

Comhairle Contae Fhine Gall
Fingal County Council

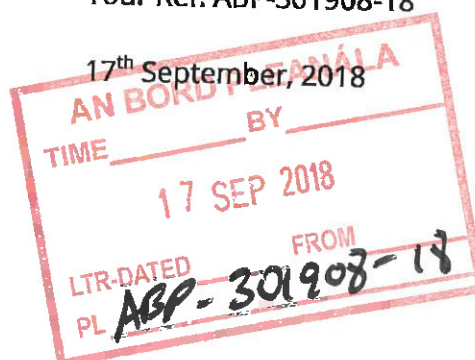
**An Roinn um Pleanáil agus
Infrastruchtúr Straitéiseach**
Planning and Strategic
Infrastructure Department



The Secretary,
An Bord Pleanála,
64 Marlborough Street,
Dublin 1.

Our Ref. SID/03/18

Your Ref. ABP-301908-18



Re: Greater Dublin Drainage Project

Dear Sir/Madam,

With regard to the above Strategic Infrastructure application please find attached the Chief Executive's Report which was presented to the meeting of the County Council held on 10th September, 2018.

In accordance with Section 37 E (4) of the Planning and Development (Strategic Infrastructure) Act, 2006 a copy of the Meeting Administrator's record is also attached.

I would be grateful if you could confirm receipt of this email and attachments.

Yours sincerely,


AnnMarie Parrelly,
Director of Services.

Encs.

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COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL
COUNCIL MEETING 10th SEPTEMBER 2018

ITEM NO: 21

**Strategic Infrastructure Development (SID) Greater Dublin Drainage
Project including a Regional Biosolids Storage Facility at Newtown, Dublin
11**

MEETINGS ADMINISTRATOR'S RECORD OF DISCUSSION

During the course of the discussion the following contributions were made by Members.

Councillor Duncan Stewart referred to the Dubber odour control unit and queried how often such facilities malfunction and that this would be an issue for local residents. What other environmental emissions occur from such facilities ?

Councillor Joe Newman asked what type of tank was being proposed for the storage of the biosolids e.g. concrete with a pvc covering.

Councillor Mary McCamley referred to the major disturbance that will be caused to the local Hospital and Hospice in the Mulhuddart Electoral Area because for this development. She also referred to the disruption to the Tolka Valley, Waterville and Abottstown House , Cappagh, Heathfield. Kildonan into Finglas also affected. She also referred to six attenuation tanks each larger than a tennis court to be constructed and expressed her concerns re same.

Councillor Philip Lynam queried as to how many public consultations had occurred to date and to ensure that community was given the opportunity to contribute in their own community hall/ centre. He also asked regarding what impact the project would have on beaches locally and what phasing would apply to construction. Impacts on the local road network from trucks was also referred to by Councillor Lynam in view of other recent developments within the area and the current congested nature of the M50. He also referred to the impact 24 hour operation will have on residents and for the need for simplified reports on the project in order to keep residents informed appropriately.

Councillor David Healy referred to Irish Water's claim of the effluent being ten times less contaminated than the effluent being discharged at Ringsend and yet there is no proof of this within the EIA for the planning application. He also referred to the

most probable number of 250 for biological health risk as an indication of the level of contamination in the sea water, while the sea water is currently excellent quality i.e. typically less than 10 at present as measured at Howth and Irelands Eye, and that this is the level Irish Water should be measuring against.

It is also not clear, per Councillor Healy, why this outfall location has been selected or why tertiary treatment has not been planned for with this application. At this stage Councillor Healy proposed the following motion, which was seconded by Councillor Roderic O'Gorman:

"That in light of the inadequacies of the information supplied in the application and the Environmental Impact Assessment Report this Council urges an Bórd Pleanála to seek further information to remedy the inadequacies in the information supplied including to address the need for tertiary treatment of the effluent and locating the effluent outfall further offshore."

Councillor Roderic O'Gorman was pleased to see requests for noise reports for Connolly Hospital and Hospice within the request for additional information from the Council. Also he was pleased to see the Councils target of seeking an excellent quality of water along the coast line where the outfall occurs. He also welcomed the request for more information on the mitigation measures being proposed by the applicants particularly in Abbottstown with its mature trees. He referred to the requirement for this development with future development increasing the need and asked for the Council to endorse the Chief Executive's report and Councillor Healy's motion.

Councillor Eoghan O'Brien mentioned that the level of public opposition speaks volumes. He referred to aprox. 14,000 submissions in opposition to this development during the non-statutory consultation recently. He referred to the argument that he and others adhered to that smaller localised treatment plants which operate to tertiary level should be used if at all practicable. The main reason being that if a catastrophic failure occurred with a 500,000 p.e. facility the environmental effect is far worse than if a failure occurred with a small localised plant. Councillor O'Brien referred to Irish Water referring to the 6 km distance from land of the outfall pipe but he referred to it only being just over a kilometre from the island Irelands Eye.

He also referred to the opposition to this development within Dublin City Council's area and that the location was chosen as it lies on the edge of Fingal but possibly has more effect on the residents of Dublin City. He also referred to Irish Water's inability to submit a correct application which does not bode well for the operation of the facilities being applied for but which allowed further time for submission to be made. He referred to the €1.2 billion which the development would cost as being able to provide 40 smaller plants (based on Portlaoise 40,000 p.e. plant built for €30

million five years ago) and that the upgrade of existing plants and the provision of a number of new ones should be the priority.

Councillor Tania Doyle requested that the details of the development be available in laymans terms. She also asked about the location of workshops and about informing the communities about the development. She referred to the major impact on the Mulhuddart area and Fingal in general. Councillor Doyle expressed major concerns about mature trees, badger and bat surveys and that due consideration was given to these matters and the effect the development would have on them. She also referred to the sludge treatment facility in that the odour abatement measures being planned for same should be of an adequate level to suppress any foul odours. Also she asked what were the arrangements for a failure in any system connected with the sludge treatment facility.

Councillor Keith Redmond referred to the aim to provide excellent quality sea water off Portmarnock and he requested that this level of excellence should also apply to the sea water off Irelands Eye which is subject to a Special Area of Conservation designation. He also asked whether the currents and tidal flows had been analysed to determine where the silt and effluent would flow to during and after construction. Councillor Redmond emphasised the need for tertiary treatment of the effluent emanating from the outfall pipe after construction.

