

# Irish Water

All of our customers should receive a safe and reliable supply of drinking water and have their wastewater collected and safely returned to the environment.

We will protect the environment in all our activities and support Ireland's social and economic growth through appropriate investment in Water Services.





# What is Greater Dublin Drainage?

- Greater Dublin Drainage (GDD) is the development of a new regional wastewater treatment facility and associated infrastructure to serve the population of Dublin and parts of the surrounding counties of Kildare and Meath.
- The project is necessary to meet Water Framework Directive (WFD) requirements and other relevant EU directives and national regulations related to water quality.
- Once operational from 2025, the GDD project will have the capacity to provide wastewater treatment for the equivalent of half a million people.
- Irish Water intends to make a planning application for the GDD project to the independent planning authority, An Bord Pleanála, in 2018.





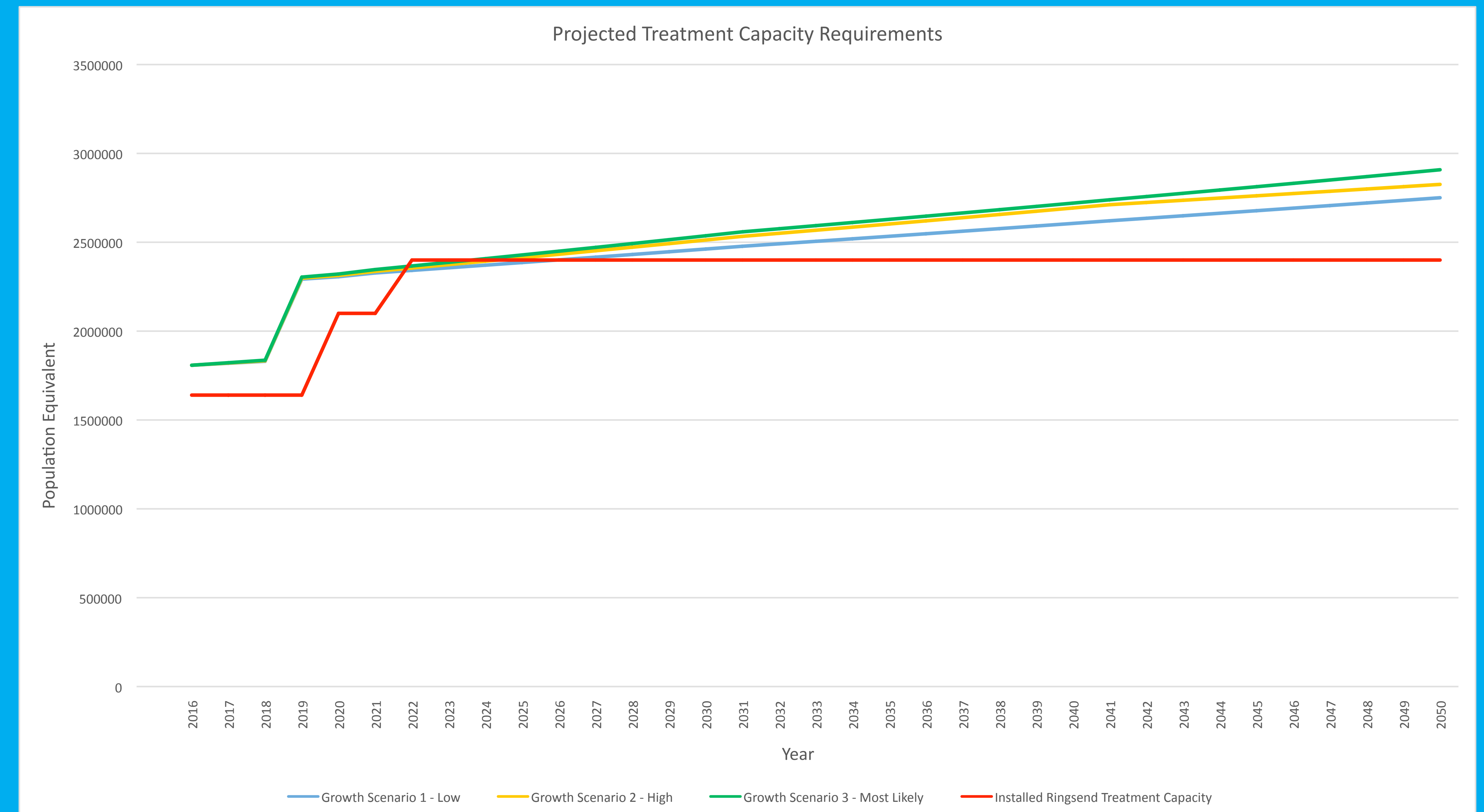
# Project benefits

- GDD is a once-in-a-generation project. It represents the next major step in the development of the wastewater infrastructure for the population of Dublin and the surrounding counties.
- The GDD project will treat wastewater generated every day in our homes and workplaces.
- The GDD project will:
  - > safeguard public health;
  - > protect and improve the environment; and
  - > facilitate development, social progress and economic growth in the wider Dublin region to 2050.



