



Grand Canal Storm Water Outfall Extension Project



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Project Need –Improve Water Quality in Basin

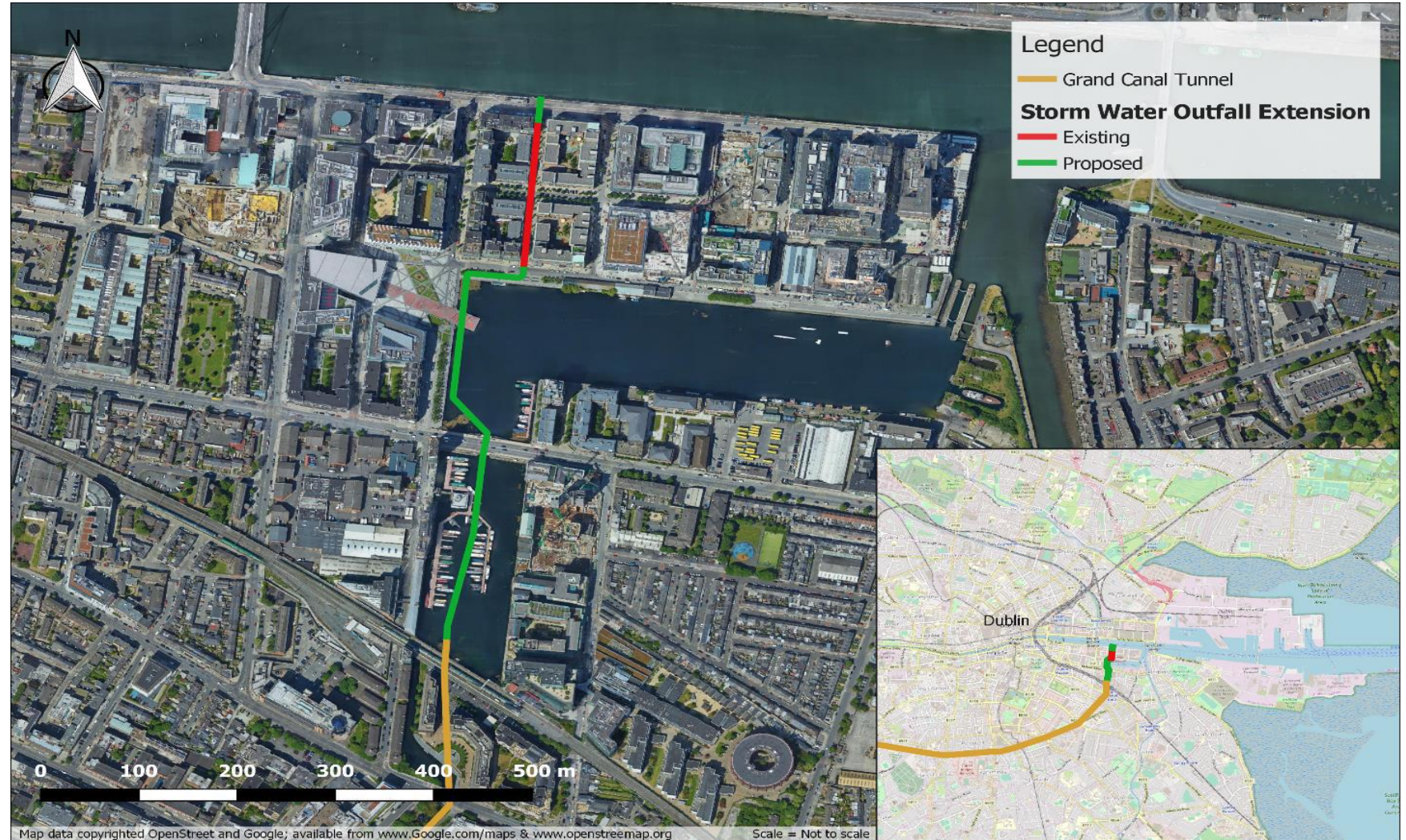
- Grand Canal Basin is regularly impacted by microbiological pollution, particularly after heavy rainfall events
- By removing pipeline from the Basin this will greatly reduce pollution within it



Overview of Pipeline

Phase 1 was Completed in 2002 - Construction of a Culvert along Asgard Road.

Proposed Works - Connection of existing outfall to previously constructed culvert and construction of a new outfall at the River Liffey at Sir John Rogerson's Quay.



Background

At a presentation given in March 2021 it was agreed that Project Team would return to update this SPC prior to Submission of the Planning Application to An Bord Pleanála scheduled in March of this year.

1. The Findings of the Water Quality Model (WQM)
2. The Environmental Impact Assessment Report (EIAR)
3. Project Costs

Water Quality Modelling (WQM)

DHI (Danish Hydraulic Institute) produced a hydraulic water quality model to assess the impacts of discharging the storm water outfall directly to the River Liffey at its new location on Sir John Rogerson's Quay.

Using data on the water quality of the River Liffey, the water quality in the stormwater, discharge rates and Liffey flow data the model predicted the change in water quality over a period of 12 months. The results were compared with the Environmental Quality Standards (EQS) of the receiving waters.

WQM - Results

There is considerably greater dilution and flushing time available discharging to the Liffey directly. The results of the modelling exercise can be summarised as follows-

- For the nutrients which can lead to eutrophication (Dissolved Inorganic Nitrogen (DIN) and Molybdate Reactive Phosphorus (MRP)) there was **no discernible** quality change in the achievement of the WFD EQS compared to the baseline
- For Biological Oxygen Demand (BOD) there was seen to be **no significant impact** on WFD EQS compliance beyond the mixing zone compared to the baseline.
- The River Liffey Estuary is not a designated bathing area and consequently no EQS is appropriate. There will be no impact on the status of designated bathing waters around Dublin Bay

The modelling exercise has shown that there will be no significant impact on water quality in the River Liffey and Dublin Bay as a result of the relocation of the stormwater discharge.

EIAR

- An EIAR (Environmental Impact Assessment Report) has been prepared as part of the planning application.
- No significant impacts long term have been identified.
- The principal impacts are the construction impacts associated with major construction projects (Traffic, Noise Nuisance etc.).
- However, with appropriate mitigation and adherence to a Construction Environmental Management Plan, it is not anticipated that there will be any unacceptable impacts.

Project Costs

- €1.65M spent in 2002 under Asgard Road.
- €1.5M split (IW & DCC) - Planning Submission Stage from 2017 to Planning Submission in Q1 2022.

Thank You