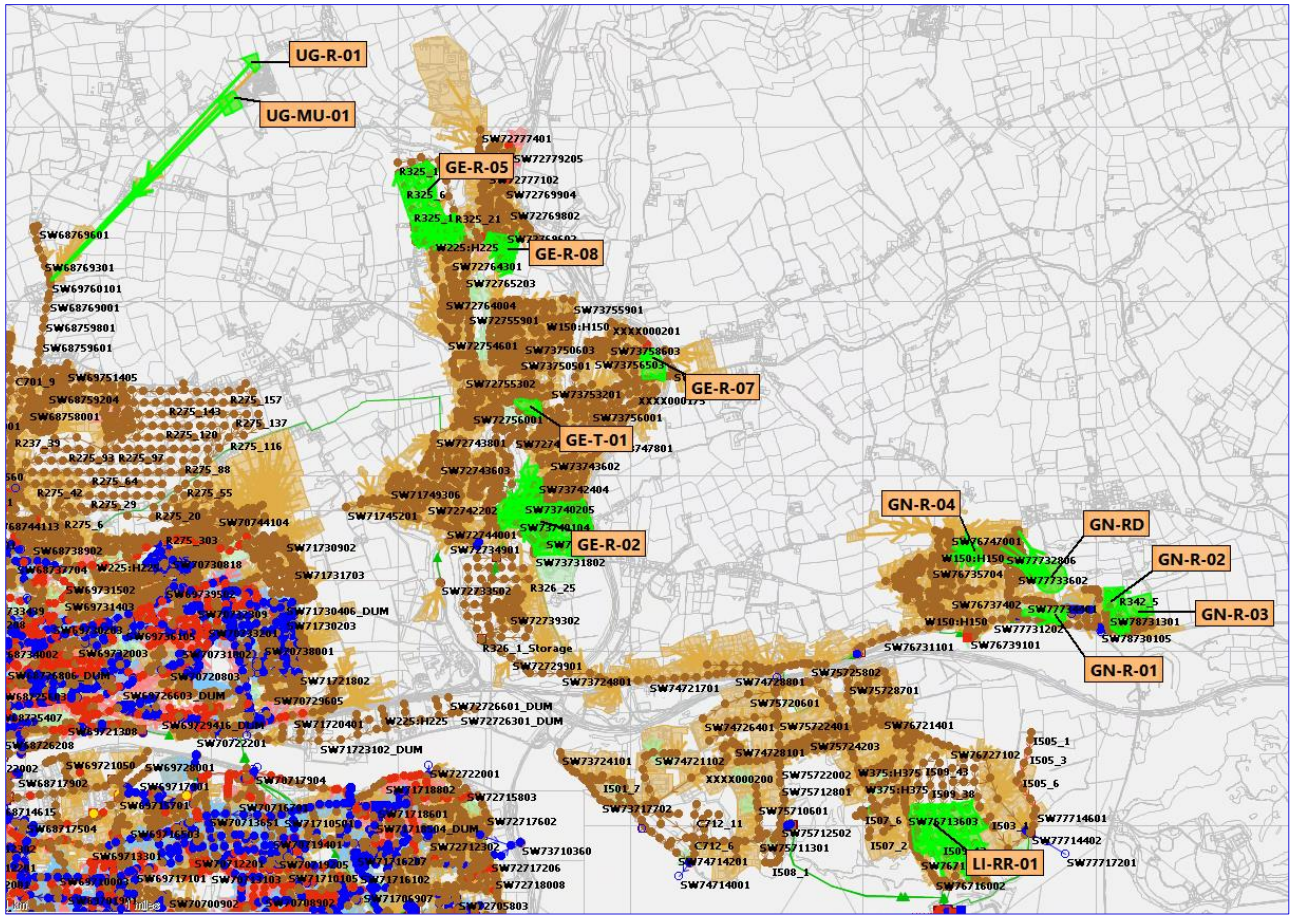



Figure 4: Development Updates for Little Island and Glanmire (incl. Upper Glanmire and Glounthaune) 2030.

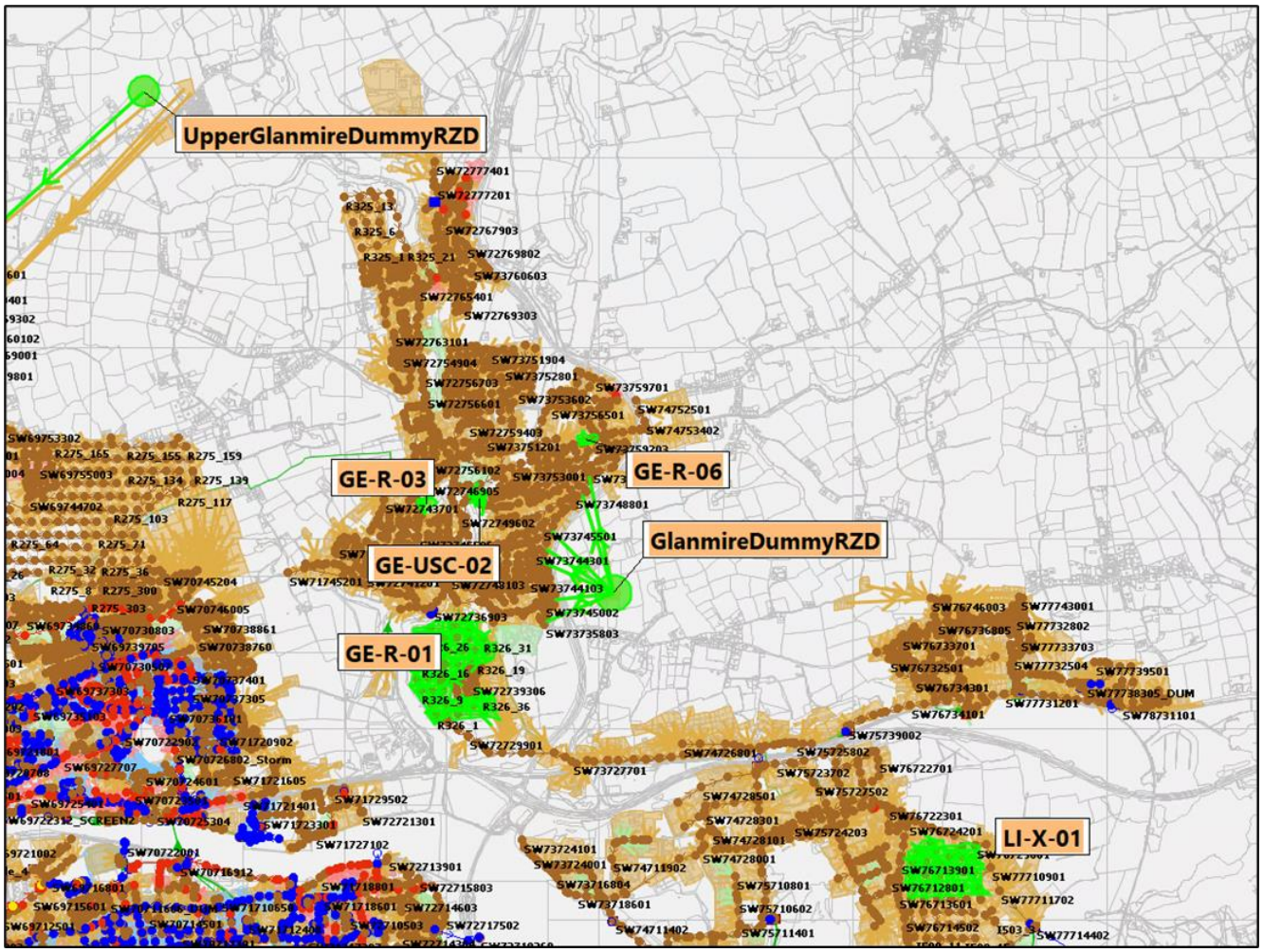



Figure 5: Development Updates for Little Island and Glanmire (incl. Upper Glanmire and Glounthaune) 2055.

Table 3: Development Updates for City Suburbs (incl. Ballincollig, Whitechurch and Monard).

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| **Zoning ID** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** |
| 2030 Development Details | | | | | | | | | |
| CS-R-01 | 215 | 215 | 215 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| CS-R-03 | 33 | 895 | 895 | 0.1 | 2.0 | 2.0 | 0.0 | 0.3 | 0.3 |
| CS-R-07 | 312 | 312 | 312 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| CS-R-08 | 312 | 312 | 312 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| CS-R-09 | 1,875 | 1,875 | 1,875 | 4.1 | 4.1 | 4.1 | 0.7 | 0.7 | 0.7 |
| CS-R-10 | 1,500 | 1,500 | 1,500 | 3.3 | 3.3 | 3.3 | 0.5 | 0.5 | 0.5 |
| CS-R-11 | 1,098 | 1,098 | 1,098 | 2.4 | 2.4 | 2.4 | 0.4 | 0.4 | 0.4 |
| CS-R-13 | 323 | 323 | 323 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| **CS-R-14** | 50 | 50 | 50 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| **CS-R-15** | 604 | 604 | 604 | 1.3 | 1.3 | 1.3 | 0.2 | 0.2 | 0.2 |
| **CS-R-16** | 604 | 604 | 604 | 1.3 | 1.3 | 1.3 | 0.2 | 0.2 | 0.2 |
| **CS-R-17** | 751 | 751 | 751 | 1.7 | 1.7 | 1.7 | 0.3 | 0.3 | 0.3 |
| **CS-R-18** | 751 | 751 | 751 | 1.7 | 1.7 | 1.7 | 0.3 | 0.3 | 0.3 |
| **CS-R-27** | 1,516 | 1,516 | 1,516 | 3.3 | 3.3 | 3.3 | 0.5 | 0.5 | 0.5 |
| **CS-R-30** | 1,175 | 1,175 | 1,175 | 2.6 | 2.6 | 2.6 | 0.4 | 0.4 | 0.4 |
| **CS-R-31** | 1,444 | 1,444 | 1,444 | 3.2 | 3.2 | 3.2 | 0.5 | 0.5 | 0.5 |
| **CS-R-32** | 1,118 | 1,118 | 1,118 | 2.5 | 2.5 | 2.5 | 0.4 | 0.4 | 0.4 |
| **CS-R-33** | 207 | 207 | 207 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| **T-01** | 99 | 227 | 344 | 0.2 | 0.5 | 0.8 | 0.0 | 0.1 | 0.1 |
| **BG-LT-03** | 672 | 1,793 | 1,793 | 1.5 | 3.9 | 3.9 | 0.2 | 0.6 | 0.6 |
| **MN-X-01** | 2,969 | 10,800 | 13,500 | 6.5 | 23.7 | 29.7 | 1.0 | 3.8 | 4.7 |
| **Totals** | 17,628 | 27,570 (+9,942) | 30,387 (+2,817) | 38.9l/s | 60.7l/s (+21.8l/s) | 67l/s (+6.3l/s) | 6.1l/s | 9.7l/s (+3.6l/s) | 10.6l/s (+0.9l/s) |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| 2055 Development Details | | | | | | | | | |
| CS-LT-01 | N/A | 895 | 895 | N/A | 2.0 | 2.0 | N/A | 0.3 | 0.3 |
| CS-LT-09 | N/A | 2,185 | 2,185 | N/A | 4.8 | 4.8 | N/A | 0.8 | 0.8 |
| CS-R-04 | N/A | 895 | 895 | N/A | 2.0 | 2.0 | N/A | 0.3 | 0.3 |
| CS-R-02 | N/A | 635 | 635 | N/A | 1.4 | 1.4 | N/A | 0.2 | 0.2 |
| CS-R-12 | N/A | 93 | 93 | N/A | 0.2 | 0.2 | N/A | 0.0 | 0.0 |
| CS-LT-04 | N/A | 8,874 | 8,874 | N/A | 19.5 | 19.5 | N/A | 3.1 | 3.1 |
| CS-LT-11 | N/A | 280 | 280 | N/A | 0.6 | 0.6 | N/A | 0.1 | 0.1 |
| CS-LT-02 | N/A | 336 | 336 | N/A | 0.7 | 0.7 | N/A | 0.1 | 0.1 |
| CS-LT-03 | N/A | 112 | 112 | N/A | 0.2 | 0.2 | N/A | 0.0 | 0.0 |
| CS-R-25 | N/A | 112 | 112 | N/A | 0.2 | 0.2 | N/A | 0.0 | 0.0 |
| CS-R-26 | N/A | 471 | 471 | N/A | 1.0 | 1.0 | N/A | 0.2 | 0.2 |
| CS-R-21 | N/A | 687 | 687 | N/A | 1.5 | 1.5 | N/A | 0.2 | 0.2 |
| CS-R-22 | N/A | 396 | 396 | N/A | 0.9 | 0.9 | N/A | 0.1 | 0.1 |
| CS-R-19 | N/A | 199 | 199 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| CS-R-24 | N/A | 118 | 118 | N/A | 0.3 | 0.3 | N/A | 0.0 | 0.0 |
| CS-R-20 | N/A | 204 | 204 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| CS-LT-10 | N/A | 2,395 | 2,395 | N/A | 5.3 | 5.3 | N/A | 0.8 | 0.8 |
| CS-LT-08 | N/A | 2,634 | 2,634 | N/A | 5.8 | 5.8 | N/A | 0.9 | 0.9 |
| CS-LT-07 | N/A | 4,778 | 4,778 | N/A | 10.5 | 10.5 | N/A | 1.7 | 1.7 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| CS-LT-06 | N/A | 3,006 | 4,116 | N/A | 6.6 | 9.0 | N/A | 1.1 | 1.4 |
| CS-R-28 | N/A | 11,58 | 1,158 | N/A | 2.5 | 2.5 | N/A | 0.4 | 0.4 |
| CS-R-23 | N/A | 237 | 237 | N/A | 0.5 | 0.5 | N/A | 0.1 | 0.1 |
| CS-R-34 | N/A | 179 | 179 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| CS-R-06 | N/A | 239 | 239 | N/A | 0.5 | 0.5 | N/A | 0.1 | 0.1 |
| CS-R-05 | N/A | 413 | 413 | N/A | 0.9 | 0.9 | N/A | 0.1 | 0.1 |
| CS-R-29 | N/A | 62 | 62 | N/A | 0.1 | 0.1 | N/A | 0.0 | 0.0 |
| CS-USC-... | N/A | 1,317 | 15,875 | N/A | 2.9 | 34.9 | N/A | 0.5 | 5.6 |
| BG-LT-04 | N/A | 13,339 | 18,892 | N/A | 29.3 | 41.5 | N/A | 4.7 | 6.6 |
| KilleensDummyRZD | N/A | 219 | 314 | N/A | 0.5 | 0.7 | N/A | 0.1 | 0.1 |
| KS-USC-01 | N/A | 59 | 59 | N/A | 0.1 | 0.1 | N/A | 0.0 | 0.0 |
| Totals | N/A | 46,527 | 67,843 (+21,316) | N/A | 102l/s | 148.8l/s (+46.8l/s) | N/A | 16.2l/s | 23.5l/s (+7.3l/s) |
| 2080 Development Details | | | | | | | | | |
| CS-LT-05 | N/A | N/A | 3,822 | N/A | N/A | 8.4 | N/A | N/A | 1.3 |
| Totals | N/A | N/A | 3,822 | N/A | N/A | 8.4l/s | N/A | N/A | 1.3l/s |

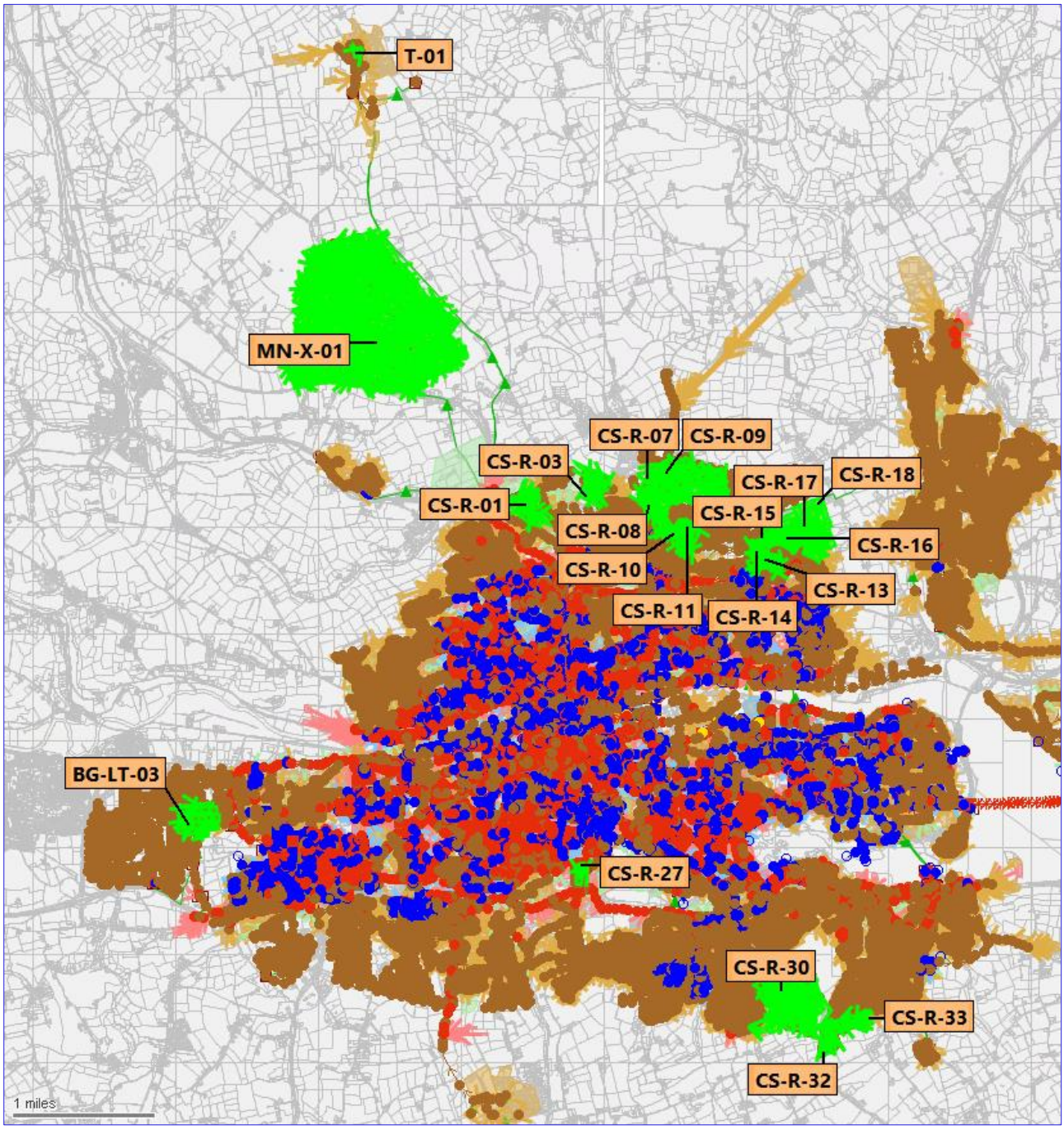



Figure 6: Development Updates for City Suburbs (incl. Ballincollig, Whitechurch and Monard) 2030.

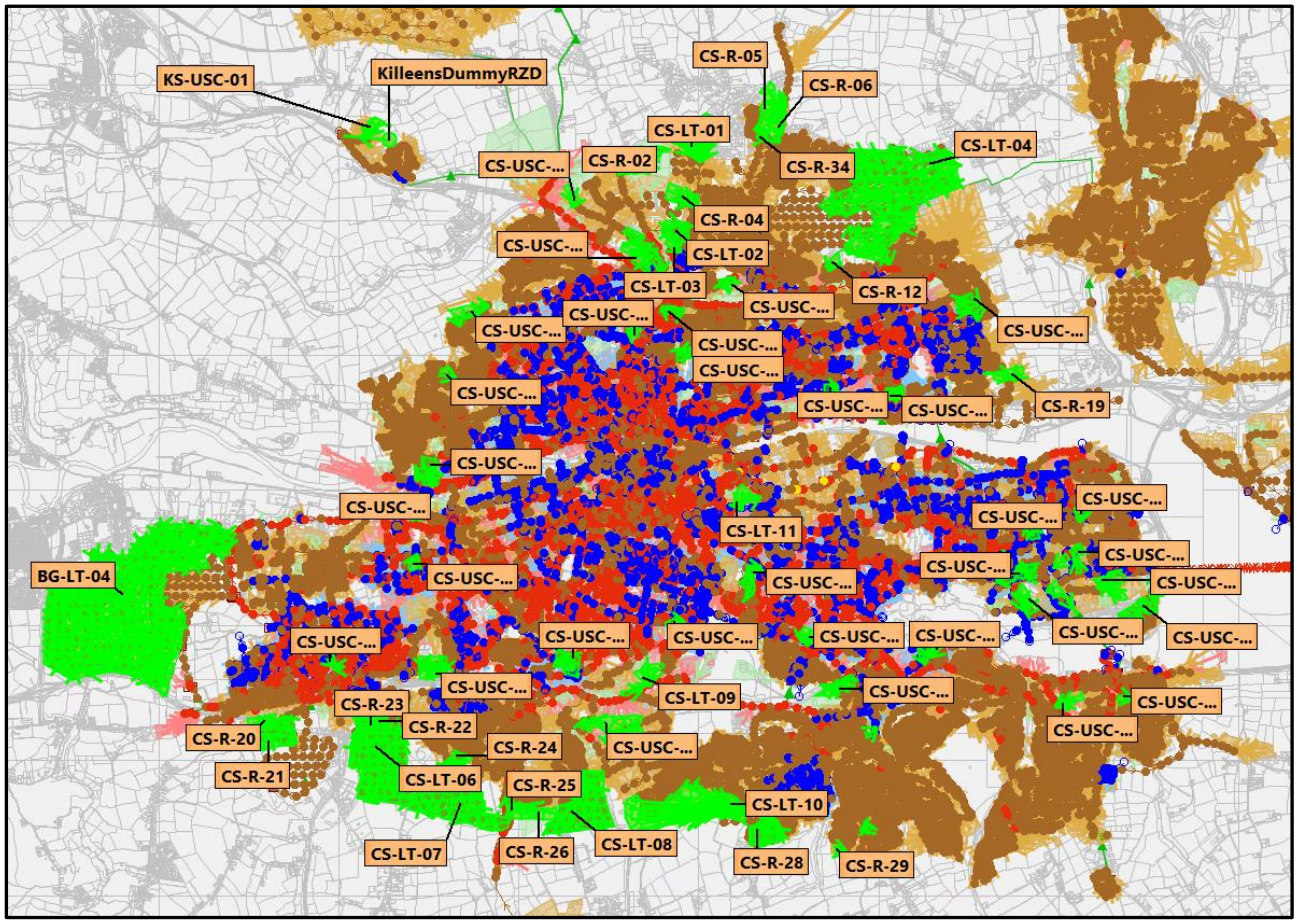



Figure 7: Development Updates for City Suburbs (incl. Ballincollig, Whitechurch and Monard) 2055..

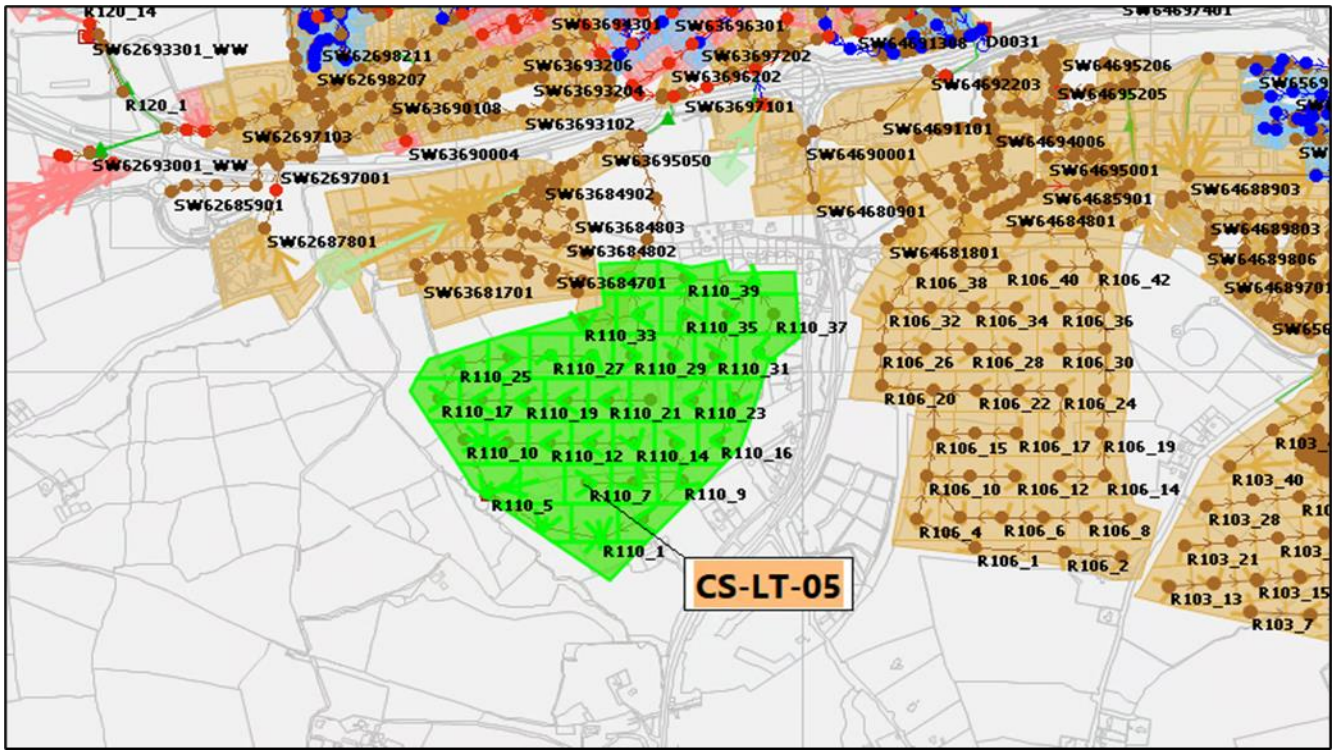


Figure 8: Development Updates for City Suburbs (incl. Ballincollig, Whitechurch and Monard) 2080.

## 2. Cork Lower Harbour Development Details

Table 4: Development Updates for Carrigaline.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| **Zoning ID** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** |
| **2030 Dvelopment Details** | | | | | | | | | |
| **CL-R-01** | 417 | 417 | 417 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |
| **CL-R-02** | 150 | 150 | 150 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 |
| **CL-R-05** | 223 | 223 | 223 | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 |
| **CL-R-06** | 328 | 328 | 328 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| **CL-R-07** | 135 | 135 | 135 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| **CL-R-08** | 135 | 135 | 135 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| **CL-R-09** | 322 | 322 | 322 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| **CL-R-10** | 1,000 | 1,000 | 1,000 | 2.2 | 2.2 | 2.2 | 0.4 | 0.4 | 0.4 |
| **CL-R-11** | 326 | 326 | 326 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| Totals | 3,036 | 3,036 | 3,036 | 6.6l/s | 6.6l/s | 6.6l/s | 1l/s | 1l/s | 1l/s |
| **2055 Development Details** | | | | | | | | | |
| **CL-R-13** | N/A | 382 | 382 | N/A | 0.8 | 0.8 | N/A | 0.1 | 0.1 |
| **CL-R-12** | N/A | 575 | 575 | N/A | 1.3 | 1.3 | N/A | 0.2 | 0.2 |
| **CL-X-01** | N/A | 3,850 | 6,530 | N/A | 8.5 | 14.4 | N/A | 1.4 | 2.3 |
| Totals | N/A | 4,807 | 7,487 (+2,680) | N/A | 10.6l/s | 16.5l/s (+5.9l/s) | N/A | 1.7l/s | 2.6l/s (0.9l/s) |
| **2080 Development Details** | | | | | | | | | |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| N123_Dev | N/A | N/A | 1,081 | N/A | N/A | 2.4 | N/A | N/A | 0.4 |
| Totals | **N/A** | **N/A** | **1,081** | **N/A** | **N/A** | **2.4** | **N/A** | **N/A** | **0.4** |

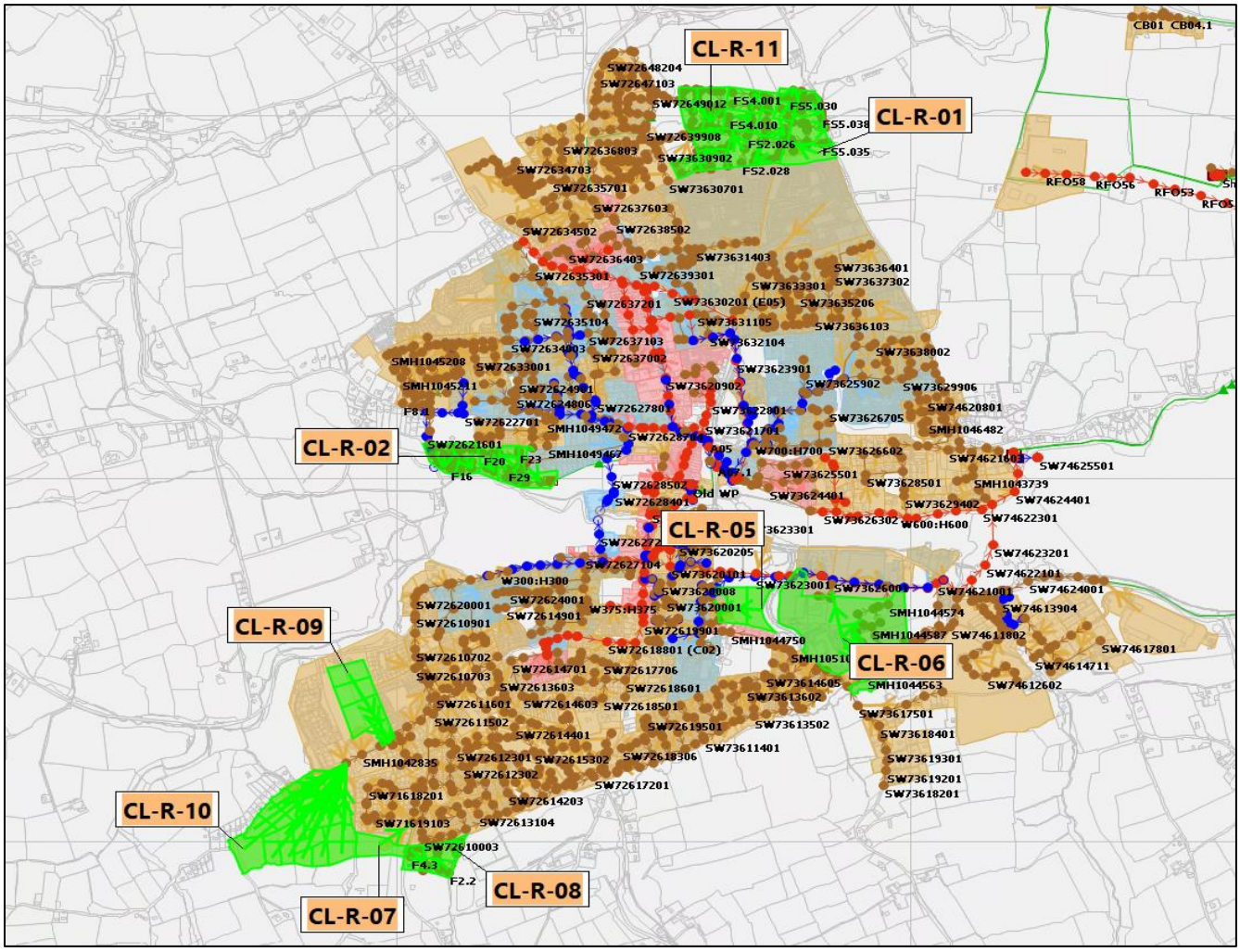



Figure 9: Development Updates for Carrigaline 2030.

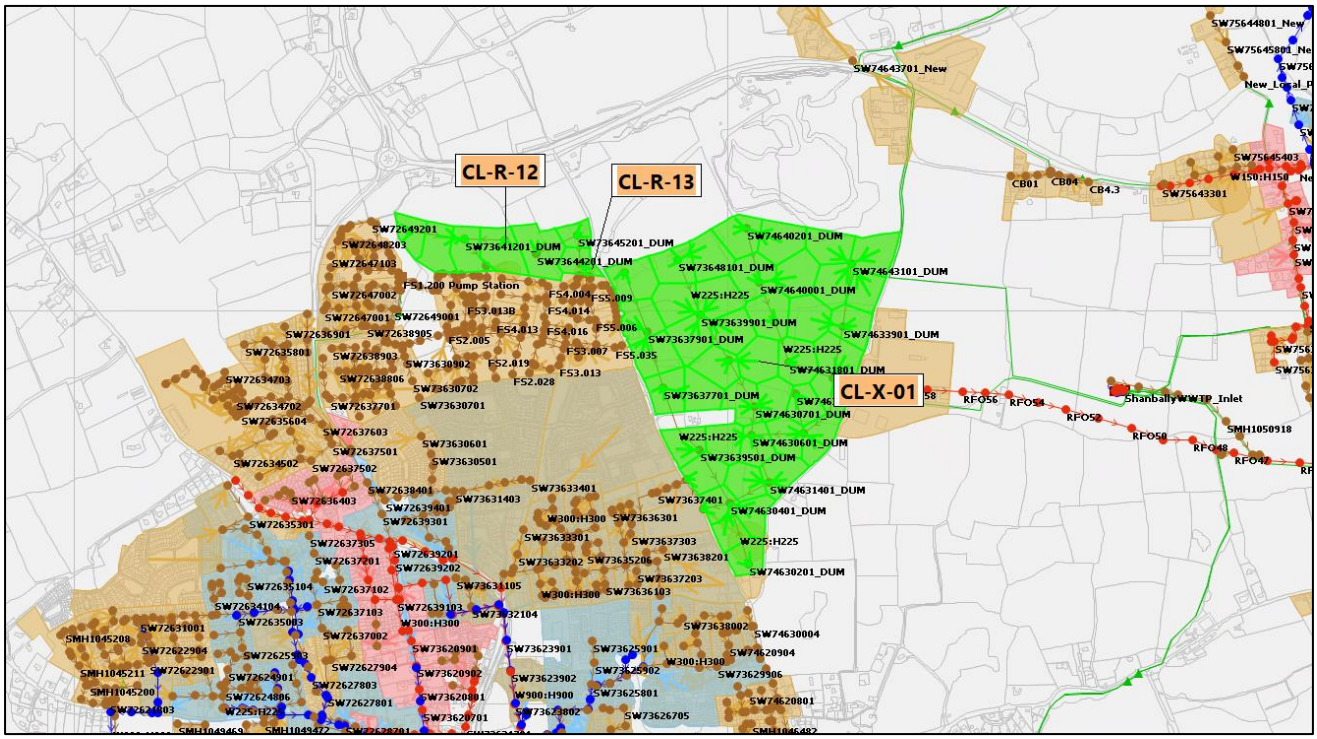



Figure 10: Development Updates for Carrigaline 2055.

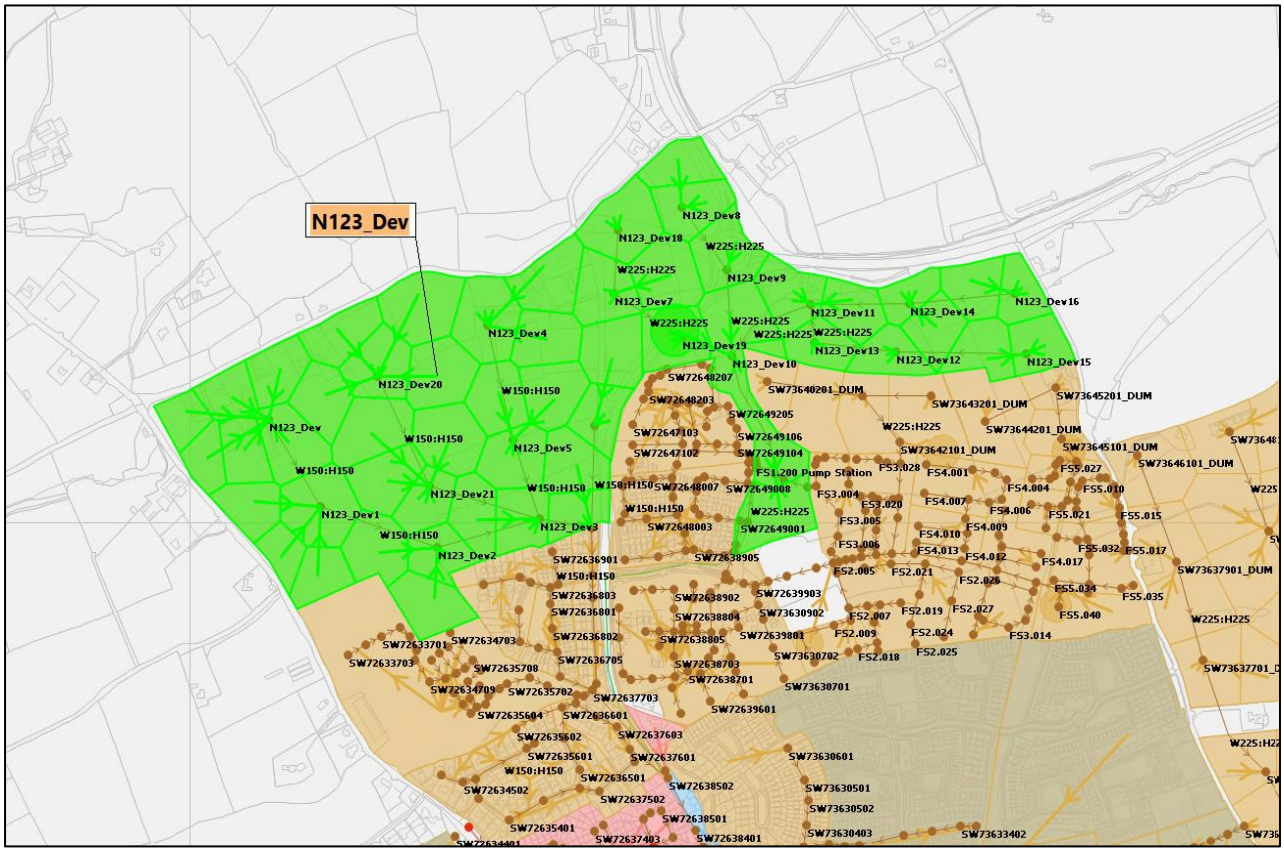



Figure 11: Development Updates for Carrigaline 2080.