# Why do we need GDD?

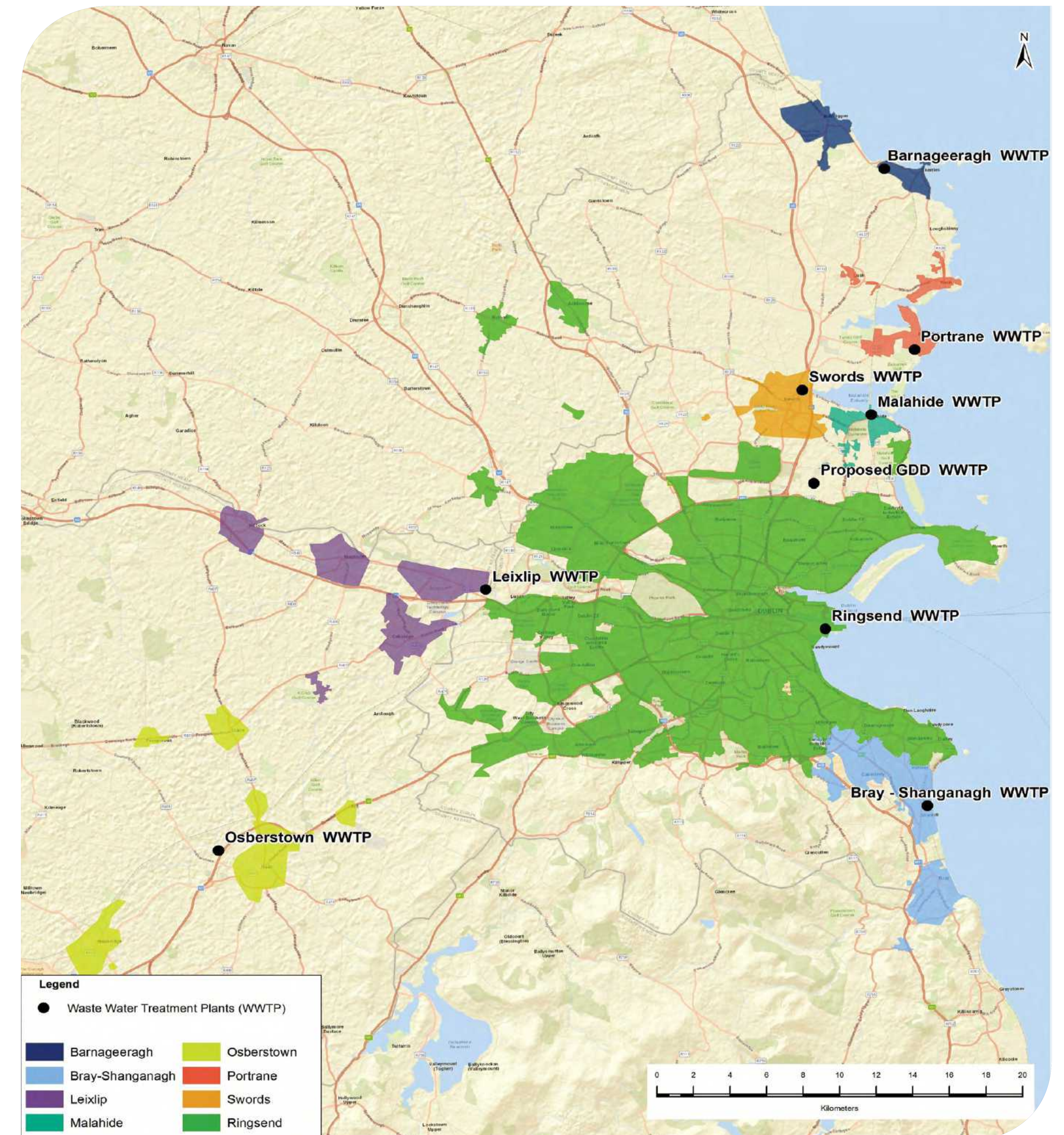
- Census 2016 recorded that Dublin and the commuter belt counties of Meath and Kildare are among the fastest growing counties in the country.
- As our population and economy grow, so too does the volume of wastewater. The amount of wastewater generated in greater Dublin is projected to increase by over 50% in the period to 2050.
- The GDD project will provide the additional treatment capacity needed once the country's largest wastewater facility at Ringsend reaches its upgraded maximum capacity by the mid-2020s.