Councillor Matt Waine conveyed the deep concern of citizens regarding the ability of Irish Water to deal with odours emanating from the various elements of the proposed development. He also referred to the proposed drilling into bedrock close to Connolly Hospital and Hospice which could have a very detrimental effect because of the noise generated for residents and patients at all times of the day.

Councillor Anne Devitt referred to the proposed upgrade of the traffic junction adjacent to the Biosolids storage facility at Newtown which is estimated by the Council to cost in the region of €2000,000. She expressed serious concerns regarding the non-applying of An Bord Pleanala of monetary contributions to previous SID applications and whether An Bord would do so with this application. Councillor Devitt also referred to odours emanating from the Biosolids unit and the ability of Irish Water to contain same which she doubted.

Councillor Justin Sinnott asked if this project does not happen would it lead to already zoned land not being developed. He referred to the inevitability of opposition to any project of this size. He also asked were smaller treatment plants a feasible alternative to this development and were they operational anywhere else. Councillor Sinnott also referred to ensuring that this development should not have a detrimental effect on existing residents in Fingal through foul odours or where the works break down.

Councillor Tom O'Leary expressed support the delivery of this project and was not in favour of multiple plants throughout the County. He asked for an independent report as to what type of chemicals are used to treat mal odours emanating from the treatment plant and are they harmful to humans if they come into contact with these chemicals. He also expressed a lack of confidence in Irish Water based on his experience with Skerries waste water treatment plant.

Councillor Brian Mc Donagh expressed that a very important matter for him is the quality of water at Portmarnock. He stated that Ringsend was at capacity and that this development was required. He also stated that if it did not happen existing treatment plants would overflow resulting in untreated waste water being pumped into the sea. He praised the Council for examining the detail submitted by Irish Water and for questioning same. Councillor McDonagh also asked for everyone to get behind this project and to seek the highest water quality possible in the waters off Portmarnock as part of this development and not to be promoting smaller plants which would result in an outfall nearer the bathing waters of Portmarnock , Howth and Malahide.

Councillor Daire Ni Laoi referred to the extended public consultation period and asked how it will be advertised to the public. She also expressed concern re the size of the plant and its location near residential areas and that there was not enough evidence to justify such a large plant within the application. Councillor Ni Laoi expressed preference for a number of smaller plants and based her opinion on experiences from the operation of Ringsend WWT plant with malodours. She also expressed support for Councillor David Healy's motion re tertiary treatment.

Councillor Howard Mahony stated that the Council is allowing the sludge treatment plant to be built on greenbelt zoned lands and should not be permitted. He expressed scepticism as to the ability of Irish Water to deal with malodours based on the experience of residents of Mulhuddart from a treatment plant in County Meath where daily odour problems exist. Councillor also expressed concern re the outfall being only a kilometre from Irelands Eye and the tidal movements resulting in the liquid outfall landing on Irelands eye. He would also prefer a more minimalist approach i.e. smaller treatment plants.

Councillor Brian Dennehy stated that tertiary treatment is a minimum requirement for this development. He expressed concern regarding the possibility of an incident occurring at the proposed plant resulting in a major detrimental environmental effect and that there is no plan B for same.

Councillor Darragh Butler expressed his concern regarding this development in light of the residents and businesses bad experience with Swords Treatment Plant regarding odours despite the money spent and effort put into

Councillor Kieran Dennison asked for an explanation as to the difference between secondary and tertiary treatment. He also outlined the twenty year planning process for this development and referred to the late stage for requests to be received for smaller localised treatment plants. He also referred to the need for this plant in order to allow for future housing development in Fingal and the Dublin area.

Councillor Cathal Boland expressed concern that An Bord Pleanala had in the past overturned Council decisions to permit development on open space zoned land and that the development could be delayed as a result.

The Mayor Councillor Anthony Lavin expressed the hope that Irish Water would use the technology of tomorrow to develop this proposal and within the operation of same so as to ensure as little as possible of an environmental impact occurs.

Councillor Healy's motion, seconded by Councillor R. O'Gorman was then put and the Mayor called for a roll call vote which resulted as follows:

For: 31

Against: 4

The Motion was declared PASSED.

The following motion was proposed by Councillor Eoghan O'Brien, and seconded by Councillor Howard O'Mahony:

That Fingal County Council calls on An Bord Pleanala to refuse permission to Irish Water in respect of the Greater Dublin Drainage Project application"

The mayor called for a roll call vote and the voting resulted as follows:

For: 12

Abstain : 2

Against: 21

The Mayor then declared the motion LOST.

Planner's Note: During the presentation of the Chief Executive's report to the Elected Members, attention was drawn to the consideration of the Sludge Hub Centre (SHC) as an integral part of the Waste Water Treatment Plant (WWTP) and assessment of the SHC as 'Utility Installations' along with the WWTP as a consequence. The presentation can be viewed under Item 21 at:-

https://fingalcoco.public-i.tv/core/portal/webcast_interactive/369680

Chief Executive's Report

September 2018

County Council Meeting



STRATEGIC INFRASTRUCTURE DEVELOPMENT

GREATER DUBLIN DRAINAGE PROJECT

**INCLUDING A REGIONAL BIOSOLIDS STORAGE FACILITY AT NEWTOWN, DUBLIN
11**

An Bord Pleanála Ref.: ABP-301908-18

Fingal County Council Ref.: SID/03/18

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Chief Executive's Report

Section A

Introduction

An application under the Strategic Infrastructure Act was lodged with An Bord Pleanála (Ref. ABP-301908-18) on the 20th June 2018 for permission for the proposed development of the Greater Dublin Drainage Project at lands within the townlands of Deanstown, Abbotstown, Dunsink, Sheephill, Cappogue, Kildonan, Part of Huntstown, Coldwinters, Baleskin, Dubber, Merryfalls, Silogue, Ballymun, Ballystruan, Turnapin Great, Collinstown, Commons, Dardistown, Toberbunny and Clonshagh, Clonshagh, Middletown, Bohammer, Kinsaley, Saint Doolaghs, Snugborough, Drumnigh, Maynetown, Burrow, Belcamp and Clonshagh all within the Fingal County Council administrative area.