Table 5: Development Updates for Cobh and North Cobh.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| **CH-R-03** | 324 | 324 | 370 | 0.7 | 0.7 | 0.8 | 0.1 | 0.1 | 0.1 |
| **CH-R-04** | 386 | 386 | 440 | 0.8 | 0.8 | 1.0 | 0.1 | 0.1 | 0.2 |
| **CH-R-07** | 165 | 165 | 186 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| **CH-R-08** | 332 | 332 | 378 | 0.7 | 0.7 | 0.8 | 0.1 | 0.1 | 0.1 |
| **CH-R-09** | 575 | 575 | 656 | 1.3 | 1.3 | 1.4 | 0.2 | 0.2 | 0.2 |
| **CH-R-10** | 65 | 65 | 73 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 |
| **CH-R-11** | 343 | 421 | 481 | 0.8 | 0.9 | 1.1 | 0.1 | 0.1 | 0.2 |
| **EFE406** | 7 | 7 | 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Totals** | 2197 | 2275 (+78) | 2591 (+316) | 4.8l/s | 4.9l/s (+0.1l/s) | 5.7l/s (+0.8l/s) | 0.7l/s | 0.7l/s | 0.9l/s (+0.2l/s) |
| **2055 Development Details** | | | | | | | | | |
| **CH-R-12** | N/A | 473 | 540 | N/A | 1.0 | 1.2 | N/A | 0.2 | 0.2 |
| **CH-RFAP-05** | N/A | 57 | 65 | N/A | 0.1 | 0.1 | N/A | 0.0 | 0.0 |
| **CH-RFAP-13** | N/A | 483 | 551 | N/A | 1.1 | 1.2 | N/A | 0.2 | 0.2 |
| **CH-RAP-02** | N/A | 670 | 670 | N/A | 1.5 | 1.5 | N/A | 0.2 | 0.2 |
| **CH-RFAP-01** | N/A | 1,145 | 1,145 | N/A | 2.5 | 2.5 | N/A | 0.4 | 0.4 |
| **CH-RAP-06** | N/A | 462 | 527 | N/A | 1.0 | 1.2 | N/A | 0.2 | 0.2 |
| **CH-RFAP-14** | N/A | 262 | 734 | N/A | 0.6 | 1.6 | N/A | 0.1 | 0.3 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| Totals | N/A | 3,552 | 4,232 (+680) | N/A | 7.8l/s | 9.3l/s (+1.5l/s) | N/A | 1.3l/s | 1.5l/s (0.2l/s) |
| **2080 Development Details** | | | | | | | | | |
| CH-RFAP-15 | N/A | N/A | 448 | N/A | N/A | 1.0 | N/A | N/A | 0.2 |
| CH-RFAP-16 | N/A | N/A | 243 | N/A | N/A | 0.5 | N/A | N/A | 0.1 |
| CH-X-01 | N/A | N/A | 529 | N/A | N/A | 1.2 | N/A | N/A | 0.2 |
| CH-RR-01 | N/A | N/A | 413 | N/A | N/A | 0.9 | N/A | N/A | 0.1 |
| CH-RFAP-17 | N/A | N/A | 251 | N/A | N/A | 0.6 | N/A | N/A | 0.1 |
| Totals | N/A | N/A | 1,884 | N/A | N/A | 4.2l/s | N/A | N/A | 0.7l/s |

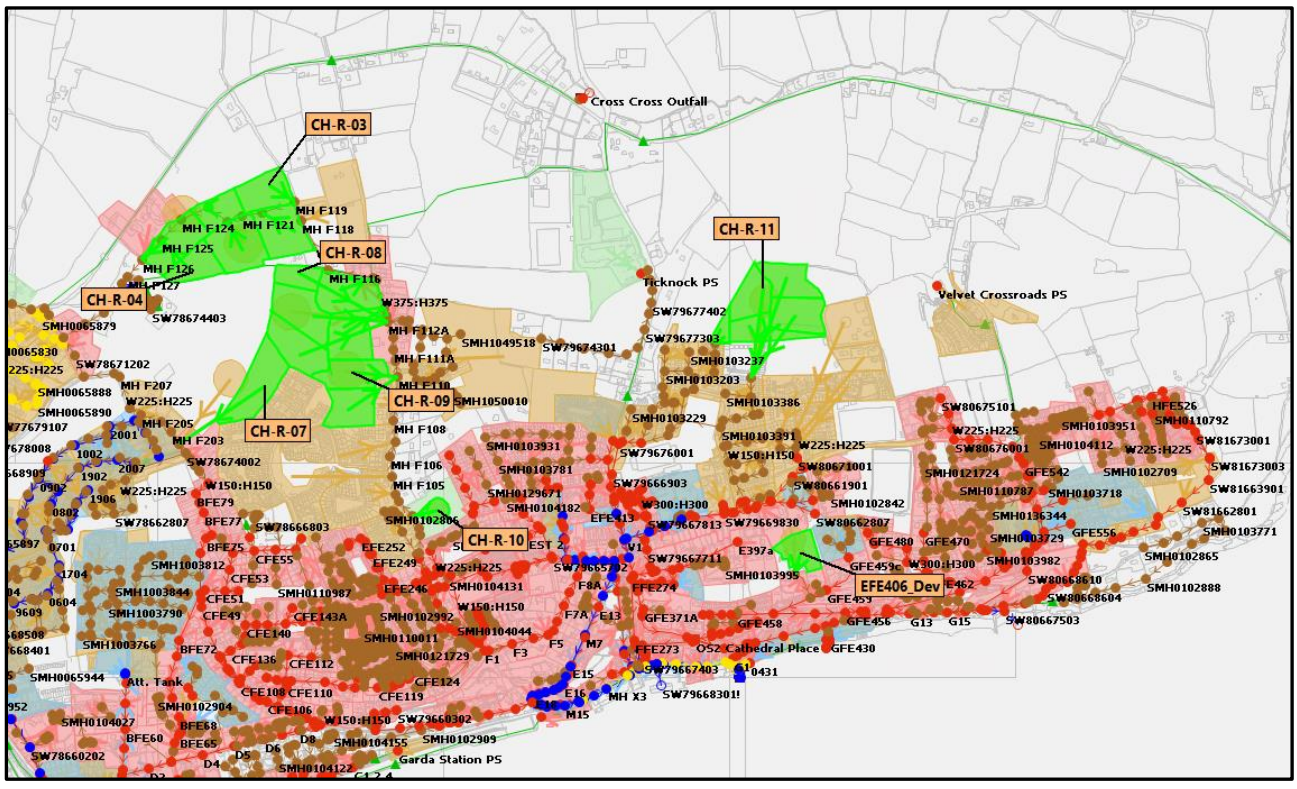



Figure 12: Development Updates for Cobh and North Cobh 2030.

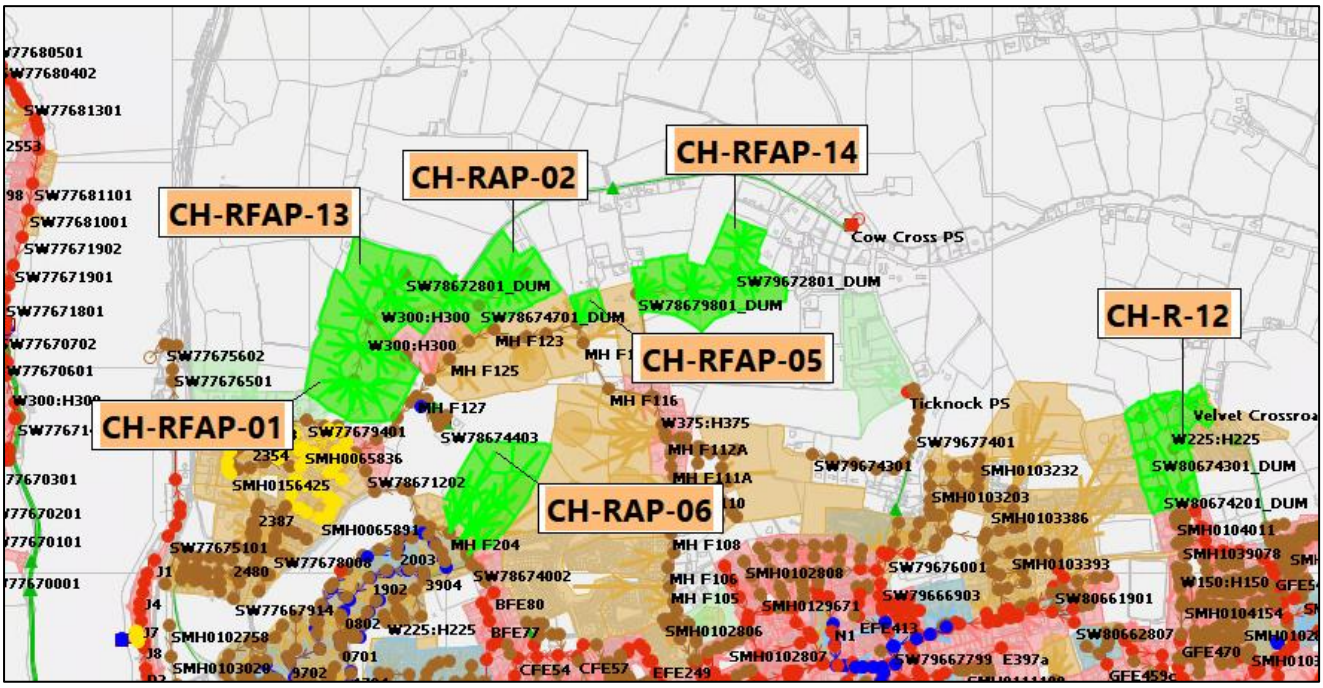



Figure 13: Development Updates for Cobh and North Cobh 2055.

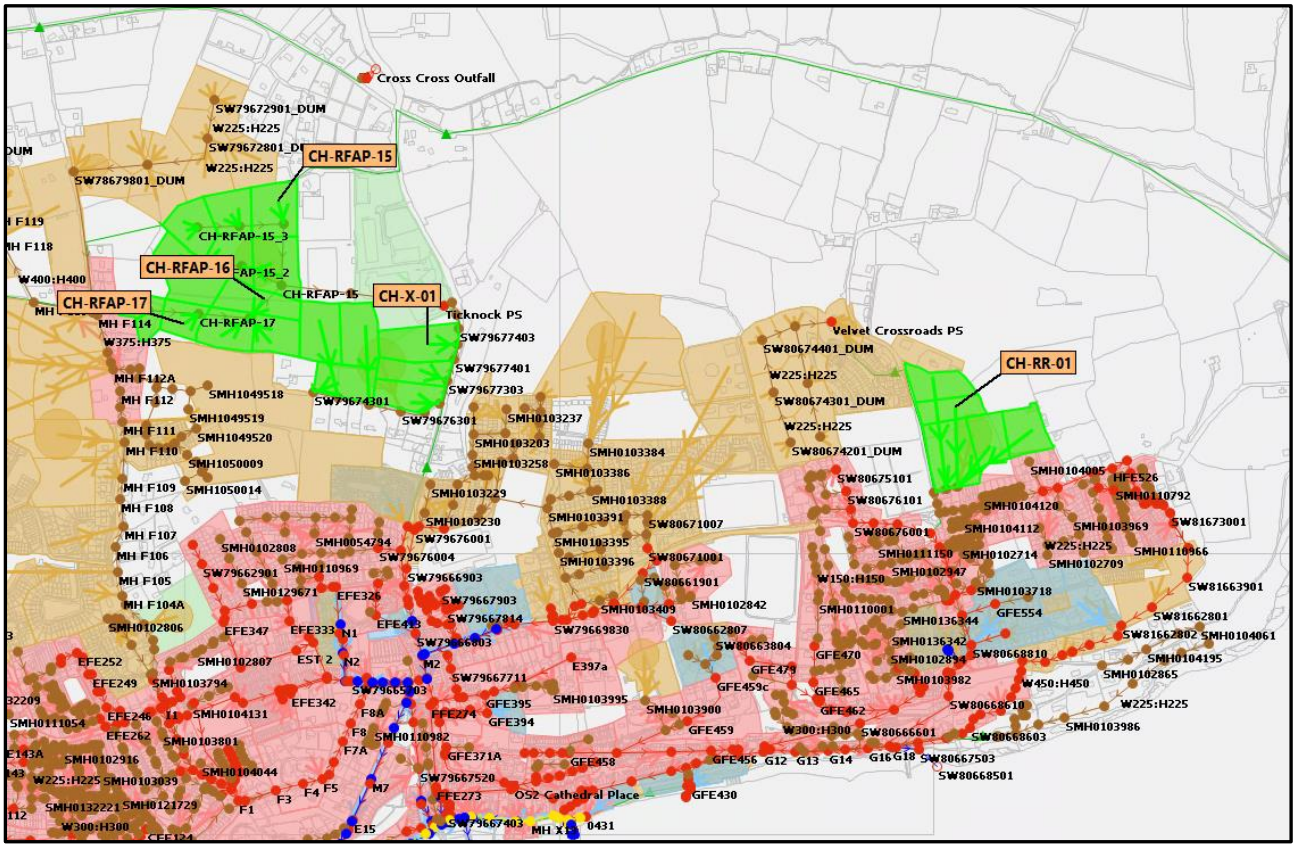



Figure 14: Development Updates for Cobh and North Cobh 2080.

Table 6: Development Updates for Crosshaven.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| **Zoning ID** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** |
| **2030 Development Details** | | | | | | | | | |
| **CS-R-01** | 334 | 535 | 535 | 0.7 | 1.2 | 1.2 | 0.1 | 0.2 | 0.2 |
| Totals | 334 | 535 (+201) | 535 | 0.7l/s | 1.2l/s (+0.5l/s) | 1.2l/s | 0.1l/s | 0.2l/s (+0.1l/s) | 0.2l/s |
| **2055 Development Details** | | | | | | | | | |
| **CS-X-01** | N/A | 43 | 43 | N/A | 0.1 | 0.1 | N/A | 0.0 | 0.0 |
| **CS-RD** | N/A | 406 | 583 | N/A | 0.9 | 1.3 | N/A | 0.1 | 0.2 |
| Totals | N/A | 449 | 626 (+177) | N/A | 1.0l/s | 1.4l/s (+0.4l/s) | N/A | 0.1l/s | 0.2l/s (0.1l/s) |

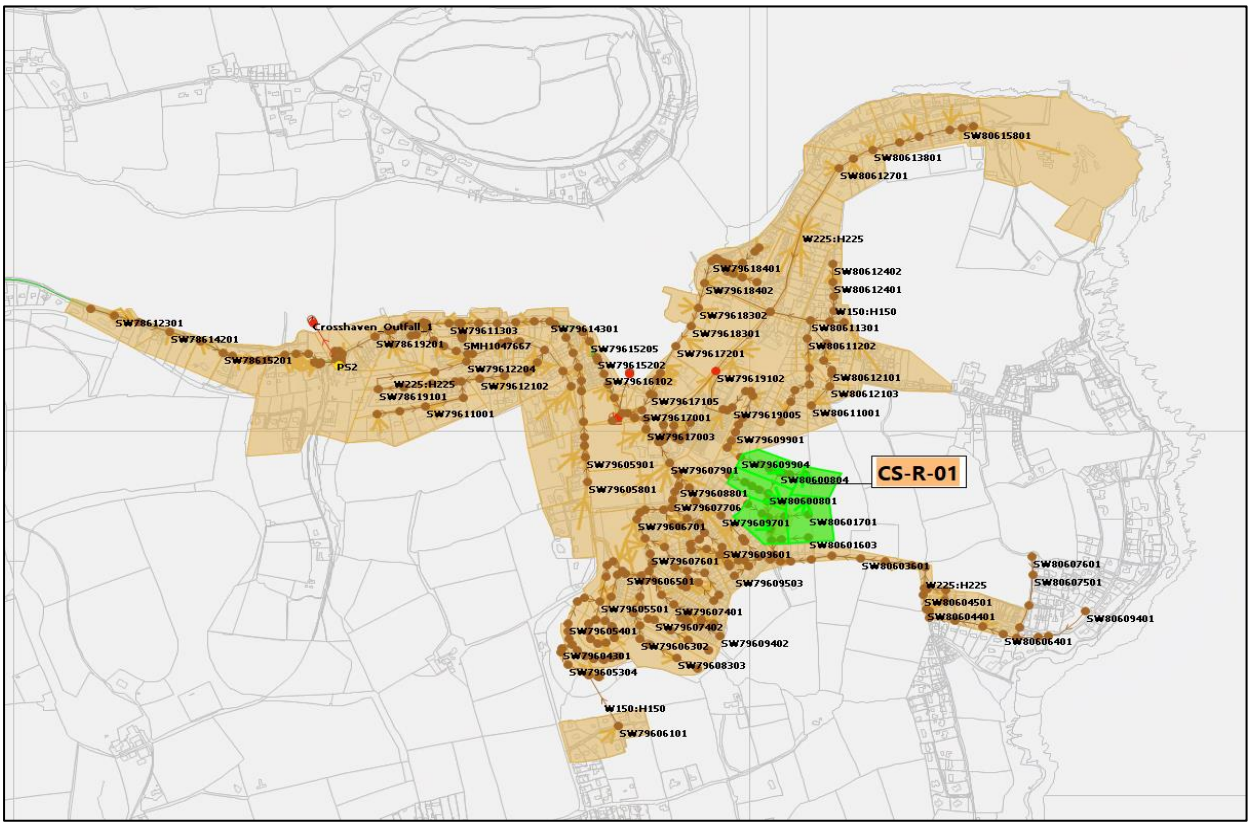



Figure 15: Development updates for Crosshaven 2030.

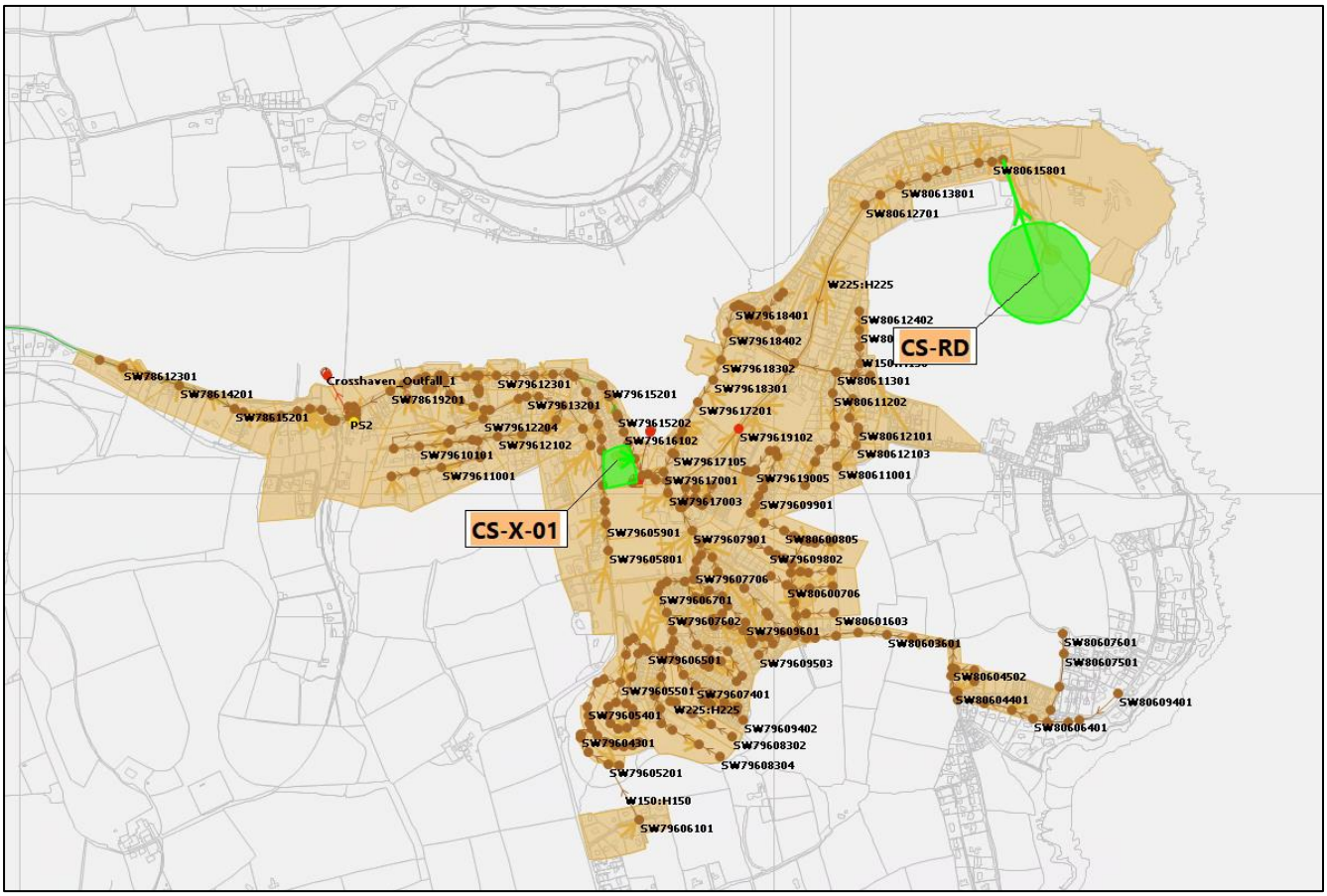



Figure 16: Development updates for Crosshaven 2055.

Table 7: Development Updates for Passage West and Monkstown.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| 2030 Development Details | | | | | | | | | |
| P040A | 300 | 300 | 300 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| P117 | 137 | 137 | 137 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| P130 | 83 | 83 | 83 | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| P131 | 146 | 146 | 146 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 |
| PW-R-02 | 270 | 473 | 473 | 0.6 | 1.0 | 1.0 | 0.1 | 0.2 | 0.2 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **PW-RAP-01** | 113 | 197 | 197 | 0.2 | 0.4 | 0.4 | 0.0 | 0.1 | 0.1 |
| **PW-RAP-03** | 19 | 154 | 154 | 0.0 | 0.3 | 0.3 | 0.0 | 0.1 | 0.1 |
| Totals | 1,068 | 1,490 (+422) | 1,490 | 2.3/s | 3.2l/s (+0.9l/s) | 3.2l/s | 0.3l/s | 0.6l/s (+0.3l/s) | 0.6l/s |
| **2055 Development Details** | | | | | | | | | |
| **PW-RD** | N/A | 1,082 | 2,181 | N/A | 2.4 | 4.8 | N/A | 0.4 | 0.8 |
| Totals | N/A | 1,082 | 2,181 (+1,099) | N/A | 2.4l/s | 4.8l/s (+2.4l/s) | N/A | 0.4l/s | 0.8l/s (0.4l/s) |

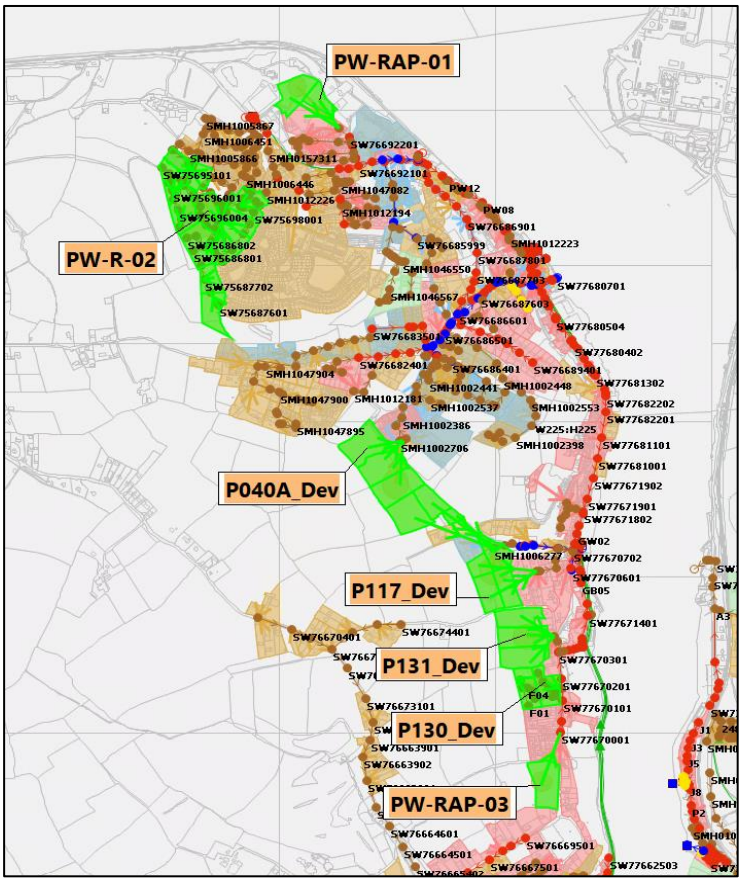



Figure 17: Development updates for Passage West and Monkstown 2030.

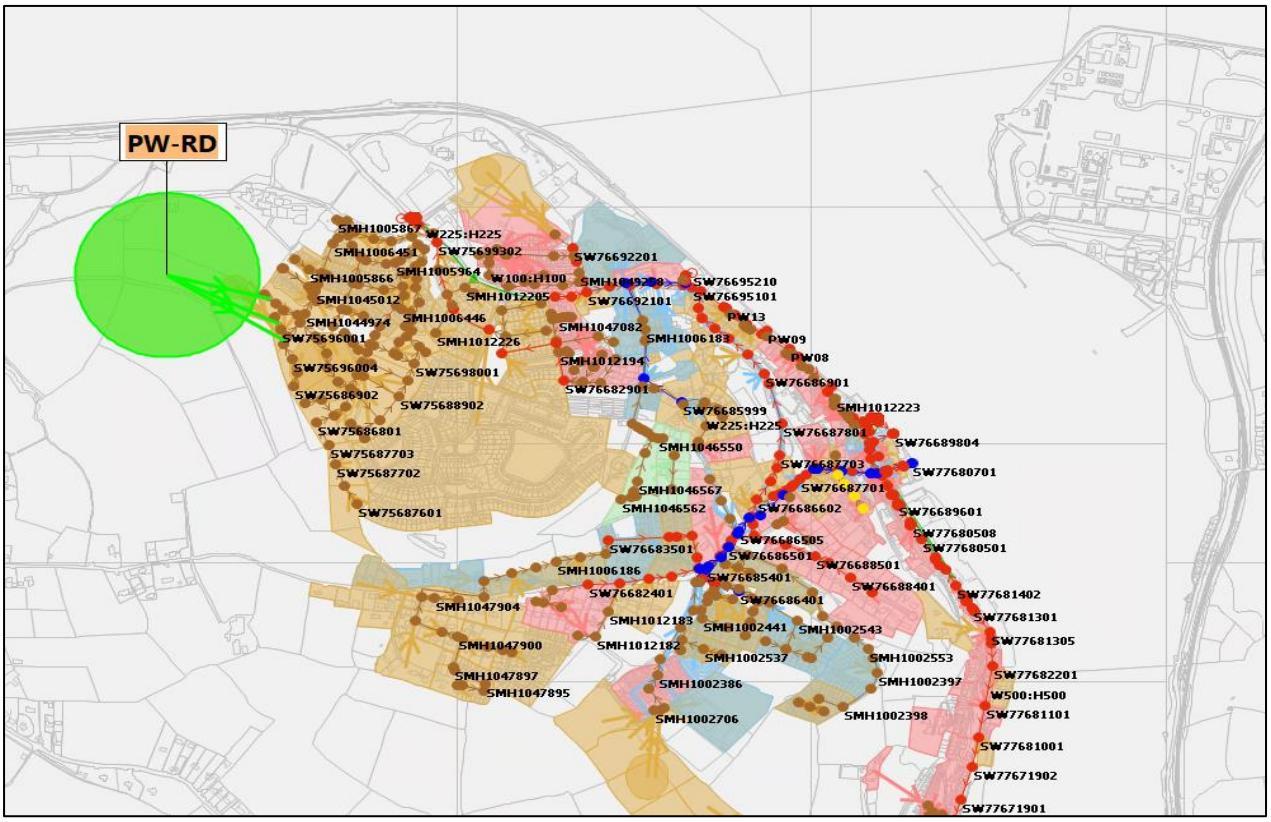



Figure 18: Development updates for Passage West and Monkstown 2055.

Table 8: Development Updates for Shanbally & Ringaskiddy.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| **Zoning ID** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** | **2030** | **2055** | **2080** |
| **2030 Development Details** | | | | | | | | | |
| **RY-T-01** | 28 | 80 | 129 | 0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 |
| **RY-T-04** | 143 | 257 | 265 | 0.3 | 0.6 | 0.6 | 0.1 | 0.1 | 0.1 |
| Totals | 171 | 227 (+166) | 394 (+57) | 0.4l/s | 0.8l/s (+0.4l/s) | 0.9l/s (+0.1l/s) | 0.1l/s | 0.1l/s | 0.1l/s |

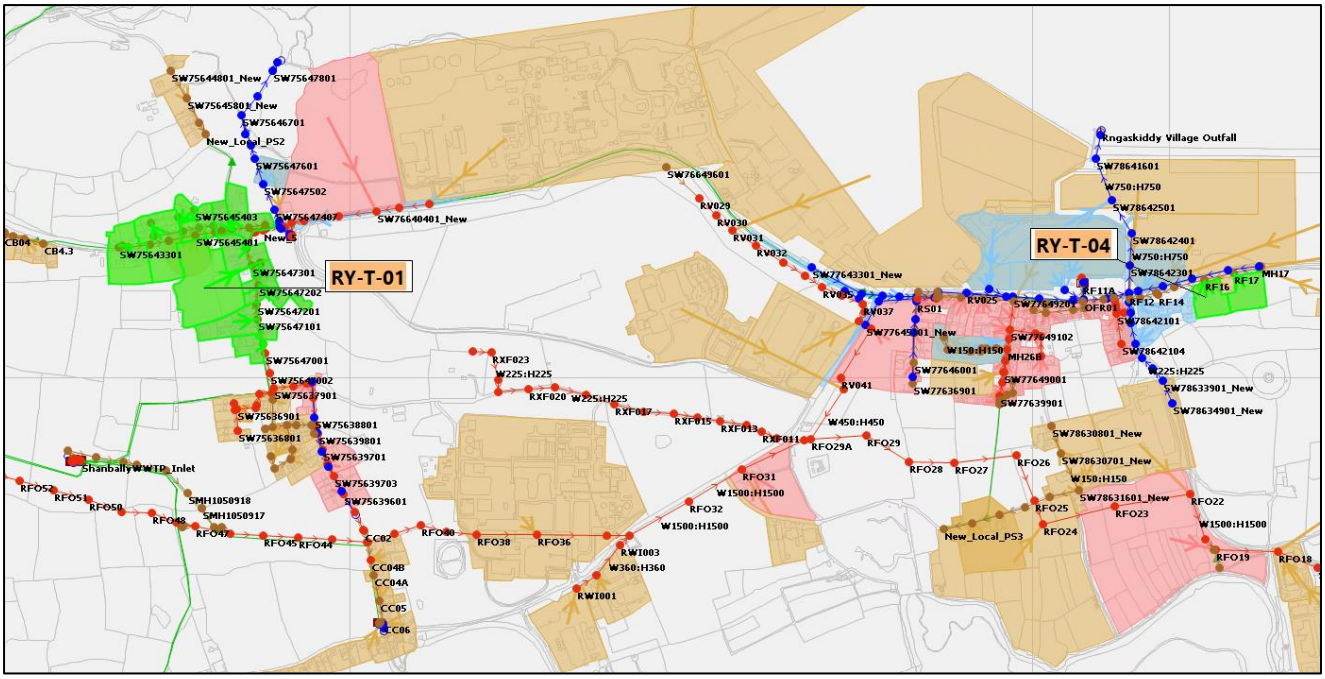



Figure 19: Development updates for Shanbally & Ringaskiddy 2030.

## 3. Ballincollig Development Details

Table 9: Development Updates for Ballincollig.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| BG-R-01 | 1,116 | 1,116 | 1,116 | 2.5 | 2.5 | 2.5 | 0.4 | 0.4 | 0.4 |
| BG-R-03 | 1,382 | 1,382 | 1,382 | 3.0 | 3.0 | 3.0 | 0.5 | 0.5 | 0.5 |
| BG-R-02 | 1,498 | 1,498 | 1,498 | 3.3 | 3.3 | 3.3 | 0.5 | 0.5 | 0.5 |
| BG-DAP-R035 | 200 | 200 | 200 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| BG-DAP-R08 | 662 | 662 | 662 | 1.5 | 1.5 | 1.5 | 0.2 | 0.2 | 0.2 |
| BG-MU-01 | 1,342 | 1,342 | 1,342 | 3.0 | 3.0 | 3.0 | 0.5 | 0.5 | 0.5 |
| BG-R-04 | 403 | 403 | 403 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |
| BG-R-05 | 175 | 175 | 175 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Totals | 6,778 | 6,778 | 6,778 | 15l/s | 15l/s | 15l/s | 2.4l/s | 2.4l/s | 2.4l/s |
| **2055 Updates** | | | | | | | | | |
| **BG-LT-01** | N/A | 0 | 0 | N/A | 0 | 0 | N/A | 0.2 | 0.2 |
| **BG-LT-02** | N/A | 0 | 0 | N/A | 0 | 0 | N/A | 0.1 | 0.1 |
| Totals | **N/A** | **0** | **0** | **N/A** | **0** | **0** | **N/A** | **0.3l/s** | **0.3l/s** |

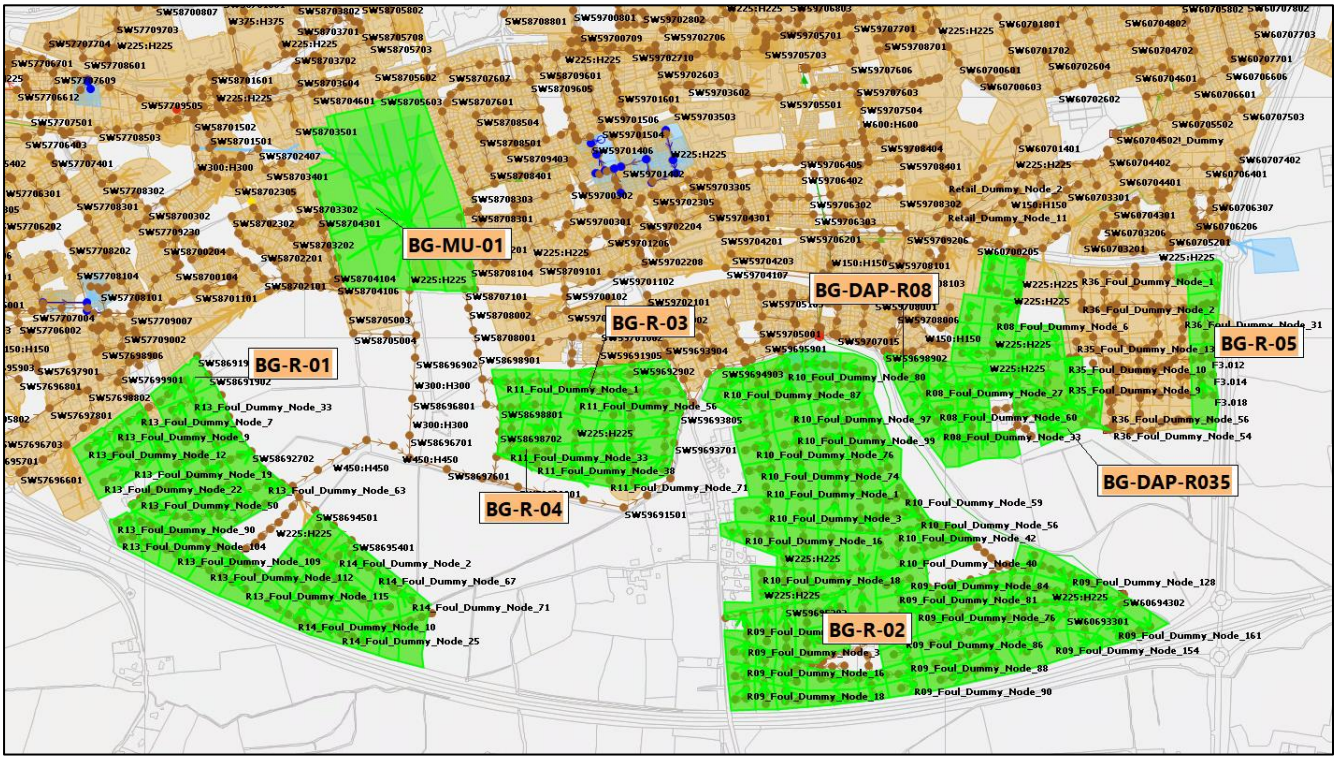



Figure 20: Development updates for Ballincollig 2030.