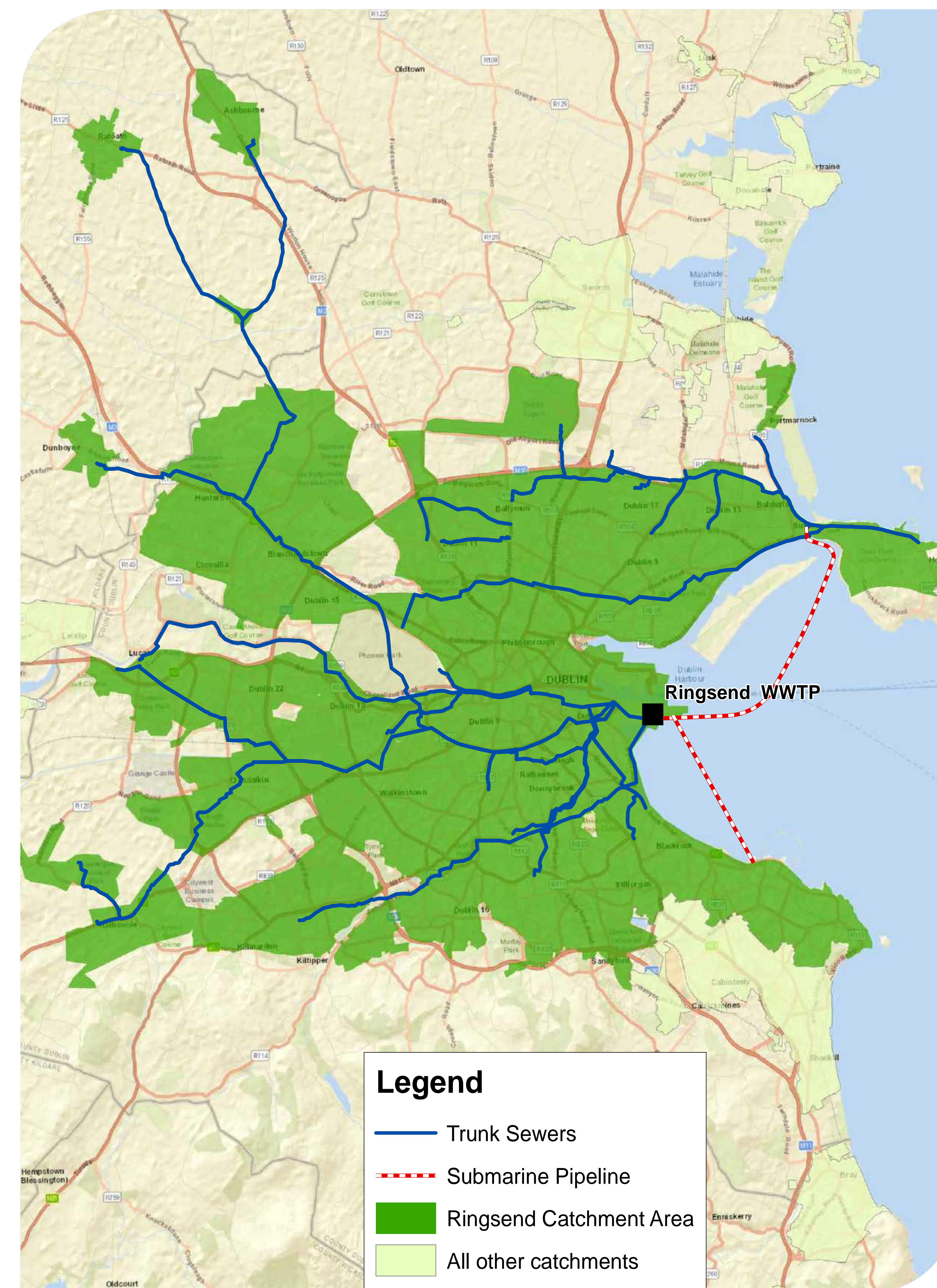
# Existing wastewater treatment plants and catchments

- Wastewater generated in the Greater Dublin Area is currently treated at eight main wastewater treatment plants.
- Irish Water is working to upgrade all of these facilities to their full capacities.
- However, even with these upgrades, due to the projected increases in population and industry in Dublin and in the surrounding counties of Kildare and Meath, there is a need to develop an additional regional wastewater treatment facility to meet future demand.



