

APPENDIX E

Displays

CONSULTATION ON POTENTIAL LOCATIONS AND ROUTES

Fingal County Council has reached a major milestone in the search for a suitable locations for the regional wastewater treatment plant, orbital sewer and marine outfall, with the publication of the **ALTERNATIVE SITE ASSESSMENT PHASE ONE – PRELIMINARY SCREENING OUTCOMES REPORT**.

This report identifies nine (9) potential land parcels, within which the proposed regional wastewater treatment plant could be located, and also identifies sewer pipeline corridors to and from the plant, as well as areas for a potential outfall to the Irish Sea. The approach adopted in identifying these land parcels was to avoid, and not just mitigate, significant environmental impacts. It is estimated that a site area of approximately twenty (20) hectares is necessary for the new regional wastewater treatment plant.

The Report does not identify specific sites for the regional wastewater treatment plant. Most of the land parcels identified are far in excess of the 20 hectares required to accommodate the plant and there could be a number of potential siting options within each of the land parcels.

A number of factors have contributed to determining the required size of the site, including:

- A comparison made to existing similar wastewater treatment plants
- A need for sufficient space to adequately construct and screen the plant
- Allowing for a range of potential technologies
- Allowing for future-proofing of the plant

Most of the wastewater that will go to this new plant is currently going to Ringsend Wastewater Treatment Plant. The Plant at Ringsend will reach its maximum treatment capacity of 2.1 million PE by 2020. Diverting this wastewater to another treatment facility will mean that the Ringsend Plant will not become overloaded. In order to achieve this, a new plant will need to be commissioned by 2020. This was the recommendation set out in the Greater Dublin Strategic Drainage Study (GDSDS), 2005 and the subsequent Strategic Environmental Assessment (SEA), 2008.

HOW WERE THE LAND PARCELS IDENTIFIED?

An extensive study area was identified within north County Dublin. Constraints identified using desk top studies and feedback from the public were then mapped. These constraints relate to ecology, cultural heritage, geology, water, landscape, buffer zones and separation distances from sensitive receptors including houses, schools and nursing homes.

The Report identifies nine remaining potentially suitable land parcels within which the regional wastewater treatment plant may be located.

Refer to Fig. 1 for a map of the identified land parcels.

Refer to Fig. 2 for a map of pipeline corridors and marine outfall locations.

HOW WILL THE FINAL SITE BE SELECTED?

From this point on, the methodology for selecting the final site becomes more focused. Site specific information, more in-depth desk top research as well as feedback from the public are required to help rule out any unsuitable land parcels and to assist in identifying the best location for the infrastructure. One of the overriding principles guiding the Project Team in searching for the best possible locations for the development is to avoid, and not just mitigate, significant impacts on human beings and the environment.

Each land parcel, including associated orbital drainage routes and marine outfall locations, will be assessed by relevant environmental and engineering specialists on a wide range of environmental and technical criteria, including but not limited to ecology, cultural heritage, landscape and visual, land use and planning policy, engineering and design constraints, capital and operational costs.

The objective of the selection process is to identify what are the 'distinguishing criteria that set a site apart from others as being suitable for the development. Consideration of feedback from the public is essential to this process.