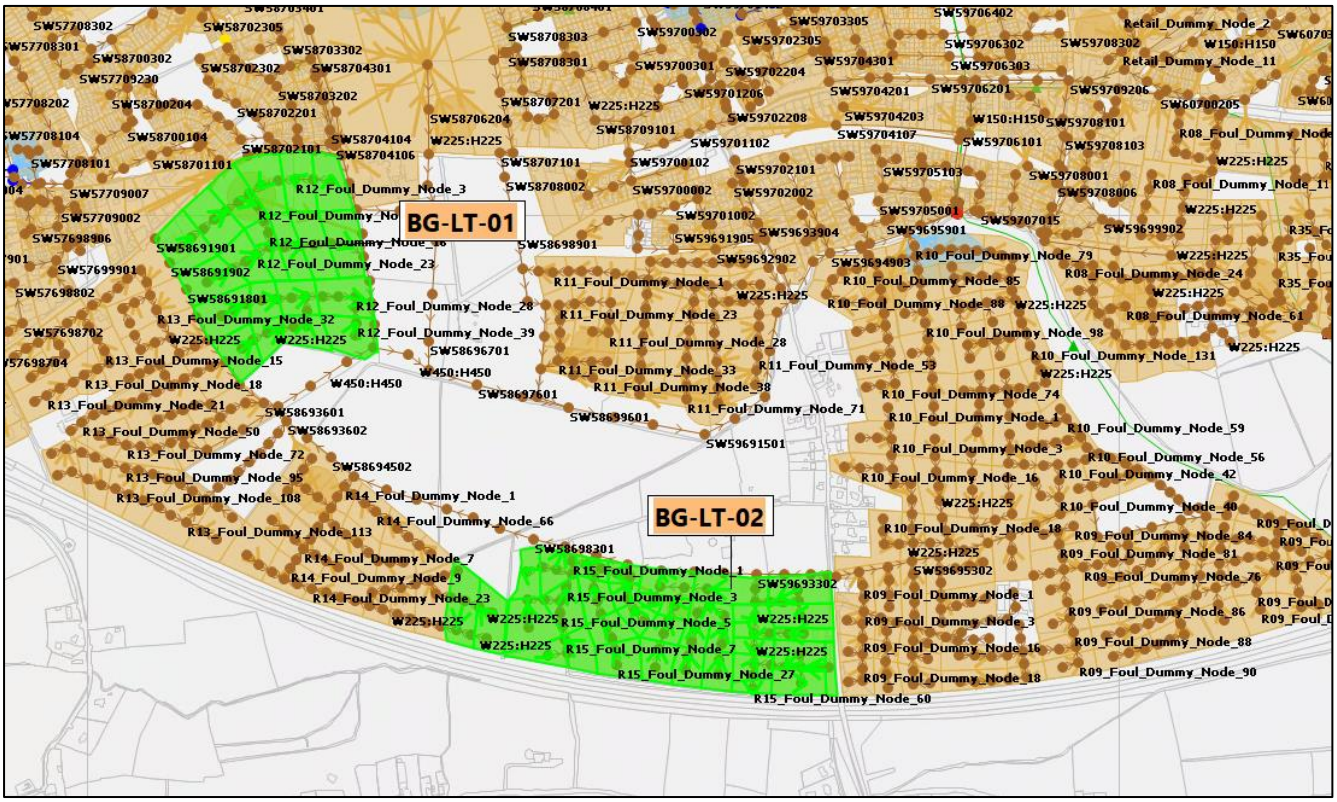



Figure 21: Development updates for Ballincollig 2055.

## 4. Carrigtwohill Development Details

Table 10: Development Updates for Carrigtwohill.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| CT-R-11 | 405 | 405 | 405 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |
| CT-R-02 | 165 | 165 | 165 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| CT-R-04 | 925 | 925 | 925 | 2.0 | 2.0 | 2.0 | 0.3 | 0.3 | 0.3 |
| CT-R-06 | 543 | 543 | 543 | 1.2 | 1.2 | 1.2 | 0.2 | 0.2 | 0.2 |
| CT-R-07 | 555 | 555 | 555 | 1.2 | 1.2 | 1.2 | 0.2 | 0.2 | 0.2 |
| CT-R-03 | 396 | 396 | 396 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **CT-R-01** | 1755 | 1755 | 1755 | 3.9 | 3.9 | 3.9 | 0.6 | 0.6 | 0.6 |
| **CT-RAP-15** | 200 | 397 | 397 | 0.4 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |
| Totals | 4,944 | 5,141 (+197) | 5,141 | 10.9/s | 11.4l/s (+0.5l/s) | 11.4l/s | 1.7/s | 1.7l/s | 1.7l/s |
| **2055 Development Details** | | | | | | | | | |
| **CT-RAP-18** | N/A | 178 | 178 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| **CT-RFAP-05** | N/A | 616 | 616 | N/A | 1.4 | 1.4 | N/A | 0.2 | 0.2 |
| **CT-RFAP-09** | N/A | 212 | 667 | N/A | 0.5 | 1.5 | N/A | 0.1 | 0.2 |
| **CT-RFAP-08** | N/A | 1069 | 1069 | N/A | 2.3 | 2.3 | N/A | 0.4 | 0.4 |
| Totals | N/A | 2,075 | 2,530 (+455) | N/A | 4.6l/s | 5.6l/s (+1.0l/s) | N/A | 0.8/s | 0.9l/s (0.1l/s) |
| **2080 Development Details** | | | | | | | | | |
| **CT-RFAP-10** | N/A | N/A | 254 | N/A | N/A | 0.6 | N/A | N/A | 0.1 |
| **CT-RFAP-12** | N/A | N/A | 635 | N/A | N/A | 1.4 | N/A | N/A | 0.2 |
| Totals | N/A | N/A | 889 | N/A | N/A | 2.0l/s | N/A | N/A | 0.3l/s |

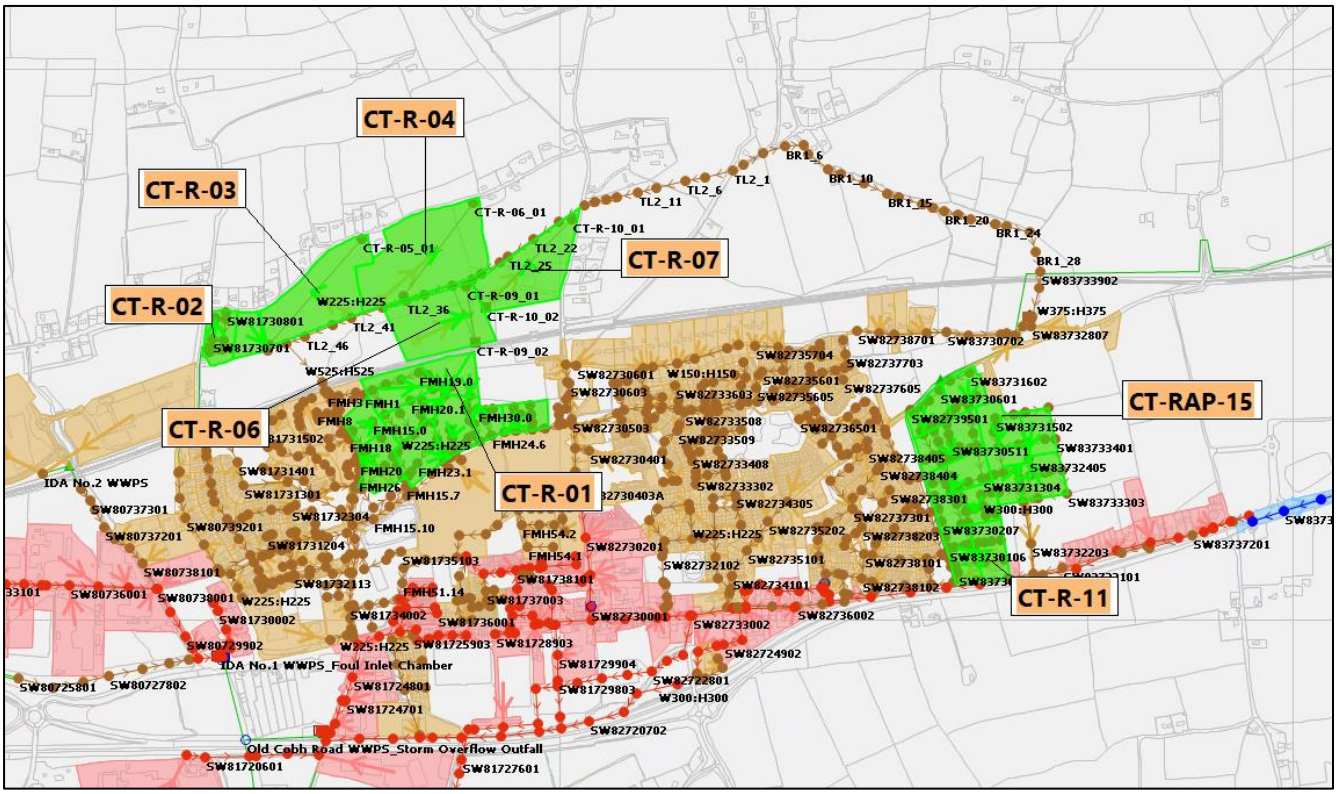



Figure 22: Development updates for Carrigtwohill 2030.

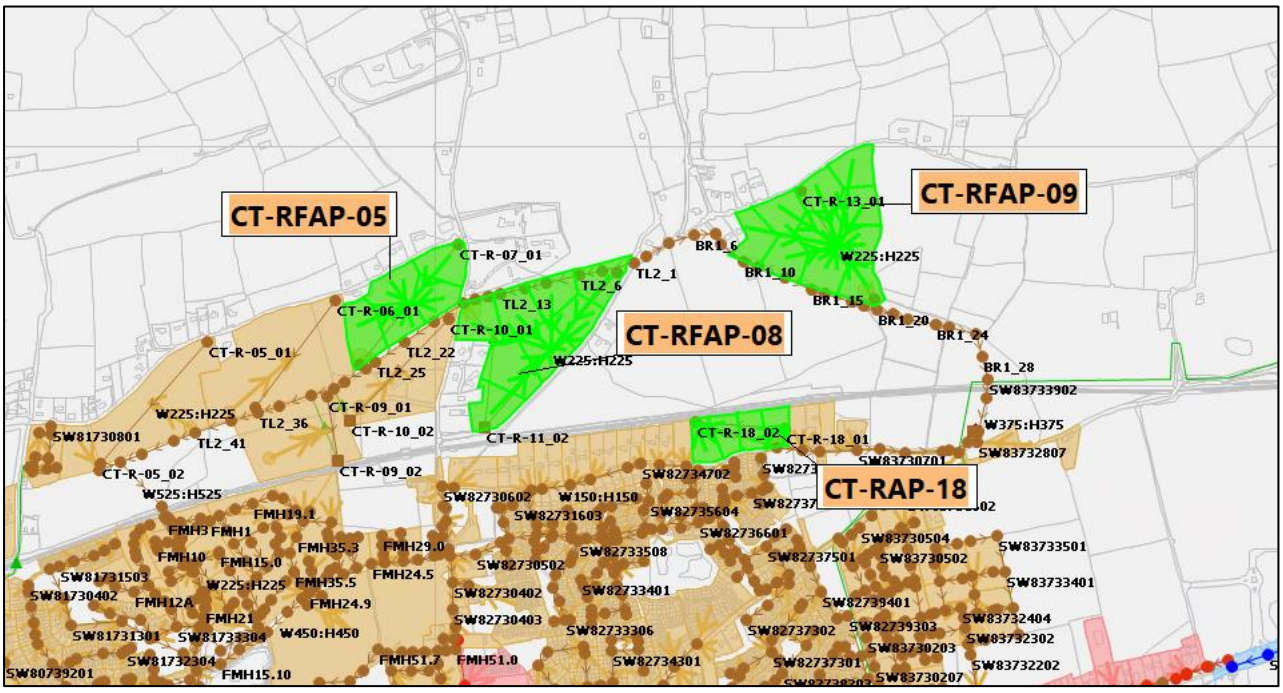



Figure 23: Development updates for Carrigtwohill 2055.

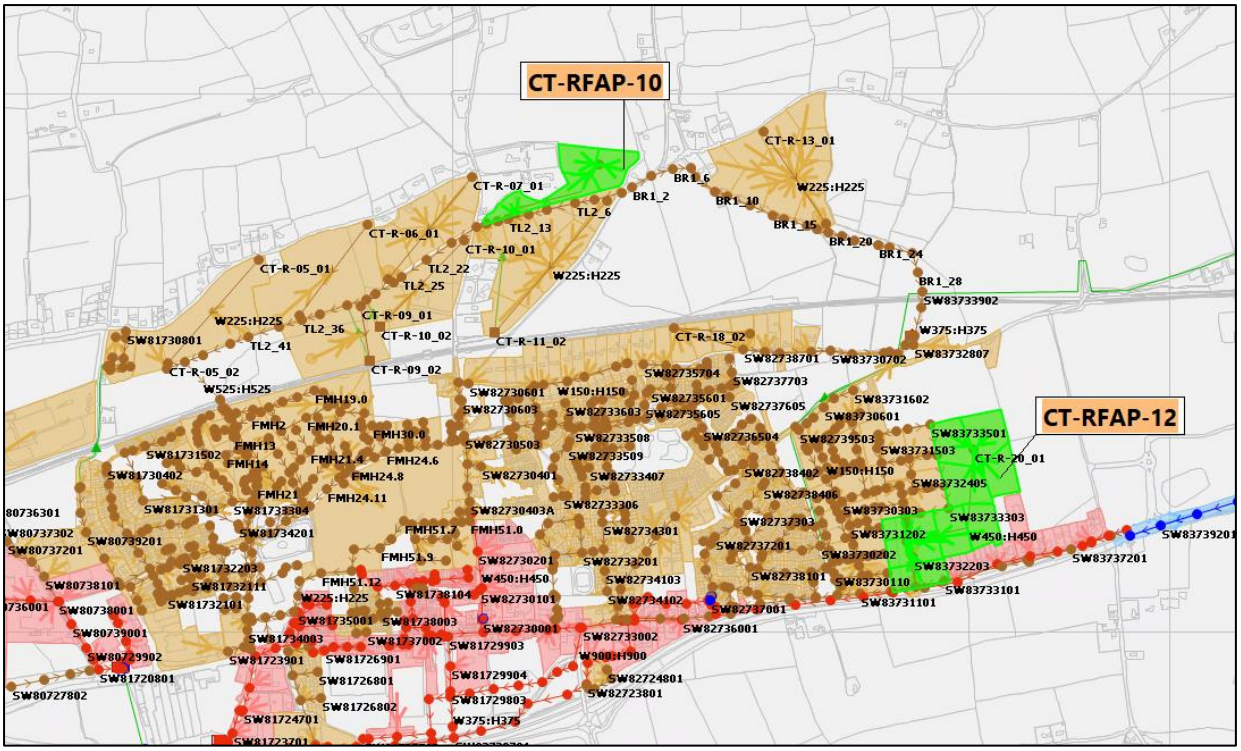



Figure 24: Development updates for Carrigtwohill 2080.

## 5. Midleton Development Details

Table 11: Development Updates for Midleton.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| MD-R-06 | 761 | 761 | 761 | 1.7 | 1.7 | 1.7 | 0.3 | 0.3 | 0.3 |
| MD-R-10 | 434 | 643 | 751 | 1.0 | 1.4 | 1.7 | 0.2 | 0.2 | 0.3 |
| MD-R-08 | 810 | 810 | 810 | 1.8 | 1.8 | 1.8 | 0.3 | 0.3 | 0.3 |
| MD-R-07 | 775 | 775 | 775 | 1.7 | 1.7 | 1.7 | 0.3 | 0.3 | 0.3 |
| MD-R-04 | 1,347 | 1,347 | 1,566 | 3.0 | 3.0 | 3.4 | 0.5 | 0.5 | 0.6 |
| MD-R-05 | 392 | 392 | 459 | 0.9 | 0.9 | 1.0 | 0.1 | 0.1 | 0.2 |
| MD-R-03 | 197 | 197 | 230 | 0.4 | 0.4 | 0.5 | 0.1 | 0.1 | 0.1 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| MD-R-01 | 259 | 259 | 302 | 0.6 | 0.6 | 0.7 | 0.1 | 0.1 | 0.1 |
| MD-R-02 | 678 | 678 | 788 | 1.5 | 1.5 | 1.7 | 0.2 | 0.2 | 0.3 |
| R02_1 | 17.02 | 17.02 | 17.02 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_2 | 10.42 | 10.42 | 10.42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_3 | 10.68 | 10.68 | 10.68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_4 | 8.6 | 8.6 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_5 | 12.85 | 12.85 | 12.85 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_6 | 10.94 | 10.94 | 10.94 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R02_7 | 11.38 | 11.38 | 11.38 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_1 | 23.53 | 23.53 | 23.53 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R05_10 | 6.22 | 6.22 | 6.22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_11 | 27.5 | 27.5 | 27.5 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R05_12 | 35.97 | 35.97 | 35.97 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R05_13 | 10.43 | 10.43 | 10.43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_14 | 8.06 | 8.06 | 8.06 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_15 | 15.05 | 15.05 | 15.05 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_2 | 16.24 | 16.24 | 16.24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_3 | 20.33 | 20.33 | 20.33 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_4 | 17.48 | 17.48 | 17.48 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_5 | 7.82 | 7.82 | 7.82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| R05_6 | 14.28 | 14.28 | 14.28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_7 | 19.32 | 19.32 | 19.32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_8 | 11.73 | 11.73 | 11.73 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R05_9 | 9.01 | 9.01 | 9.01 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R32_1 | 19.43 | 19.43 | 19.43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R32_2 | 22.37 | 22.37 | 22.37 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R32_3 | 18.19 | 18.19 | 18.19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R32_4 | 29.72 | 29.72 | 29.72 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R32_5 | 23.05 | 23.05 | 23.05 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R32_6 | 37.51 | 37.51 | 37.51 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R32_7 | 27.17 | 27.17 | 27.17 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R34_1 | 13.43 | 13.43 | 13.43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R34_2 | 15.84 | 15.84 | 15.84 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R34_3 | 45.76 | 45.76 | 45.76 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R34_4 | 17.32 | 17.32 | 17.32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R34_5 | 19.64 | 19.64 | 19.64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R35_1 | 39.05 | 39.05 | 39.05 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R35_10 | 14.16 | 14.16 | 14.16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R35_2 | 38.83 | 38.83 | 38.83 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R35_3 | 23.46 | 23.46 | 23.46 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| R35_4 | 16.45 | 16.45 | 16.45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R35_5 | 21.38 | 21.38 | 21.38 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R35_6 | 25.17 | 25.17 | 25.17 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R35_7 | 34.61 | 34.61 | 34.61 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R35_8 | 17.88 | 17.88 | 17.88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R35_9 | 20.17 | 20.17 | 20.17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R36_1 | 21.89 | 21.89 | 21.89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R36_2 | 31.45 | 31.45 | 31.45 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| R36_3 | 17.9 | 17.9 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R39_1 | 13.27 | 13.27 | 13.27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R39_2 | 14.89 | 14.89 | 14.89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R39_3 | 13.54 | 13.54 | 13.54 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R39_4 | 15.63 | 15.63 | 15.63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| R40_1 | 8.22 | 8.22 | 8.22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Totals | 6,655 | 6,864 (+209) | 7,444 (+580) | 14l/s | 14.4l/s (+0.4l/s) | 15.6l/s (+1.2l/s) | 2.1l/s | 2.1l/s | 2.5l/s (+0.4l/s) |
| **2055 Developments** | | | | | | | | | |
| **MD-RAP-15** | N/A | 189 | 219 | N/A | 0.4 | 0.5 | N/A | 0.1 | 0.1 |
| **MD-R-16** | N/A | 551 | 637 | N/A | 1.2 | 1.4 | N/A | 0.2 | 0.2 |
| **MD-RFAP-20** | N/A | 421 | 489 | N/A | 0.9 | 1.1 | N/A | 0.1 | 0.2 |
| **MD-RFAP-09** | N/A | 143 | 167 | N/A | 0.3 | 0.4 | N/A | 0.1 | 0.1 |

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| MD-R-11 | N/A | 529 | 616 | N/A | 1.2 | 1.4 | N/A | 0.2 | 0.2 |
| MD-R-13 | N/A | 805 | 934 | N/A | 1.8 | 2.1 | N/A | 0.3 | 0.3 |
| MD-R-12 | N/A | 292 | 340 | N/A | 0.6 | 0.7 | N/A | 0.1 | 0.1 |
| MD-RAP-18 | N/A | 165 | 192 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| MD-RAP-17 | N/A | 281 | 324 | N/A | 0.6 | 0.7 | N/A | 0.1 | 0.1 |
| MD-R-24 | N/A | 58 | 94 | N/A | 0.1 | 0.2 | N/A | 0.0 | 0.0 |
| MD-R-14 | N/A | 162 | 189 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| MD-RFAP-19 | N/A | 248 | 289 | N/A | 0.5 | 0.6 | N/A | 0.1 | 0.1 |
| MD-RAP-21 | N/A | 699 | 810 | N/A | 1.5 | 1.8 | N/A | 0.2 | 0.3 |
| MD-RAP-22 | N/A | 142 | 167 | N/A | 0.3 | 0.4 | N/A | 0.0 | 0.1 |
| Totals | N/A | 4,685 | 5,467 (+782) | N/A | 10.2l/s | 12.1/s (+1.9l/s) | N/A | 1.7l/s | 2.0l/s (0.3l/s) |
| 2080 Developments | | | | | | | | | |
| MD-X-01 | N/A | N/A | 481 | N/A | N/A | 1.1 | N/A | N/A | 0.2 |
| MD-X-02 | N/A | N/A | 324 | N/A | N/A | 0.7 | N/A | N/A | 0.1 |
| MD-R-25 | N/A | N/A | 193 | N/A | N/A | 0.4 | N/A | N/A | 0.1 |
| MD-RR-01 | N/A | N/A | 292 | N/A | N/A | 0.6 | N/A | N/A | 0.1 |
| MD-R-26 | N/A | N/A | 832 | N/A | N/A | 1.8 | N/A | N/A | 0.3 |
| MD-RFAP-23 | N/A | N/A | 188 | N/A | N/A | 0.4 | N/A | N/A | 0.1 |
| Totals | N/A | N/A | 2,310 | N/A | N/A | 5.0l/s | N/A | N/A | 0.9l/s |

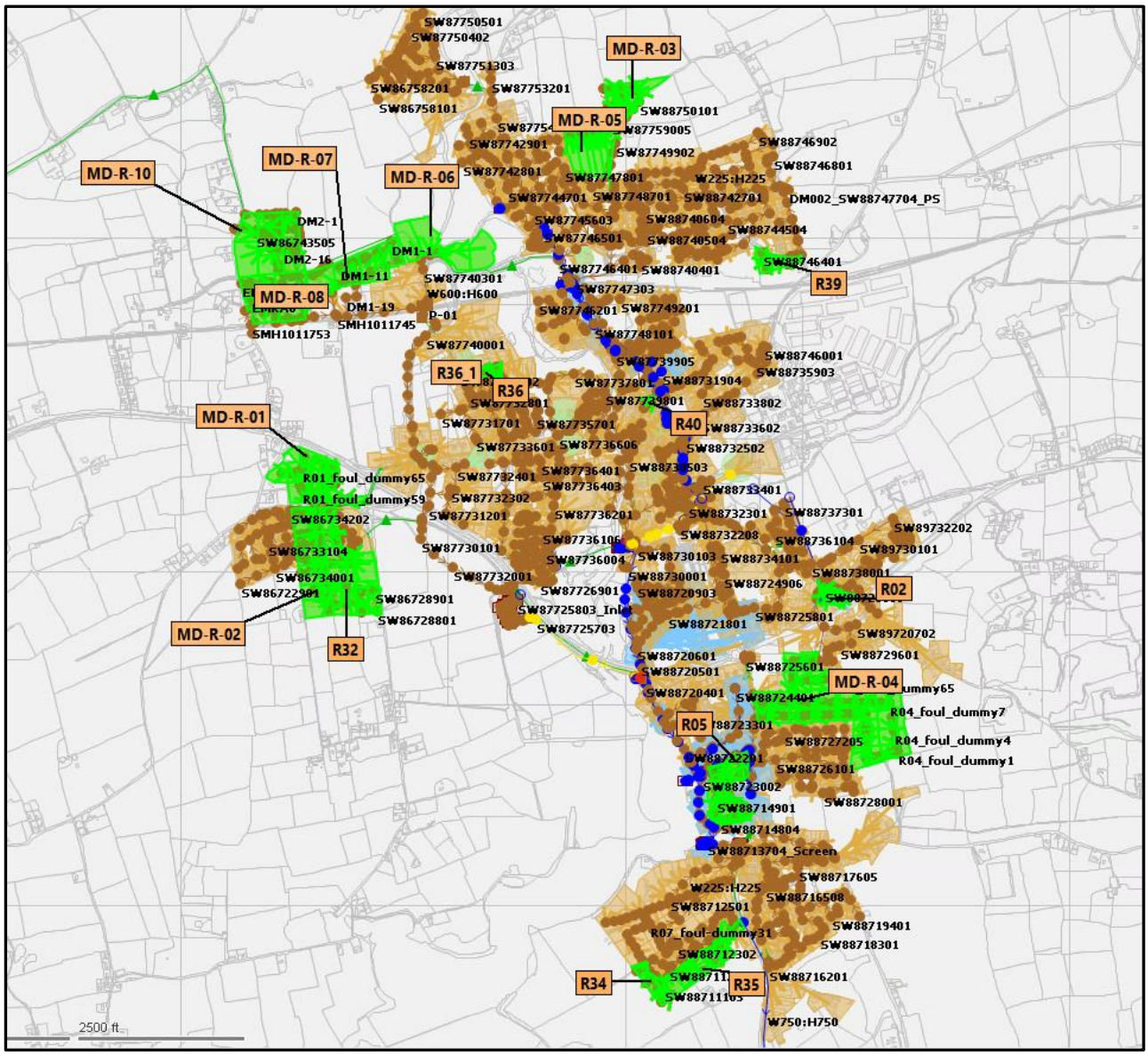



Figure 25: Development updates for Midleton 2030.

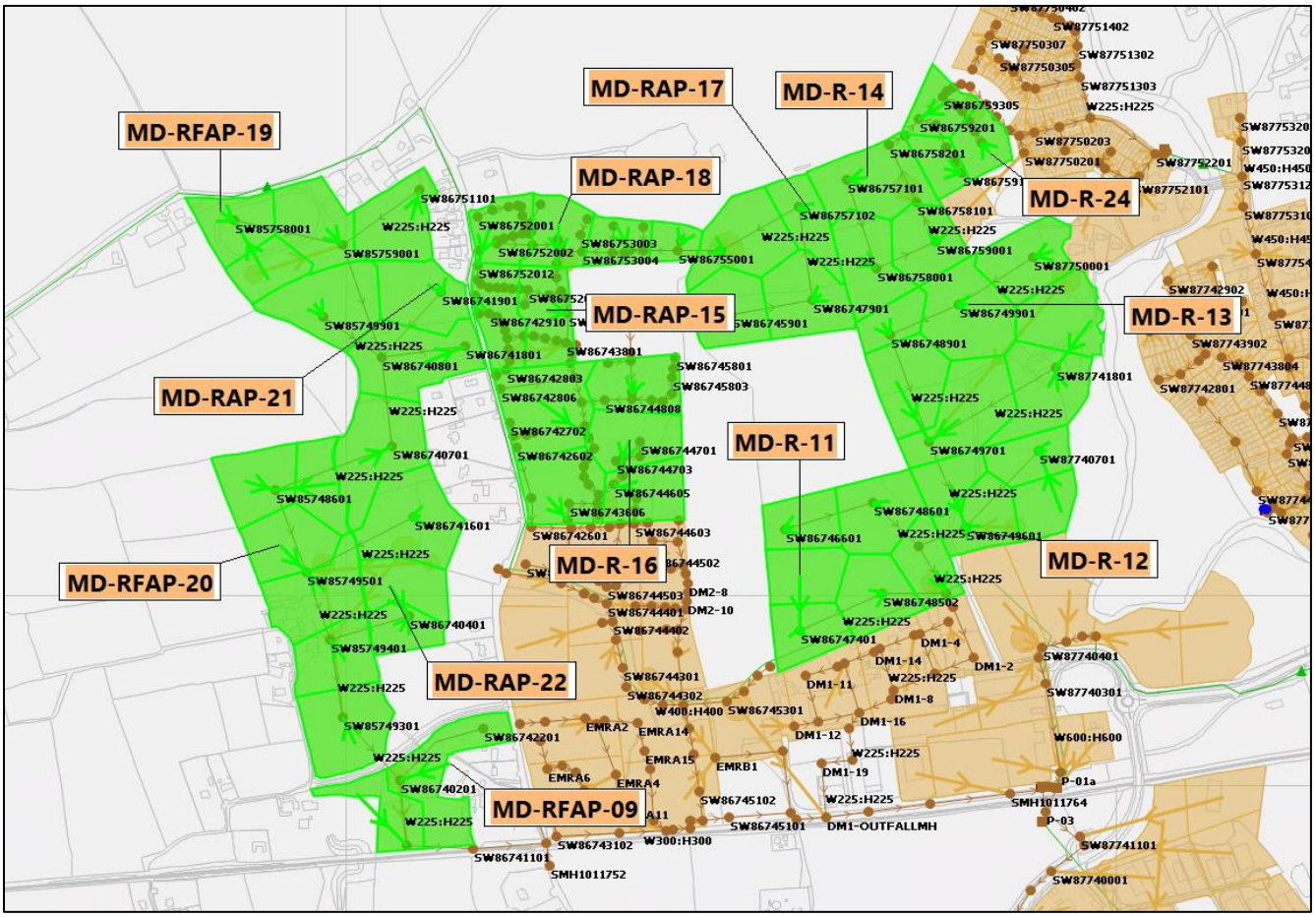



Figure 26: Development updates for Midleton 2055.

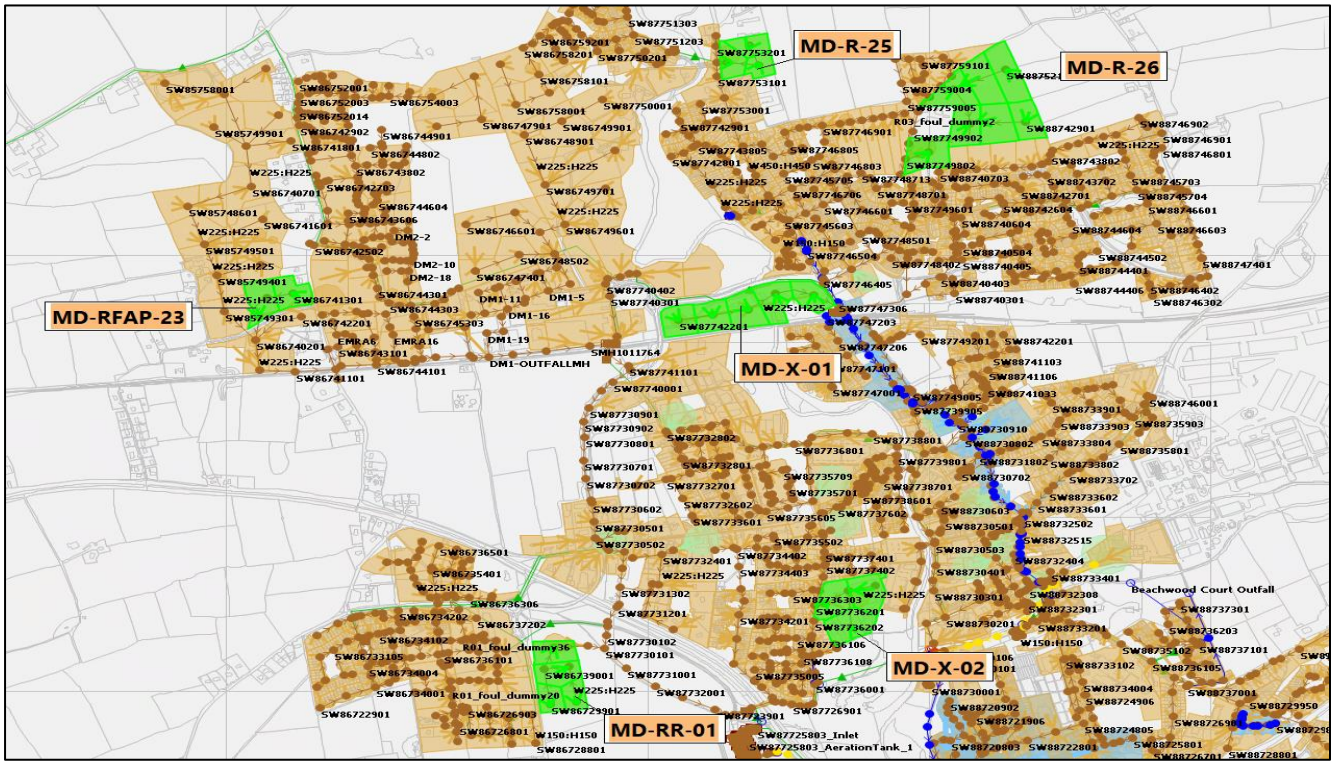



Figure 27: Development updates for Midleton 2080.

## 6. Cork Settlements Development Details

Table 12: Development Updates for Ballincurrig and Lisgoold.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| BC-RD | 20 | 122 | 128 | 0.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| LS-RD | 74 | 161 | 224 | 0.2 | 0.4 | 0.5 | 0.0 | 0.1 | 0.1 |
| Totals | 94 | 283 | 352 | 0.2l/s | 0.7l/s | 0.8l/s | 0.0l/s | 0.1l/s | 0.1l/s |

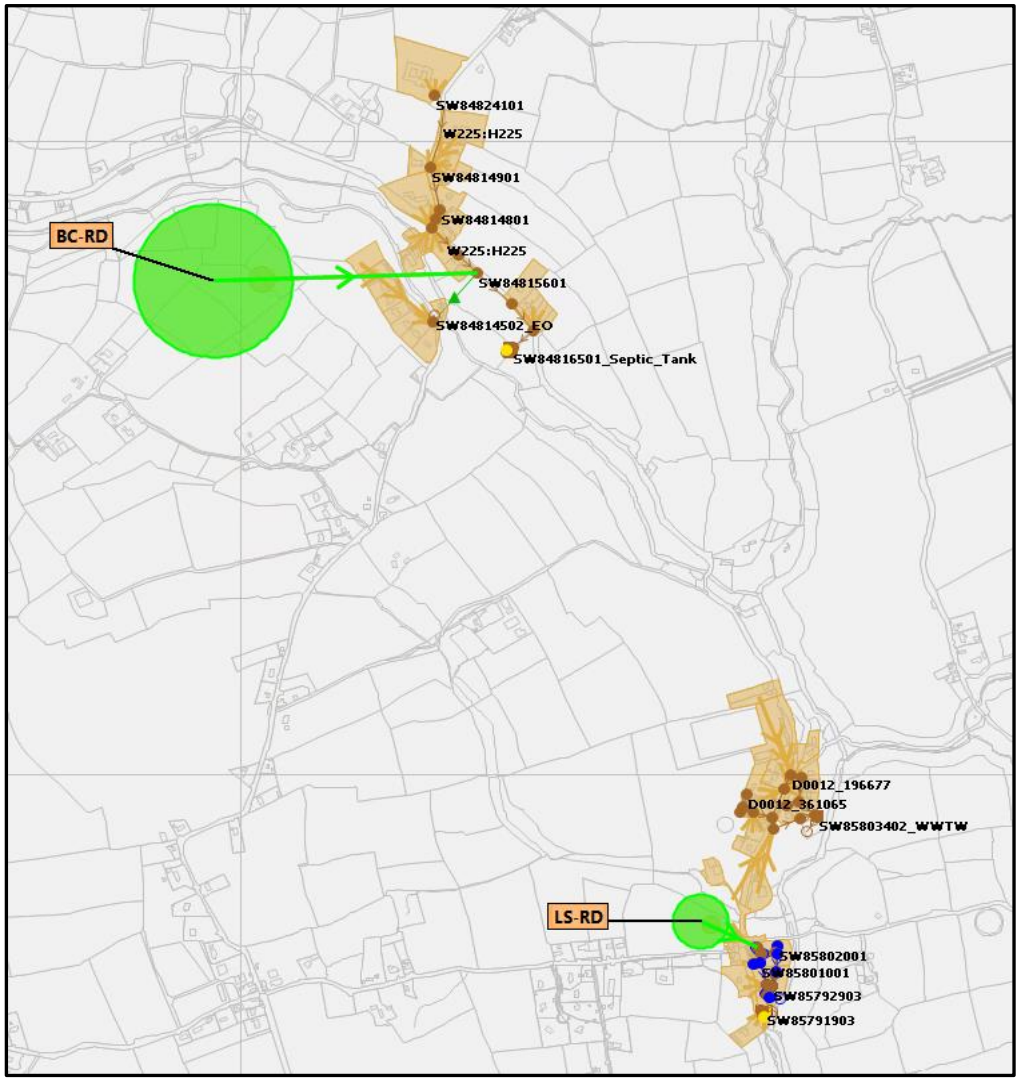



Figure 28: Development Updates for Ballincurrig and Lisgoold.