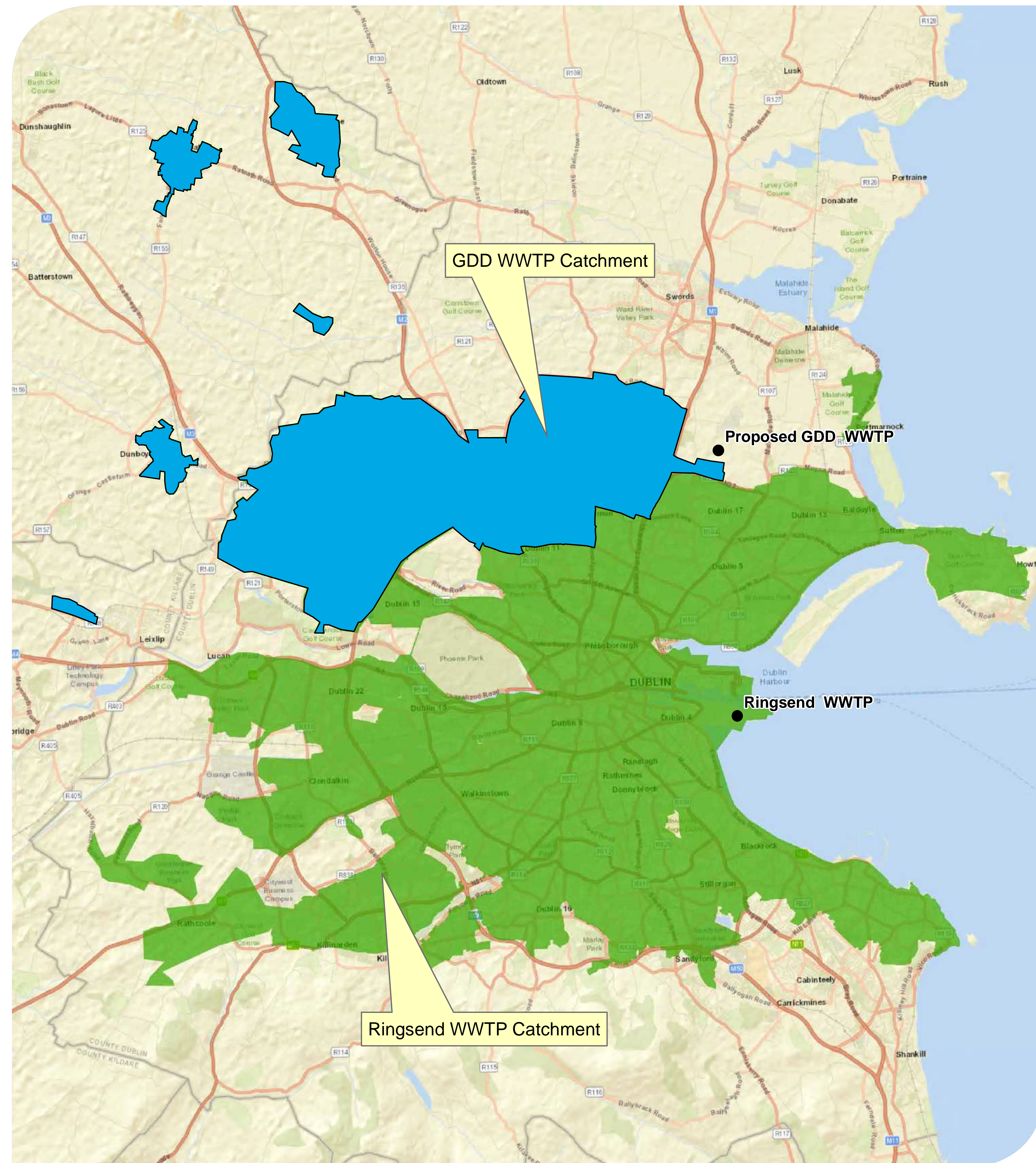


# Existing Ringsend Wastewater Treatment Plant Catchment



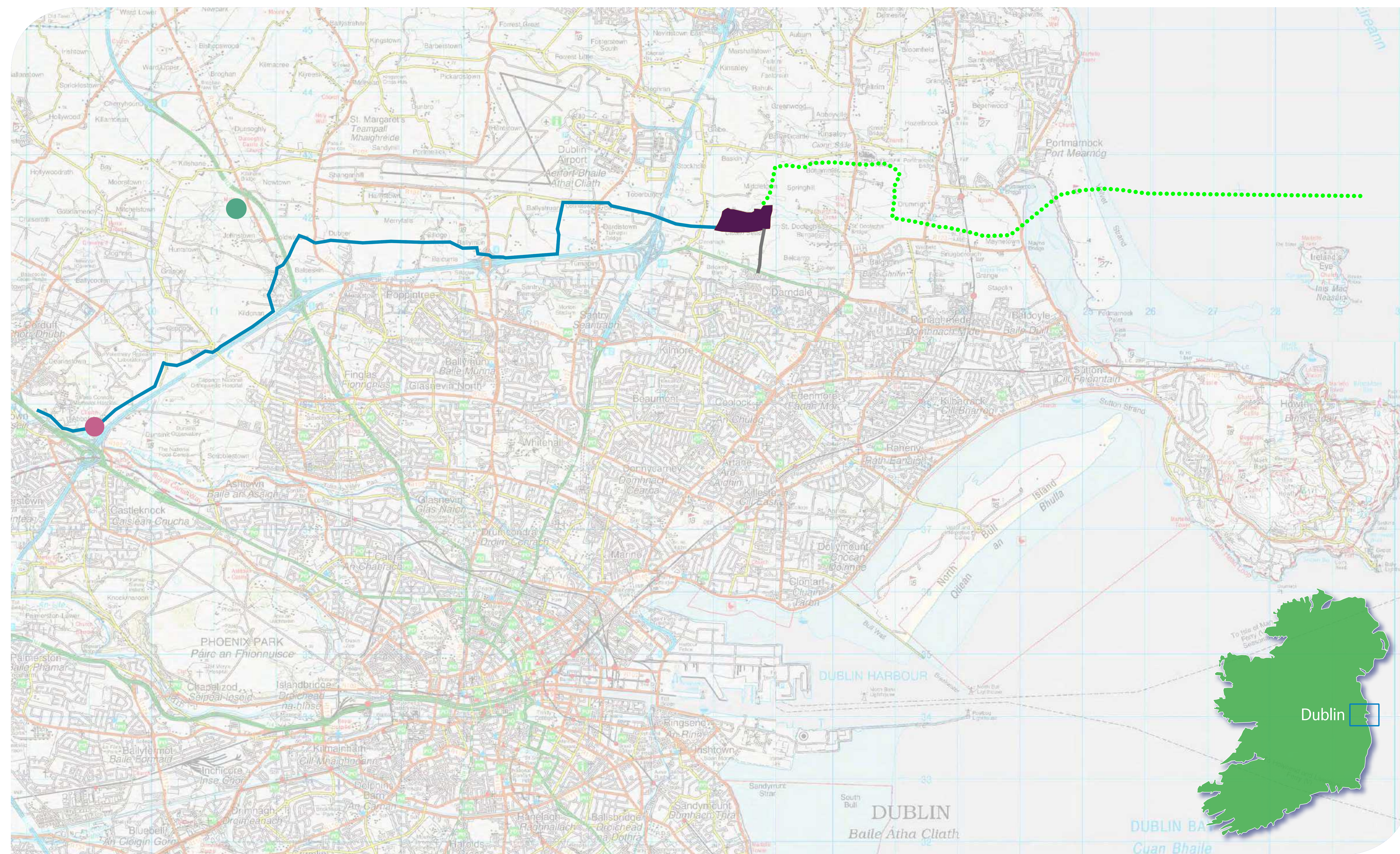


# Future catchment strategy





# GDD project solution



- ORBITAL SEWER
- WASTEWATER TREATMENT PLANT CLONSHAGH (CLONSHAUGH)
- REGIONAL BIOSOLIDS STORAGE FACILITY
- PUMPING STATION ABBOTSTOWN
- NORTH FRINGE SEWER DIVERSION
- ⋯ OUTFALL