FIG. 1 - LOCATIONS AND DESCRIPTIONS OF LAND PARCELS

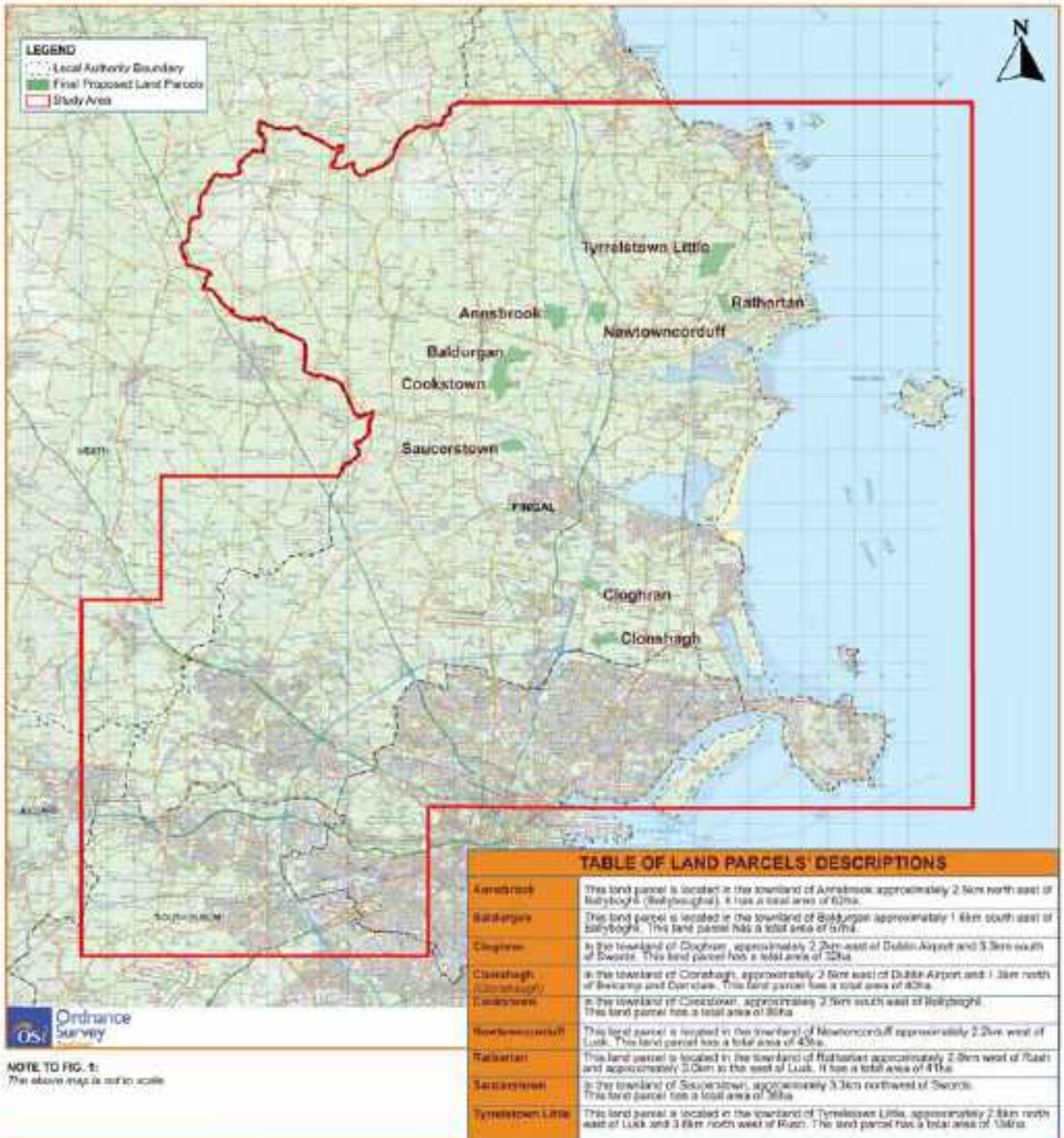


FIG. 2 - POTENTIAL PIPELINE CORRIDORS AND MARINE OUTFALL LOCATIONS



NOTE TO FIG. 2:
This above map is not to scale

WHAT ARE WE CONSULTING ON TODAY?

This is an opportunity to engage with the Project Team and to give your views on the potential land parcels, outfall locations and pipeline corridors.

At this stage we would like to hear your views on the following issues:

- What are the features of each identified land parcel that makes it suitable or unsuitable as a potential location for the regional wastewater treatment plant?
- What issues should be considered in deciding the location for the marine outfall?
- What issues should be considered in deciding the routes for the pipeline?
- How should these features be considered in the next phase of the Project?
- What other issues do you think need to be taken into account at this stage of the Project?
- How would you like to be involved or communicated with as the Project progresses?

This early engagement is in addition to and does not affect peoples' rights to consult later during the statutory phases. All consultation periods are equally important to the development of Greater Dublin Drainage and Fingal County Council welcomes feedback from all interested stakeholders at any stage and is seeking feedback from stakeholders on what issues or concerns should be taken into account in determining the locations of the three elements of the Greater Dublin Drainage Project. This early engagement is in addition to the future statutory consultation phases of the initiative, when a planning application will be made by Fingal County Council to An Bord Pleanála for approval of the Project.

For further details and to read the full ASA Phase One Preliminary Screening Outcomes Report, log onto our website: www.greaterdublindrainage.ie

HOW TO PARTICIPATE?