Table 13: Development Updates for Ballygarvan.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| Ballygarvan_X-01 | 141 | 253 | 353 | 0.3 | 0.6 | 0.8 | 0.0 | 0.1 | 0.1 |
| Totals | **141** | **253** | **353** | **0.3l/s** | **0.6l/s** | **0.8l/s** | **0.0l/s** | **0.1l/s** | **0.1l/s** |

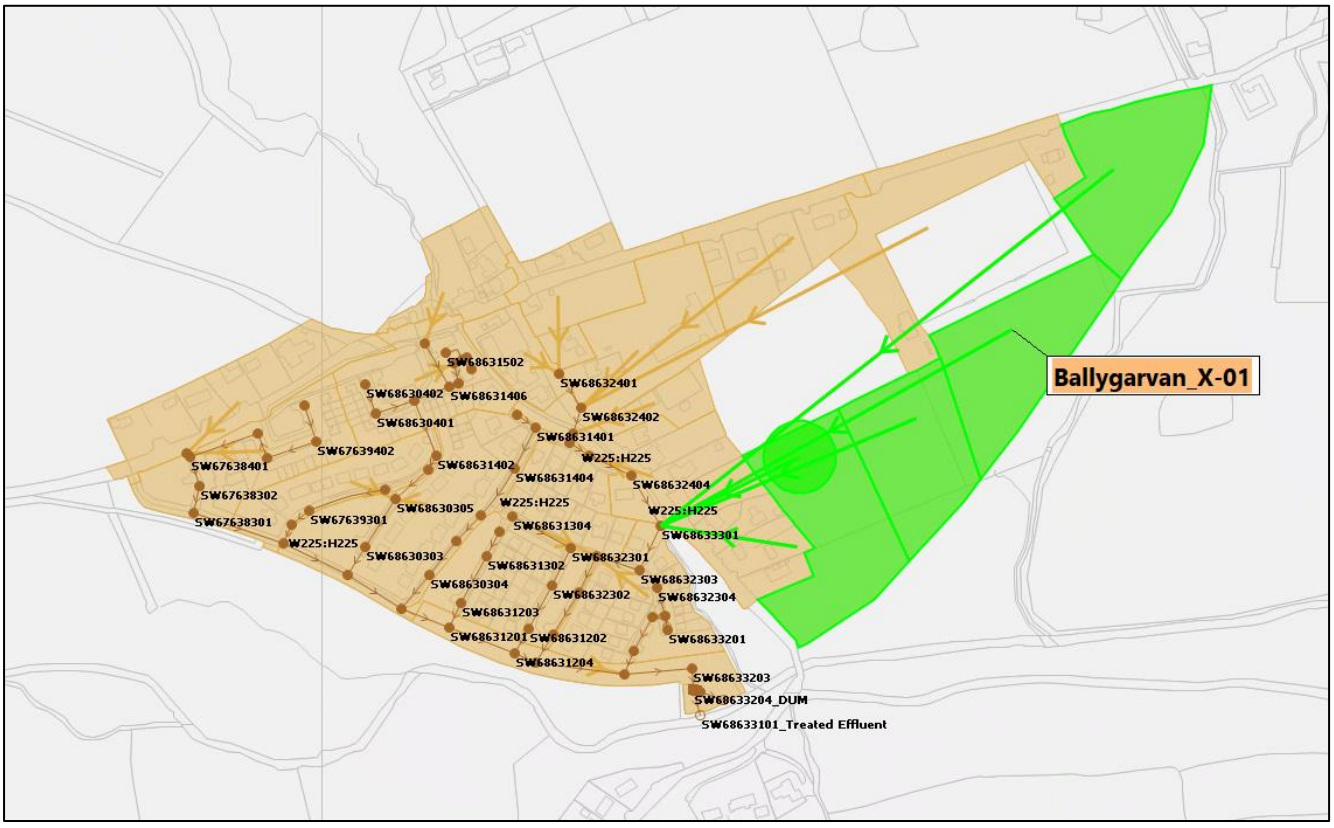



Figure 29: Development Updates for Ballygarvan.

Table 14: Development Updates for Ballymore.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |

| 2030 Development Details | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BM-RD | 23 | 67 | 108 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 |
| **Totals** | **23** | **67** | **108** | **0.1l/s** | **0.1l/s** | **0.2l/s** | **0.0l/s** | **0.0l/s** | **0.0l/s** |

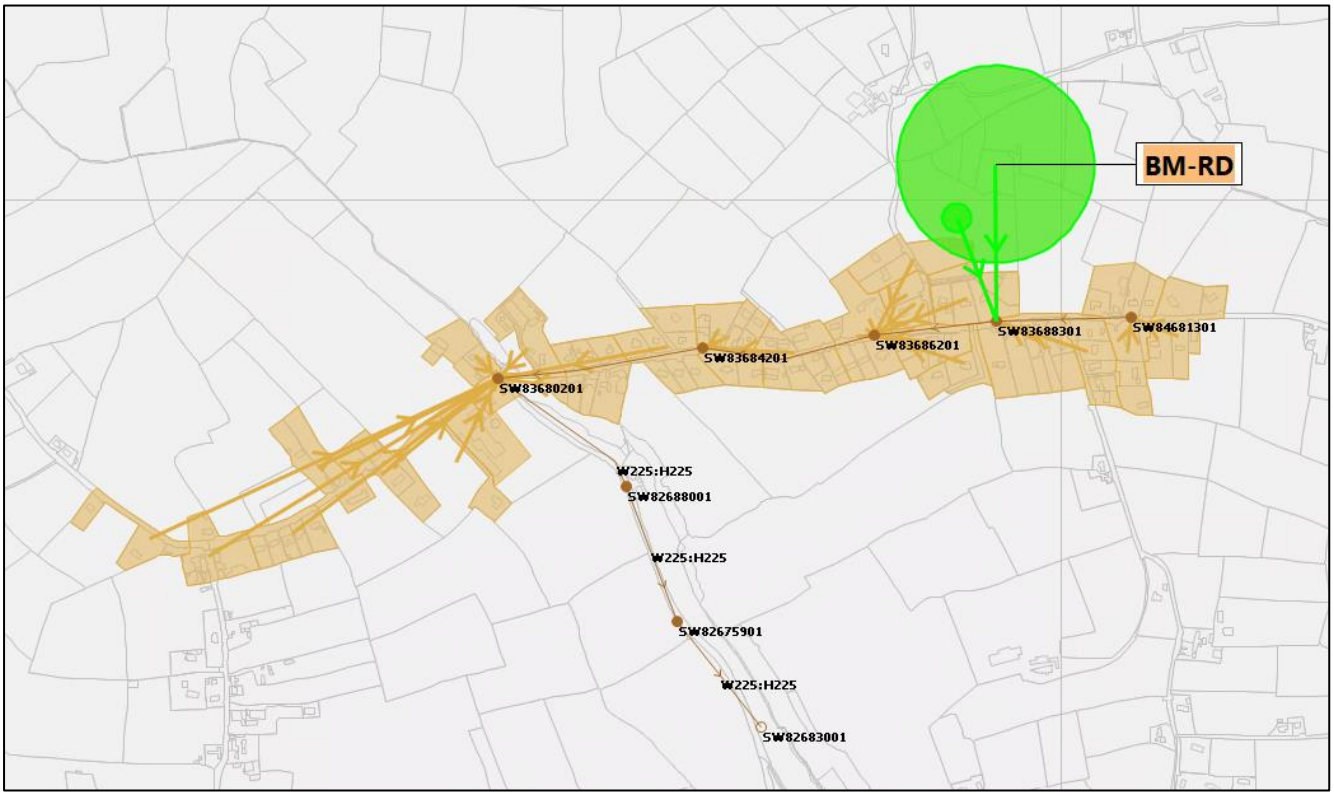



Figure 30: Development Updates for Ballymore.

Table 15: Development Updates for Berrings.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| BR-RD | 35 | 101 | 163 | 0.1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 |
| Totals | **35** | **101** | **163** | **0.1l/s** | **0.2l/s** | **0.4l/s** | **0.0l/s** | **0.0l/s** | **0.1l/s** |

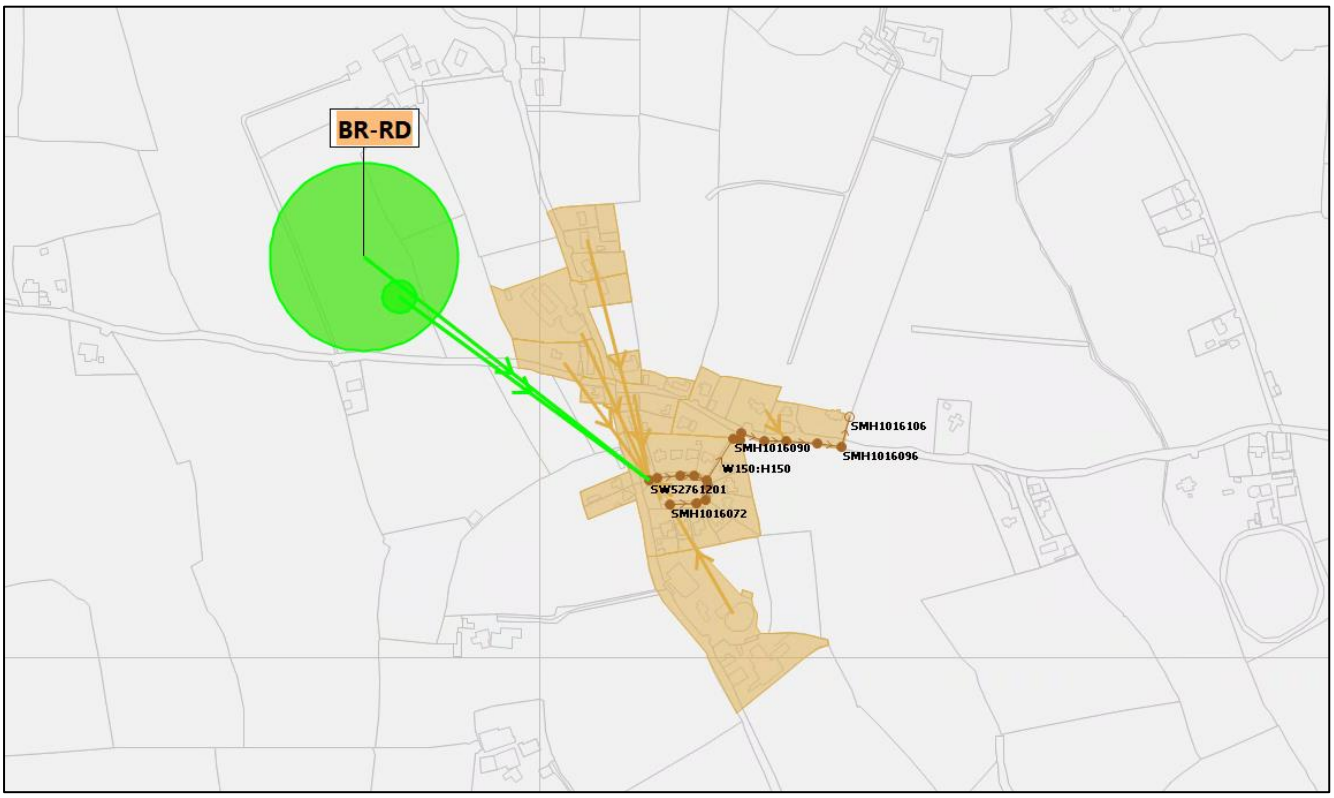



Figure 31: Development Updates for Berrings.

Table 16: Development Updates for Blarney and Kerry Pike.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| BL-R-05 | 702 | 1811 | 1811 | 1.5 | 4.0 | 4.0 | 0.2 | 0.6 | 0.6 |
| BL-R-03 | 356 | 356 | 356 | 0.8 | 0.8 | 0.8 | 0.1 | 0.1 | 0.1 |
| BL-R-02 | 657 | 657 | 657 | 1.4 | 1.4 | 1.4 | 0.2 | 0.2 | 0.2 |
| BL-R-01 | 1245 | 1245 | 1245 | 2.7 | 2.7 | 2.7 | 0.4 | 0.4 | 0.4 |
| BL-R-04 | 176 | 176 | 176 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| KP-R-01 | 109 | 244 | 244 | 0.2 | 0.5 | 0.5 | 0.0 | 0.1 | 0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TR-R-01 | 493 | 493 | 493 | 1.1 | 1.1 | 1.1 | 0.2 | 0.2 | 0.2 |
| TR-R-02 | 139 | 139 | 139 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| TR-LT-01 | 239 | 364 | 364 | 0.5 | 0.8 | 0.8 | 0.1 | 0.1 | 0.1 |
| Totals | 4,116 | 5,485 | 5,485 | 8.9l/s | 12.0l/s | 12.0l/s | 1.3l/s | 1.3l/s | 1.8l/s |
| 2055 Development Details | | | | | | | | | |
| **BL-LT-01** | N/A | 3682 | 5544 | N/A | 8.1 | 12.2 | N/A | 1.3 | 1.9 |
| **BL-USC-01** | N/A | 489 | 489 | N/A | 1.1 | 1.1 | N/A | 0.2 | 0.2 |
| **BL-MU-01** | N/A | 341 | 341 | N/A | 0.7 | 0.7 | N/A | 0.1 | 0.1 |
| **KerryPikeDummyRDZ** | N/A | 111 | 206 | N/A | 0.2 | 0.5 | N/A | 0.0 | 0.1 |
| **TowerDummyRDZ** | N/A | 1545 | 2109 | N/A | 3.4 | 4.6 | N/A | 0.5 | 0.7 |
| Totals | N/A | 6,168 | 8,689 (+1,521) | N/A | 13.5l/s | 19.1l/s (+5.6l/s) | N/A | 2.1l/s | 3.0l/s (0.9l/s) |

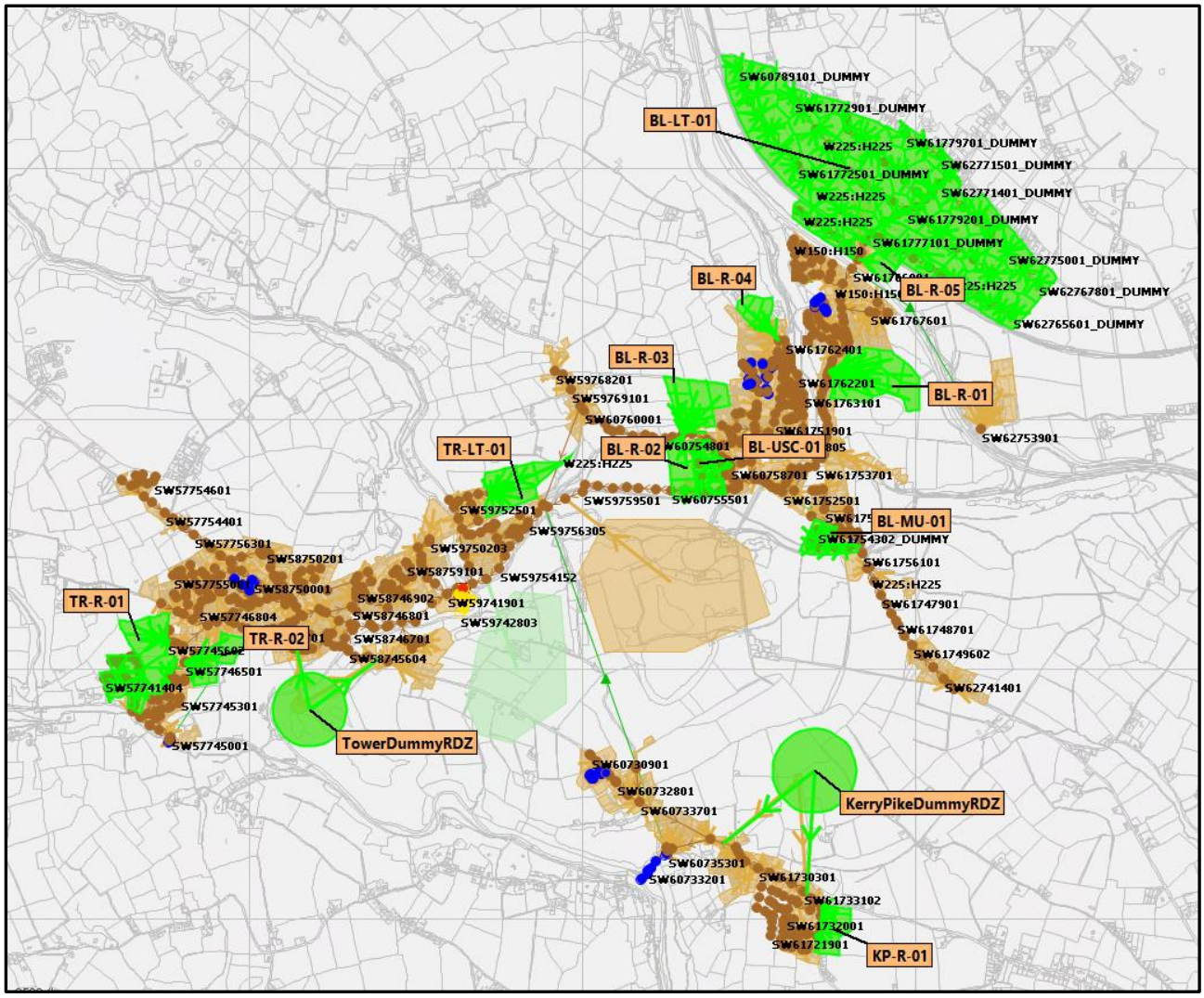



Figure 32: Development Updates for Blarney and Kerry Pike.

Table 17: Development Updates for Carrignavar.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| **CN-RD** | 117 | 265 | 372 | 0.3 | 0.6 | 0.8 | 0.0 | 0.1 | 0.1 |
| Totals | 117 | 265 (+148) | 372 (+107) | 0.3l/s | 0.6l/s (+0.3l/s) | 0.8l/s (+0.2l/s) | 0.0l/s | 0.1l/s (+0.1l/s) | 0.1l/s |

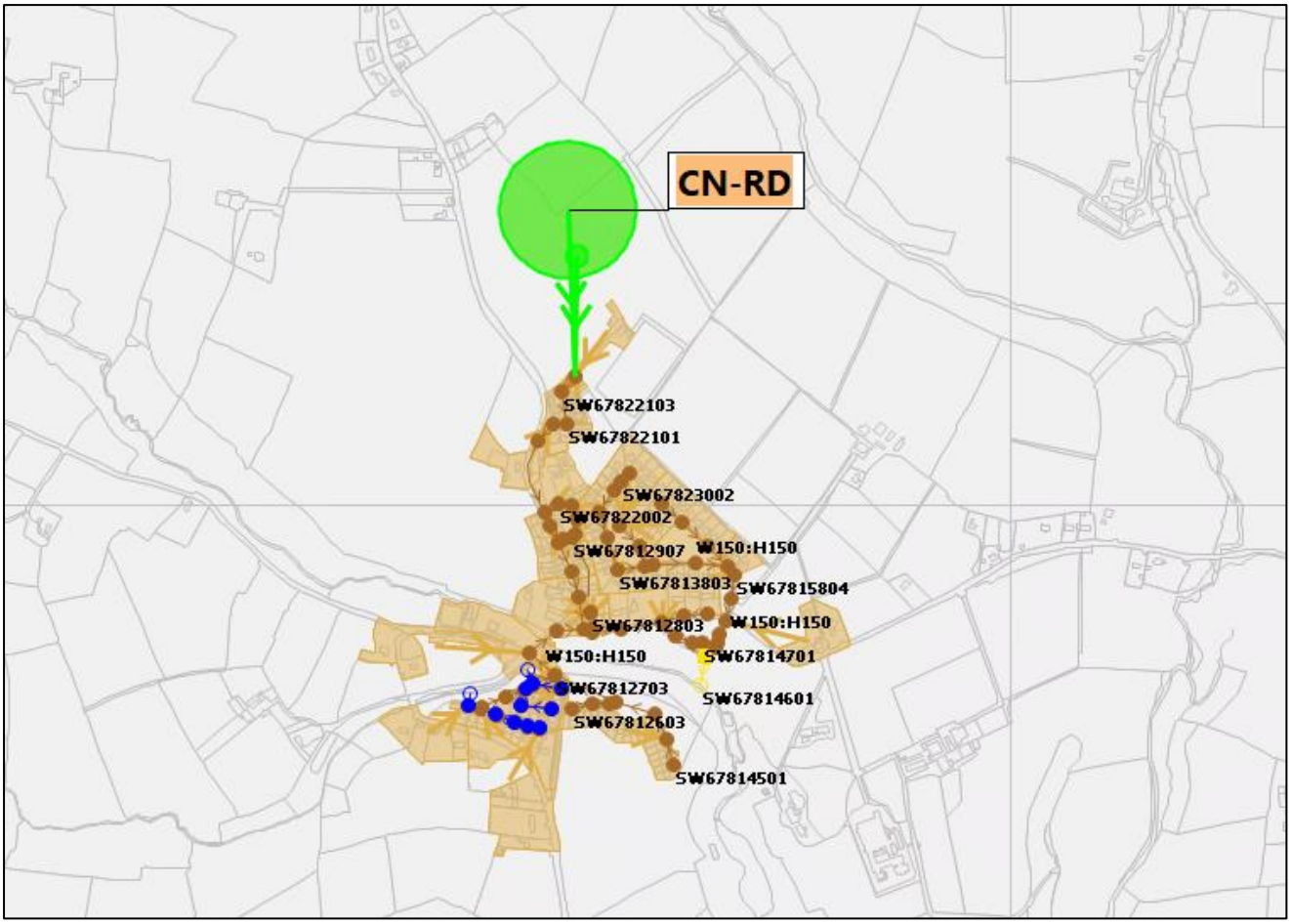



Figure 33: Development Updates for Carrignavar.

Table 18: Development Updates for Cloyne.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |
| **2030 Development Details** | | | | | | | | | |
| **CY-R-02** | 172 | 300 | 300 | 0.4 | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 |
| **CY-R-03** | 164 | 365 | 365 | 0.4 | 0.8 | 0.8 | 0.1 | 0.1 | 0.1 |
| **CY-RAP-01** | 95 | 165 | 165 | 0.2 | 0.4 | 0.4 | 0.0 | 0.1 | 0.1 |
| Totals | 431 | 830 | 830 | 1.0l/s | 1.9l/s | 1.9l/s | 0.2l/s | 0.3l/s | 0.3/s |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | (+399) | | | (+0.9l/s) | | | (+0.1l/s) | |
| **2055 Development Details** | | | | | | | | | |
| **CY-RD** | N/A | 62 | 411 | N/A | 0.1 | 0.9 | N/A | 0.0 | 0.1 |
| Totals | N/A | 62 | 411<br>(+349) | N/A | 0.1l/s | 0.9/s<br>(+0.8l/s) | N/A | 0.0/s | 0.1/s<br>(+0.1l/s) |

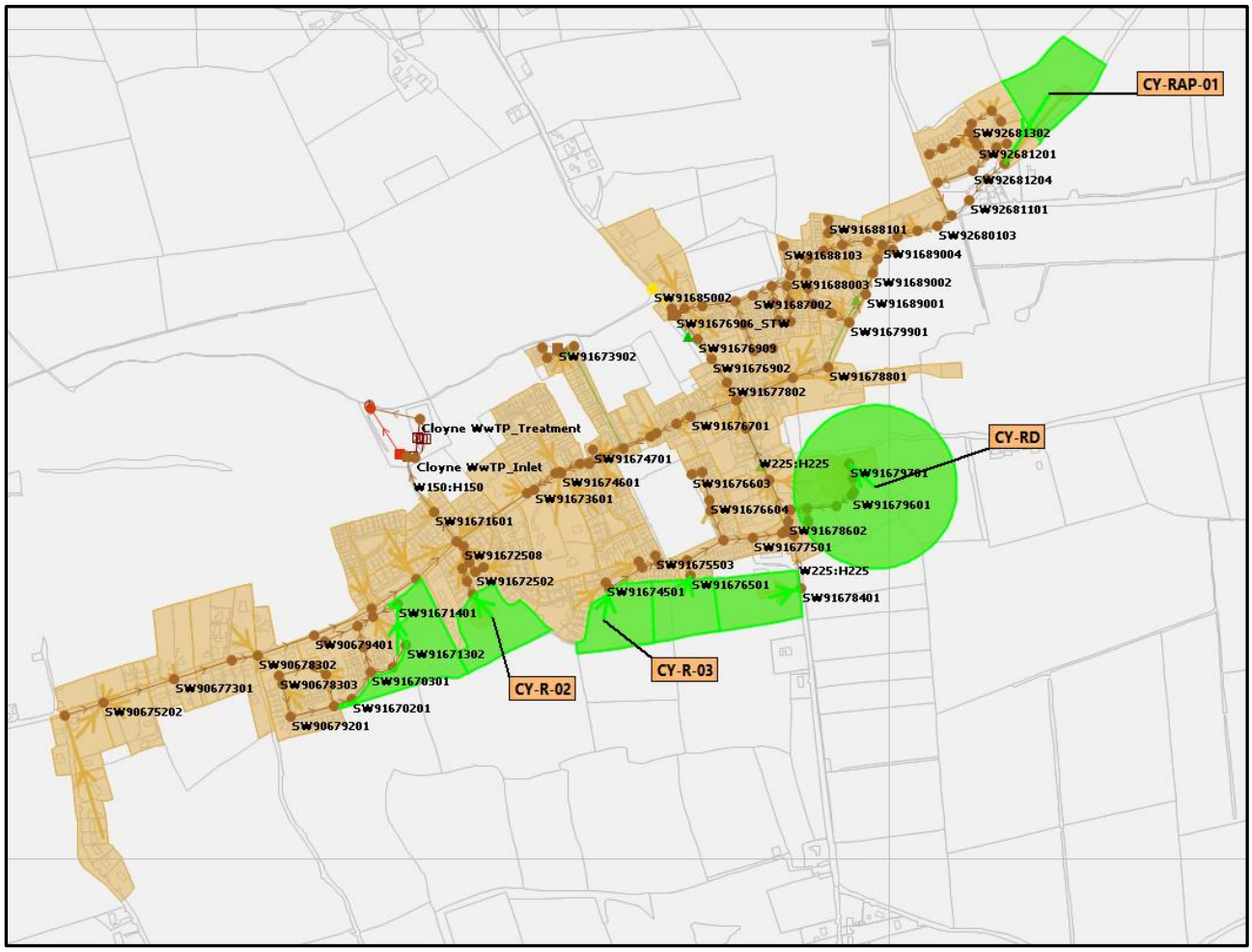



Figure 34: Development Updates for Cloyne.

Table 19: Development Updates for Coole East.

| | Population | | | Total Zone Flows (l/s) | | | Trade Flows (l/s) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 | 2030 | 2055 | 2080 |

| 2030 Development Details | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CT-RD | 30 | 111 | 166 | 0.1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 |
| Totals | 30 | 111 | 166 | 0.1l/s | 0.2l/s | 0.4l/s | 0.0l/s | 0.0l/s | 0.1l/s |

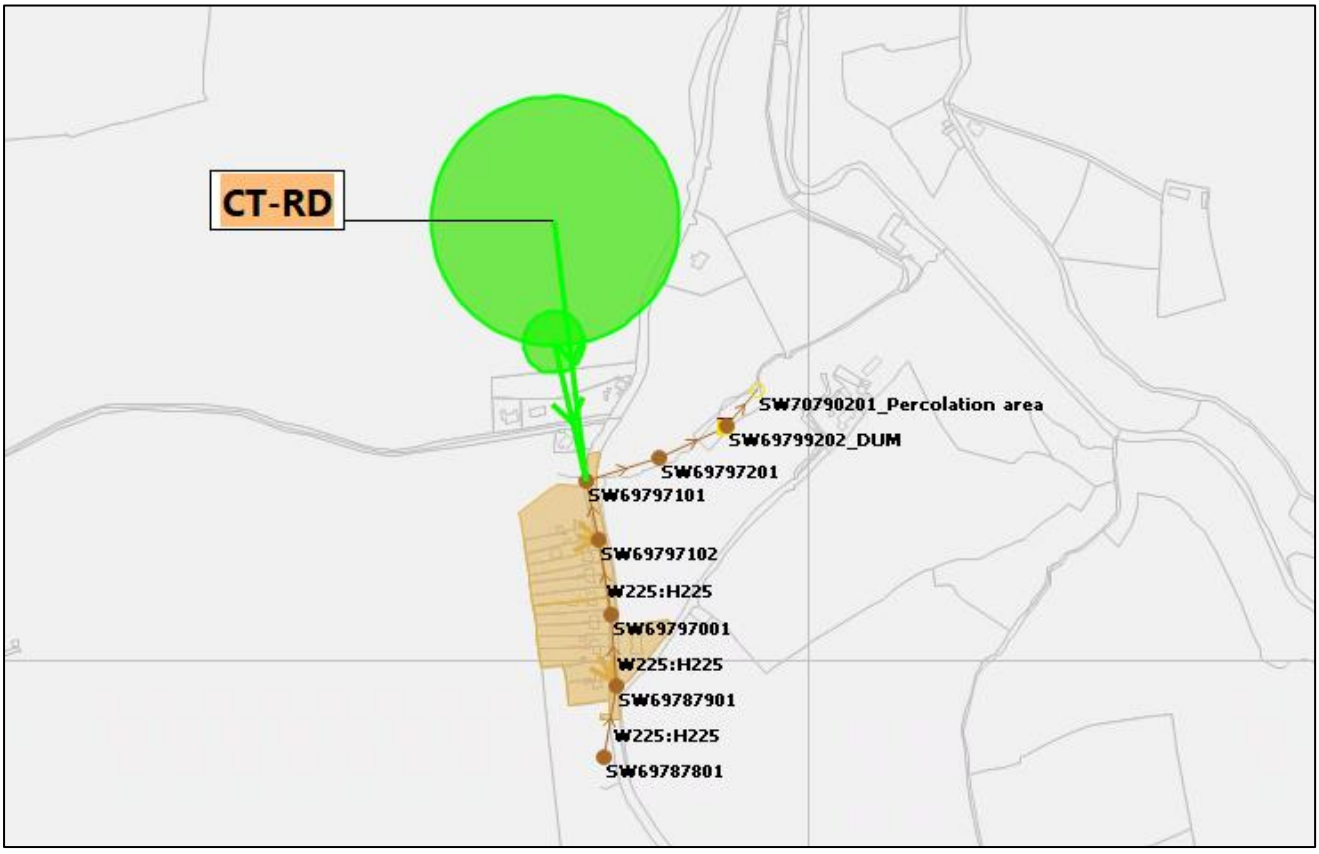



Figure 35: Development Updates for Coole East.

Table 20: Development Updates for Courtbrack.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| 2030 Development Details | | | | | | | | | |
| CK-RD | 36 | 105 | 168 | 0.1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Totals | 36 | 105 (+69) | 168 (+63) | 0.1l/s | 0.1l/s (+0.1l/s) | 0.4l/s (+0.2l/s) | 0l/s | 0l/s | 0.1l/s (+0.1l/s) |

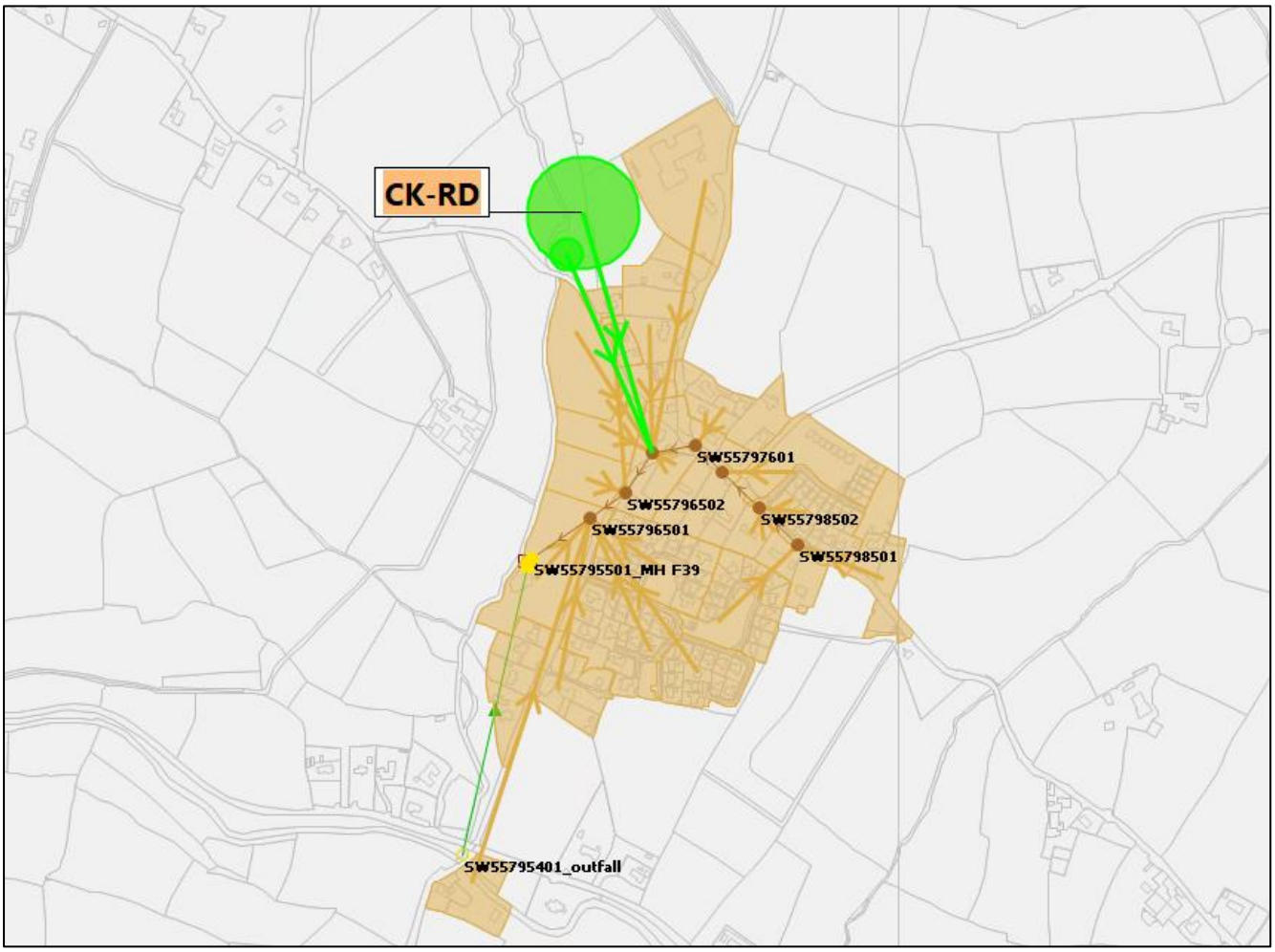



Figure 36: Development Updates for Courtbrack.