# Wastewater treatment plant

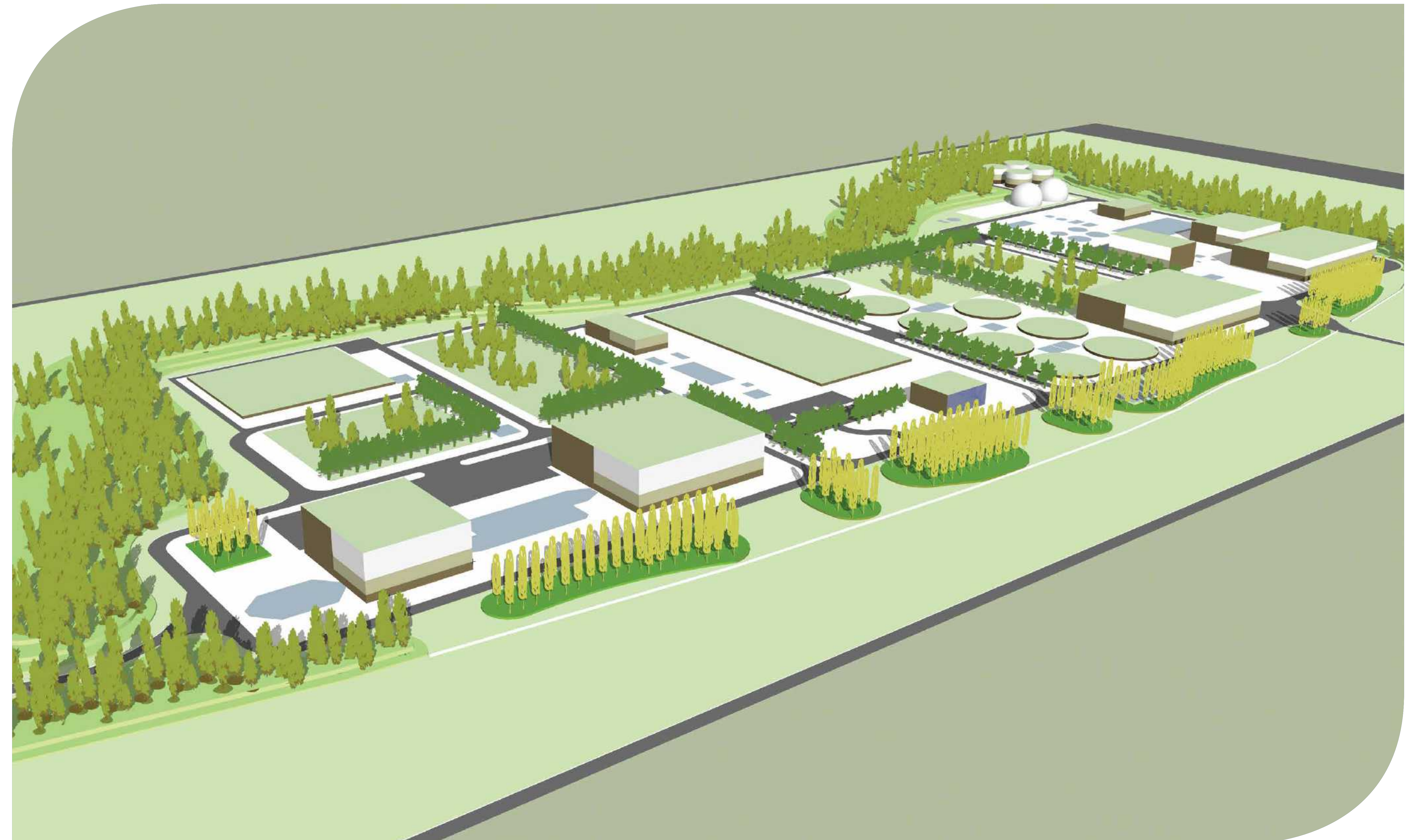
Wastewater Treatment Plant Site at Clonshagh (Clonshaugh).





# Wastewater treatment plant

- Indicative layout for the new GDD wastewater treatment facility at Clonshagh (Clonshaugh).
- The 30 hectare campus-style facility will be landscaped and screened.
- All storage tanks will be covered and strict odour controls will be maintained.