The Board has requested Fingal County Council by letter dated 25th June 2018 to submit its views on this application. The final date for submission of views is the 17th September 2018.

The proposed development includes:

A proposed 500,000 person equivalent (pe) wastewater treatment plant

To be located on a 29.8ha site in the townland of Clonshaugh. The treatment plant will comprise a series of structures including, primary settlement tanks (1.5m high), coarse and fine screening buildings (18m high), aeration blower building (8m high), secondary settlement tanks (1.5m high), activated sludge plant lanes (2.2m high), combined heat and power (CHP) plant including biogas tanks (15.5m high), 6 no odour control units with discharge flues (9m - 24m high), a flare stack (25m high), administrative buildings (10m high) and sludge processing tanks and buildings (7.5m – 15m high), all surrounded with 3m – 4m high and 20m wide landscaped berms, hardstanding, internal circulation works and boundary fencing. The western zone (Zone 1) contains preliminary treatment and primary sedimentation, the central zone (Zone 2) contains biological treatment and final settlement while the eastern zone (Zone 3) contains the Sludge Hub Centre. The design submitted in the application is noted in Section 4.4.5 of the EIAR as being indicative, with the final design to be determined by the contractor as part of a design, operate, build contract.

Additional works include:-

A 500m access road from the R139.

An 230m exit road to Clonshaugh Road.

Connections to electricity, water and gas networks in the vicinity.

A temporary construction compound within the wwtp area.

The Sludge Hub Centre (SHC) to be co-located on the same site would have a sludge handling and treatment capacity of 18,500 tonnes of dry solids (TDS)/annum and is to be used for treating municipal waste water sludge and domestic septic tank sludges generated in Fingal to produce a biosolid end-product. The design submitted in the application is noted in Section 4.4.6 of the EIAR as being indicative, with the final design to be determined by the contractor as part of a design, operate, build contract.

A proposed pumping station.

To be located on a 0.4ha site at the National Sports Campus (NSC) at Abbotstown. The pumping station will comprise a single storey building (305sqm floor area) to a maximum height of 10m and a subterranean depth of 17m below ground level. Additional works include:-

Connections to electricity, water and gas networks in the vicinity.

A temporary construction compound within the pumping station area.

A proposed regional biosolids facility

The facility, comprising two storage buildings, a staff welfare building and associated access roads will be located at an 11ha site at Newtown, Dublin 11. This includes additional lands in the southern part of the site for future development. The proposed buildings will have a maximum height of 15.2m, a length of 105m and a width of 50m. The storage capacity of the facility is between 26,200m³ and 46,000m³ and will store biosolids generated at the proposed Clonsaugh WWTP and at Ringsend WWTP.

A proposed odour control unit.

To be located at Dubber adjacent to the R122, within a 10m x 10m compound, comprising a odour control structure, 2.685m high, 6.1m long and 3.75m wide with an associated 5m high flue. This facility is located at the interface of the rising pumped main and the gravity main in order to mitigate against odours which may be expected at this interface.

A proposed orbital sewer route

The 13.7km long orbital sewer commences at the point of intersection with the 9C sewer within Waterville Park in Blanchardstown through the grounds of Connolly Hospital to intersect with the Abbotstown Pumping Station (PS). From the PS the pipe will be located within the grounds of the National Sports Campus at Abbotstown. The sewer will cross beneath Cappagh Road, continue through lands at Kildonan and cross the N2 to the north of the electricity substation, connecting with a proposed odour control unit at Dubber. The route continues eastwards to the junction of the R108 with the M50, crossing beneath the R108 and follows the route of the motorway. The sewer heads northwards at Turnapin Great, crossing beneath the R132 (Old Airport Road) at Collinstown Cross and continues along the northern

boundary of Dardistown Cemetery. The route continues beneath the M1 and the Clonsaugh Road into the IDA lands to terminate at the proposed wastewater treatment plant. A 40m wide construction wayleave is proposed, with a 20m permanent wayleave to be maintained. Lands are proposed to be re-instated to original condition upon completion of works.

The sewer is proposed to function as a 1.8m diameter gravity sewer from the connection with the 9C to the Abbotstown PS. The section from the PS to the odour control unit (OCU) at Dubber is proposed to be a pumped 1.4m diameter rising main. The section from the OCU to Clonsaugh is proposed to be a 1.8m diameter gravity fed sewer.

A proposed north fringe sewer diversion sewer.

A 600m long gravity fed 1.5m diameter pipe is proposed to connect from the proposed WWTP with the existing North Fringe Sewer to the south of the R139 proximate to the south-western corner of Craobh Ciaran GAA grounds. The pipe will cross beneath the Mayne River at this point.

A proposed outfall pipeline route (land based section)

The outfall pipe, a pressurised 1.8m diameter gravity sewer, will exit from the north-eastern corner of the WWTP plot northwards through farmland for 700m to Baskin. Turning eastwards, the pipe crosses beneath the R107 (Malahide Road) within Kinsealy Village to the south of the former Teagasc lands. The pipe is then routed southwards for 750m to St. Doolaghs townland. Turning eastwards again, the pipe crosses under the R124 and located parallel to the R123 (Moyne Road) crosses under the Dublin Belfast Railway line and terminates at the junction with the R106 (Coast Road) in the townland of Maynetown.

A proposed outfall pipeline route (marine based section)

The marine section of the 1.8m diameter outfall pipe, a pressurised gravity sewer, commences at Maynetown and crosses the R106 (Coast Road) and proceeds north-easterly beneath Baldoyle Estuary for 1km to the public car park at Burrow to the north of Portmarnock Golf Club. From this point, the outfall will proceed easterly for a distance of 5km, beneath Portmarnock Strand terminating at a discharge location approx. 1km north of Irelands Eye.

The rising main section of the orbital sewer will contain scour valves and air valves. The gravity main section will contain manholes every 200m, while the outfall pipe will contain access chambers.

Trenchless crossings (micro tunnels) of watercourses, roads and railway lines are proposed to be used. Open-cut techniques will be used in other locations.