Table 21: Development Updates for Dripsey/Model Village.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| ML-RD | 148 | 221 | 289 | 0.3 | 0.5 | 0.6 | 0.1 | 0.1 | 0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Totals | 148 | 221 (+73) | 289 (+68) | 0.3l/s | 0.5l/s (+0.2l/s) | 0.6l/s (+0.1l/s) | 0.1l/s | 0.1l/s | 0.1l/s |

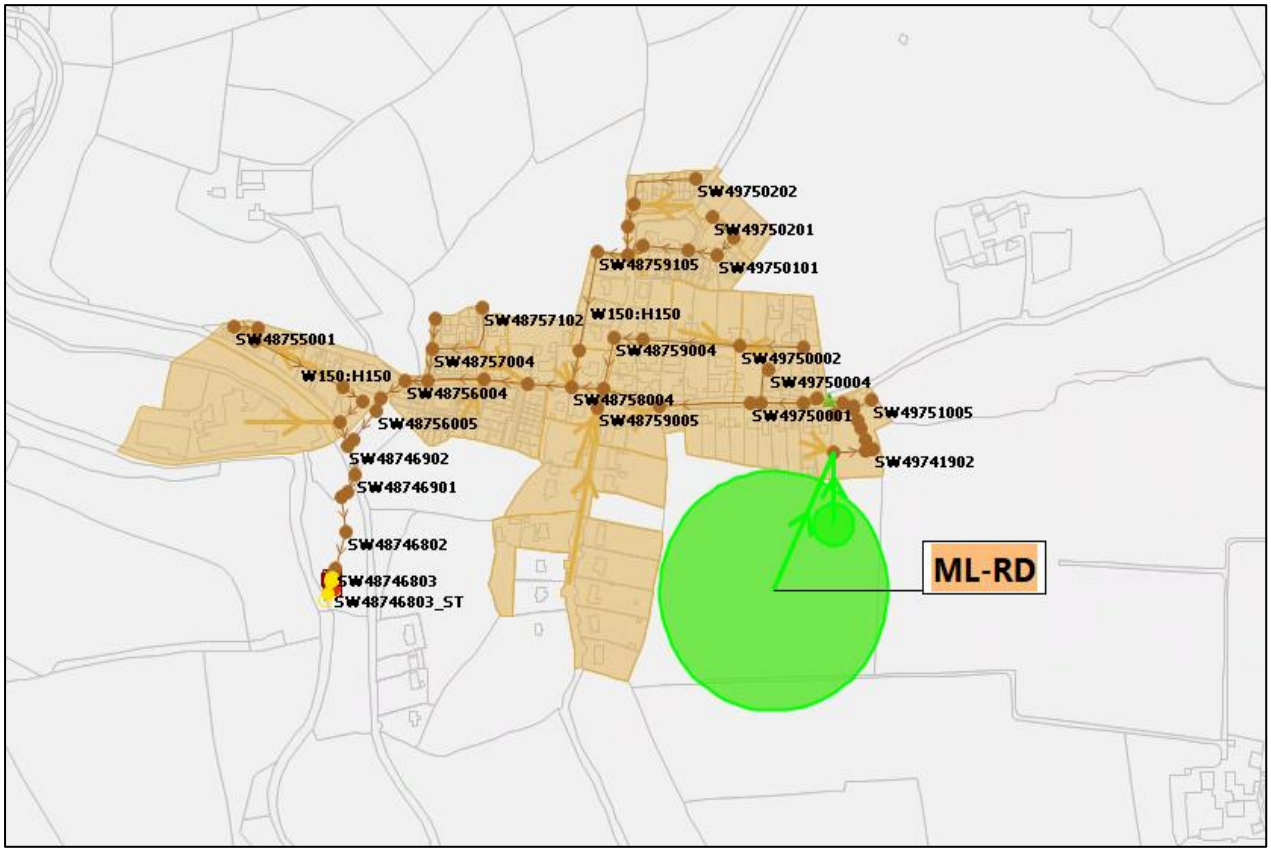



Figure 37: Development Updates for Dripsey/Model Village.

Table 22: Development Updates for Grenagh.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| Grenagh _X-01 | 57 | 213 | 334 | 0.1 | 0.5 | 0.7 | 0.0 | 0.1 | 0.1 |
| Totals | 57 | 213 (+156) | 334 (+121) | 0.1l/s | 0.5l/s (+0.4l/s) | 0.7l/s (+0.2l/s) | 0l/s | 0.1l/s (+0.1l/s) | 0.1l/s |

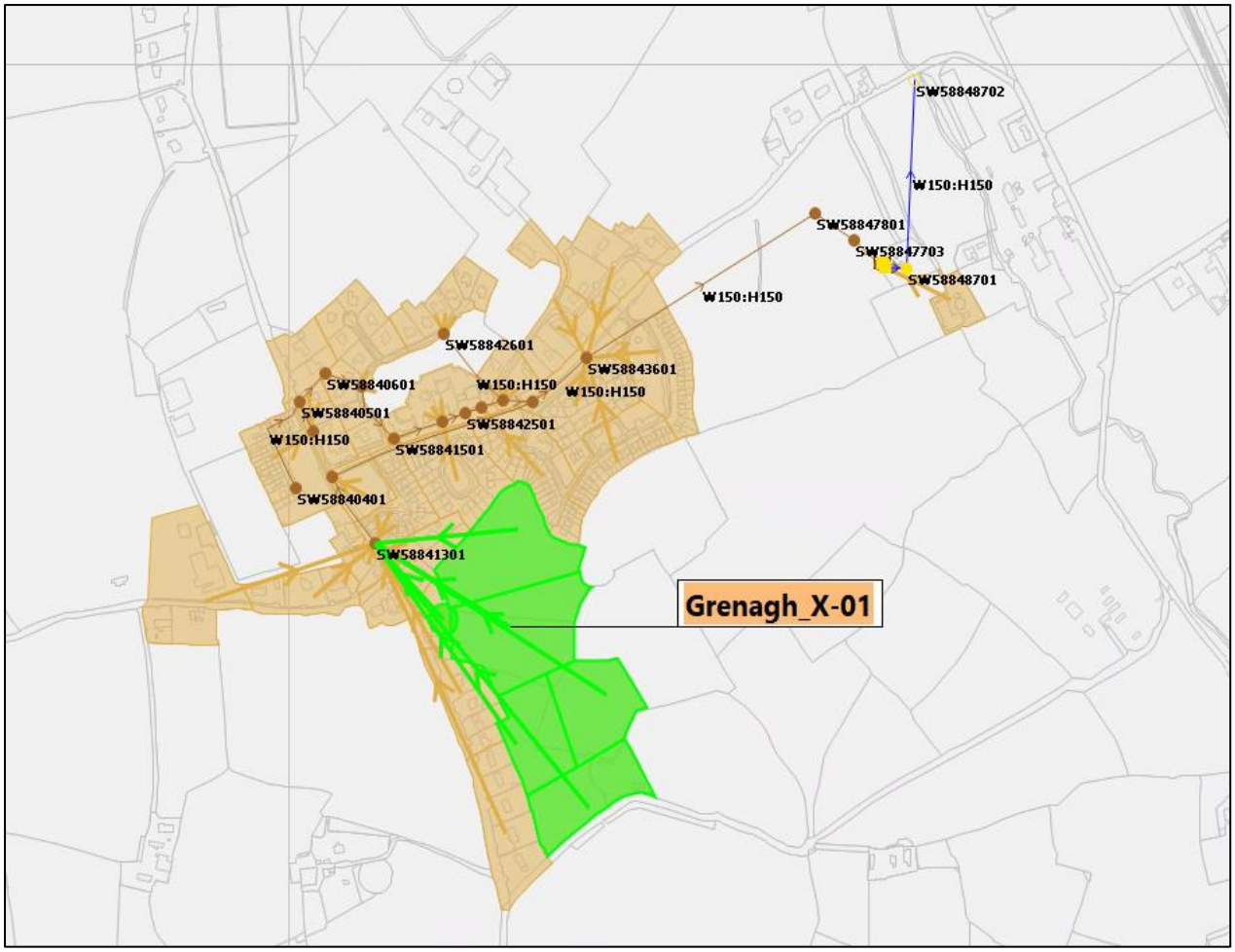



Figure 38: Development Updates for Grenagh.

Table 23: Development Updates for Halfway.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| HF-RD | 20 | 61 | 101 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 |
| Totals | 20 | 61 (+41) | 101 (+40) | 0l/s | 0.1l/s (+0.1l/s) | 0.2l/s (+0.1l/s) | 0l/s | 0l/s | 0l/s |

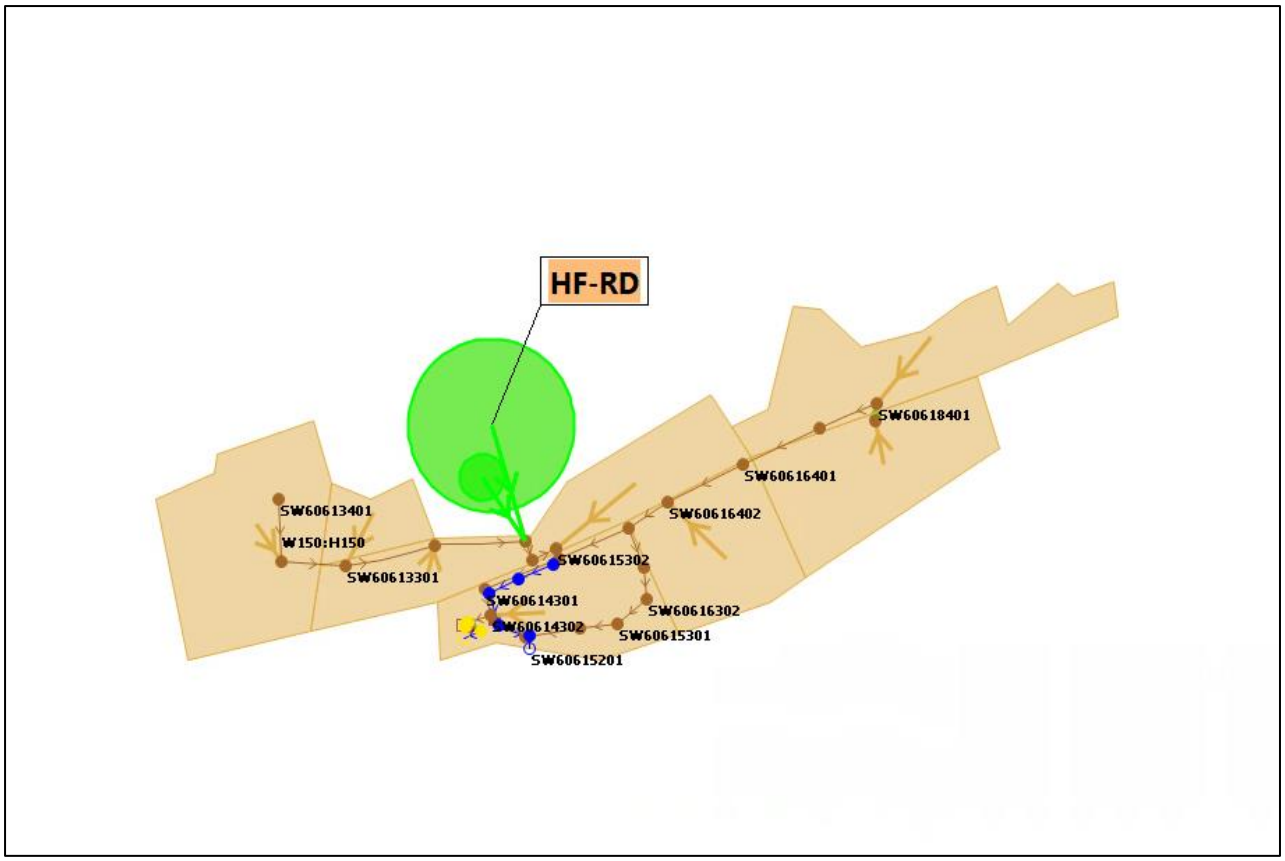



Figure 39: Development Updates for Halfway.

Table 24: Development Updates for Inniscarra Waterworks.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| IC-RD | 18 | 69 | 109 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| Totals | 18 | 69 (+51) | 109 (+40) | 0l/s | 0.2l/s (+0.2l/s) | 0.2l/s | 0l/s | 0l/s | 0l/s |

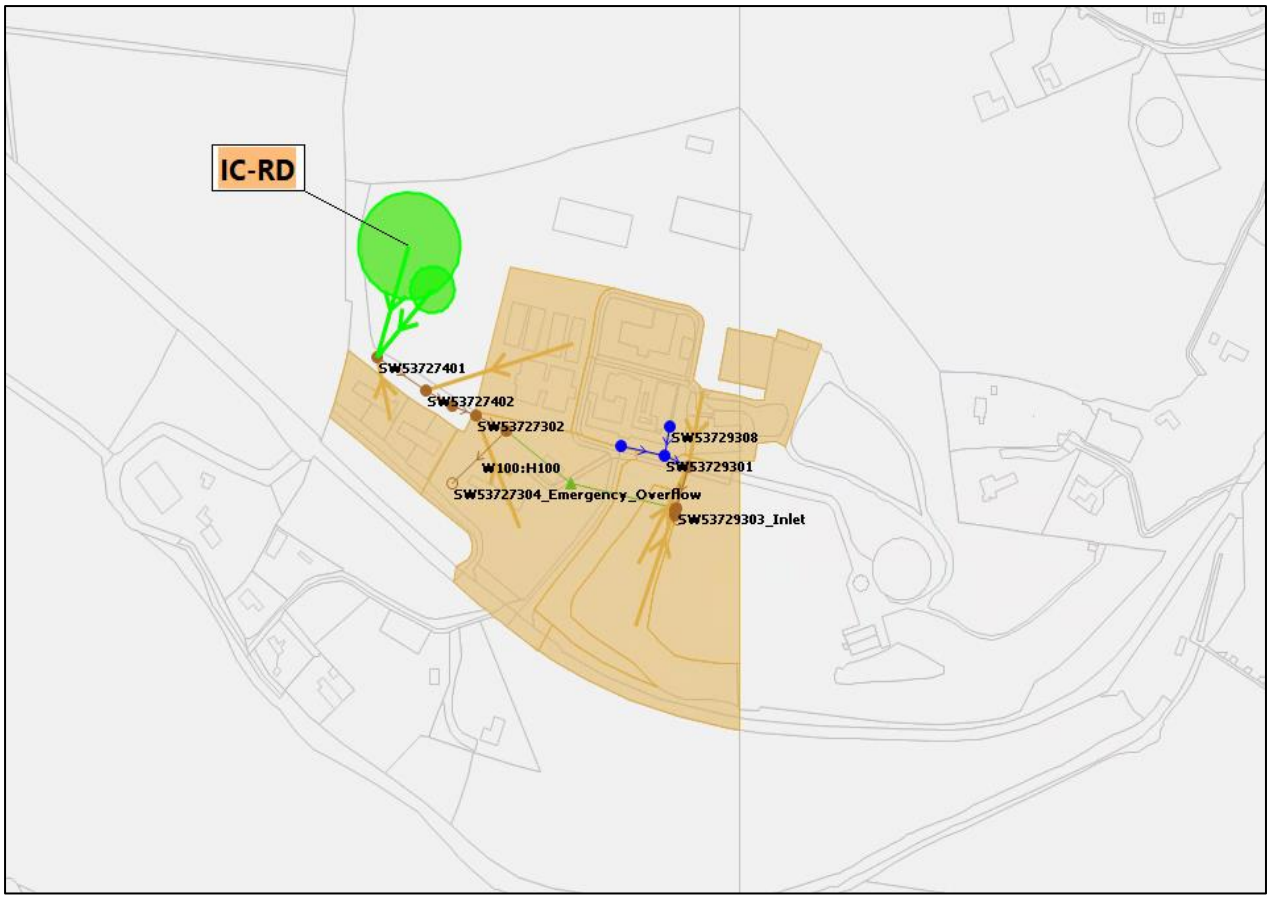



Figure 40: Development Updates for Inniscarra Waterworks

Table 25: Development Updates for Killeens.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| **KS-USC-01** | 31 | 59 | 59 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| **Killeens Dummy RDZ*** | 162 | 210 | 314 | 0.4 | 0.5 | 0.7 | 0.1 | 0.1 | 0.1 |
| **Totals** | 193 | 269 (+76) | 373 (+104) | 0.5l/s | 0.6l/s (+0.1l/s) | 0.8l/s (+0.2l/s) | 0.1l/s | 0.1l/s | 0.1l/s |

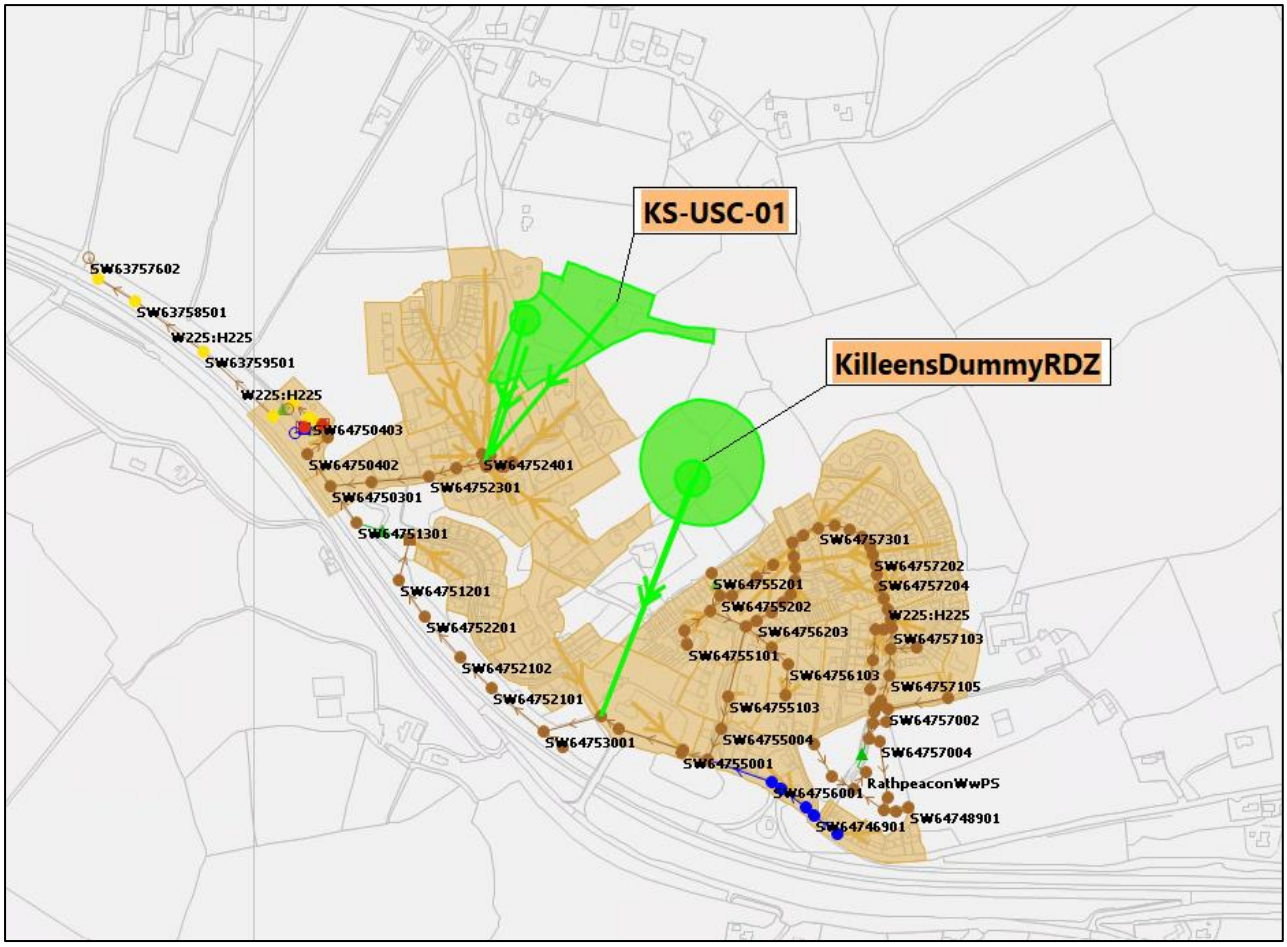



Figure 41: Development Updates for Killeens.

Table 26: Development Updates for Killumney/Ovens.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| **KO-R-03** | 367 | 610 | 610 | 0.8 | 1.3 | 1.3 | 0.1 | 0.2 | 0.2 |
| **KO-R-02** | 189 | 189 | 189 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 |
| **KO-R-01** | 402 | 402 | 402 | 0.9 | 0.9 | 0.9 | 0.1 | 0.1 | 0.1 |

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **Totals** | 958 | 1201 (+243) | 1201 | 2.1l/s | 2.6l/s (+0.5l/s) | 2.6l/s | 0.3l/s | 0.4l/s (+0.1l/s) | 0.4l/s |
| 2055 Development Details | | | | | | | | | |
| **KO-X-01** | N/A | 81 | 441 | N/A | 0.2 | 1.0 | N/A | 0.0 | 0.2 |
| **KO-R-04** | N/A | 203 | 203 | N/A | 0.4 | 0.4 | N/A | 0.1 | 0.1 |
| **Totals** | N/A | 284 | 644 (+360) | N/A | 0.6l/s | 1.4l/s (+0.8l/s) | N/A | 0.1l/s | 0.3l/s (+0.2l/s) |

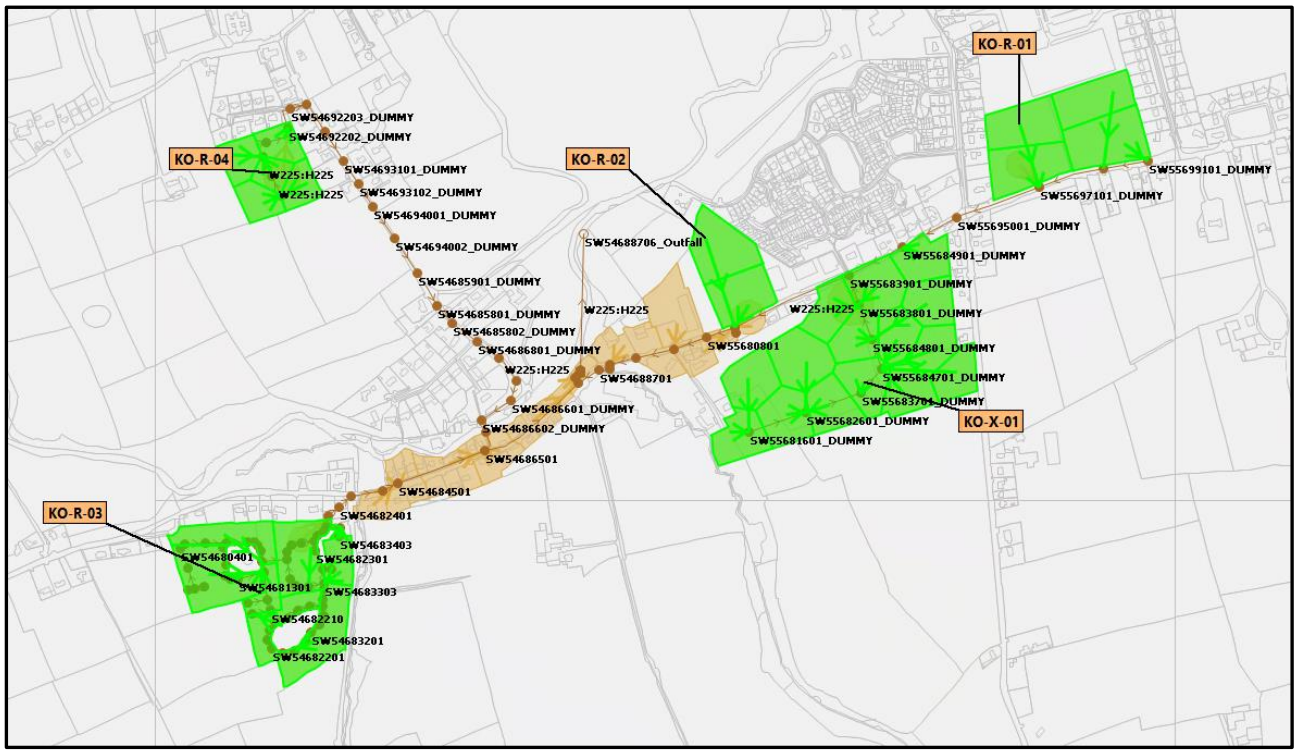



Figure 42: Development Updates for Killumney/Ovens.

Table 27: Development Updates for Knockraha.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| KR-RD | 36 | 113 | 184 | 0.1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 |
| Totals | 36 | 113 (+77) | 184 (+71) | 0.1l/s | 0.2l/s (+0.1l/s) | 0.4l/s (+0.2l/s) | 0l/s | 0l/s | 0.1l/s (+0.1l/s) |

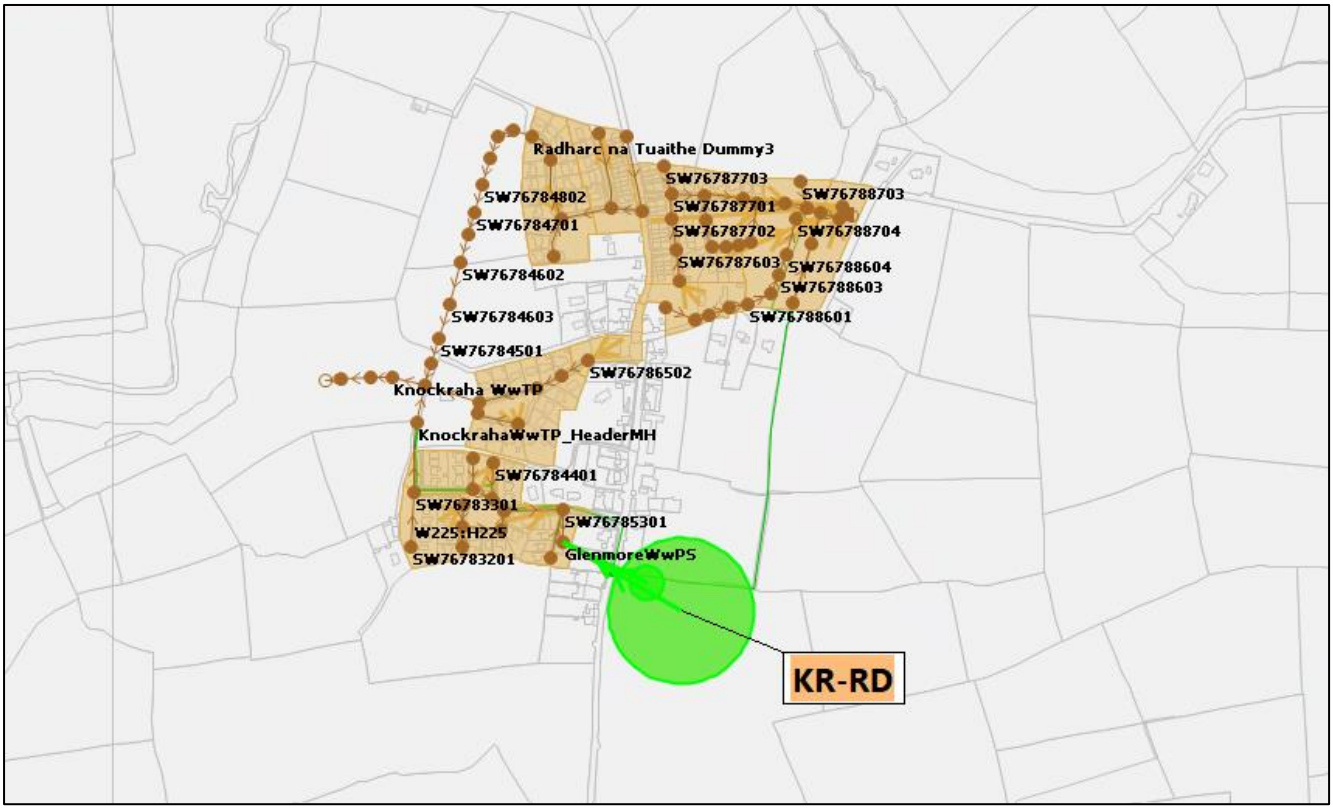



Figure 43: Development Updates for Knockraha.

Table 28: Development Updates for Leamlara.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| LL-RD | 38 | 141 | 221 | 0.1 | 0.3 | 0.5 | 0.0 | 0.0 | 0.1 |
| Totals | 38 | 141 (+103) | 221 (+80) | 0.1l/s | 0.3l/s (+0.2l/s) | 0.5l/s (+0.2l/s) | 0l/s | 0l/s | 0.1l/s (+0.1l/s) |

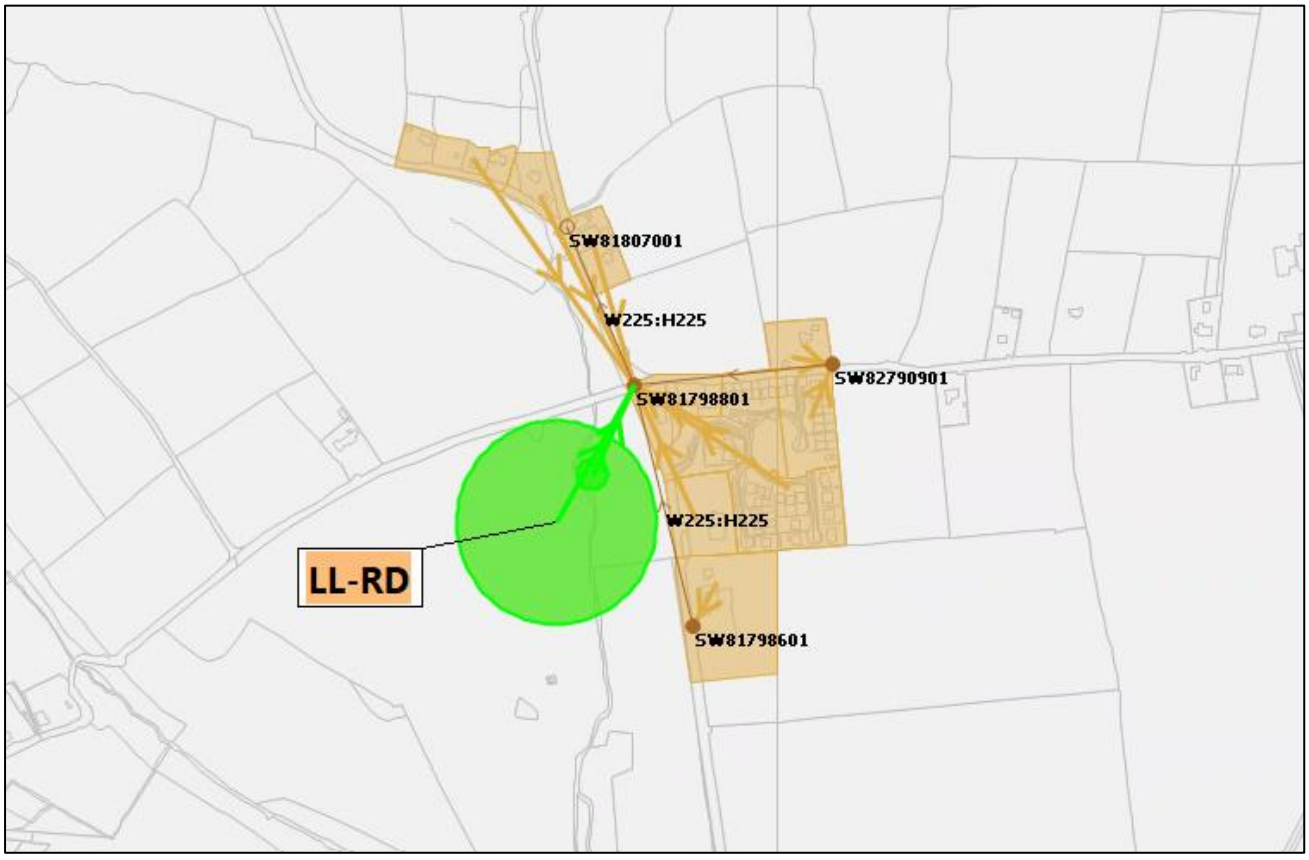



Figure 44: Development Updates for Leamlara.

Table 29: Development Updates for Matehy.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| MA-RD | 27 | 100 | 157 | 0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.1 |
| Totals | 27 | 100 (+73) | 157 (+57) | 0.1l/s | 0.2l/s (+0.1l/s) | 0.3l/s (+0.1l/s) | 0l/s | 0l/s | 0.1l/s (+0.1l/s) |

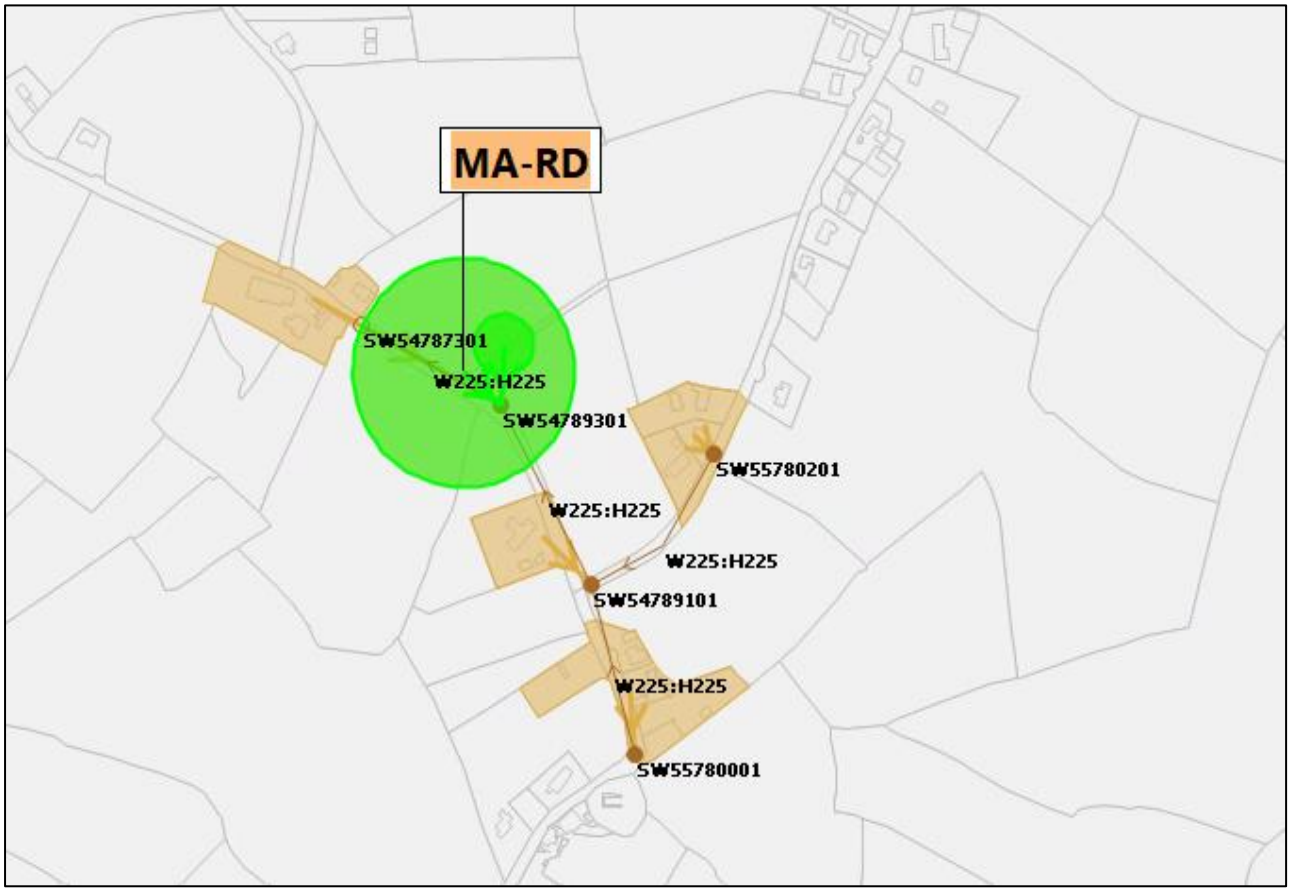



Figure 45: Development Updates for Matehy.

Table 30: Development Updates for Minane Bridge.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| 2030 Development Details | | | | | | | | | |
| T-01 | 27 | 27 | 27 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| ME-RD | 10 | 74 | 124 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 |
| Totals | 37 | 101 (+44) | 151 (+50) | 0.1l/s | 0.3l/s (+0.2l/s) | 0.4l/s (+0.1l/s) | 0l/s | 0l/s | 0l/s |


Figure 46: Development Updates for Minane Bridge.