ATTEND AN OPEN DAY

All interested stakeholders are invited to attend at any of four Open Days to be held at Fingal County Hall, Main St, Swords, during October and November, as follows:

- Saturday, 22nd October, from 11am to 4pm
- Wednesday, 26th October, from 2pm to 8pm
- Thursday, 3rd November, from 2pm to 8pm
- Saturday, 5th November, from 11am to 4pm

TELL US YOUR VIEWS

Submissions can be made directly to the project team at the Open Days or you can email your comments to info@greaterdublindrainage.ie.

CONTACT US

You may also contact the Project Team as follows at any stage including during the consultation process:

- Lo-call telephone: 1890 44 55 67
- Write to:
Greater Dublin Drainage Project Manager,
C/O RPS Group,
West Pier Business Campus,
Dun Laoghaire,
Co Dublin

WHAT IS THE GREATER DUBLIN DRAINAGE PROJECT?

The aim of the Greater Dublin Drainage Project is to provide the strategic drainage infrastructure that the Greater Dublin Area requires to continue to develop, both socially and economically.

The project will provide:

- A new regional wastewater treatment works;
- A marine outfall; and
- A new drainage network in the northern part of the GDA.

The Greater Dublin Drainage project is being led by Fingal County Council, on behalf of Dublin City Council and the County Councils of Dún Laoghaire-Rathdown, South Dublin, Kildare and Meath.

WHY IS THE PROJECT NEEDED?

Greater Dublin Drainage is needed to provide sustainable drainage and wastewater treatment for the Greater Dublin Area (GDA), to meet current and future economic, industrial and residential needs, to protect the environment and to meet the EU Water Framework Directive standards. The Greater Dublin Drainage Project is essential for the future long-term social and economic development of the GDA and the Fingal County Council area, in particular. The majority of the flows to the plant will come from the Fingal County Council area. In 2001 Dublin City Council, in partnership with the other County Councils in the Greater Dublin Area, commissioned the Greater Dublin Strategic Drainage Study (GSDS). Among its many recommendations, the GSDS recommended maximising the capacity and potential of all of the existing drainage systems and treatment plants in the GDA, (including the Ringsend Wastewater Treatment Plant), which is currently being done.

The GSDS also highlighted that a significant shortfall in wastewater treatment capacity would still exist in the region within the lifetime of the strategy, even after all of these improvements had been made. The GSDS Strategy (as amended by the Strategic Environmental Assessment of 2008) recommended the construction of a new regional wastewater treatment plant in the northern part of the GDA to make up the shortfall. This plant will not only provide treatment capacity for certain existing wastewater flows which will be diverted to it, but also the additional capacity vital for the future social and economic development of the region. The majority of the flows to the plant will come from the Fingal County Council area.

Fingal County Council has invited all stakeholders, including the general public, to get involved in the Project from the start, so that the most appropriate locations are chosen for this vital new wastewater infrastructure.

WHY IS THE PROJECT IMPORTANT?

Drainage and wastewater treatment is something we take for granted and only think about when the unthinkable happens and it stops working. Throughout the Greater Dublin Area there is a vast system made up of pipes, pumps, and plants that remove and treat the wastewater that we produce from our homes, industries, schools and hospitals, for example. This system protects the health, welfare and environment of all citizens in the region. To prosper and develop, a city region needs adequate drainage and treatment capacity to protect the health and well-being of its citizens and the environment.

Most of the wastewater that will go to this new plant is currently going to Ringsend Wastewater Treatment Plant. The Plant at Ringsend will reach its maximum treatment capacity of 2.1 million PE by 2020. Diverting this wastewater to another treatment facility will mean that the Ringsend Plant will not become overloaded. In order to achieve this, a new plant will need to be commissioned by 2020. This was the recommendation set out in the Greater Dublin Strategic Drainage Study (GSDS), 2005 and the subsequent Strategic Environmental Assessment (SEA), 2008.

Therefore Greater Dublin Drainage will ensure that there is adequate and sustainable drainage and treatment of the wastewater produced in the Greater Dublin Area. It will ensure that the region can continue to develop into the future and protect the environment for generations to come.

WHAT IS HAPPENING NOW?

Fingal County Council has reached a major milestone in the search for suitable locations for the regional wastewater treatment plant, the marine outfall and routes for the orbital sewer, with the publication of the Alternative Site Assessment Phase One – Preliminary Screening Outcomes Report.