Ten temporary construction compounds.

These are to be located at Abbotstown, Cappagh, Silloge, Collinstown Cross, Dardistown, Clonshaugh, Kinsealy, Drumnigh, Maynetown and Portmarnock Strand.

Construction of the WWTP is expected to take 3 years and the Pumping Station 1 year.

The orbital sewer is indicated to take 24 months to construct.

The outfall pipe (Land based section) will take 18 months to construct.

The outfall pipe (marine based section) will take 12 months to construct.

Statutory Process

Section 37E(4) – (6) of the Planning and Development Act 2000 as inserted by Section 3 of Part 2 of the Strategic Infrastructure Act 2006 (pages 19 & 23) sets out the procedure, for the submission of a planning authority report in relation to an application received by An Bord under the Strategic Infrastructure Act.

37E.—(4) The planning authority for the area (or, as the case may be, each planning authority for the areas) in which the proposed development would be situated shall, within 10 weeks from the making of the application to the Board under this section (or such longer period as may be specified by the Board), prepare and submit to the Board a report setting out the views of the authority on the effects of the proposed development on the environment and the proper planning and sustainable development of the area of the authority, having regard in particular to the matters specified in section 34(2).

(5) The manager of a planning authority shall, before submitting any report in relation to a proposed development to the Board under subsection (4), submit the report to the members of the authority and seek the views of the members on the proposed development.

(6) The members of the planning authority may, by resolution, decide to attach recommendations specified in the resolution to the report of the authority; where the members so decide those recommendations (together with the meetings administrator's record) shall be attached to the report submitted to the Board under subsection (4).

(7) In subsection (6) 'the meetings administrator's record' means a record prepared by the meetings administrator (within the meaning of section 46 of the Local Government Act 2001) of the views expressed by the members on the proposed development.

Fingal County Council, by way of letter dated 22nd June 2018 requested an extension of time under Section 37E(4) of the Act to allow for consideration of the submitted documentation. An Bord Pleanála by letter dated 27th June 2018 confirmed an extension of time until the 17th September 2018.

An Bord Pleanála has indicated within the cover letter received by FCC on the 25th June 2018 on the issues it expects to be addressed in a planning authority report on a Strategic Infrastructure application. The issues to be addressed are set out in Section 7 of the 7th Schedule for Strategic Infrastructure Development - Guidelines for Planning Authorities available [here](#) on An Bord Pleanála's website. This states:-

Further Legislative Requirements

Environmental Impact Assessment

The proposed Project comprises development within Class 13, Part 1 of Schedule 5 of the Planning and Development Regulations (as amended), specifically: "Waste water treatment plants with a capacity exceeding 150,000 population equivalent as defined in Article 2, point (6), of Directive 91/271/EEC". The applicants submission indicated that the EIAR has been prepared in accordance with Environmental Assessment Directive 2014/52/EU and Schedule 6 of the Planning and Development Regulations 2001 (as amended). Compliance with the requirements of the relevant legislation will be set out in the relevant section of this report.

Natura Impact Statement

Directive 09/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive) and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive), set out various procedures and obligations in relation to nature conservation management, and in particular the conservation of European Sites. European Sites comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). A key protection mechanism is the requirement to consider the possible nature conservation implications of any plan or project on European Sites. Appropriate Assessment (AA) is the process that considers the possible effects of a plan or project on the European Sites network.

In accordance with these requirements, the proposed Project was assessed to consider whether there are likely significant effects from the proposed Project on European Sites. Screening concluded that likely significant effects could be excluded for a number of European Sites. Likely significant effects could not be excluded for Baldoyle Bay SPA and Baldoyle Bay SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC and Ireland's Eye SPA.

An Appropriate Assessment (AA) is required to conclude whether adverse effects upon the integrity of these European Sites will occur.

The proposed project will also require a waste water discharge licence to be granted by the EPA under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I No. 684 of 2007) prior to commissioning of the treatment plant. Furthermore a foreshore licence must be obtained from the Department of Housing, Planning & Local Government under the The Foreshore Acts 1933 – 2011 prior to the commencement of any works or activity (including the erection of any structures) on State-owned foreshore.

Issues to be addressed in the Planning Authority Report

The specific issues to be addressed in the report of the planning authority required under section 37E(4) of the 2000 Act will vary from report to report depending on the nature of the proposed development and the receiving environment. The following list of topics will give general guidance to planning authorities but may need to be amended to suit a specific report.

- Main relevant Development Plan provisions relating to the subject site and surrounding area including the relevant Core Strategy provisions. A clear indication of the current status of the relevant Development Plan and any Draft Plans should be given, together with any relevant issues arising.
- Details of other relevant Plan provisions (e.g. Local Area Plans) and statement regarding status of these Plans (adopted or in draft form).
- Relevant planning history relating to the subject site and the surrounding area.
- Relevant enforcement information relating to the subject site.
- Relevant national, regional and local policies.
- Any SAAO which may be affected by the proposed development.
- European designations, Natural Heritage Areas, which may be affected by the proposed development (whether in or proximate to same).
- Protected Structures, ACA's etc.
- Waste policy, which may be relevant to the proposed development. This will arise particularly in the case of applications for waste facilities where policies, objectives and other provisions of Regional Waste Management Plans should be referred to in addition to the Development Plan.
- Adequacy of the public water supply. (Note Irish Water may also comment as a prescribed body)
- Public sewerage facilities and capacity to facilitate the proposed development. (Note Irish Water may also comment as a prescribed body)
- Availability and capacity of public surface water drainage facilities.
- Flood risk assessment in accordance with *The Planning System and Flood Risk Management – Guidelines for Planning Authorities (November 2009)*.
- Assessment under the Water Framework Directive and associated regulations.
- Hydrological and hydrogeological assessments as relevant to the case.
- Appropriate assessment under the Habitats Directive.
- Comments on the adequacy, methodology adopted, conclusions etc. of the EIAR submitted with the application.
- Assessment of landscape status and visual impact, as appropriate.
- Carrying capacity and safety of road network serving the proposed development.
- Environmental carrying capacity of the subject site and surrounding area, and the likely significant impact arising from the proposed development, if carried out.
- Part V (social and affordable housing) provisions (which may be applicable in rare cases).
- Description of any public use of adjoining, abutting or adjacent lands in the applicants ownership, and the planning authority's view on any condition which may be appropriate for the purpose of conserving a public amenity on those lands.
- Planning authority view in relation to the decision to be made by the Board.
- Planning authority view on conditions which should be attached in the event of the Board deciding to grant permission. (Where an IPPC or Waste licence is required, the Board cannot impose conditions relating to the control of emissions from the activity for which a license is required).
- Planning authority view on community gain conditions which may be appropriate.
- Details of relevant section 48/49 development contribution scheme conditions which should be attached in the event of a grant.