Table 31: Development Updates for Myrtle Village.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| MV-RD | 77 | 283 | 443 | 0.2 | 0.6 | 1.0 | 0.0 | 0.1 | 0.2 |
| Totals | 77 | 283 (+106) | 443 (+160) | 0.2l/s | 0.6l/s (+0.4l/s) | 1l/s (+0.4l/s) | 0l/s | 0.1l/s (+0.1l/s) | 0.2l/s (+0.1l/s) |

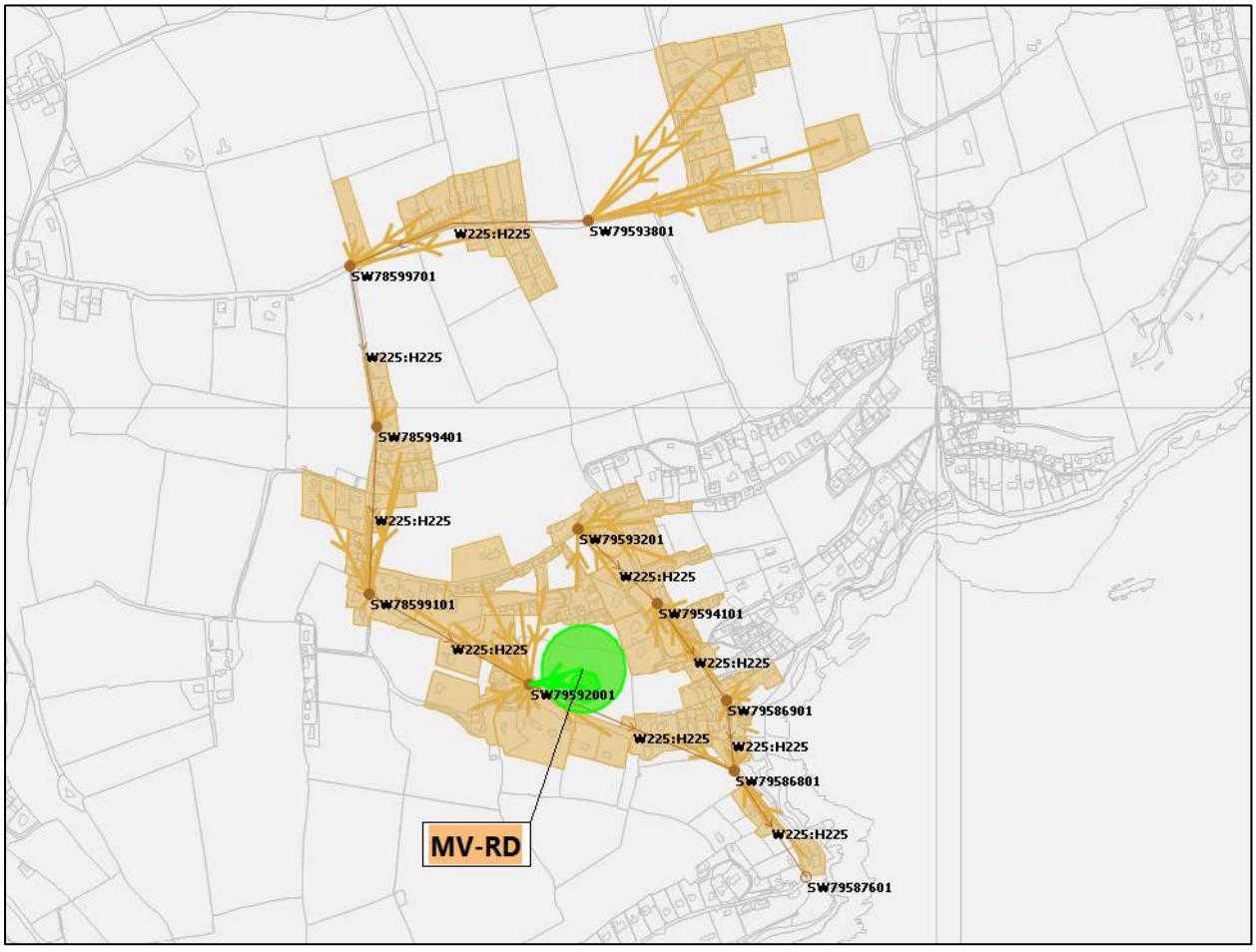



Figure 47: Development Updates for Minane Bridge.

Table 32: Development Updates for Saleen Village.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| SN-RD | 67 | 172 | 267 | 0.1 | 0.4 | 0.6 | 0.0 | 0.1 | 0.1 |
| Totals | 67 | 172 (+105) | 267 (+95) | 0.1l/s | 0.4l/s (+0.3l/s) | 0.6l/s (+0.2l/s) | 0l/s | 0.1l/s (+0.1l/s) | 0.1l/s |


Figure 48: Development Updates for Saleen Village.

Table 33: Development Updates for Watergrasshill.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| **WT-R-01** | 46 | 54 | 70 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 |
| **WT-R-02** | 265 | 295 | 403 | 0.6 | 0.6 | 0.9 | 0.1 | 0.1 | 0.1 |
| **WT-R-03** | 17 | 186 | 265 | 0.0 | 0.4 | 0.6 | 0.0 | 0.1 | 0.1 |
| **Totals** | 328 | 535 (+207) | 738 (+203) | 0.7l/s | 1.1l/s (+0.4l/s) | 1.7l/s (+0.6l/s) | 0.1l/s | 0.2l/s (+0.1l/s) | 0.2l/s |
| 2055 Development Details | | | | | | | | | |
| WT-X-01 | N/A | 211 | 211 | N/A | 0.1 | 0.1 | N/A | 0.1 | 0.1 |
| Totals | N/A | 211 | 211 | N/A | 0.1 | 0.1 | N/A | 0.1 | 0.1 |

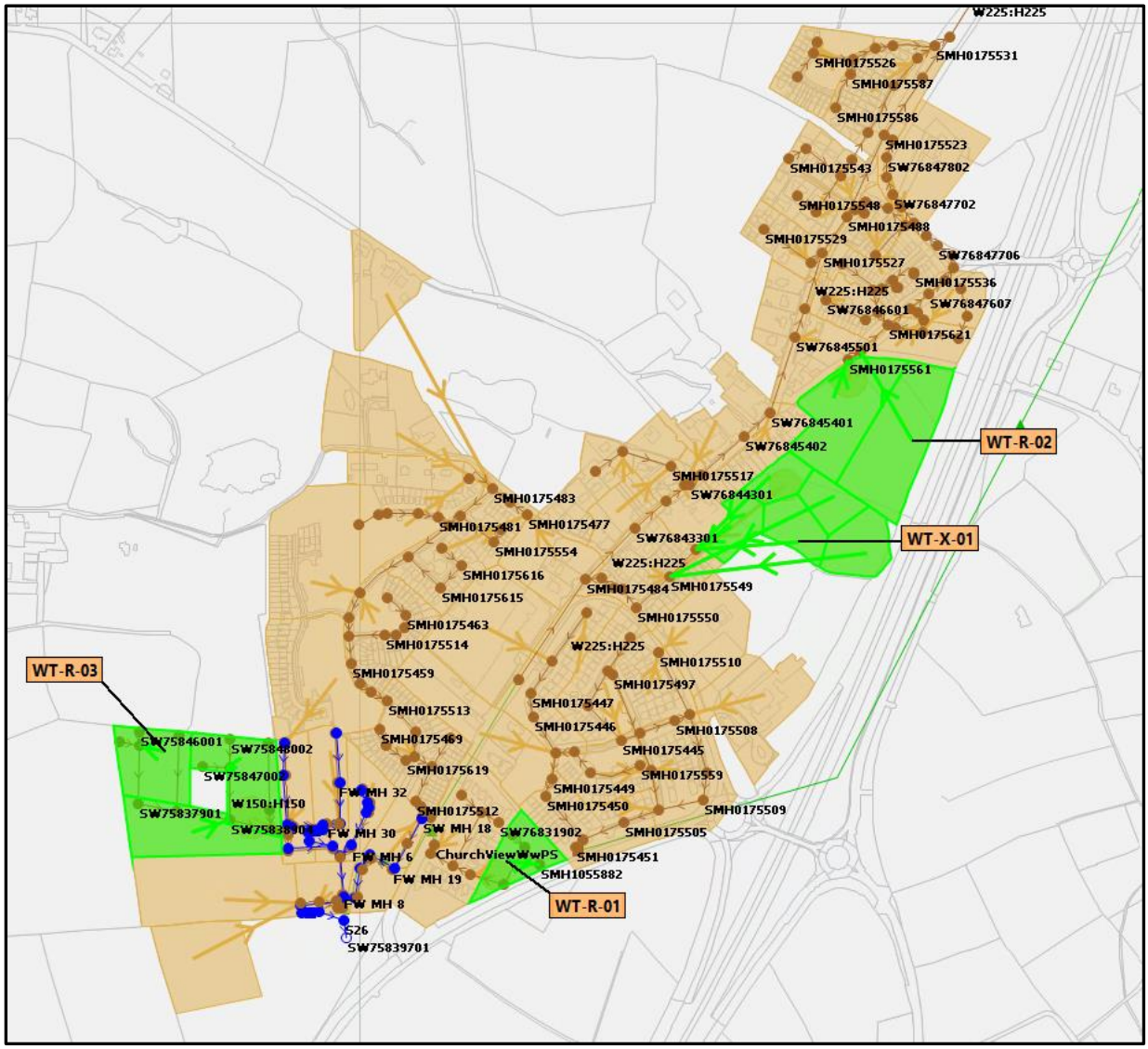



Figure 49: Development Updates for Watergrasshill.

Table 34: Development Updates for Whitegate/Aghada.

| | Total Population | | | Total Zone Flows (L/S) | | | Commercial Flows (L/S) | | |
|---|---|---|---|---|---|---|---|---|---|
| Zoning ID | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon | 2030 Horizon | 2055 Horizon | 2080 Horizon |
| **2030 Development Details** | | | | | | | | | |
| **WG-R-02** | 45 | 178 | 178 | 0.1 | 0.4 | 0.4 | 0.0 | 0.1 | 0.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **WG-R-01** | 68 | 265 | 265 | 0.1 | 0.6 | 0.6 | 0.0 | 0.1 | 0.1 |
| **Totals** | 113 | 443 (+330) | 443 | 0.2l/s | 1l/s (+0.8l/s) | 1l/s | 0l/s | 0.2l/s (+0.2l/s) | 0.2l/s |
| **2055 Development Details** | | | | | | | | | |
| WG-R-03 | N/A | 118 | 118 | N/A | 0.3 | 0.3 | N/A | 0.0 | 0.0 |
| Totals | N/A | 118 | 118 | N/A | 0.3l/s | 0.3l/s | N/A | 0l/s | 0l/s |
| **2080 Development Details** | | | | | | | | | |
| WG-RD | N/A | N/A | 363 | N/A | N/A | 0.8 | N/A | N/A | 0.1 |
| **Totals** | **N/A** | **N/A** | **363** | **N/A** | **N/A** | **0.8l/s** | **N/A** | **N/A** | **0.1l/s** |

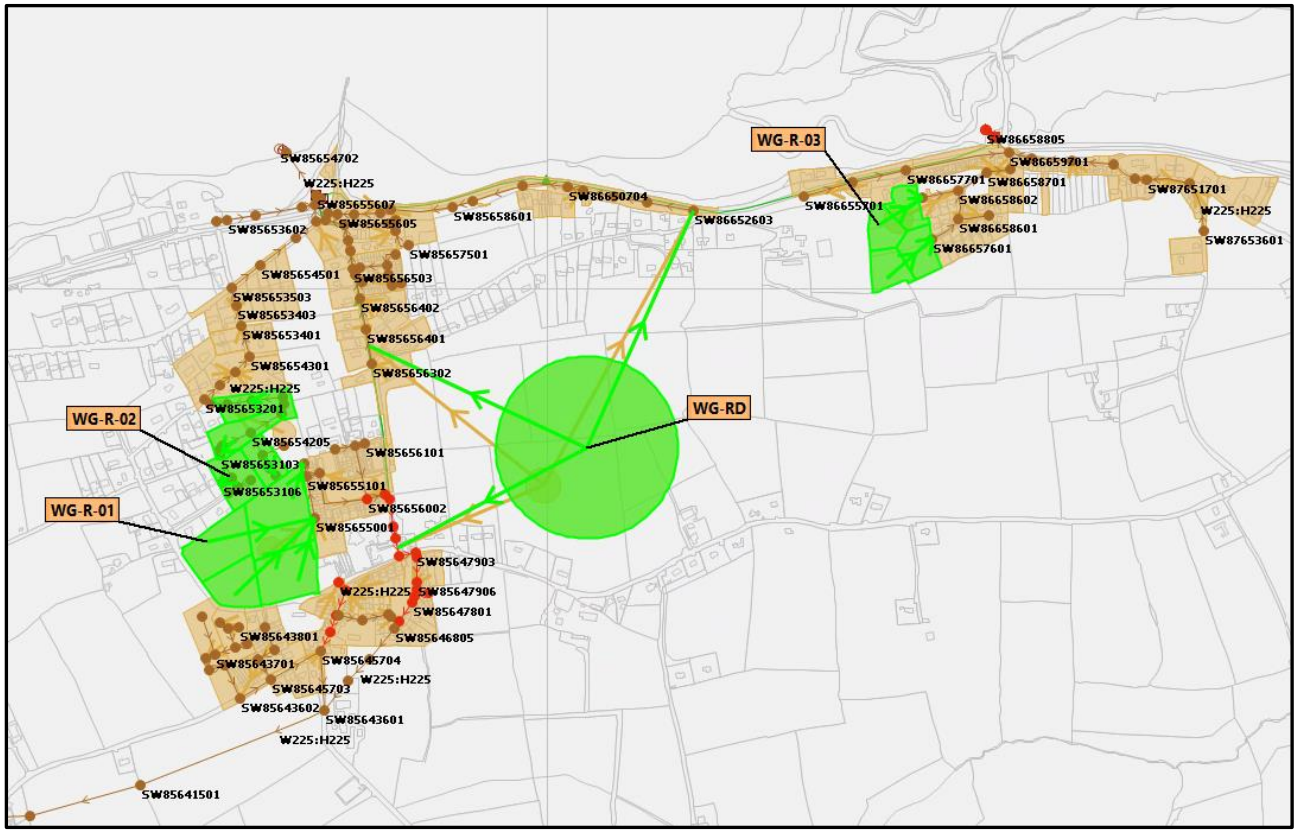



Figure 50: Development Updates for Whitegate/Aghada.