This Report identifies nine (9) potential land parcels, within which the proposed regional wastewater treatment plant could be located, and also identifies sewer pipeline corridors to and from the plant, as well as areas for a potential outfall to the Irish Sea. The approach adopted in identifying these land parcels was to avoid, and not just mitigate, significant environmental impacts. A site area of approximately twenty (20) hectares has been estimated as being necessary for the new regional wastewater treatment plant.

The Report does not identify specific sites for the regional wastewater treatment plant. Most of the land parcels identified are far in excess of the 20 hectares required to accommodate the plant and there could be a number of potential siting options within each of the land parcels.

WHAT HAPPENS NEXT?

The nine (9) potential land parcels included in the Report have been identified through high-level, desk based studies and each will be examined in greater detail over the next stage of the Project. Site specific information, more in-depth desk-top research and site surveys, as well as feedback from the public are needed now, to rule out any unsuitable land parcel and to assist in identifying the best location. Fig. 3 highlights the consultation on potential locations and routes.

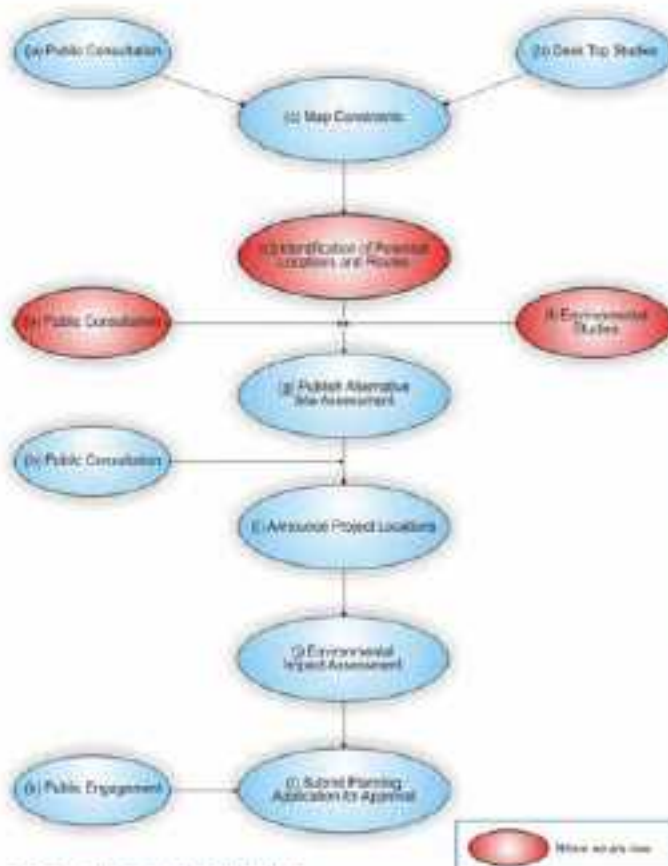


FIG. 3 - PROJECT ROAD MAP*

* Please note that the above Road Map is subject to change, as the project evolves.

PROJECT ROAD MAP	PROJECT PHASES
a) Public Consultation b) Desk-Top Studies c) Map Constraints d) Identification of Potential Locations and Routes	PHASE 1 Alternative Site Assessment - Preliminary Screening
e) Public Consultation f) Environmental Studies g) Publish Alternative Site Assessment Report	PHASE 2 Alternative Site Assessment
h) Public Consultation	PHASE 3 Public Consultation
i) Announce Project Locations	PHASE 4 Selection of Preferred Site Locations for Regional Wastewater Treatment Plant, Marine Outfall & Orbital Sewer Routes
j) Environmental Impact Assessment k) Public Engagement l) Submit Planning Application for Approval	PHASE 5 Application for Approval to An Bord Pleanála

CONSULTATION STEPS

Consultation on Constraints (step a)

Fingal County Council started out a four weeks of non-statutory public consultation at the start of the Project to ask people for their views on the issues and concerns that should be taken into account in determining the location of a new wastewater treatment works, a new marine outfall and new drainage pipe network. A full Report on the consultation including a full review of the issues raised can be found on www.greaterdublin drainage.ie.

Consultation on Potential Locations and Routes (step c & d)

The generally suitable land parcels identified in the ASA - Phase One Preliminary Screening Outcomes Report (step c) are now subject to a six week non-statutory public consultation (step d).