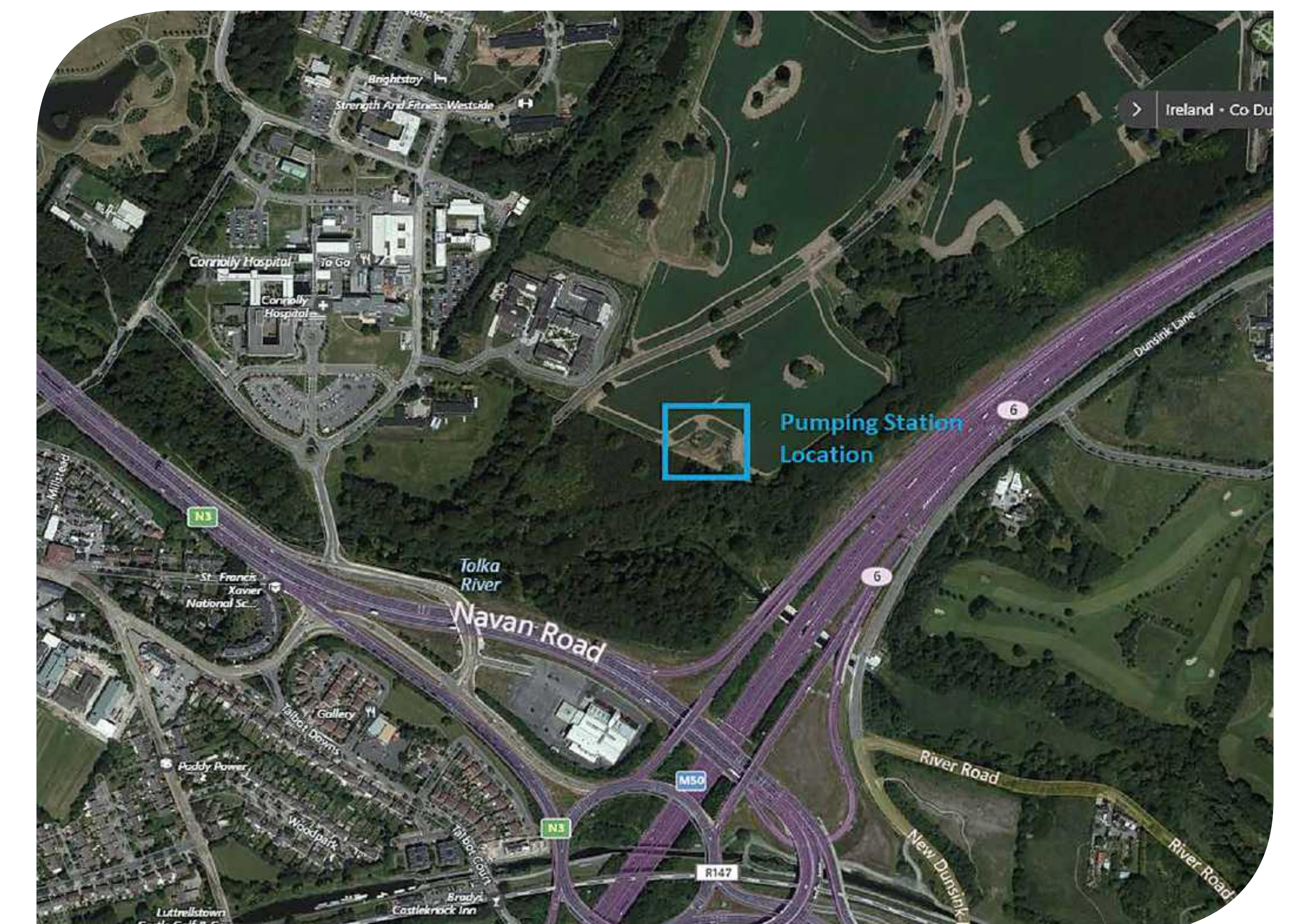
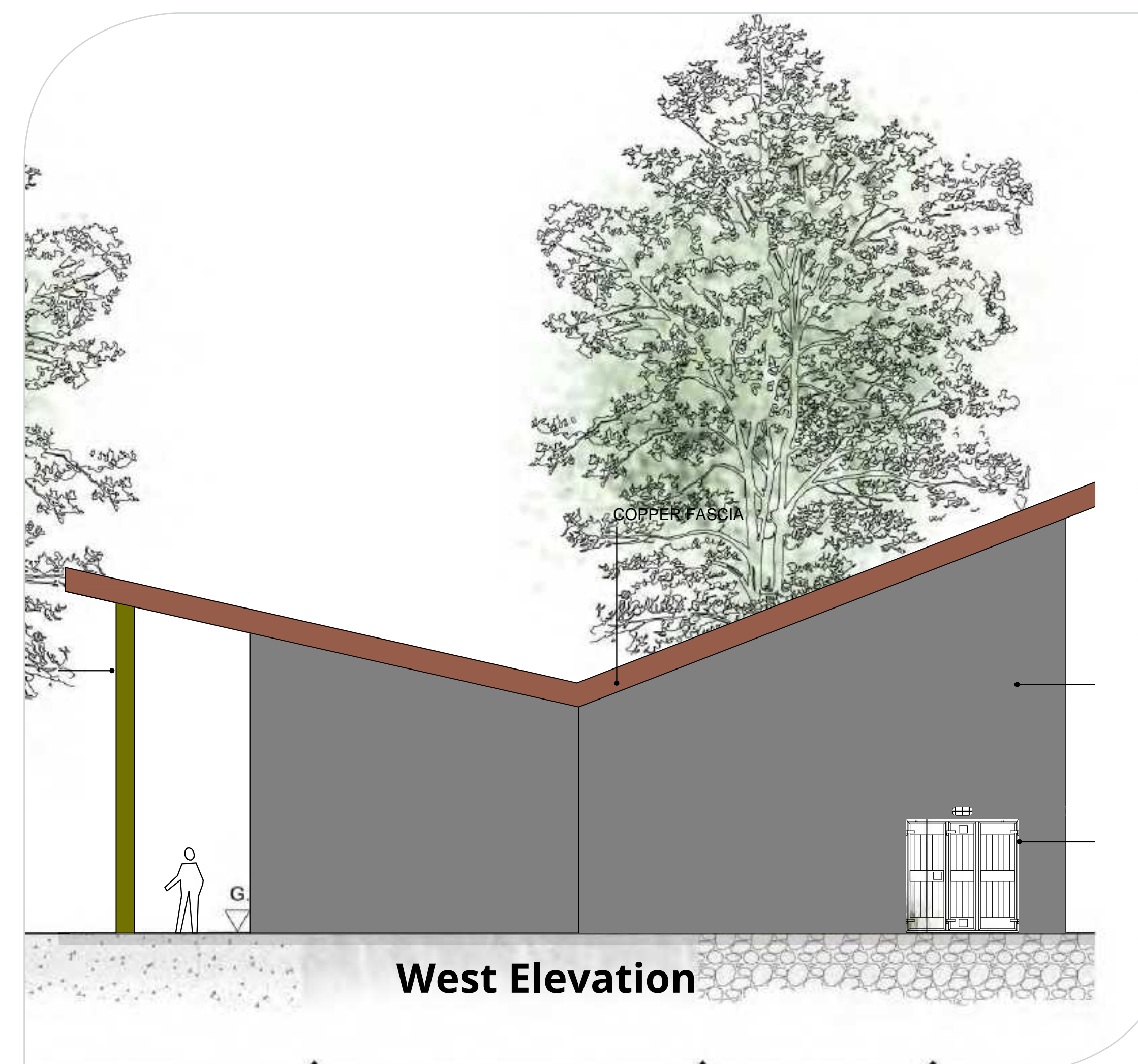