- Details of any special contribution conditions which should be attached in the event of a grant along with detailed calculations and justification for the conditions.
- Any other matters relating to the effects on the environment, the proper planning and sustainable development of the area or the effects on European site(s) that the planning authority may consider to be relevant to the case.

The report follows, in general, the above issues where relevant for the proposed development although where issues overlap with headings utilised within the Environmental Impact Assessment Report, it is proposed to utilise those headings.

Section B

Report of the Planning Authority

Note:- on the 30th August An Bord Pleanála wrote to the applicant acknowledging communication from Irish Water that appendices were inadvertently omitted from the submitted EIAR. The Board informed the applicant that a further 5 week public period of consultation commencing 17th September 2018 was required allowing for submissions to be made on the omitted information. FCC undertook communication with the Board and it was confirmed that the report of the CE's opinion containing the views of the members remains due by 17th September.

1) Site Description

For the purpose of description the site is broken into three distinct locations

i) From the N3 to the N2.

The westernmost section of the site is located at the Blanchardstown Regional Development Scheme Pump Station in Waterville Park. The lands between the park and Connolly Hospital are heavily wooded. The route of the pipe project would be located beneath an access road serving the hospital. The Tolka River is located parallel to this road, flowing in a south-easterly direction. Access to Connolly Hospital from the south is via a bridge over the heavily wooded Tolka Valley. The pipe route continues across open ground to the south of the hospital, entering into the grounds of the National Sports Campus (NSC), formerly the demesne lands of Abbotstown House (a Protected Structure RPS:683)), where it will generally be located within open fields which contain some mature trees, both in field boundaries and isolated specimens. A St. Coemhín's Church and graveyard (a Protected Structure (RPS:684) is located adjoining Compound no. 1. Bands of immature planting are located along the boundary of the NSC with the M50. Leaving the NSC, the route crosses Barn Lodge Grove and crosses beneath Cappagh Road proximate to the M50. Construction Compound no.2 is proposed in this location, within an agricultural field. The route generally follows parallel to the M50 before heading north around the ESB Substation at Kildonan and crossing beneath North Road and the N2. Further to the north, the site of the Regional Biosolids Storage Facility is located on the townland of Newtown and generally comprises agricultural fields surrounded with hedgerows and trees interspersed. The site is located to the north of Huntstown Quarry.

ii) From the N2 to the M1.

Crossing the N2, the pipeline route enters the townland of Baleskin. Crossing the R122, the pipeline route heads eastwards across the townland of Dubber, to the south of Dubber House, a Protected Structure (RPS:617). Continuing east, the route enters the townland of Merryfalls, continuing eastwards through agricultural fields, before crossing a cul-de-sac access roadway at Sillogue, crossing further agricultural fields and entering beneath the Dublin City Council Golf Course at its narrowest point. The route continues through an unused field before entering the area proposed for construction compound no. 3, between the Northpoint NCT centre and the junction of the M50/R108. A settlement of travellers is located along the northern boundary of this construction compound. Crossing the R108, the route generally follows proximate to the M50, within agricultural fields, with the exception of one section which appears to be a stone covered yard. The route turns northwards, alongside and within a long term car park serving Dublin Airport, before turning east parallel to the Old Airport Road. Construction compound no.4 is

proposed in a field in this area, between the road and the northern boundary of the car park. The route continues under the Swords Road at Collinstown Cross, with construction compound no.5 located in the field adjoining the Swords Road. The route enters the grounds of ALSAA and through the northern part of land associated with another long term airport car park before continuing beneath the M1.

iii) From the M1 to Irelands Eye.

From the M1, the pipeline route continues through agricultural fields, crossing beneath the Clonshaugh Road to the north of a number of small cottages. Approximately 220m east of Clonshaugh Road the pipeline route widens to form an irregularly shaped area of land approximately 380m wide and 880m in length proposed for use as a regional waste water treatment plant (WWTP). The land is generally flat, laid out in a number of large fields. The northern boundary of this area follows a field boundary, also formed by the Cuckoo Stream. The eastern boundary is formed by a mature agricultural hedgerow. The southern and western site boundary is not contiguous with any existing hedgerows or landscape features. The field boundaries within the site are poor, reflecting the intensive agricultural land use. A large electricity substation and a GAA grounds are located to the south. The pipe route exits the WWTP site and continues northwards within agricultural fields to the west of the grounds of Springhill, a Protected Structure (RPS:792). Continuing northwards to a point 240m south of Baskin Lane, the route progresses eastwards, parallel to the road. Construction compound no. 7 is proposed in field to the west of the Malahide Road. The route crosses beneath the road to the south of the temporary location of the Educate Together National School, continuing southeastwards through fields. Proximate to the Trinity Gaels GAA club in Drumigh, the route turns east. Temporary construction compound 8 is proposed in this location, within a field proximate to the Drumnigh Road. Crossing beneath the Drumnigh Road, the route proceeds through the permitted open space of a residential estate, currently under construction. Crossing beneath the railway line, and utilising an existing agricultural access over it for construction, the route enters the Racecourse Regional Park continuing to the Coast Road. Construction compound no. 9 is proposed in this location to the north of the cottages at Moyne Road.

The route proceeds beneath the Baldoyle Estuary. Construction compound no. 10 is located on lands within the Portmarnock peninsula, to the east of the public car park to the north of Portmarnock Golf Club. The pipeline route continues underground beneath the beach to the low water mark. From this point the route proceeds as a dredged channel within the sea bed to a point approximately 1km north of Irelands Eye.