Alternative Site Assessment Consultation (step f)

This process will result in the publication of the Alternative Site Assessment Report (step f) which will contain all of the information gathered from both the public consultation and the environmental studies. The ASA report will go out for consultation (step f) after which a decision will be made regarding the location of the project (step h).

Environmental Impact Assessment (step i)

When the locations for the project have been determined, a complete assessment of any potential environmental impact will be carried out (step i). There will also be a full programme of public engagement carried out during this time (step k).

Planning Process (statutory Consultation) (step j)

The culmination of this process will result in the submission of a planning application to An Bord Pleanála for approval (step j). This will also provide another opportunity for stakeholders to be consulted on the project.

WHAT IS DRAINAGE AND WASTEWATER?

Wastewater is any water whose quality has been adversely affected by human activity or industry. It can be liquid waste discharged by domestic residences, commercial properties, industry, or agriculture and it can contain a wide range of contaminants.

Everyday activities like showering, brushing teeth, cooking and using the toilet create wastewater. Some of these organic products in the wastewater can be broken down easily in the environment but others are not so easily degraded.

The drainage system transports this wastewater to a treatment plant where it undergoes treatment before it is discharged as clean treated effluent into our rivers or seas.

WHY DO WE NEED TO TREAT WASTEWATER?

Untreated wastewater poses a threat to public health and the environment. All wastewater is ultimately discharged back into the aquatic environment and, if the treatment is inadequate, the receiving waters will be polluted.

Furthermore, proper wastewater treatment systems are essential for sustaining our modern livelihood and contributing to development.

Homes, businesses, industries and hospitals, along with all other water users, rely on a robust wastewater treatment system to maintain daily activities.

HOW DO WE TREAT WASTEWATER?

The process of wastewater treatment is to remove physical, chemical, and biological contaminants from the wastewater. The objective of undertaking this treatment is to produce an environmentally safe fluid waste stream together with sludge that is suitable for disposal or reuse (usually in the form of fertiliser). Primary, secondary and sometimes, tertiary treatment, of the wastewater may be needed, depending on the sensitivity of the receiving environment.

There are two main phases of treatment undertaken in wastewater plants:

1) PRIMARY TREATMENT

This consists of temporarily holding the wastewater and sewage in a tank where heavy solids can settle to the bottom while oil, grease, and lighter solids float to the surface. The settled and floating materials are removed and the remaining liquid may be discharged or subjected to secondary treatment.

2) SECONDARY TREATMENT

This removes dissolved and suspended biological matter. Secondary treatment is typically performed by indigenous, water-borne micro-organisms in a managed habitat. Secondary treatment may require a separation process to remove the microorganisms from the treated water prior to discharge. *Fig. 3 demonstrates how a typical modern wastewater treatment system works.*

Tertiary treatment may be needed in certain circumstances where the sensitivity of the receiving environment requires it. Tertiary treatment includes nutrient removal and UV filtration.

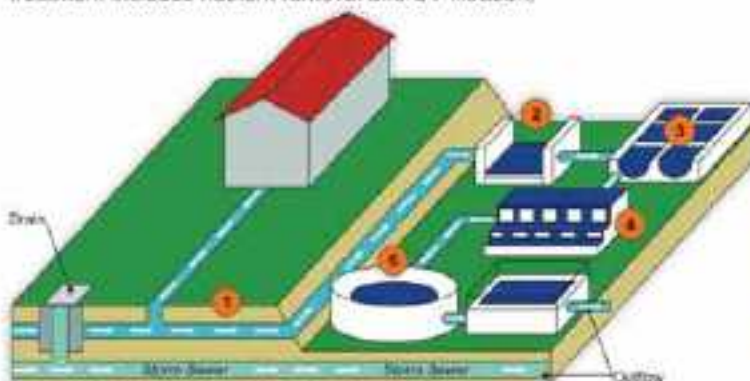


FIG. 4 - WASTEWATER TREATMENT PROCESS

TYPICAL TREATMENT PROCESS

- Step 1: Sewerage System
- Step 2: Grit Chamber
- Step 3: Primary Treatment
- Step 4: Aeration Tanks
- Step 5: Secondary Treatment Tank

NOTE TO FIG. 4

Usually, wastewater treated in a municipal treatment plant, involves two main stages: primary and secondary. There are two products from the treatment process: sludge and liquid effluent. The process of wastewater treatment removes physical, chemical & biological contaminants, producing an environmentally safe fluid waste stream or sludge that is suitable for disposal or reuse.