# Abbotstown pumping station

Modern pumping stations operate in underground concrete structures with an overground building for administration, maintenance access and power supply.

It will pump wastewater into the underground orbital sewer to bring it to the new regional plant at Clonshagh (Clonshaugh) for treatment.





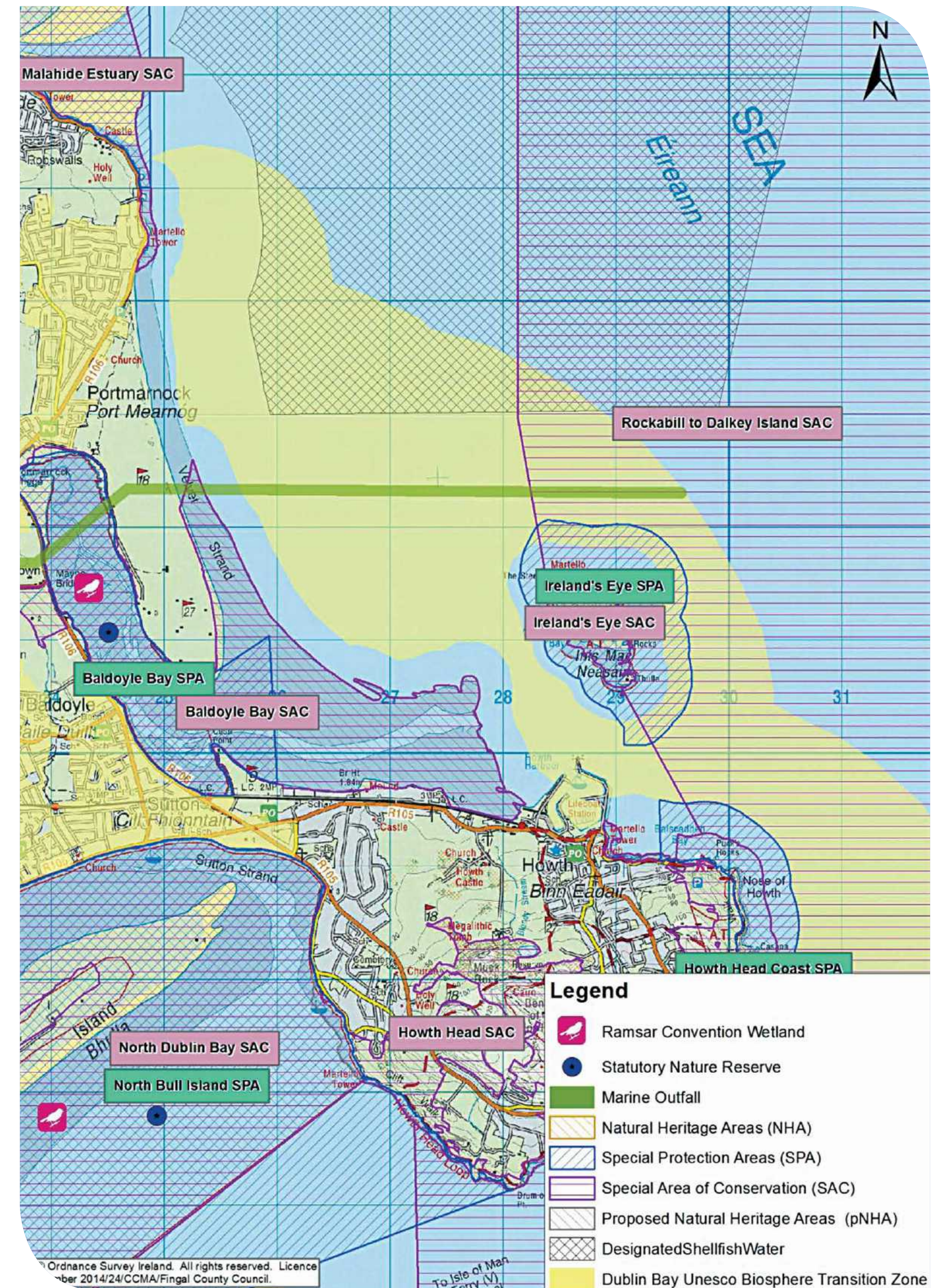
# Environmental assessment

GDD will safeguard public health and protect and improve the environment.