2) Development Plan

The linear nature of the works site results in a wide variety of zonings and specific objectives. It is noted that existing roadways do not have zonings.

2.1 Zonings

The proposed project would overlap with the following zonings:-

- Community Infrastructure (CI): Provide for and protect civic, religious, community, education, health care and social infrastructure.
- Dublin Airport (DA): Ensure the efficient and effective operation and development of the airport in accordance with an approved Local Area Plan.

- General Employment (GE): Provide opportunities for general enterprise and employment.
- Greenbelt (GB): Protect and provide for a greenbelt.
- Heavy Industry (HI): Provide for heavy industry.
- High Technology (HT): Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment.
- High Amenity (HA): Protect and enhance high amenity areas.
- Open Space (OS): Preserve and provide for open space and recreational amenities.
- Residential (RS): Provide for residential development and protect and improve residential amenity.
- Warehousing & Distribution: Provide for distribution, warehouse, storage and (WD) logistics facilities which require good access to a major road network within a good quality environment.
- There is a section of the project, where the construction compound is proposed to the west of the M50 Ballymun Interchange which has no zoning.

Utility Installations are 'permitted in principle' in the above zones, aside from GB-Greenbelt, HA – High Amenity and OS –Open Space where it is neither 'Permitted in Principle' nor 'Not Permitted'. Uses which are neither 'Permitted in Principle' nor 'Not Permitted' will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan. This is undertaken in the assessment below.

2.2 Relevant Development Plan Policy

Relevant Development Plan Policy.

Section 1.4 Strategic Vision

- Ensure consistency with the Council's Core, Settlement and Housing Strategies to provide high quality housing of a sufficient scale and mix, located in optimum locations and aligned with adequate infrastructure, services and amenities.
- Make better use of key resources such as land, water, energy, waste and transportation infrastructure
- Protect Green Infrastructure and enhance Fingal's natural resources of clean water, biodiversity, nature conservation areas, landscape, coastline, greenbelts, parks and open spaces, and agricultural land.
- Improve on key social, cultural, economic and environmental indicators.

Section 1.5 Main Aims of the Development Plan

10. Co-operate with the Eastern and Midland Regional Assembly, Local Authorities and other stakeholders in meeting the needs and development requirements of the County and the (Greater Dublin Area) GDA in accordance with the National Spatial Strategy and the Regional Planning Guidelines for the GDA and any successor policy documents.

1.6 Strategic Policy

- 14. Strengthen and consolidate greenbelts around key settlements.
- 17. Work with Irish Water to secure the timely provision of water supply and drainage infrastructure necessary to end polluting discharges to waterbodies, comply

with existing licences and Irish and EU law, and facilitate the sustainable development of the County and the Region.

18. Secure the timely provision of infrastructure essential to the sustainable development of the County, in particular in areas of resource and waste management, energy supply, renewable energy generation and Information and Communications Technology (ICT).

20. Ensure new developments have regard to the requirements of the Planning System and Flood Risk Management Guidelines.

1.10 Economic Overview

- Water supply and drainage issues - Fingal needs to work closely with Irish Water to ensure that adequate provision of infrastructure is provided to ensure that wastewater and water services will not be a limiting factor in achieving forecasted growth targets in the future.

Objective WT01 Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy.

1.11 Environmental Overview

Protecting the ecological integrity of European (Natura 2000) sites, the Special Amenity Areas and the Dublin Bay Biosphere Reserve, while allowing for ongoing growth and development.

- Management of the coastline including the management of flood risk and dune conservation measures will be increasingly important in response to the impacts of predicted climate change and increased population pressure.
- Maintenance and improvement of the environmental and ecological quality of Fingal's watercourses and coastal waters pursuant to the requirements of the Water Framework Directive.
- Management of flood risk along the County's watercourses taking account of climate change predictions.
- Facilitating the provision of waste water treatment systems in order to ensure compliance with the requirements of the Water Framework Directive and to facilitate sustainable development in the County.

Chapter 2 Core Strategy.

Objective SS06 Identify and support the provision of key enabling infrastructure at strategic sites in Fingal County to facilitate their release for development in response to the current housing crisis.

Objective SS09 Promote development within the Greenbelts which has a demonstrated need for such a location, and which protects and promotes the permanency of the Greenbelt, and the open and rural character of the area.

Chapter 3 – Placemaking

Objective PM13 Prepare Local Area Plans for areas designated on Development Plan maps in co-operation with relevant stakeholders, and actively secure the

implementation of these plans and the achievement of the specific objectives indicated.

Objective PM14 Prepare Masterplans for areas designated on Development Plan maps in co-operation with relevant stakeholders, and actively secure the implementation of these plans and the achievement of the specific objectives indicated.

Objective PM15 Implement Masterplans prepared in accordance with the Development Plan.

Objective PM28 Improve the efficiency of existing buildings and require energy efficiency and conservation in the design and development of all new buildings within the County.

Objective PM30 Encourage the production of energy from renewable sources, such as from Bio-Energy, Solar Energy, Hydro Energy, Wave/Tidal Energy, Geothermal, Wind Energy, Combined Heat and Power (CHP), Heat Energy Distribution such as District Heating/Cooling Systems, and any other renewable energy sources, subject to normal planning considerations and in line with any necessary environmental assessments.

Chapter 4 Urban Fingal

Objective BLANCHARDSTOWN 8 Support the delivery of a Light Rail Corridor linking Blanchardstown to Tallaght in South Dublin and to the indicative route for new Metro North at Dardistown.

Objective BLANCHARDSTOWN 15 Encourage and facilitate the development of Connolly Hospital and its campus for the development of healthcare, medical research and related facilities including the proposed satellite centre of the new Children's Hospital and relocation of the Rotunda Maternity Hospital.

Objective BLANCHARDSTOWN 16 Facilitate the provision of sporting facilities and associated infrastructure related to the National Sports Campus incorporating appropriate office, administration, training, accommodation and other associated and ancillary development.

Objective PORTMARNOCK 6 Protect and preserve the character and amenity of Portmarnock Beach, in view of its importance to the identity of the town and as an amenity for the domestic and foreign visitors, by protecting the beach from any development likely to adversely impact on water quality, integrity of the dunes ecosystem, biodiversity, visual amenity or excessive noise pollution while supporting activities or developments which would add to the amenity.