# Appendix B – Storm Water Overflows Summary

## 1. Cork City SWO Details

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Allendale Ave OS 33 (Dual MH) | SW63696902 | Short Term Development Model (2030) | - | - | Y | 0.05 | 0.14 | 0.14 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.05 | 0.14 | 0.14 | |
| | | Full Development Model (2080) | - | - | Y | 0.05 | 0.14 | 0.14 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Allendale Drive (SW63706001) (Dual MH) | SW63706001 | Short Term Development Model (2030) | - | - | Y | 0.18 | 0.54 | 0.54 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.18 | 0.54 | 0.54 | |
| | | Full Development Model (2080) | - | - | Y | 0.18 | 0.54 | 0.54 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Allendale Drive OS 45 (Dual MH) | SW63706007 | Short Term Development Model (2030) | - | - | Y | 0.23 | 0.69 | 0.69 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.23 | 0.69 | 0.69 | |
| | | Full Development Model (2080) | - | - | Y | 0.23 | 0.69 | 0.69 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Allendale Drive OS 47 (Dual MH) | SW63706008 | Short Term Development Model (2030) | - | - | Y | 0.35 | 1.04 | 1.04 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.35 | 1.04 | 1.04 | |
| | | Full Development Model (2080) | - | - | Y | 0.35 | 1.04 | 1.04 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Allendale Drive OS 49 (Dual MH) | SW63706004 | Short Term Development Model (2030) | - | - | Y | 0.10 | 0.31 | 0.31 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.10 | 0.31 | 0.31 | |
| | | Full Development Model (2080) | - | - | Y | 0.10 | 0.31 | 0.31 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Anglesea Road SWO | SW68710404 | Short Term Development Model (2030) | 3 | 2,171 | Y | 43.00 | 91.15 | 166.52 | River Lee Estuary Upper |
| | SW68710404 | Long Term Development Model (2055) | 3 | 3,109 | Y | 43.04 | 91.25 | 166.63 | |
| | SW68710480 | Full Development Model (2080) | 3 | 3,108 | Y | 43.42 | 92.23 | 167.61 | |
| | SW68710480 | Solution Model (2080) | - | - | Y | 43.42 | 92.23 | 167.61 | |
| Assumption Road SWO | SW67735102_WEIR2 | Short Term Development Model (2030) | 6 | 924 | Y | 12.24 | 14.73 | 17.46 | River Bride |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 7 | 1,274 | Y | 12.34 | 14.95 | 17.67 | |
| | | Full Development Model (2080) | 8 | 1,265 | Y | 13.25 | 17.28 | 20.01 | |
| | | Solution Model (2080) | 1 | 124 | Y | 13.25 | 17.28 | 20.01 | |
| Atlantic Pond WwPS | SW70717897 | Short Term Development Model (2030) | 313 | 9,462,550 | N | 1,111.96 | 2,663.94 | 3,307.75 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 352 | 14,568,384 | N | 1,235.45 | 2,977.42 | 3,621.23 | |
| | SW70717897_slope1 | Full Development Model (2080) | 359 | 16,810,808 | N | 1,284.91 | 3,104.29 | 3,748.10 | |
| | | Solution Model (2080) | 11 | 400,584 | Y | 1,245.14 | 3,004.48 | 3,648.30 | |
| Ballyvolane WwPS | Ballyvolane PWSA Storage tank | Short Term Development Model (2030) | - | - | Y | 11.41 | 29.06 | 31.50 | Unknown |
| | | Long Term Development Model (2055) | 9 | 4,795 | Y | 31.68 | 80.81 | 83.24 | |
| | | Full Development Model (2080) | 8 | 4,582 | Y | 31.68 | 80.81 | 83.24 | |
| | | Solution Model (2080) | - | - | Y | 91.09 | 234.50 | 236.93 | |
| Barrack Street SWO | SW67712401_WEIR2 | Short Term Development Model (2030) | 5 | 448 | Y | 2.18 | 4.55 | 8.37 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 4 | 506 | Y | 2.18 | 4.55 | 8.37 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 4 | 424 | Y | 2.18 | 4.55 | 8.37 | |
| | | Solution Model (2080) | - | - | Y | 2.18 | 4.55 | 8.37 | |
| Beales Hill SWO | SW69722312_SCREEN1 | Short Term Development Model (2030) | - | - | Y | 0.43 | 2.27 | 2.27 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 0.43 | 2.27 | 2.27 | |
| | | Full Development Model (2080) | - | - | Y | 0.43 | 2.27 | 2.27 | |
| | | Solution Model (2080) | - | - | Y | 0.43 | 2.27 | 2.27 | |
| Belgard Downs SWO | SW70694505_Overflow | Short Term Development Model (2030) | 1 | 5,139 | Y | 154.32 | 373.14 | 448.04 | Lough Mahon |
| | | Long Term Development Model (2055) | 2 | 8,904 | Y | 178.29 | 434.25 | 509.15 | |
| | | Full Development Model (2080) | 1 | 2,318 | Y | 186.28 | 454.63 | 529.53 | |
| | | Solution Model (2080) | 3 | 8,825 | Y | 186.28 | 454.63 | 529.53 | |
| Bellevue WwPS | SW69728301 | Short Term Development Model (2030) | - | - | Y | 0.10 | 0.31 | 0.84 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 0.10 | 0.31 | 0.84 | |
| | | Full Development Model (2080) | - | - | Y | 0.10 | 0.31 | 0.84 | |
| | | Solution Model (2080) | - | - | Y | 0.10 | 0.31 | 0.84 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Bessborough WwPS | SW71705107_WW | Short Term Development Model (2030) | 1 | 91 | Y | 12.68 | 36.86 | 56.14 | Lough Mahon |
| | | Long Term Development Model (2055) | 2 | 251 | Y | 13.03 | 37.71 | 57.00 | |
| | | Full Development Model (2080) | 2 | 243 | Y | 16.56 | 46.76 | 66.04 | |
| | | Solution Model (2080) | 0 | 70 | Y | 16.56 | 46.76 | 66.04 | |
| Bishop Street SWO | SW66719408_WEIR2 | Short Term Development Model (2030) | 218 | 77,755 | N | 10.46 | 21.90 | 41.72 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 283 | 122,886 | N | 10.46 | 21.90 | 41.72 | |
| | | Full Development Model (2080) | 305 | 142,496 | N | 10.46 | 52.46 | 41.72 | |
| | | Solution Model (2080) | 2 | 380 | Y | 10.46 | 52.46 | 41.72 | |
| Boreenmanna Road (Ashton) SWO | SW68717003_WEIR | Short Term Development Model (2030) | 23 | 25,213 | N | 9.49 | 25.82 | 52.26 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 25 | 29,015 | N | 9.49 | 25.82 | 52.26 | |
| | | Full Development Model (2080) | 27 | 28,064 | N | 9.49 | 25.82 | 52.26 | |
| | | Solution Model (2080) | 5 | 3,063 | Y | 9.49 | 25.82 | 52.26 | |
| Bridge Street SWO | SW67726110_SCREEN1 | Short Term Development Model (2030) | 9 | 2,613 | Y | 5.26 | 7.81 | 12.64 | River Lee Estuary Upper |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 11 | 3,266 | Y | 5.26 | 7.81 | 12.64 | |
| | | Full Development Model (2080) | 12 | 2,955 | Y | 5.26 | 7.81 | 12.64 | |
| | | Solution Model (2080) | 1 | 182 | Y | 5.26 | 7.81 | 12.64 | |
| Camden Place SWO | SW67725101 | Short Term Development Model (2030) | SOLUTION ONLY | | | | | | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | SOLUTION ONLY | | | | | | |
| | | Full Development Model (2080) | SOLUTION ONLY | | | | | | |
| | | Solution Model (2080) | 4 | 14,537 | Y | 497.06 | 1,164.70 | 1,384.13 | |
| Camden Quay SWO | SW67724106 | Short Term Development Model (2030) | - | - | Y | 89.19 | 179.55 | 268.85 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 89.40 | 180.09 | 269.39 | |
| | | Full Development Model (2080) | - | - | Y | 91.72 | 185.99 | 275.29 | |
| | | Solution Model (2080) | - | - | Y | 91.72 | 185.99 | 275.29 | |
| Carrigrennan WwTP Storm Tank | WwTW_DN | Short Term Development Model (2030) | 50 | 484,895 | Y | 1,684.27 | 4,087.47 | 4,859.21 | Lough Mahon |
| | | Long Term Development Model (2055) | 75 | 774,746 | Y | 1,872.64 | 4,566.29 | 5,338.04 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 97 | 933,124 | Y | 1,947.42 | 4,757.43 | 5,529.17 | |
| | | Solution Model (2080) | - | - | Y | 1,975.53 | 4,833.22 | 5,604.96 | |
| Castle Avenue WwPS | SW72712903_WW | Short Term Development Model (2030) | - | - | Y | 0.45 | 0.83 | 1.85 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 0.45 | 0.83 | 1.85 | |
| | | Full Development Model (2080) | - | - | Y | 0.45 | 0.83 | 1.85 | |
| | | Solution Model (2080) | - | - | Y | 0.45 | 0.83 | 1.85 | |
| Cathedral Walk SWO | SW67723604_WEIR2 | Short Term Development Model (2030) | 7 | 1,415 | Y | 2.33 | 5.02 | 8.54 | River Bride |
| | | Long Term Development Model (2055) | 8 | 1,807 | Y | 2.33 | 5.02 | 8.54 | |
| | | Full Development Model (2080) | 8 | 1,500 | Y | 2.33 | 5.02 | 8.54 | |
| | | Solution Model (2080) | - | - | Y | 2.33 | 5.02 | 8.54 | |
| City Printers WwPS | SW64719206_WW | Short Term Development Model (2030) | - | - | Y | - | - | - | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.01 | 0.04 | 0.04 | |
| | | Full Development Model (2080) | - | - | Y | 0.24 | 0.61 | 0.61 | |
| | | Solution Model (2080) | - | - | Y | 0.24 | 0.61 | 0.61 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Clover Lawn SWO | SW71702522_DUM | Short Term Development Model (2030) | - | - | Y | 7.28 | 21.75 | 40.75 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 7.28 | 21.75 | 40.75 | |
| | | Full Development Model (2080) | - | - | Y | 7.28 | 21.75 | 40.75 | |
| | | Solution Model (2080) | 10 | 11,418 | N | 7.28 | 21.75 | 40.75 | |
| Coal Quay WwPS | SW67722022 | Short Term Development Model (2030) | 252 | 347,711 | N | 34.07 | 82.50 | 89.07 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 250 | 338,843 | N | 34.07 | 82.50 | 89.07 | |
| | | Full Development Model (2080) | 265 | 389,660 | N | 34.07 | 82.50 | 89.07 | |
| | | Solution Model (2080) | 10 | 3,659 | Y | 34.07 | 82.50 | 89.07 | |
| Convent Avenue SWO | SW71717609_WEIR | Short Term Development Model (2030) | 7 | 1,224 | N | 0.94 | 2.82 | 4.01 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 7 | 1,520 | N | 0.94 | 2.82 | 4.01 | |
| | | Full Development Model (2080) | 7 | 1,268 | N | 0.94 | 2.82 | 4.01 | |
| | | Solution Model (2080) | - | - | Y | 0.94 | 2.82 | 4.01 | |
| Convent Road SWO | SW71716603_WEIR | Short Term Development Model (2030) | 3 | 488 | Y | 1.71 | 5.14 | 7.09 | River Lee Estuary Lower |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 3 | 739 | Y | 1.71 | 5.14 | 7.09 | |
| | | Full Development Model (2080) | 3 | 537 | Y | 1.71 | 5.14 | 7.09 | |
| | | Solution Model (2080) | - | - | Y | 1.71 | 5.14 | 7.09 | |
| Cork Ring/Bandon Road WwPS | SW63699101_WW | Short Term Development Model (2030) | - | - | Y | 0.13 | 0.39 | 0.39 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.13 | 0.39 | 0.39 | |
| | | Full Development Model (2080) | - | - | Y | 0.13 | 0.39 | 0.39 | |
| | | Solution Model (2080) | - | - | Y | 0.13 | 0.39 | 0.39 | |
| Courtstown WwPS | SW77714402 | Short Term Development Model (2030) | 24 | 7,148 | N | 1.85 | 5.08 | 5.08 | Lough Mahon |
| | | Long Term Development Model (2055) | 30 | 10,435 | N | 2.90 | 7.63 | 7.63 | |
| | | Full Development Model (2080) | 33 | 10,964 | N | 3.28 | 8.59 | 8.59 | |
| | | Solution Model (2080) | 1 | 760 | Y | 3.28 | 8.59 | 8.59 | |
| Crosses Green WwPS | SW67711514_WW | Short Term Development Model (2030) | - | - | Y | 3.14 | 9.41 | 12.33 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 3.14 | 9.41 | 12.33 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 3.14 | 9.41 | 12.33 | |
| | | Solution Model (2080) | - | - | Y | 3.14 | 9.41 | 12.33 | |
| Crosses Green WwPS (No.2) | SW67711504 | Short Term Development Model (2030) | - | - | Y | 3.14 | 9.41 | 12.33 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 3.14 | 9.41 | 12.33 | |
| | | Full Development Model (2080) | - | - | Y | 3.14 | 9.41 | 12.33 | |
| | | Solution Model (2080) | - | - | Y | 3.14 | 9.41 | 12.33 | |
| Curraheen (Dog Track) WwPS | SW62693301_WW | Short Term Development Model (2030) | - | - | Y | 0.68 | 2.04 | 2.04 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.68 | 2.04 | 2.04 | |
| | | Full Development Model (2080) | - | - | Y | 0.68 | 2.04 | 2.04 | |
| | | Solution Model (2080) | - | - | Y | 0.68 | 2.04 | 2.04 | |
| Curraheen WwPS | SW62699502_WW1 | Short Term Development Model (2030) | - | - | Y | 3.88 | 11.64 | 12.71 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 3.88 | 11.64 | 12.71 | |
| | SW62699502_WW2 | Full Development Model (2080) | - | - | Y | 3.88 | 11.64 | 12.71 | |
| | | Solution Model (2080) | - | - | Y | 3.88 | 11.64 | 12.71 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Deanrock, Summerstown Lane SWO | SW65697728_WEIR2 | Short Term Development Model (2030) | - | - | Y | 2.93 | 8.78 | 28.52 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 3.09 | 9.19 | 28.93 | |
| | | Full Development Model (2080) | - | - | Y | 4.23 | 12.60 | 32.34 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Deerpark No.1 | SW67701607 | Short Term Development Model (2030) | - | - | Y | 0.10 | 0.22 | 0.22 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 0.10 | 0.22 | 0.22 | |
| | | Full Development Model (2080) | - | - | Y | 0.10 | 0.22 | 0.22 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Deerpark No.2 | SW67701908 | Short Term Development Model (2030) | - | - | Y | 2.85 | 3.56 | 3.76 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 2.85 | 3.56 | 3.76 | |
| | | Full Development Model (2080) | - | - | Y | 2.85 | 3.56 | 3.76 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Dennehy's Cross SWO | SW65702801_WEIR1 | Short Term Development Model (2030) | - | - | Y | 5.45 | 13.23 | 26.97 | Curragheen River |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 5.48 | 13.29 | 27.03 | |
| | SW65702801_WEIR2 | Full Development Model (2080) | - | - | Y | 5.68 | 13.89 | 27.63 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Donscourt No.2 SWO | SW64697403 | Short Term Development Model (2030) | - | - | Y | 0.72 | 1.81 | 2.23 | Glasheen River |
| | | Long Term Development Model (2055) | 1 | 57 | Y | 0.72 | 1.81 | 2.23 | |
| | | Full Development Model (2080) | 1 | 50 | Y | 0.72 | 1.81 | 2.23 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Donscourt WwPS | SW64697405_WW | Short Term Development Model (2030) | - | - | Y | 0.72 | 1.81 | 2.23 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.72 | 1.81 | 2.23 | |
| | | Full Development Model (2080) | - | - | Y | 0.72 | 1.81 | 2.23 | |
| | | Solution Model (2080) | - | - | Y | 0.72 | 1.81 | 2.23 | |
| Douglas Hall Lawn SWO | SW69708006 | Short Term Development Model (2030) | 67 | 74,156 | N | 2.55 | 7.47 | 20.87 | Lough Mahon |
| | SW69708006 | Long Term Development Model (2055) | 66 | 79,109 | N | 2.55 | 7.47 | 20.87 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | SW69708006_Dummy1 | Full Development Model (2080) | 70 | 82,619 | N | 2.55 | 7.47 | 20.87 | |
| | | Solution Model (2080) | 6 | 660 | Y | 2.55 | 7.47 | 20.87 | |
| Eastgate WwPS | SW75722701 | Short Term Development Model (2030) | - | - | Y | 120.03 | 295.63 | 296.69 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 137.23 | 339.35 | 340.40 | |
| | | Full Development Model (2080) | - | - | Y | 138.09 | 341.55 | 342.60 | |
| | | Solution Model (2080) | - | - | Y | 146.56 | 363.45 | 364.51 | |
| Eikpa Lodge Sunday's Well SWO | SW65717705_WEIR2 | Short Term Development Model (2030) | 68 | 23,749 | N | 5.06 | 9.56 | 13.46 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 64 | 25,788 | N | 5.06 | 9.56 | 13.46 | |
| | | Full Development Model (2080) | 67 | 26,989 | N | 5.06 | 9.56 | 13.46 | |
| | | Solution Model (2080) | 4 | 858 | Y | 5.06 | 9.56 | 13.46 | |
| Ferney Road SWO | SW72716702 | Short Term Development Model (2030) | 3 | 691 | Y | 2.41 | 7.24 | 9.07 | Lough Mahon |
| | | Long Term Development Model (2055) | 4 | 1,138 | Y | 2.41 | 7.24 | 9.07 | |
| | | Full Development Model (2080) | 4 | 1,130 | Y | 2.41 | 7.24 | 9.07 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Fever Hospital Steps SWO | SW67724611_WEIR1 | Short Term Development Model (2030) | 8 | 2,154 | Y | 4.58 | 5.71 | 9.70 | River Bride |
| | | Long Term Development Model (2055) | 9 | 2,658 | Y | 4.58 | 5.71 | 9.70 | |
| | | Full Development Model (2080) | 9 | 2,373 | Y | 4.58 | 5.71 | 9.70 | |
| | | Solution Model (2080) | - | - | Y | 4.58 | 5.71 | 9.70 | |
| Fitzpatrick's WwPS SWO | SW77733202 | Short Term Development Model (2030) | 2 | 442 | Y | 7.10 | 17.65 | 17.65 | Lough Mahon (Harper's Island) |
| | | Long Term Development Model (2055) | 2 | 683 | Y | 9.34 | 23.37 | 23.37 | |
| | SW77733202 | Full Development Model (2080) | 2 | 549 | Y | 10.20 | 25.57 | 25.57 | |
| | | Solution Model (2080) | 3 | 1,701 | Y | 10.20 | 25.57 | 25.57 | |
| Flannery's Pub SWO | SW65707406_SLUICE.1 | Short Term Development Model (2030) | 11 | 5,877 | N | 1.92 | 4.77 | 10.22 | Glasheen River |
| | SW65707406_SLUICE | Long Term Development Model (2055) | 12 | 6,573 | N | 1.92 | 4.77 | 10.22 | |
| | SW65707406_WEIR1 | Full Development Model (2080) | 13 | 6,544 | N | 1.92 | 4.77 | 10.22 | |
| | SW65707406_WEIR2 | Solution Model (2080) | 3 | 821 | Y | 1.92 | 4.77 | 10.22 | |
| Flaxfort Road WwPS | SW75713518_OF | Short Term Development Model (2030) | - | - | Y | 244.45 | 660.86 | 661.92 | Lough Mahon |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 262.12 | 709.77 | 706.83 | |
| | | Full Development Model (2080) | - | - | Y | 263.17 | 708.44 | 709.50 | |
| | | Solution Model (2080) | 1 | 286 | Y | 271.64 | 730.34 | 731.40 | |
| Fremont Drive (Dual MH) | SW63707106 | Short Term Development Model (2030) | - | - | Y | 0.07 | 0.21 | 0.21 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.07 | 0.21 | 0.21 | |
| | | Full Development Model (2080) | - | - | Y | 0.07 | 0.21 | 0.21 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Gaol Walk SWO | SW65719203 | Short Term Development Model (2030) | 61 | 30,032 | N | 5.63 | 10.90 | 12.67 | River Lee Estuary Upper |
| | SW65719203 | Long Term Development Model (2055) | 60 | 31,081 | N | 5.63 | 10.90 | 12.67 | |
| | SW65719203_WEIR | Full Development Model (2080) | 60 | 31,570 | N | 5.63 | 10.90 | 12.67 | |
| | | Solution Model (2080) | 1 | 226 | Y | 5.63 | 10.90 | 12.67 | |
| Gerald Griffin Street SWO | SW67723809_WEIR2 | Short Term Development Model (2030) | 163 | 220,736 | N | 41.34 | 100.21 | 140.53 | River Bride |
| | | Long Term Development Model (2055) | 156 | 228,338 | N | 41.37 | 100.26 | 140.59 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 161 | 236,121 | N | 41.65 | 100.98 | 141.31 | |
| | | Solution Model (2080) | 10 | 3,803 | Y | 41.65 | 100.98 | 141.31 | |
| Gilabbey Rock SWO | SW66716404_WEIR | Short Term Development Model (2030) | - | - | Y | 195.20 | 525.61 | 687.70 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 256.67 | 681.16 | 843.26 | |
| | | Full Development Model (2080) | - | - | Y | 279.25 | 744.12 | 906.22 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Gilabbey Rock WwPS | SW66716402_DUM | Short Term Development Model (2030) | - | - | Y | 186.94 | 501.52 | 663.46 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 249.11 | 658.07 | 820.01 | |
| | SW66716404 | Full Development Model (2080) | - | - | Y | 278.34 | 733.44 | 895.38 | |
| | | Solution Model (2080) | 1 | 349 | Y | 278.34 | 733.44 | 895.38 | |
| Glanmire Business Estate SWO | SW72736903 | Short Term Development Model (2030) | - | - | Y | 2.43 | 5.12 | 5.12 | Glashaboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 2.43 | 5.12 | 5.12 | |
| | | Full Development Model (2080) | - | - | Y | 2.43 | 5.12 | 5.12 | |
| | | Solution Model (2080) | - | - | Y | 2.43 | 5.12 | 5.12 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Glanmire WwPS | SW72747201 | Short Term Development Model (2030) | - | - | Y | 58.13 | 142.48 | 143.54 | Glashaboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 59.09 | 144.94 | 145.99 | |
| | | Full Development Model (2080) | - | - | Y | 59.09 | 144.94 | 145.99 | |
| | | Solution Model (2080) | - | - | Y | 67.56 | 166.84 | 167.89 | |
| Glasheen Bridge SWO | SW65703701_WEIR | Short Term Development Model (2030) | 97 | 108,206 | N | 84.51 | 216.31 | 350.73 | Glasheen River |
| | | Long Term Development Model (2055) | 123 | 160,379 | N | 108.86 | 277.99 | 412.41 | |
| | | Full Development Model (2080) | 126 | 174,614 | N | 126.05 | 321.76 | 456.18 | |
| | | Solution Model (2080) | 1 | 422 | Y | 126.05 | 321.76 | 456.18 | |
| Glasheen Road SWO | SW65706402_WEIR | Short Term Development Model (2030) | - | - | Y | 1.95 | 4.87 | 10.32 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 1.95 | 4.87 | 10.32 | |
| | | Full Development Model (2080) | - | - | Y | 1.95 | 4.87 | 10.32 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Glencurrig WwPS | SW69690305_DUM | Short Term Development Model (2030) | - | - | Y | 2.86 | 7.63 | 7.63 | Moneygurney River |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 2.86 | 7.63 | 7.63 | |
| | | Full Development Model (2080) | - | - | Y | 2.86 | 7.63 | 7.63 | |
| | | Solution Model (2080) | 1 | 334 | Y | 2.86 | 7.63 | 7.63 | |
| Glendale SWO | SW65708403 | Short Term Development Model (2030) | 42 | 24,491 | N | 14.94 | 38.40 | 68.59 | Glasheen River |
| | | Long Term Development Model (2055) | 42 | 27,206 | N | 14.94 | 38.40 | 68.59 | |
| | | Full Development Model (2080) | 45 | 27,977 | N | 14.94 | 38.40 | 68.59 | |
| | | Solution Model (2080) | 4 | 3,099 | Y | 14.94 | 38.40 | 68.59 | |
| Grand Parade WwPS | SW67713565 | Short Term Development Model (2030) | 161 | 1,256,574 | N | 45.88 | 117.01 | 123.90 | River Lee Estuary Upper |
| | SW67713565 | Long Term Development Model (2055) | 161 | 1,267,266 | N | 45.88 | 117.01 | 123.90 | |
| | SW67713565 | Full Development Model (2080) | 165 | 1,387,324 | N | 45.88 | 117.01 | 123.90 | |
| | SW67713598 | Solution Model (2080) | 9 | 2,655 | Y | 45.88 | 117.01 | 123.90 | |
| Grattan Hill SWO | SW68727308_SCREEN1 | Short Term Development Model (2030) | - | - | Y | 26.61 | 38.15 | 42.00 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 32.39 | 55.47 | 83.89 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 32.68 | 56.21 | 86.64 | |
| | | Solution Model (2080) | - | - | Y | 32.68 | 56.21 | 86.64 | |
| Great Wm O'Brien Street SWO | SW67733010_WEIR | Short Term Development Model (2030) | 3 | 263 | Y | 1.17 | 3.38 | 6.43 | River Bride |
| | | Long Term Development Model (2055) | 3 | 343 | Y | 1.20 | 3.44 | 4.77 | |
| | | Full Development Model (2080) | 3 | 267 | Y | 1.48 | 4.16 | 7.20 | |
| | | Solution Model (2080) | 1 | 78 | Y | 1.48 | 4.16 | 7.20 | |
| Greenhills WwPS | SW68697911_WetWell | Short Term Development Model (2030) | 3 | 333 | Y | 0.70 | 1.53 | 2.52 | Moneygurney River |
| | | Long Term Development Model (2055) | 2 | 327 | Y | 0.70 | 1.53 | 2.52 | |
| | SW68697919_DUM | Full Development Model (2080) | 3 | 315 | Y | 0.70 | 1.53 | 2.52 | |
| | | Solution Model (2080) | 1 | 80 | Y | 0.70 | 1.53 | 2.52 | |
| Gweedore Avenue SWO | SW69739812 | Short Term Development Model (2030) | - | - | Y | 2.01 | 4.01 | 4.01 | River Bride |
| | | Long Term Development Model (2055) | - | - | Y | 2.01 | 4.01 | 4.01 | |
| | | Full Development Model (2080) | - | - | Y | 2.01 | 4.01 | 4.01 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Halting Site Carrigrohane WwPS | SW63715201_WW | Short Term Development Model (2030) | - | - | Y | - | - | - | Unknown |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |
| | | Full Development Model (2080) | - | - | Y | - | - | - | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Hardwick Street SWO | SW67726209_WEIR1 | Short Term Development Model (2030) | 8 | 1,598 | Y | 4.24 | 8.73 | 12.36 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 10 | 1,911 | Y | 4.24 | 8.73 | 12.36 | |
| | | Full Development Model (2080) | 9 | 1,692 | Y | 4.24 | 8.73 | 12.36 | |
| | | Solution Model (2080) | - | - | Y | 4.24 | 8.73 | 12.36 | |
| Harty Quay SWO | SW73690501 | Short Term Development Model (2030) | - | - | Y | 0.50 | 1.50 | 1.50 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 0.50 | 1.50 | 1.50 | |
| | | Full Development Model (2080) | - | - | Y | 0.50 | 1.50 | 1.50 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Hazelhurst Sunday's Well SWO | SW65719807_WEIR2 | Short Term Development Model (2030) | 21 | 4,817 | Y | 6.46 | 11.83 | 16.17 | River Lee Estuary Upper |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 24 | 5,609 | Y | 6.46 | 11.83 | 16.17 | |
| | | Full Development Model (2080) | 25 | 5,562 | Y | 6.46 | 11.83 | 16.17 | |
| | | Solution Model (2080) | 3 | 788 | Y | 6.46 | 11.83 | 16.17 | |
| High Street SWO | SW67718111_WEIR | Short Term Development Model (2030) | 2 | 126 | Y | 1.20 | 1.61 | 2.86 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 2 | 224 | Y | 1.20 | 1.61 | 2.86 | |
| | | Full Development Model (2080) | 1 | 140 | Y | 1.20 | 1.61 | 2.86 | |
| | | Solution Model (2080) | - | - | Y | 1.20 | 1.61 | 2.86 | |
| Horgans Quay Siphon WwPS | SW68722004_WEIR1 | Short Term Development Model (2030) | 10 | 201,071 | Y | 557.62 | 1,259.42 | 1,540.30 | River Lee Estuary Lower |
| | SW68722004_WEIR1 | Long Term Development Model (2055) | 12 | 293,783 | Y | 598.36 | 1,363.85 | 1,644.73 | |
| | SW68722004_WEIR1 | Full Development Model (2080) | 14 | 323,295 | Y | 618.79 | 1,415.78 | 1,696.66 | |
| | | Solution Model (2080) | 0 | 860 | Y | 579.02 | 1,315.98 | 1,596.86 | |
| Jn Dunbar ST SWO | SW67716401 | Short Term Development Model (2030) | 0 | 102 | Y | 2.45 | 5.35 | 6.84 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 1 | 265 | Y | 2.45 | 5.35 | 6.84 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 1 | 50 | Y | 2.45 | 5.35 | 6.84 | |
| | | Solution Model (2080) | - | - | Y | 2.45 | 5.35 | 6.84 | |
| John Redmond Street SWO | SW67724108_WEIR2 | Short Term Development Model (2030) | 4 | 537 | Y | 1.91 | 4.69 | 7.28 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 4 | 726 | Y | 1.91 | 4.69 | 7.28 | |
| | | Full Development Model (2080) | 4 | 544 | Y | 1.91 | 4.69 | 7.28 | |
| | | Solution Model (2080) | - | - | Y | 1.91 | 4.69 | 7.28 | |
| Keyser's Hill SWO | SW67711409_WEIR2 | Short Term Development Model (2030) | 8 | 1,170 | Y | 25.73 | 37.54 | 46.72 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 9 | 1,346 | Y | 25.73 | 37.54 | 46.72 | |
| | | Full Development Model (2080) | 8 | 1,201 | Y | 25.73 | 37.54 | 46.72 | |
| | | Solution Model (2080) | 1 | 117 | Y | 28.43 | 45.63 | 67.10 | |
| Kileens WwTP | Killeen_WWTP | Short Term Development Model (2030) | - | - | Y | 1.33 | 3.40 | 3.40 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 2.05 | 5.22 | 5.22 | |
| | | Full Development Model (2080) | - | - | Y | 2.28 | 5.83 | 5.83 | |
| | | Solution Model (2080) | 8 | 1,234 | Y | 2.28 | 5.83 | 5.83 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Kingsley WwPS | SW65712303 | Short Term Development Model (2030) | - | - | Y | 1.49 | 3.74 | 4.01 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 1.49 | 3.74 | 4.01 | |
| | | Full Development Model (2080) | - | - | Y | 1.49 | 3.74 | 4.01 | |
| | | Solution Model (2080) | - | - | Y | 1.49 | 3.74 | 4.01 | |
| Little Island Interchange WwPS | SW75729903 | Short Term Development Model (2030) | - | - | Y | 11.11 | 26.74 | 26.74 | Tibbotstown River |
| | | Long Term Development Model (2055) | - | - | Y | 13.35 | 32.46 | 32.46 | |
| | | Full Development Model (2080) | - | - | Y | 14.21 | 34.66 | 34.66 | |
| | | Solution Model (2080) | 2 | 250 | Y | 14.21 | 34.66 | 34.66 | |
| Lower Glanmire Road No.112, N8 SWO | SW68727303 | Short Term Development Model (2030) | - | - | Y | 46.69 | 71.85 | 103.30 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 1 | 95 | Y | 46.72 | 71.91 | 103.37 | |
| | | Full Development Model (2080) | - | - | Y | 47.00 | 72.65 | 104.11 | |
| | | Solution Model (2080) | - | - | Y | 47.00 | 72.65 | 104.11 | |
| Lower Glanmire Road SWO | SW68721203_WEIR1 | Short Term Development Model (2030) | - | - | Y | 0.17 | 0.50 | 1.52 | River Lee Estuary Upper |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 0.17 | 0.50 | 1.52 | |
| | | Full Development Model (2080) | - | - | Y | 0.17 | 0.50 | 1.52 | |
| | | Solution Model (2080) | - | - | Y | 0.17 | 0.50 | 1.52 | |
| Mary Street SWO | SW67714312_WEIR | Short Term Development Model (2030) | 1 | 57 | Y | 1.34 | 2.02 | 2.02 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 2 | 110 | Y | 1.34 | 2.02 | 2.02 | |
| | | Full Development Model (2080) | 1 | 74 | Y | 1.34 | 2.02 | 2.02 | |
| | | Solution Model (2080) | - | - | Y | 1.34 | 2.02 | 2.02 | |
| Mahon North WwPS | SW72717409_WW1 | Short Term Development Model (2030) | - | - | Y | 18.52 | 35.59 | 37.61 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 18.58 | 35.73 | 37.75 | |
| | | Full Development Model (2080) | - | - | Y | 19.11 | 37.08 | 39.10 | |
| | | Solution Model (2080) | - | - | Y | 19.11 | 37.08 | 39.10 | |
| Mahon South WwPS | SW73700501_WW | Short Term Development Model (2030) | - | - | Y | 31.60 | 88.57 | 88.57 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 32.10 | 89.83 | 89.83 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | SW73700501_WW | Full Development Model (2080) | - | - | Y | 35.66 | 100.51 | 100.51 | |
| | | Solution Model (2080) | - | - | Y | 35.66 | 100.51 | 100.51 | |
| Melborn Road (Dual MH) | SW63706102 | Short Term Development Model (2030) | - | - | Y | 0.10 | 0.31 | 0.31 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.10 | 0.31 | 0.31 | |
| | | Full Development Model (2080) | - | - | Y | 0.10 | 0.31 | 0.31 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Melbourn Road Jn Allendale (Dual MH) | SW63707004 | Short Term Development Model (2030) | - | - | Y | 0.15 | 0.46 | 0.46 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.15 | 0.46 | 0.46 | |
| | | Full Development Model (2080) | - | - | Y | 0.15 | 0.46 | 0.46 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Melbourn Road Jn Woburn Dr (Dual MH) | SW63697903 | Short Term Development Model (2030) | - | - | Y | 0.12 | 0.36 | 0.36 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.12 | 0.36 | 0.36 | |
| | | Full Development Model (2080) | - | - | Y | 0.12 | 0.36 | 0.36 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Murmont Park DS (Dual MH) | SW69734204 | Short Term Development Model (2030) | - | - | Y | 0.20 | 0.32 | 0.51 | Unknown |
| | | Long Term Development Model (2055) | - | - | Y | 0.20 | 0.32 | 0.51 | |
| | | Full Development Model (2080) | - | - | Y | 0.20 | 0.32 | 0.51 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Murmount Park (Dual MH) | SW69735202 | Short Term Development Model (2030) | - | - | Y | 0.20 | 0.32 | 0.51 | Unknown |
| | | Long Term Development Model (2055) | - | - | Y | 0.20 | 0.32 | 0.51 | |
| | | Full Development Model (2080) | - | - | Y | 0.20 | 0.32 | 0.51 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27 1 (Dual MH)** | SW68701703 | Short Term Development Model (2030) | - | - | Y | 3.79 | 11.38 | 12.46 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 3.79 | 11.38 | 12.46 | |
| | | Full Development Model (2080) | - | - | Y | 3.79 | 11.38 | 12.46 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27 2 (Dual MH) | SW68701960 | Short Term Development Model (2030) | - | - | Y | 73.29 | 219.88 | 220.96 | Glasheen River |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Full Development Model (2080) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27 3 (Dual MH) | SW68711003 | Short Term Development Model (2030) | - | - | Y | 73.29 | 219.88 | 220.96 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Full Development Model (2080) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27 4 (Dual MH) | SW68712160 | Short Term Development Model (2030) | - | - | Y | 73.29 | 219.88 | 220.96 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Full Development Model (2080) | - | - | Y | 73.29 | 219.88 | 220.96 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27 8 (Dual MH) | SW68712406 | Short Term Development Model (2030) | - | - | Y | 73.94 | 221.57 | 222.65 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 73.94 | 221.57 | 222.65 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 73.94 | 221.57 | 222.65 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27, North of Old Blackrock Road passing SWO** | SW68712304 | Short Term Development Model (2030) | - | - | Y | 73.37 | 220.11 | 221.19 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 73.37 | 220.11 | 221.19 | |
| | | Full Development Model (2080) | - | - | Y | 73.37 | 220.11 | 221.19 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| N27, South of Old Blackrock Road passing SWO | SW68712203 | Short Term Development Model (2030) | - | - | Y | 73.37 | 220.11 | 221.19 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 73.37 | 220.11 | 221.19 | |
| | | Full Development Model (2080) | - | - | Y | 73.37 | 220.11 | 221.19 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| O'Donovan Rossa Road SWO | SW66714404 | Short Term Development Model (2030) | 50 | 27,451 | N | 4.16 | 8.51 | 12.50 | River Lee Estuary Upper |
| | SW66714404 | Long Term Development Model (2055) | 49 | 28,860 | N | 4.16 | 8.51 | 12.50 | |
| | SW66714404_WEIR | Full Development Model (2080) | 51 | 29,700 | N | 4.16 | 8.51 | 12.50 | |
| | | Solution Model (2080) | 4 | 704 | Y | 4.16 | 8.51 | 12.50 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Old Comminutor Chamber Storm Tank | SW72695409_Overflow | Short Term Development Model (2030) | 6 | 42,672 | Y | 201.81 | 484.36 | 569.30 | Lough Mahon |
| | SW72695409_Overflow | Long Term Development Model (2055) | 7 | 58,376 | Y | 225.86 | 545.67 | 630.62 | |
| | SW72695409_Overflow | Full Development Model (2080) | 8 | 69,893 | Y | 234.72 | 568.25 | 653.20 | |
| | SW72695409_Overflow | Solution Model (2080) | 1 | 10,120 | Y | 234.72 | 568.25 | 653.20 | |
| Old Comminutor Chamber SWO | SW72694601_DUM | Short Term Development Model (2030) | - | - | Y | 201.81 | 484.36 | 569.30 | Lough Mahon |
| | SW72694601_DUM | Long Term Development Model (2055) | - | - | Y | 225.86 | 545.67 | 630.62 | |
| | SW72694601_DUM | Full Development Model (2080) | - | - | Y | 234.72 | 568.25 | 653.20 | |
| | SW72694601_DUM | Solution Model (2080) | - | - | Y | 234.72 | 568.25 | 653.20 | |
| Old Tennis Village SWO | SW63711050 | Short Term Development Model (2030) | - | - | Y | 0.86 | 2.27 | 2.27 | Curragheen River |
| | SW63711050 | Long Term Development Model (2055) | - | - | Y | 0.86 | 2.27 | 2.27 | |
| | SW63711050 | Full Development Model (2080) | - | - | Y | 0.86 | 2.27 | 2.27 | |
| | SW63711050 | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Orchard Court SWO | SW65712102_DUM | Short Term Development Model (2030) | SOLUTION ONLY | | | | | | Curragheen River |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | SOLUTION ONLY | | | | | | |
| | | Full Development Model (2080) | SOLUTION ONLY | | | | | | |
| | | Solution Model (2080) | 9 | 39,461 | Y | 235.98 | 617.18 | 772.15 | |
| Our Lady's Hospital SWO | SW64718601_WEIR2 | Short Term Development Model (2030) | - | - | Y | 2.51 | 7.41 | 8.97 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 2.51 | 7.41 | 8.97 | |
| | | Full Development Model (2080) | - | - | Y | 2.51 | 7.41 | 8.97 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Park Avenue SWO | SW70712507_WEIR2 | Short Term Development Model (2030) | 79 | 55,277 | N | 9.46 | 18.76 | 25.53 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 77 | 59,371 | N | 9.46 | 18.76 | 25.53 | |
| | | Full Development Model (2080) | 79 | 62,089 | N | 9.46 | 18.76 | 25.53 | |
| | | Solution Model (2080) | 13 | 6,495 | Y | 9.46 | 18.76 | 25.53 | |
| Park Court SWO | SW68737910 | Short Term Development Model (2030) | - | - | Y | 5.73 | 14.70 | 15.21 | Unknown |
| | | Long Term Development Model (2055) | - | - | Y | 8.51 | 21.80 | 22.31 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 8.67 | 22.26 | 22.77 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Paul Street SWO | SW67712911 | Short Term Development Model (2030) | - | - | Y | - | - | - | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |
| | | Full Development Model (2080) | - | - | Y | - | - | - | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Popes Road SWO | SW67724812_WEIR1 | Short Term Development Model (2030) | 3 | 329 | Y | 8.41 | 11.46 | 14.11 | River Bride |
| | | Long Term Development Model (2055) | 3 | 505 | Y | 8.41 | 11.46 | 14.11 | |
| | | Full Development Model (2080) | 2 | 392 | Y | 8.41 | 11.46 | 14.11 | |
| | | Solution Model (2080) | 1 | 41 | Y | 8.41 | 11.46 | 14.11 | |
| Pophams Road SWO | SW67734716_WEIR1 | Short Term Development Model (2030) | 30 | 9,965 | Y | 24.76 | 42.07 | 67.32 | River Bride |
| | | Long Term Development Model (2055) | 32 | 11,313 | Y | 24.76 | 42.07 | 67.32 | |
| | | Full Development Model (2080) | 35 | 11,386 | Y | 24.76 | 42.07 | 67.32 | |
| | | Solution Model (2080) | 1 | 163 | Y | 24.76 | 42.07 | 67.32 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| **Priest's Hill SWO** | SW78730150 | Short Term Development Model (2030) | 15 | 3,944 | Y | 5.26 | 13.66 | 13.66 | Lough Mahon (Harper's Island) |
| | | Long Term Development Model (2055) | 20 | 5,414 | Y | 7.51 | 19.38 | 19.38 | |
| | | Full Development Model (2080) | 22 | 5,987 | Y | 8.37 | 21.58 | 21.58 | |
| | | Solution Model (2080) | - | - | Y | 8.37 | 21.58 | 21.58 | |
| **R843 SWO** | SW65714507 | Short Term Development Model (2030) | - | - | Y | 1.75 | 4.48 | 5.82 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 1.75 | 4.48 | 5.82 | |
| | | Full Development Model (2080) | - | - | Y | 1.75 | 4.48 | 5.82 | |
| | | Solution Model (2080) | - | - | Y | 1.75 | 4.48 | 5.82 | |
| **Railway Yard WwPS** | SW68727201 | Short Term Development Model (2030) | - | - | Y | 0.34 | 0.62 | 0.62 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 0.34 | 0.62 | 0.62 | |
| | | Full Development Model (2080) | - | - | Y | 0.34 | 0.62 | 0.62 | |
| | | Solution Model (2080) | - | - | Y | 0.34 | 0.62 | 0.62 | |
| **Ringmahon Road, Eden Court SWO** | SW72717408 | Short Term Development Model (2030) | - | - | Y | 13.58 | 20.75 | 22.58 | Lough Mahon |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | - | - | Y | 13.58 | 20.75 | 22.58 | |
| | | Full Development Model (2080) | - | - | Y | 13.58 | 20.75 | 22.58 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Ringmahon Road, Dual MH | SW72710304 | Short Term Development Model (2030) | - | - | Y | 0.41 | 1.24 | 1.24 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 0.41 | 1.24 | 1.24 | |
| | | Full Development Model (2080) | - | - | Y | 0.41 | 1.24 | 1.24 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Riverbank, Douglas SWO | SW69699613_DN1 | Short Term Development Model (2030) | - | - | Y | 25.52 | 51.71 | 109.90 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 25.68 | 52.09 | 110.27 | |
| | SW70690605 | Full Development Model (2080) | - | - | Y | 26.69 | 55.14 | 113.33 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Riverview Estate 1 (Dual MH) | SW68737601 | Short Term Development Model (2030) | - | - | Y | 0.08 | 0.21 | 0.45 | River Bride |
| | | Long Term Development Model (2055) | - | - | Y | 0.08 | 0.21 | 0.45 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 0.08 | 0.21 | 0.45 | |
| | | Solution Model (2080) | - | - | Y | 0.08 | 0.21 | 0.45 | |
| Riverview Estate 2 (Dual MH) | SW68737602 | Short Term Development Model (2030) | - | - | Y | 0.04 | 0.10 | 0.35 | River Bride |
| | | Long Term Development Model (2055) | - | - | Y | 0.04 | 0.10 | 0.35 | |
| | | Full Development Model (2080) | - | - | Y | 0.04 | 0.10 | 0.35 | |
| | | Solution Model (2080) | - | - | Y | 0.04 | 0.10 | 0.35 | |
| Riverview Estate DS (Dual MH) | SW68737707 | Short Term Development Model (2030) | - | - | Y | 0.08 | 0.21 | 0.45 | River Bride |
| | | Long Term Development Model (2055) | - | - | Y | 0.08 | 0.21 | 0.45 | |
| | | Full Development Model (2080) | - | - | Y | 0.08 | 0.21 | 0.45 | |
| | | Solution Model (2080) | SOLUTION ONLY | | | | | | |
| Rochestown Inn WwPS | SW73691410_WetWell | Short Term Development Model (2030) | SOLUTION ONLY | | | | | | Lough Mahon |
| | | Long Term Development Model (2055) | SOLUTION ONLY | | | | | | |
| | | Full Development Model (2080) | - | - | Y | 11.38 | 20.96 | 21.60 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Rochestown Road SWO | SW72695406 | Short Term Development Model (2030) | - | - | Y | 11.22 | 21.18 | 22.98 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 11.23 | 21.22 | 23.03 | |
| | | Full Development Model (2080) | - | - | Y | 11.36 | 21.59 | 23.40 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Rock Cottages North Mall SWO (Abbey Street North SWO) | SW66729207_WEIR1 | Short Term Development Model (2030) | 41 | 79,253 | N | 26.11 | 58.16 | 102.46 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 40 | 85,858 | N | 26.11 | 58.16 | 102.46 | |
| | SW66729207_WEIR2 | Full Development Model (2080) | 40 | 88,834 | N | 26.11 | 58.16 | 102.46 | |
| | | Solution Model (2080) | 9 | 17,456 | Y | 26.11 | 58.16 | 102.46 | |
| Rosebank SWO | SW68709008 | Short Term Development Model (2030) | 89 | 108,883 | N | 6.68 | 17.95 | 40.13 | Moneygurney River |
| | SW68709008 | Long Term Development Model (2055) | 89 | 115,375 | N | 6.76 | 18.16 | 40.34 | |
| | SW68709008_DN2 | Full Development Model (2080) | 90 | 120,470 | N | 7.69 | 20.52 | 42.71 | |
| | | Solution Model (2080) | 1 | 172 | Y | 7.69 | 20.52 | 42.71 | |
| Rossa Avenue WwPS | SW63705015_WEIR2 | Short Term Development Model (2030) | 127 | 74,848 | N | 1.80 | 4.39 | 11.93 | Curragheen River |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 121 | 78,415 | N | 1.86 | 4.57 | 12.11 | |
| | | Full Development Model (2080) | 123 | 80,105 | N | 1.86 | 4.57 | 12.11 | |
| | | Solution Model (2080) | 3 | 1,195 | Y | 1.86 | 4.57 | 12.11 | |
| Rossbrook WwPS | SW62708770 | Short Term Development Model (2030) | - | - | Y | 0.51 | 1.54 | 2.10 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.51 | 1.54 | 2.10 | |
| | | Full Development Model (2080) | - | - | Y | 0.51 | 1.54 | 2.10 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Shandon Street SWO | SW67720221 | Short Term Development Model (2030) | 63 | 56,234 | N | 30.77 | 68.40 | 125.83 | River Lee Estuary Upper |
| | SW67720221 | Long Term Development Model (2055) | 61 | 60,873 | N | 30.77 | 68.40 | 125.83 | |
| | SW67720221_WEIR1 | Full Development Model (2080) | 64 | 62,353 | N | 30.77 | 68.40 | 125.83 | |
| | | Solution Model (2080) | 1 | 316 | Y | 30.77 | 68.40 | 125.83 | |
| Silversprings Lane SWO | SW70727506 | Short Term Development Model (2030) | - | - | Y | 28.33 | 48.82 | 63.75 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | - | - | Y | 28.33 | 48.82 | 63.75 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | SW70727506_WEIR | Full Development Model (2080) | - | - | Y | 28.33 | 48.82 | 63.75 | |
| | | Solution Model (2080) | 2 | 1,381 | Y | 28.33 | 48.82 | 63.75 | |
| Skehard Road SWO (Clover Lawn SWO) | SW71702713 | Short Term Development Model (2030) | 174 | 186,941 | N | 7.28 | 21.75 | 40.75 | Lough Mahon |
| | | Long Term Development Model (2055) | 166 | 190,607 | N | 7.28 | 21.75 | 40.75 | |
| | | Full Development Model (2080) | 172 | 195,522 | N | 7.28 | 21.75 | 40.75 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| South Douglas Road SWO | SW69694706 | Short Term Development Model (2030) | 39 | 5,859 | Y | 11.37 | 27.42 | 61.32 | Moneygurney River |
| | | Long Term Development Model (2055) | 41 | 6,465 | Y | 11.52 | 27.80 | 61.69 | |
| | | Full Development Model (2080) | 43 | 6,739 | Y | 13.12 | 31.87 | 66.77 | |
| | | Solution Model (2080) | 1 | 123 | Y | 13.12 | 31.87 | 66.77 | |
| South Ring Road SWO | SW66692307_DN_2 | Short Term Development Model (2030) | 12 | 3,422 | Y | 4.02 | 9.11 | 16.38 | Unknown |
| | | Long Term Development Model (2055) | 14 | 4,188 | Y | 4.02 | 9.11 | 16.38 | |
| | | Full Development Model (2080) | 16 | 3,950 | Y | 4.02 | 9.11 | 16.38 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Southern Road SWO | SW67719104 | Short Term Development Model (2030) | 53 | 66,245 | N | 34.81 | 77.54 | 152.26 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 52 | 73,494 | N | 34.85 | 77.65 | 152.36 | |
| | | Full Development Model (2080) | 56 | 77,078 | N | 35.23 | 78.62 | 153.34 | |
| | | Solution Model (2080) | 11 | 14,687 | Y | 35.23 | 78.62 | 153.34 | |
| Southern Road, No.1 SWO | SW67719203_WEIR | Short Term Development Model (2030) | 82 | 36,561 | N | 24.13 | 51.94 | 113.04 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 81 | 37,424 | N | 24.13 | 51.94 | 113.04 | |
| | | Full Development Model (2080) | 81 | 39,004 | N | 24.13 | 51.94 | 113.04 | |
| | | Solution Model (2080) | - | - | Y | - | - | - | |
| St. Finbarr's Hospital SWO | SW68701606_SLUICE | Short Term Development Model (2030) | 22 | 7,070 | N | 3.37 | 10.12 | 11.20 | Moneygurney River |
| | | Long Term Development Model (2055) | 25 | 8,218 | N | 3.37 | 10.12 | 11.20 | |
| | | Full Development Model (2080) | 26 | 8,047 | N | 3.37 | 10.12 | 11.20 | |
| | | Solution Model (2080) | 4 | 1,879 | Y | 3.37 | 10.12 | 11.20 | |
| St. Finbarr's Place SWO | SW67710401_WEIR2 | Short Term Development Model (2030) | 12 | 2,373 | Y | 26.33 | 40.40 | 60.92 | River Lee Estuary Upper |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 15 | 2,785 | Y | 26.33 | 40.40 | 60.92 | |
| | | Full Development Model (2080) | 16 | 2,673 | Y | 26.33 | 40.40 | 60.92 | |
| | | Solution Model (2080) | - | - | Y | 26.33 | 40.40 | 60.92 | |
| Stratton Pines WwPS | SW64692307_WW | Short Term Development Model (2030) | - | - | Y | 0.77 | 1.53 | 2.15 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.77 | 1.53 | 2.15 | |
| | | Full Development Model (2080) | - | - | Y | 0.77 | 1.53 | 2.15 | |
| | | Solution Model (2080) | - | - | Y | 0.77 | 1.53 | 2.15 | |
| Summerhill North SWO | SW68720109_WEIR1 | Short Term Development Model (2030) | 175 | 239,964 | N | 30.37 | 55.67 | 96.86 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 167 | 249,204 | N | 30.40 | 55.73 | 96.92 | |
| | | Full Development Model (2080) | 173 | 255,652 | N | 30.69 | 56.48 | 97.66 | |
| | | Solution Model (2080) | 12 | 4,059 | Y | 30.69 | 56.48 | 97.66 | |
| Summerhill South SWO | SW67718105 | Short Term Development Model (2030) | 44 | 37,252 | N | 6.76 | 14.14 | 28.85 | River Lee Estuary Upper |
| | SW67718105 | Long Term Development Model (2055) | 43 | 39,432 | N | 6.76 | 14.14 | 28.85 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | SW67718105_WEIR1 | Full Development Model (2080) | 45 | 40,845 | N | 6.76 | 14.14 | 28.85 | |
| | SW67718105_WEIR2 | Solution Model (2080) | - | - | Y | 6.76 | 14.14 | 28.85 | |
| Sunday's Well WwPS | SW65714616 | Short Term Development Model (2030) | - | - | Y | 1.77 | 4.54 | 6.03 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | - | - | Y | 1.77 | 4.54 | 6.03 | |
| | | Full Development Model (2080) | - | - | Y | 1.77 | 4.54 | 6.03 | |
| | | Solution Model (2080) | - | - | Y | 1.77 | 4.54 | 6.03 | |
| Sunview Place East SWO | SW68738209_WEIR1 | Short Term Development Model (2030) | 44 | 9,504 | Y | 12.13 | 15.29 | 20.52 | River Bride |
| | | Long Term Development Model (2055) | 44 | 10,419 | Y | 12.13 | 15.29 | 20.52 | |
| | | Full Development Model (2080) | 46 | 10,703 | Y | 12.13 | 15.29 | 20.52 | |
| | | Solution Model (2080) | 2 | 578 | Y | 12.13 | 15.29 | 20.52 | |
| Thomas Davis Street SWO | SW67735317_WEIR1 | Short Term Development Model (2030) | 3 | 388 | Y | 61.46 | 133.03 | 147.57 | River Bride |
| | | Long Term Development Model (2055) | 3 | 553 | Y | 68.04 | 149.71 | 164.26 | |
| | | Full Development Model (2080) | 3 | 409 | Y | 70.68 | 156.44 | 170.99 | |
| | | Solution Model (2080) | - | - | Y | 70.68 | 156.44 | 170.99 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Tivoli Industrial Estate WwPS | SW71723202 | Short Term Development Model (2030) | - | - | Y | 0.84 | 1.90 | 1.90 | River Lee |
| | | Long Term Development Model (2055) | - | - | Y | 0.84 | 1.90 | 1.90 | |
| | | Full Development Model (2080) | DECOMMISSIONED | | | | | | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Tivoli WwPS | SW70726429 | Short Term Development Model (2030) | 5 | 3,787 | Y | 46.76 | 74.92 | 93.11 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 7 | 4,024 | Y | 47.32 | 76.34 | 94.53 | |
| | | Full Development Model (2080) | 7 | 7,354 | Y | 47.79 | 77.53 | 95.73 | |
| | | Solution Model (2080) | - | - | Y | 47.79 | 77.53 | 95.73 | |
| Togher Community Park SWO | SW66692208 | Short Term Development Model (2030) | SOLUTION ONLY | | | | | | Unknown |
| | | Long Term Development Model (2055) | SOLUTION ONLY | | | | | | |
| | | Full Development Model (2080) | SOLUTION ONLY | | | | | | |
| | | Solution Model (2080) | - | - | Y | 3.97 | 8.95 | 17.51 | |
| Trafalgar Hill SWO | SW70724309_WEIR1 | Short Term Development Model (2030) | 1 | 146 | Y | 1.76 | 3.24 | 5.21 | River Lee Estuary Lower |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 2 | 328 | Y | 1.81 | 3.36 | 5.33 | |
| | | Full Development Model (2080) | 2 | 267 | Y | 2.28 | 4.56 | 6.53 | |
| | | Solution Model (2080) | - | - | Y | 2.28 | 4.56 | 6.53 | |
| Travers Street SWO | SW67714307_WEIR | Short Term Development Model (2030) | 6 | 497 | Y | 1.78 | 2.34 | 3.53 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 7 | 598 | Y | 1.78 | 2.34 | 3.53 | |
| | | Full Development Model (2080) | 7 | 571 | Y | 1.78 | 2.34 | 3.53 | |
| | | Solution Model (2080) | - | - | Y | 1.78 | 2.34 | 3.53 | |
| Turner's Cross SWO | SW67708111_WEIR2 | Short Term Development Model (2030) | 28 | 18,213 | Y | 17.29 | 40.02 | 76.50 | Moneygurney River |
| | | Long Term Development Model (2055) | 29 | 20,271 | Y | 17.33 | 40.12 | 76.60 | |
| | | Full Development Model (2080) | 33 | 20,410 | Y | 17.71 | 41.10 | 77.58 | |
| | | Solution Model (2080) | 3 | 2,463 | Y | 17.71 | 41.10 | 77.58 | |
| Uam Var Drive SWO | SW63693903 | Short Term Development Model (2030) | - | - | Y | 0.60 | 1.50 | 4.15 | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | 0.60 | 1.50 | 4.15 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 0.60 | 1.50 | 4.15 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| University Hall WwPS | SW65712118_WW | Short Term Development Model (2030) | - | - | Y | - | - | - | Curragheen River |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |
| | | Full Development Model (2080) | - | - | Y | - | - | - | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Upper John Street SWO | SW67723509_WEIR2 | Short Term Development Model (2030) | 1 | 88 | Y | 0.41 | 1.23 | 3.53 | River Bride |
| | | Long Term Development Model (2055) | 1 | 185 | Y | 0.41 | 1.23 | 3.53 | |
| | | Full Development Model (2080) | 1 | 85 | Y | 0.41 | 1.23 | 3.53 | |
| | | Solution Model (2080) | - | - | Y | 0.41 | 1.23 | 3.53 | |
| Ursuline Convent SWO | SW71715602 | Short Term Development Model (2030) | 11 | 4,061 | N | 1.62 | 4.86 | 5.91 | River Lee Estuary Lower |
| | | Long Term Development Model (2055) | 12 | 4,553 | N | 1.62 | 4.86 | 5.91 | |
| | SW71715602_WEIR | Full Development Model (2080) | 14 | 4,466 | N | 1.62 | 4.86 | 5.91 | |
| | | Solution Model (2080) | 2 | 570 | Y | 1.62 | 4.86 | 5.91 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Victoria Hospital SWO | SW68710201_WEIR2 | Short Term Development Model (2030) | 52 | 7,309 | N | 0.84 | 1.55 | 2.21 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 52 | 7,847 | N | 0.84 | 1.55 | 2.21 | |
| | | Full Development Model (2080) | 55 | 8,097 | N | 0.84 | 1.55 | 2.21 | |
| | | Solution Model (2080) | - | - | Y | 0.84 | 1.55 | 2.21 | |
| Wallingstown WwPS | SW74715202 | Short Term Development Model (2030) | - | - | Y | 77.09 | 223.27 | 223.27 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 77.09 | 223.27 | 223.27 | |
| | | Full Development Model (2080) | - | - | Y | 77.09 | 223.27 | 223.27 | |
| | | Solution Model (2080) | - | - | Y | 77.09 | 223.27 | 223.27 | |
| Westbury Grove SWO | SW65695101 | Short Term Development Model (2030) | - | - | Y | 2.27 | 5.68 | 5.68 | Glasheen River |
| | | Long Term Development Model (2055) | - | - | Y | 2.27 | 5.68 | 5.68 | |
| | | Full Development Model (2080) | - | - | Y | 2.27 | 5.68 | 5.68 | |
| | | Solution Model (2080) | DECOMMISSIONED | | | | | | |
| Wherelands Lane SWO | SW67734406_WEIR2 | Short Term Development Model (2030) | 160 | 187,632 | N | 39.05 | 56.93 | 83.36 | River Bride |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 153 | 196,796 | N | 39.05 | 56.94 | 83.38 | |
| | | Full Development Model (2080) | 159 | 200,840 | N | 39.12 | 57.09 | 83.52 | |
| | | Solution Model (2080) | 9 | 3,608 | Y | 39.12 | 57.09 | 83.52 | |
| Wilton WwPS | SW65692212_WW | Short Term Development Model (2030) | - | - | Y | 13.27 | 33.98 | 34.21 | Moneygurney River |
| | | Long Term Development Model (2055) | - | - | Y | 34.93 | 88.83 | 89.07 | |
| | | Full Development Model (2080) | - | - | Y | 37.58 | 95.86 | 96.09 | |
| | | Solution Model (2080) | - | - | Y | 37.58 | 95.86 | 96.09 | |
| Wise's Quay SWO | SW66727002 | Short Term Development Model (2030) | SOLUTION ONLY | | | | | | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | SOLUTION ONLY | | | | | | |
| | | Full Development Model (2080) | SOLUTION ONLY | | | | | | |
| | | Solution Model (2080) | 2 | 1,053 | Y | 37.74 | 80.07 | 92.74 | |
| Woodbrook Gurrane Lane SWO | SW64693504_WEIR2 | Short Term Development Model (2030) | 161 | 146,707 | N | 7.54 | 21.63 | 44.81 | Glasheen River |
| | | Long Term Development Model (2055) | 151 | 152,725 | N | 7.54 | 21.63 | 44.81 | |

| Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 158 | 160,906 | N | 7.58 | 21.75 | 44.93 | |
| | | Solution Model (2080) | 1 | 43 | Y | 7.58 | 21.75 | 44.93 | |
| Woodhaven WwPS | SW64694301_WW | Short Term Development Model (2030) | - | - | Y | 0.30 | 0.89 | 0.89 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 0.30 | 0.89 | 0.89 | |
| | | Full Development Model (2080) | - | - | Y | 0.30 | 0.89 | 0.89 | |
| | | Solution Model (2080) | - | - | Y | 0.30 | 0.89 | 0.89 | |
| Wyse's Hill SWO | SW66727102_WEIR2 | Short Term Development Model (2030) | 5 | 804 | Y | 25.36 | 51.17 | 75.49 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 6 | 1,028 | Y | 25.36 | 51.17 | 75.49 | |
| | | Full Development Model (2080) | 5 | 840 | Y | 25.36 | 51.17 | 75.49 | |
| | | Solution Model (2080) | - | - | Y | 25.36 | 51.17 | 75.49 | |
| York Street SWO | SW67729205_WEIR2 | Short Term Development Model (2030) | - | - | Y | 12.60 | 20.89 | 38.75 | River Lee Estuary Upper |
| | | Long Term Development Model (2055) | 1 | 122 | Y | 12.60 | 20.89 | 38.75 | |
| | | Full Development Model (2080) | - | - | Y | 12.60 | 20.89 | 38.75 | |
| | | Solution Model (2080) | - | - | Y | 12.60 | 20.89 | 38.75 | |