A range of environmental studies have been conducted including both land-based and marine-based surveys:

- Tide and Current Surveys
- Sediment Surveys
- Bird, Bat & Badger Surveys
- Marine Mammal Surveys
- Fisheries Surveys
- Reef Habitat Survey
- Bathymetry Survey and Sub-Bottom Profiling
- Underwater Noise Survey
- Archaeological Geophysical Survey
- Landside and Marine Ground Investigations

An Environmental Impact Assessment Report (EIAR) is being prepared for the GDD project.





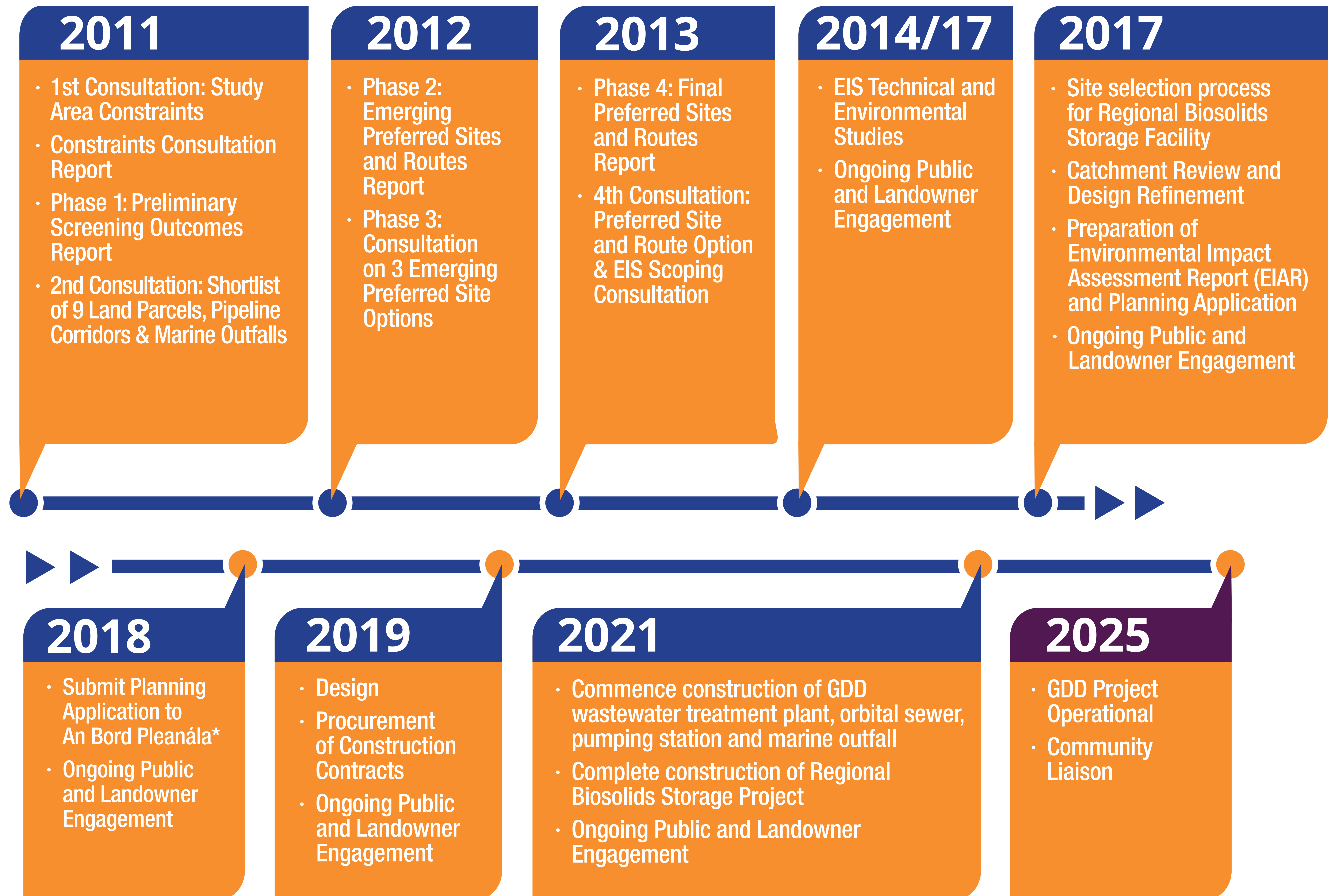
# Construction

- Construction of the GDD wastewater treatment plant and the associated orbital sewer, pumping station and marine outfall will take approximately three years and will begin, subject to planning permission, in 2021.
- A construction environmental management plan will be used to mitigate and minimise potential construction impacts (noise, dust, traffic, etc.).
- We will liaise closely with local communities throughout construction and all works will be undertaken in a safe and environmentally responsible manner.





# Project timeline



\* The indicative project timeline is subject to planning permission.