Objective PORTMARNOCK 7 Prepare and/or implement a Local Area Plan for lands at Portmarnock South to provide for strategic development of the area as a planned sustainable mixed use residential development subject to the delivery of the necessary infrastructure. (Refer to Map Sheet No. 9, LAP 9.A)

Chapter 5 - Rural Fingal.

Objective RF74 Support the maximum number of sustainable, working farms within the County, and ensure that any new development does not irreversibly harm the commercial viability of existing agricultural land.

Chapter 6 – Economic Development

6.1 Role of the Development Plan in Economic Development

Ensure that such lands are logically and coherently located to maximise on existing and planned infrastructure, particularly in respect of public transportation, water services, and telecommunications,

Objective ED03 Ensure that economic development zonings are logically and coherently located to maximise upon infrastructural provision, particularly in relation to locating high-employee generating enterprise and industry proximate to high capacity public transport networks and links thereby reducing reliance on private car transport.

Objective ED21 Liaise and engage with all relevant public service providers to ensure that zoned lands for economic development purposes are serviced in a timely fashion to facilitate opportunities for employment and enterprise creation.

Objective ED31 Ensure that the required infrastructure and facilities are provided at Dublin Airport so that the aviation sector can develop further and operate to its maximum sustainable potential, whilst taking into account the impact on local residential areas, and any negative impact such proposed developments may have on the sustainability of similar existing developments in the surrounding area, and the impact on the environment, including the climate.

Objective ED78 Support the existing diverse nature of the marine sector in Fingal, and identify and promote sustainable growth opportunities, while protecting European sites. This shall be achieved through engagement and partnership with the relevant agencies, sectoral representatives and local communities.

Objective ED88 Prepare Local Area Plans or Masterplans where indicated on economic development generating lands in collaboration with key stakeholders, relevant agencies and sectoral representatives. Screening for Appropriate Assessment and SEA will be undertaken on any forthcoming LAP's and Masterplans.

Objective ED94 Prepare LAP's and Masterplans within the lifetime of the Development Plan for strategically important High Technology zoned lands in collaboration with key stakeholders, relevant agencies and sectoral representatives.

Objective ED96 Support the continued investment in, and management and promotion of the Dublin 15 Enterprise Zone in collaboration with key stakeholders, relevant agencies and sectoral representatives.

Objective ED97 Prepare the Dublin Airport Local Area Plan within the lifetime of the Development Plan in collaboration with key stakeholders, relevant agencies, sectoral representatives and local communities.

Objective ED113 Encourage developments which are likely to generate significant levels of freight traffic to locate close to the existing County or national road network having regard to the DOECLG's Spatial Planning and National Roads Guidelines for Planning Authorities (2012).

Chapter 7 – Movement and Transport

Objective MT25 Support TII and the NTA in developing a revised design of the proposed new Metro North that addresses the needs of the Swords-Airport-City Centre corridor, environmental sensitivities and securing permission from An Bord Pleanála.

Objective MT27 Support TII in progressing the design of a Light Rail Corridor that addresses the needs of Fingal, in particular the Blanchardstown area, with a view to securing permission from An Bord Pleanála.

Objective MT36 Maintain and protect the safety, capacity and efficiency of National roads and associated junctions in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities, DECLG, (2012), the Trans-European Networks (TEN-T) Regulations and with regard to other policy documents, as required.

Objective MT41 Seek to implement the Road Improvement Schemes indicated in Table 7.1 within the Plan period, subject to assessment against the criteria set out in Section 5.8.3 of the NTA Transport Strategy for the GDA, where appropriate and where resources permit. Reserve the corridors of the proposed road improvements free of development.

Relevant Improvement schemes

- R106 Malahide-Swords Road Upgrade
- R123 Moyne Road realignment
- R107 Malahide Road Realignment, Balgriffin Bypass Station Road, Portmarnock and Drumnigh Road Junction
- East-West Distributor Road: Malahide Road to Stockhole Lane
- East West Distributor Road: Stockhole Lane to Cherryhound
- North Parallel Road St Margaret's Bypass to Northern Parallel Road Sillogue Bridge
- Link Cappagh Road – North Road Link
- Cappagh Road – River Road Link
- N3 Upgrade Littlepace to M50

Objective DA10 Restrict development which would give rise to conflicts with aircraft movements on environmental or safety grounds on lands in the vicinity of the Airport and on the main flight paths serving the Airport, and in particular restrict residential development in areas likely to be affected by levels of noise inappropriate to residential use.

Objective DA13 Promote appropriate land use patterns in the vicinity of the flight paths serving the Airport, having regard to the precautionary principle, based on existing and anticipated environmental and safety impacts of aircraft movements.

Objective DA16 Continue to take account of the advice of the Irish Aviation Authority with regard to the effects of any development proposals on the safety of aircraft or the safe and efficient navigation thereof.

Section 7.2 Water Services Background

The sustainable growth of the County is dependent on the provision of services and infrastructure. A Plan led approach, in accordance with the County's Core Strategy and Settlement Strategy is required for the delivery of such services in order to ensure there is adequate capacity to support the future development of the County.

There have been significant changes in responsibilities for water supply and waste water treatment. Irish Water was formed in July 2013 as a semi-state company under the Water Services Act 2013. As of January 2014 Irish Water replaced local authorities as a single provider of water and wastewater services. It is responsible for the operation of public water and waste water services including management of national water assets, maintenance of the system, investment and planning, and managing capital projects. Irish Water is regulated by the Environmental Protection Agency (EPA) as the environmental regulator and the Commission for Energy Regulation (CER) as the economic regulator.

Fingal will work closely with Irish Water to inform and influence the timely provision of infrastructure within the County in line with Fingal's Settlement Strategy. The Council remains the designated Water Authority for the assessment and approval of on-site waste water treatment systems in the County and is responsible for surface water drainage, flooding, monitoring of water pollution and is an agent of Irish Water for operations.....Sustainable resource management of our land and water resources is critical in the consideration of all development. The Green Infrastructure approach taken in this Development Plan allows for a co-ordinated, sustainable and strategic approach to development and is an important element of policy consideration and the formulation of objectives for water services.