## 2. Cork Lower Harbour SWO Details

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Carrigaline Dunnes Network SWO | SW72629103 | Short Term Development Model (2030) | - | - | Y | 11.56 | 28.66 | 30.48 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 11.58 | 28.72 | 30.54 | |
| | | Full Development Model (2080) | - | - | Y | 11.64 | 28.90 | 30.72 | |
| | | Solution Model (2080) | - | - | Y | 11.64 | 28.90 | 30.72 | |
| Monkstown CSO (Strand Road) | Monkstown CSO_WE | Short Term Development Model (2030) | 1 | 87 | Y | 2.77 | 6.83 | 17.68 | Owenboy Estuary |
| | | Long Term Development Model (2055) | 1 | 56 | Y | 2.77 | 6.83 | 17.68 | |
| | | Full Development Model (2080) | 1 | 284 | Y | 2.77 | 6.83 | 17.68 | |
| | | Solution Model (2080) | 1 | 285 | Y | 2.77 | 6.83 | 17.68 | |
| Station Weir SWO | C1.1 | Short Term Development Model (2030) | 1 | 66 | Y | 0.07 | 0.20 | 0.72 | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | 0.07 | 0.20 | 0.72 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 1 | 96.00 | Y | 0.07 | 0.20 | 0.72 | |
| | | Solution Model (2080) | 1 | 86.00 | Y | 0.07 | 0.20 | 0.72 | |
| Church Road WwPS | Church Road Tank_1 | Short Term Development Model (2030) | - | - | Y | 90.00 | 233.53 | 245.55 | Owenboy Estuary |
| | | Long Term Development Model (2055) | 1 | 86.00 | Y | 103.67 | 268.32 | 280.35 | |
| | | Full Development Model (2080) | 1 | 382.00 | Y | 111.27 | 289.98 | 302.03 | |
| | | Solution Model (2080) | - | - | Y | 111.27 | 289.98 | 302.03 | |
| Coolmore Cross WwPS | SW76630206 | Short Term Development Model (2030) | - | - | Y | 0.50 | 1.23 | 1.90 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 0.50 | 1.23 | 1.90 | |
| | | Full Development Model (2080) | - | - | Y | 0.50 | 1.23 | 1.90 | |
| | | Solution Model (2080) | - | - | Y | 0.50 | 1.23 | 1.90 | |
| Cork Road WwPS | PS1 | Short Term Development Model (2030) | - | - | Y | 18.17 | 45.67 | 45.67 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 19.63 | 49.34 | 49.34 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 1 | 134.00 | Y | 19.93 | 50.25 | 50.25 | |
| | | Solution Model (2080) | 1 | 84.00 | Y | 19.93 | 50.25 | 50.25 | |
| Crosshaven Road WwPS | CR_Storm Tank | Short Term Development Model (2030) | 1 | 78.00 | Y | 5.56 | 14.17 | 15.63 | Owenboy Estuary |
| | | Long Term Development Model (2055) | 1 | 62.00 | Y | 5.56 | 14.17 | 15.63 | |
| | | Full Development Model (2080) | 1 | 188.00 | Y | 5.56 | 14.17 | 15.63 | |
| | | Solution Model (2080) | 1 | 206.00 | Y | 5.56 | 14.17 | 15.63 | |
| Crosshaven WwPS 2 (The Square) | PS2 | Short Term Development Model (2030) | - | - | Y | 20.87 | 52.16 | 52.16 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 22.33 | 55.83 | 55.83 | |
| | | Full Development Model (2080) | - | - | Y | 22.63 | 56.74 | 56.74 | |
| | | Solution Model (2080) | 4 | 1,329.00 | Y | 22.63 | 56.74 | 56.74 | |
| Crosshaven WwPS 1 (Car Park) | PS1_CarPark | Short Term Development Model (2030) | - | - | Y | 18.17 | 45.67 | 45.67 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 19.63 | 49.34 | 49.34 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 19.93 | 50.25 | 50.25 | |
| | | Solution Model (2080) | - | - | Y | 19.93 | 50.25 | 50.25 | |
| Dock Cottages WwPS | DC2_1 | Short Term Development Model (2030) | 2 | 124.00 | Y | 0.11 | 0.32 | 1.13 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 0.11 | 0.32 | 1.13 | |
| | | Full Development Model (2080) | 2 | 124.00 | Y | 0.11 | 0.32 | 1.13 | |
| | | Solution Model (2080) | - | - | Y | 0.11 | 0.32 | 1.13 | |
| Dockyard WwPS (Estuary Crossing WwPS) | MH B4 CSO | Short Term Development Model (2030) | 1 | 479.00 | Y | 22.93 | 57.54 | 133.62 | Lough Mahon |
| | | Long Term Development Model (2055) | 1 | 257.00 | Y | 24.35 | 61.14 | 137.22 | |
| | | Full Development Model (2080) | 1 | 885.00 | Y | 29.40 | 74.11 | 150.19 | |
| | | Solution Model (2080) | 3 | 2,101.00 | Y | 48.13 | 124.26 | 200.90 | |
| Town Park WwPS (Attenuation Tank) | Attenuation Tank_Overflow MH | Short Term Development Model (2030) | 7 | 5,039.00 | Y | 31.16 | 78.16 | 83.92 | Owenboy Estuary |
| | | Long Term Development Model (2055) | 31 | 21,450.00 | Y | 43.35 | 109.22 | 114.98 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 272 | 121,588.00 | N | 50.59 | 129.77 | 135.53 | |
| | | Solution Model (2080) | 1 | 1,718.00 | Y | 50.59 | 129.77 | 135.53 | |
| Glenbrook WwPS | Glenbrook CSO | Short Term Development Model (2030) | - | - | Y | 16.95 | 41.40 | 69.20 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 18.07 | 44.23 | 72.03 | |
| | | Full Development Model (2080) | - | - | Y | 18.15 | 44.46 | 72.26 | |
| | | Solution Model (2080) | - | - | Y | 18.15 | 44.46 | 72.26 | |
| Lynch's Quay WwPS | GFE430 | Short Term Development Model (2030) | - | - | Y | 0.19 | 0.57 | 0.57 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 0.19 | 0.57 | 0.57 | |
| | | Full Development Model (2080) | - | - | Y | 0.19 | 0.57 | 0.57 | |
| | | Solution Model (2080) | - | - | Y | 0.19 | 0.57 | 0.57 | |
| Old Town Hall WwPS | Old Town Hall Storage | Short Term Development Model (2030) | 6 | 5,001.00 | Y | 17.99 | 43.10 | 106.64 | Cork Harbour |
| | | Long Term Development Model (2055) | 4 | 3,387.00 | Y | 19.47 | 46.87 | 110.83 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 8 | 7,451.00 | Y | 24.51 | 59.84 | 123.80 | |
| | | Solution Model (2080) | 7 | 7,349.00 | Y | 24.46 | 59.67 | 123.21 | |
| Old Waterpark WwPS | SW73621418 | Short Term Development Model (2030) | - | - | Y | 1.81 | 4.46 | 6.95 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 1.81 | 4.46 | 6.95 | |
| | | Full Development Model (2080) | - | - | Y | 1.81 | 4.46 | 6.95 | |
| | | Solution Model (2080) | - | - | Y | 1.81 | 4.46 | 6.95 | |
| Passage West Central WwPS | Passage West CSO | Short Term Development Model (2030) | - | - | Y | 13.44 | 32.63 | 50.49 | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | 14.20 | 34.57 | 52.43 | |
| | | Full Development Model (2080) | - | - | Y | 14.25 | 34.70 | 52.56 | |
| | | Solution Model (2080) | - | - | Y | 14.25 | 34.70 | 52.56 | |
| Ringaskiddy Village WwPS | Storm Tank | Short Term Development Model (2030) | 1 | 83.00 | Y | 5.56 | 14.17 | 15.63 | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | 5.56 | 14.17 | 15.63 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 1 | 194.00 | Y | 5.56 | 14.17 | 15.63 | |
| | | Solution Model (2080) | 1 | 242.00 | Y | 5.56 | 14.17 | 15.63 | |
| Rushbrooke Hotel WwPS | MH J10 | Short Term Development Model (2030) | - | - | Y | 0.27 | 0.81 | 2.89 | Lough Mahon |
| | | Long Term Development Model (2055) | - | - | Y | 0.27 | 0.81 | 2.89 | |
| | | Full Development Model (2080) | - | - | Y | 0.27 | 0.81 | 2.89 | |
| | | Solution Model (2080) | - | - | Y | 0.27 | 0.81 | 2.89 | |
| Station Car Park WwPS | Station Rd PS | Short Term Development Model (2030) | 1 | 92.00 | Y | 22.63 | 56.62 | 130.52 | Cork Harbour |
| | | Long Term Development Model (2055) | 1 | 69.00 | Y | 24.05 | 60.22 | 134.12 | |
| | | Full Development Model (2080) | 1 | 173.00 | Y | 29.09 | 73.19 | 147.09 | |
| | | Solution Model (2080) | 2 | 217.00 | Y | 29.09 | 73.19 | 147.09 | |
| Coast Road WwPS | PS5 | Short Term Development Model (2030) | - | - | Y | 0.43 | 1.07 | 2.64 | Owenboy Estuary |
| | | Long Term Development Model (2055) | - | - | Y | 0.43 | 1.07 | 2.64 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | 0.43 | 1.07 | 2.64 | |
| | | Solution Model (2080) | - | - | Y | 0.43 | 1.07 | 2.64 | |
| Cow's Cross WwPS | Cow Cross PS | Short Term Development Model (2030) | - | - | Y | - | - | - | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |
| | | Full Development Model (2080) | - | - | Y | - | - | - | |
| | | Solution Model (2080) | - | - | Y | - | - | - | |
| North Cobh WwTP | SW78673501_PS | Short Term Development Model (2030) | - | - | Y | 7.29 | 19.98 | 20.37 | Cork Harbour |
| | | Long Term Development Model (2055) | 3 | 326.00 | Y | 13.93 | 36.90 | 37.29 | |
| | | Full Development Model (2080) | 5 | 721.00 | Y | 14.08 | 37.49 | 37.88 | |
| | | Solution Model (2080) | 5 | 683.00 | Y | 16.59 | 44.49 | 44.88 | |
| North Cobh New WwPS | North Cobh New WwPS.2 | Short Term Development Model (2030) | - | - | Y | - | - | - | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | - | - | Y | - | - | - | |
| | | Solution Model (2080) | 1 | 158.00 | Y | 18.74 | 50.15 | 50.71 | |
| Cork Lower Harbour WwTP | Storm Tank 2.1 | Short Term Development Model (2030) | - | - | Y | - | - | - | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | - | - | - | |
| | | Full Development Model (2080) | 2 | 2,928.00 | Y | 184.64 | 462.01 | 597.45 | |
| | | Solution Model (2080) | 4 | 7,618.00 | Y | 400.19 | 941.92 | 1,181.79 | |
| Cork Lower Harbour WwPS | SW75648405.1 | Short Term Development Model (2030) | - | - | Y | 20.01 | 37.78 | 45.78 | Cork Harbour |
| | | Long Term Development Model (2055) | - | - | Y | 20.01 | 37.78 | 45.78 | |
| | | Full Development Model (2080) | - | - | Y | 20.01 | 37.78 | 45.78 | |
| | | Solution Model (2080) | - | - | Y | 20.01 | 37.78 | 45.78 | |

## 3. Ballincollig SWO Details

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Ballincollig WwTP Storm Tank | SW59712101_TANK2 | Short Term Development Model (2030) | 5 | 10,706.00 | Y | 72.91 | 188.96 | 188.96 | River Lee |
| | | Long Term Development Model (2055) | 5 | 12,766.00 | Y | 75.90 | 196.47 | 196.47 | |
| | | Full Development Model (2080) | 7 | 15,442.00 | Y | 75.90 | 196.47 | 196.47 | |
| | | Solution Model (2080) | 8 | 20,624.00 | Y | 75.90 | 196.47 | 196.47 | |
| Carrigrohane WwPS | Storm Tank | Short Term Development Model (2030) | 5 | 876.00 | Y | 2.77 | 6.57 | 6.57 | River Lee |
| | | Long Term Development Model (2055) | 4 | 998.00 | Y | 2.77 | 6.57 | 6.57 | |
| | | Full Development Model (2080) | 6 | 1,256.00 | Y | 2.77 | 6.57 | 6.57 | |
| | | Solution Model (2080) | 5 | 1,179.00 | Y | 2.77 | 6.57 | 6.57 | |
| Church Hill SWO | SW61713505 | Short Term Development Model (2030) | - | - | Y | 1.00 | 2.96 | 2.96 | River Lee |
| | | Long Term Development Model (2055) | - | - | Y | 1.00 | 2.96 | 2.96 | |
| | | Full Development Model (2080) | - | - | Y | 1.00 | 2.96 | 2.96 | |
| | | Solution Model (2080) | - | - | Y | 1.00 | 2.96 | 2.96 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Church View 1 SWO | SW59701402 | Short Term Development Model (2030) | - | - | Y | 0.37 | 1.10 | 1.10 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 0.37 | 1.10 | 1.10 | |
| | | Full Development Model (2080) | - | - | Y | 0.37 | 1.10 | 1.10 | |
| | | Solution Model (2080) | - | - | Y | 0.37 | 1.10 | 1.10 | |
| Church View 2 SWO | SW59701403 | Short Term Development Model (2030) | - | - | Y | 0.50 | 1.49 | 1.49 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 0.50 | 1.49 | 1.49 | |
| | | Full Development Model (2080) | - | - | Y | 0.50 | 1.49 | 1.49 | |
| | | Solution Model (2080) | - | - | Y | 0.50 | 1.49 | 1.49 | |
| Leesdale WwPS | SW59717112 | Short Term Development Model (2030) | 1 | 122.00 | Y | 7.53 | 18.50 | 18.50 | River Lee |
| | | Long Term Development Model (2055) | 1 | 150.00 | Y | 7.53 | 18.50 | 18.50 | |
| | | Full Development Model (2080) | 1 | 160.00 | Y | 7.53 | 18.50 | 18.50 | |
| | | Solution Model (2080) | 1 | 159.00 | Y | 7.53 | 18.50 | 18.50 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Maglin WwPS | SW59706007_OF | Short Term Development Model (2030) | 8 | 8,154.00 | Y | 21.95 | 51.86 | 51.86 | Curragheen River |
| | | Long Term Development Model (2055) | 12 | 13,328.00 | Y | 24.93 | 59.37 | 59.37 | |
| | | Full Development Model (2080) | 13 | 16,142.00 | Y | 24.93 | 59.37 | 59.37 | |
| | | Solution Model (2080) | 3 | 2,026.00 | Y | 24.93 | 59.37 | 59.37 | |
| Powdermill WwPS | SW59711205 | Short Term Development Model (2030) | 1 | 286.00 | Y | 29.08 | 72.83 | 72.83 | River Lee |
| | | Long Term Development Model (2055) | 1 | 315.00 | Y | 29.08 | 72.83 | 72.83 | |
| | | Full Development Model (2080) | 2 | 478.00 | Y | 29.08 | 72.83 | 72.83 | |
| | | Solution Model (2080) | 1 | 283.00 | Y | 29.08 | 72.83 | 72.83 | |

## 4. Carrigtwohill SWO Details

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Church Lane SWO | SW82730001 | Short Term Development Model (2030) | - | - | Y | 1.49 | 3.98 | 5.52 | Tibbotstown Reservoir |
| | | Long Term Development Model (2055) | - | - | Y | 1.49 | 3.98 | 5.52 | |
| | | Full Development Model (2080) | - | - | Y | 1.49 | 3.98 | 5.52 | |
| | | Solution Model (2080) | - | - | Y | 1.49 | 3.98 | 5.52 | |
| Elm Road SWO | SW82737005 | Short Term Development Model (2030) | - | - | Y | 0.59 | 1.58 | 2.35 | Tibbotstown Reservoir |
| | | Long Term Development Model (2055) | - | - | Y | 0.59 | 1.58 | 2.35 | |
| | | Full Development Model (2080) | 1 | 88.00 | Y | 0.59 | 1.58 | 2.35 | |
| | | Solution Model (2080) | 1 | 93.00 | Y | 0.59 | 1.58 | 2.35 | |
| Barryscourt WwPS | Barryscourt WWPS_Inlet Chamber | Short Term Development Model (2030) | - | - | Y | 145.32 | 392.94 | 396.44 | Tibbotstown Reservoir |
| | | Long Term Development Model (2055) | - | - | Y | 159.26 | 428.41 | 431.92 | |
| | | Full Development Model (2080) | - | - | Y | 168.88 | 452.85 | 456.36 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Solution Model (2080) | - | - | Y | 171.63 | 459.76 | 463.27 | |
| IDA No.1 WwPS | IDA No.1 WWPS_Storm Holding Tank | Short Term Development Model (2030) | - | - | Y | 18.75 | 56.26 | 56.59 | Tibbotstown Reservoir |
| | | Long Term Development Model (2055) | - | - | Y | 18.75 | 56.26 | 56.59 | |
| | | Full Development Model (2080) | - | - | Y | 18.75 | 56.26 | 56.59 | |
| | | Solution Model (2080) | - | - | Y | 18.75 | 56.26 | 56.59 | |
| Old Cobh Road WwPS | Old Cobh Road WWPS_Storm Wet Well | Short Term Development Model (2030) | - | - | Y | 182.34 | 489.91 | 498.15 | Groundwater |
| | | Long Term Development Model (2055) | - | - | Y | 200.60 | 536.35 | 544.59 | |
| | | Full Development Model (2080) | - | - | Y | 210.86 | 562.45 | 570.69 | |
| | | Solution Model (2080) | - | - | Y | 213.62 | 569.36 | 577.60 | |
| Carrigtwohill WwTP | WWTP_Storm Tank No.1 | Short Term Development Model (2030) | - | - | Y | 202.63 | 550.72 | 559.30 | Lough Mahon (Harper's Island) |
| | | Long Term Development Model (2055) | - | - | Y | 220.88 | 597.17 | 605.74 | |
| | | Full Development Model (2080) | 6 | 8,245.00 | Y | 231.15 | 623.27 | 631.84 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Solution Model (2080) | 6 | 9,876.00 | Y | 233.90 | 630.17 | 638.75 | |

## 5. Midleton SWO Details

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Drury's Avenue SWO | SW88731601 | Short Term Development Model (2030) | 21 | 1,987.00 | N | 0.35 | 0.70 | 0.70 | Dungourney River |
| | | Long Term Development Model (2055) | 22 | 2,146.00 | N | 0.35 | 0.70 | 0.70 | |
| | | Full Development Model (2080) | 25 | 2,408.00 | N | 0.35 | 0.70 | 0.70 | |
| | | Solution Model (2080) | Decommissioned | | | | | | |
| Riversfield SWO | SW87736104 | Short Term Development Model (2030) | 70 | 12,439.00 | N | 0.97 | 2.90 | 2.90 | Owenacurra River |
| | | Long Term Development Model (2055) | 70 | 12,880.00 | N | 0.97 | 2.90 | 2.90 | |
| | | Full Development Model (2080) | 104 | 21,425.00 | N | 1.67 | 4.64 | 4.64 | |
| | | Solution Model (2080) | Decommissioned | | | | | | |
| Bailick No.1 WwPS | SW88730107_STORM_OF | Short Term Development Model (2030) | 32 | 18,584.00 | Y | 122.52 | 335.51 | 335.51 | Owenacurra River |
| | | Long Term Development Model (2055) | 32 | 19,764.00 | Y | 123.01 | 336.76 | 336.76 | |
| | | Full Development Model (2080) | 32 | 20,943.00 | Y | 127.25 | 347.57 | 347.57 | |
| | | Solution Model (2080) | 4 | 5,131.00 | Y | 130.00 | 354.47 | 354.47 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Oakwood WwPS | SW88737101 | Short Term Development Model (2030) | 0 | - | Y | 0.21 | 0.63 | 0.63 | Owenacurra River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.21 | 0.63 | 0.63 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.21 | 0.63 | 0.63 | |
| | | Solution Model (2080) | 0 | - | Y | 0.21 | 0.63 | 0.63 | |
| Bailick No.2 WwPS | SW88720503_WW | Short Term Development Model (2030) | 162 | 133,766.00 | N | 18.00 | 44.52 | 44.52 | Owenacurra River |
| | | Long Term Development Model (2055) | 163 | 134,608.00 | N | 18.01 | 44.55 | 44.55 | |
| | | Full Development Model (2080) | 171 | 143,284.00 | N | 18.60 | 45.99 | 45.99 | |
| | | Solution Model (2080) | 6 | 3,477.00 | Y | 18.60 | 45.99 | 45.99 | |
| Bailick No.3 WwPS | SW88723004 | Short Term Development Model (2030) | 0 | - | Y | 14.44 | 34.89 | 34.89 | Owenacurra River |
| | | Long Term Development Model (2055) | 0 | - | Y | 14.45 | 34.92 | 34.92 | |
| | | Full Development Model (2080) | 0 | - | Y | 15.04 | 36.37 | 36.37 | |
| | | Solution Model (2080) | 0 | - | Y | 15.04 | 36.37 | 36.37 | |
| Ballinacurra No.1 WwPS | SW88713706_Overflow | Short Term Development Model (2030) | 1 | 1,364.00 | Y | 157.64 | 422.32 | 422.32 | Owenacurra River |
| | | Long Term Development Model (2055) | 2 | 2,539.00 | Y | 170.11 | 454.04 | 454.04 | |
| | | Full Development Model (2080) | 0 | - | Y | 179.36 | 477.47 | 477.47 | |
| | | Solution Model (2080) | 0 | 119.00 | Y | 182.12 | 484.38 | 484.38 | |
| Ballinacurra No.2 WwPS | SW88715704 | Short Term Development Model (2030) | 1 | 68.00 | Y | 7.06 | 16.08 | 16.08 | Owenacurra River |
| | | Long Term Development Model (2055) | 1 | 192.00 | Y | 7.07 | 16.11 | 16.11 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 1 | 221.00 | Y | 7.06 | 16.08 | 16.08 | |
| | | Solution Model (2080) | 1 | 214.00 | Y | 7.06 | 16.08 | 16.08 | |
| Dwyers Road WwPS | SW87724905_CSO | Short Term Development Model (2030) | 0 | 12.00 | Y | 139.64 | 377.80 | 377.80 | Stream (unknown) |
| | | Long Term Development Model (2055) | 0 | 34.00 | Y | 152.10 | 409.49 | 409.49 | |
| | | Full Development Model (2080) | 1 | 52.00 | Y | 160.76 | 431.48 | 431.48 | |
| | | Solution Model (2080) | 5 | 2,654.00 | Y | 163.51 | 438.38 | 438.38 | |
| Old Youghal Road WwPS | SW88737001 | Short Term Development Model (2030) | 1 | 77.00 | Y | 5.11 | 14.60 | 14.60 | Owenacurra River |
| | | Long Term Development Model (2055) | 1 | 94.00 | Y | 5.11 | 14.60 | 14.60 | |
| | | Full Development Model (2080) | 1 | 117.00 | Y | 5.11 | 14.60 | 14.60 | |
| | | Solution Model (2080) | 1 | 122.00 | Y | 5.11 | 14.60 | 14.60 | |
| Roxboro Housing Estate WwPS | SW88733302 | Short Term Development Model (2030) | 0 | - | Y | 0.08 | 0.25 | 0.25 | Dungourney River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.08 | 0.25 | 0.25 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.08 | 0.25 | 0.25 | |
| | | Solution Model (2080) | 0 | - | Y | 0.08 | 0.25 | 0.25 | |
| Roxboro Mews WwPS | SW88733319 | Short Term Development Model (2030) | 0 | - | Y | 0.03 | 0.08 | 0.08 | Dungourney River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.03 | 0.08 | 0.08 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.03 | 0.08 | 0.08 | |
| | | Solution Model (2080) | 0 | - | Y | 0.03 | 0.08 | 0.08 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| The Rock WwPS | SW88732218 | Short Term Development Model (2030) | 0 | - | Y | 0.01 | 0.04 | 0.04 | Dungourney River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.01 | 0.04 | 0.04 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.01 | 0.04 | 0.04 | |
| | | Solution Model (2080) | 0 | - | Y | 0.01 | 0.04 | 0.04 | |

## 6. Cork Settlements SWO Details

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Ballygarvan WwTP | SW68633204_STW | Short Term Development Model (2030) | 41 | 5,572.00 | N | 1.94 | 5.11 | 5.11 | River Owenabue |
| | | Long Term Development Model (2055) | 49 | 6,767.00 | N | 2.23 | 5.85 | 5.85 | |
| | | Full Development Model (2080) | 63 | 8,517.00 | N | 2.47 | 6.47 | 6.47 | |
| | | Solution Model (2080) | Decommissioned | | | | | | |
| Grenagh WwTP** | SW58847706 | Short Term Development Model (2030) | 15 | 2,702.00 | N | 1.58 | 4.67 | 4.67 | River Martin |
| | | Long Term Development Model (2055) | 19 | 3,435.00 | N | 1.97 | 5.66 | 5.66 | |
| | | Full Development Model (2080) | 27 | 4,582.00 | N | 2.28 | 6.47 | 6.47 | |
| | | Solution Model (2080) | 2 | 571.00 | Y | 2.28 | 6.47 | 6.47 | |
| Halfway Carpark SWO | SW60614302 | Short Term Development Model (2030) | 5 | 495.00 | Y | 0.58 | 1.49 | 1.49 | River Owenabue |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 6 | 594.00 | Y | 0.69 | 1.75 | 1.75 | |
| | | Full Development Model (2080) | 8 | 737.00 | Y | 0.79 | 2.02 | 2.02 | |
| | | Solution Model (2080) | 0 | - | Y | 0.79 | 2.02 | 2.02 | |
| Cloghroe WwPS | SW57745006 | Short Term Development Model (2030) | 11 | 1,744.00 | Y | 1.95 | 5.23 | 5.23 | Shournagh River |
| | | Long Term Development Model (2055) | 13 | 2,028.00 | Y | 1.95 | 5.23 | 5.23 | |
| | | Full Development Model (2080) | 13 | 2,196.00 | Y | 1.95 | 5.23 | 5.23 | |
| | | Solution Model (2080) | 5 | 1,027.00 | Y | 1.95 | 5.23 | 5.23 | |
| Kerry Pike WwPS | SW60735407 | Short Term Development Model (2030) | 104 | 21,593.00 | N | 1.72 | 4.53 | 4.53 | Shournagh River |
| | | Long Term Development Model (2055) | 109 | 23,900.00 | N | 2.07 | 5.42 | 5.42 | |
| | | Full Development Model (2080) | 110 | 25,448.00 | N | 2.07 | 5.42 | 5.42 | |
| | | Solution Model (2080) | 5 | 1,706.00 | Y | 2.07 | 5.42 | 5.42 | |
| Gothic Bridge WwPS | SW61755307 | Short Term Development Model (2030) | 14 | 2,061.00 | N | 0.86 | 2.25 | 2.25 | River Martin |
| | | Long Term Development Model (2055) | 22 | 3,612.00 | N | 1.73 | 4.47 | 4.47 | |
| | | Full Development Model (2080) | 24 | 4,027.00 | N | 1.73 | 4.47 | 4.47 | |
| | | Solution Model (2080) | 5 | 1,260.00 | Y | 1.73 | 4.47 | 4.47 | |
| Blarney Storm Tank SWO | SW59742903_ST | Short Term Development Model (2030) | 337 | 840,850.00 | N | 29.36 | 77.81 | 77.81 | Shournagh River |
| | | Long Term Development Model (2055) | 366 | 1,329,735.00 | N | 44.30 | 115.97 | 115.97 | |
| | | Full Development Model (2080) | 366 | 1,454,334.00 | N | 49.05 | 128.06 | 128.06 | |
| | | Solution Model (2080) | 1 | 5,178.00 | Y | 49.05 | 128.06 | 128.06 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| Cloyne Riverside WwPS | SW91676907 | Short Term Development Model (2030) | 0 | - | Y | 0.11 | 0.29 | 0.29 | Groundwater |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.11 | 0.29 | 0.29 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.11 | 0.29 | 0.29 | |
| | | Solution Model (2080) | 0 | - | Y | 0.11 | 0.29 | 0.29 | |
| Dun Orga WwPS | SW91674905 | Short Term Development Model (2030) | 0 | - | Y | 0.17 | 0.42 | 0.42 | Groundwater |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.17 | 0.42 | 0.42 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.17 | 0.42 | 0.42 | |
| | | Solution Model (2080) | 0 | - | Y | 0.17 | 0.42 | 0.42 | |
| Cloyne WwTP | Cloyne WwTP_StormTank | Short Term Development Model (2030) | Not in 2030 Model | | | | | | Spital Stream |
| | | Long Term Development Model (2055) | 0 | - | Y | 6.95 | 18.00 | 18.00 | |
| | | Full Development Model (2080) | 0 | - | Y | 7.83 | 20.25 | 20.25 | |
| | | Solution Model (2080) | 2 | 902.00 | Y | 10.13 | 26.32 | 26.32 | |
| Cois Muileann WwPS | SW84814501_WwPS | Short Term Development Model (2030) | 0 | - | Y | 0.07 | 0.16 | 0.16 | Owenacurra River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.07 | 0.16 | 0.16 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.07 | 0.16 | 0.16 | |
| | | Solution Model (2080) | 0 | - | Y | 0.07 | 0.16 | 0.16 | |
| Environment Building WwPS | SW53727303_PS1 | Short Term Development Model (2030) | 0 | - | Y | 0.08 | 0.21 | 0.21 | Groundwater |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.20 | 0.52 | 0.52 | |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Full Development Model (2080) | 0 | - | Y | 0.30 | 0.79 | 0.79 | |
| | | Solution Model (2080) | Decommissioned | | | | | | |
| Dripsey WwTP Storm Tank | SW48746803_ST | Short Term Development Model (2030) | 10 | 993.00 | Y | 1.24 | 3.31 | 3.31 | Dripsey River |
| | | Long Term Development Model (2055) | 12 | 1,252.00 | Y | 1.43 | 3.80 | 3.80 | |
| | | Full Development Model (2080) | 14 | 1,499.00 | Y | 1.60 | 4.23 | 4.23 | |
| | | Solution Model (2080) | 2 | 255.00 | Y | 1.55 | 4.08 | 4.08 | |
| Dripsey WwTP Inlet | SW48746802_Overflow chamber | Short Term Development Model (2030) | 3 | 292.00 | Y | 1.24 | 3.31 | 3.31 | Dripsey River |
| | | Long Term Development Model (2055) | 3 | 328.00 | Y | 1.43 | 3.80 | 3.80 | |
| | | Full Development Model (2080) | 4 | 394.00 | Y | 1.60 | 4.23 | 4.23 | |
| | | Solution Model (2080) | 3 | 313.00 | Y | 1.55 | 4.08 | 4.08 | |
| Minane Bridge WwTP | SW74561504_Stormwater holdingtank | Short Term Development Model (2030) | 0 | - | Y | 0.35 | 0.84 | 0.84 | Minane River |
| | | Long Term Development Model (2055) | 0 | - | Y | 0.52 | 1.27 | 1.27 | |
| | | Full Development Model (2080) | 0 | - | Y | 0.64 | 1.57 | 1.57 | |
| | | Solution Model (2080) | Decommissioned | | | | | | |
| Watergrasshill WwTP | SW77852307 | Short Term Development Model (2030) | 80 | 31,209.00 | N | 5.21 | 13.61 | 13.61 | Flesk Stream |
| | | Long Term Development Model (2055) | 70 | 25,622.00 | N | 6.28 | 16.31 | 16.31 | |
| | | Full Development Model (2080) | 75 | 28,751.00 | N | 7.08 | 18.33 | 18.33 | |
| | | Solution Model (2080) | 8 | 5,773.00 | Y | 7.08 | 18.33 | 18.33 | |
| Whitegate WwTP | Whitegate_StormTank | Short Term Development Model (2030) | 0 | - | Y | 5.13 | 13.12 | 13.12 | Cork Harbour |

| SWO Name | Node Reference | Scenario | Spill Frequency (>50m3) | Average Spill Volume (m3) | Pass 4% SWO Spill Criteria (Y/N) | DWF (l/s) | 3DWF (l/s) | Formula A (l/s) | Receiving Waterbody |
|---|---|---|---|---|---|---|---|---|---|
| | | Long Term Development Model (2055) | 0 | - | Y | 6.29 | 16.03 | 16.03 | |
| | | Full Development Model (2080) | 0 | - | Y | 6.29 | 16.03 | 16.03 | |
| | | Solution Model (2080) | 0 | - | Y | 6.18 | 15.70 | 15.70 | |
| Rostellan WwPS | Rostellan WwPS_StormTank | Short Term Development Model (2030) | 2 | 160.00 | Y | 0.53 | 1.38 | 1.38 | Cork Harbour |
| | | Long Term Development Model (2055) | 3 | 399.00 | Y | 0.84 | 2.15 | 2.15 | |
| | | Full Development Model (2080) | 4 | 484.00 | Y | 0.84 | 2.15 | 2.15 | |
| | | Solution Model (2080) | 1 | 205.00 | Y | 0.84 | 2.15 | 2.15 | |
| Lower Aghada WwPS | Lower Aghada WwPS_Inlet | Short Term Development Model (2030) | 1 | 78.00 | Y | 1.46 | 3.85 | 3.85 | Cork Harbour |
| | | Long Term Development Model (2055) | 1 | 135.00 | Y | 2.10 | 5.47 | 5.47 | |
| | | Full Development Model (2080) | 1 | 192.00 | Y | 2.10 | 5.47 | 5.47 | |
| | | Solution Model (2080) | 2 | 358.00 | Y | 2.06 | 5.35 | 5.35 | |
| Whitegate WwPS | SW84630816_DummyWeir | Short Term Development Model (2030) | 24 | 6,162.00 | Y | 5.13 | 13.12 | 13.12 | Cork Harbour |
| | | Long Term Development Model (2055) | 28 | 7,204.00 | Y | 6.29 | 16.03 | 16.03 | |
| | | Full Development Model (2080) | 32 | 8,209.00 | N | 6.29 | 16.03 | 16.03 | |
| | | Solution Model (2080) | 1 | 1,098.00 | Y | 6.18 | 15.70 | 15.70 | |

# Appendix C – Proposed WW Network Preferred Solution Maps