Statement of Policy

- Liaise and cooperate with Irish Water to ensure the delivery of the proposed Capital Investment Plan 2014 -2016 (or any updated plan) or any other relevant investment works programme of Irish Water that will provide infrastructure to increase capacity to service settlements and to jointly investigate proposals for future upgrades of treatment plants and participate in the provision of a long term solution for waste water treatment for the Greater Dublin Area.
- Control and manage surface water, mitigate against flooding and to protect and improve water quality in the County while allowing for sustainable development and improve water quality in line with the Water Framework Directive and Eastern River Basin Management Plan.
- Facilitate industrial and other forms of development, including residential by ensuring that optimum use is made of existing drainage and wastewater treatment infrastructure in the first instance and that further strengthening of infrastructure is focused on priority locations as identified in the urban settlement hierarchy in accordance with Irish Water, the Regional Planning Guidelines and the Development Plan.

Objective DW03 Protect both ground and surface water resources and work with Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing catchment.

Foul Drainage and Wastewater Treatment

The provision of well maintained quality waste water treatment infrastructure is essential to facilitate sustainable development of the County in line with the

Settlement and Core Strategy while also protecting the environment and public health. Irish Water is now responsible for the treatment and disposal of waste water where public waste water facilities exist in towns and villages.

Wastewater from the south of the County including Howth, Baldoyle, Sutton, Portmarnock, Santry, Meakstown and Blanchardstown discharges to the Regional Waste Water Treatment Plant at Ringsend operated by Dublin City Council. Ringsend was designed for a capacity of 1.64 million population equivalent (PE) but is now operating slightly above this. It is necessary to upgrade and expand the treatment plant to its maximum capacity which is estimated to be 2.1 million PE (subject to obtaining relevant permits).

The Greater Dublin Strategic Drainage Study (GDSDS) involving the seven local authorities of the GDA was completed in 2005 and has an associated Strategic Environmental Assessment (SEA).

The Study carried out an in depth assessment of Dublin's drainage system. Key recommendations of the GDSDS Final Strategy, was the expansion of Ringsend Wastewater Treatment Plant to its ultimate capacity and the development of a new Regional Wastewater Treatment Plant, Orbital Drainage Network and Marine Outfall in the northern part of the GDA, are being pursued.

Irish Water is developing the Greater Dublin Drainage (GDD) Project (previously led by Fingal County Council). The GDD is a regional wastewater project designed to serve the Greater Dublin Area by augmenting the Ringsend Wastewater Treatment Plant. It implements the recommendations of the GDSDS Final Strategy and the SEA of the GDSDS.

The project includes:

- A planned treatment plant at Clonsaugh in Fingal,
- A marine outfall discharging approximately 1km north east of Irelands Eye, and
- An orbital sewer with two pumping stations – at Abbotstown, Blanchardstown and Grange, Baldoyle – which will divert wastewater from the southern areas of Fingal and the north of Dublin City to the new treatment plant.

Objective WT02 Liaise with Irish Water to ensure the provision of wastewater treatment systems in order to ensure compliance with existing licences, EU Water Framework Directive, River Basin Management Plans, the Urban Waste Water Directive and the EU Habitats Directive.

Objective WT03 Facilitate the provision of appropriately sized and located waste water treatment plants and networks including a new Regional Wastewater Treatment Plant and the implementation of other recommendations of the Greater Dublin Strategic Drainage Study, in conjunction with relevant stakeholders and services providers, to facilitate development in the County and Region and to protect the water quality of Fingal's coastal and inland waters through the provision of adequate treatment of wastewater.

Objective WT05 Seek the best available technology in all waste water treatment plants proposed for the County.

Objective WT07 Require all new developments to provide separate foul and surface water drainage systems and to incorporate sustainable urban drainage systems.

Objective WT08 Prohibit the discharge of additional surface water to combined (foul and surface water) sewers in order to maximise the capacity of existing collection systems.

Objective WT10 Protect natural resources which are a basis for growth and competitive advantage in the tourism, food and aquaculture sectors.

Objective WT11 Establish a buffer zone around all wastewater treatment plants suitable to the size and operation of each plant. The buffer zone should not be less than 100m from the odour producing units.

Objective WT12 Establish an appropriate buffer zone around all pumping stations suitable to the size and operation of each station. The buffer zone should be a minimum 35 metres – 50 metres from the noise/odour producing part of the pumping station to avoid nuisance from odour and noise.

Surface Water and Flood Risk Management

Objective SW01 Protect and enhance the County's floodplains, wetlands and coastal areas subject to flooding as vital green infrastructure which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defences in the future and ensure that development does not impact on important wetland sites within river / stream catchments.

Objective SW04 Require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.

Objective SW07 Implement the Planning System and Flood Risk Management-Guidelines for Planning Authorities (DoEHLG/OPW 2009) or any updated version of these guidelines. A site-specific Flood Risk Assessment to an appropriate level of detail, addressing all potential sources of flood risk, is required for lands identified in the SFRA, located in the following areas: Courtlough; Ballymadun; Rowlestown; Ballyboghil; Coolatrath; Milverton, Skerries; Channell Road, Rush; Blakescross; Lanestown/Turvey; Lissenhall, Swords; Balheary, Swords; Village/Marina Area, Malahide; Streamstown, Malahide; Balgriffin; Damastown, Macetown and Clonee, Blanchardstown; Mulhuddart, Blanchardstown; Portrane; Sutton; and Howth, demonstrating compliance with the aforementioned Guidelines or any updated version of these guidelines, paying particular attention to residual flood risks and any proposed site specific flood management measures.

Objective SW08 Implement the recommendations of the Fingal East Meath Flood Risk Assessment and Management Study (FEMFRAMS).

Objective WQ01 Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.

Objective WQ02 Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any subsequent plan and the Groundwater Protection Scheme.

Objective EN04 Encourage development proposals that are low carbon, well adapted to the impacts of Climate change and which include energy saving measures and which maximise energy efficiency through siting, layout and design.

Objective EN06 Encourage and facilitate the development of renewable energy sources, optimising opportunities for the incorporation of renewable energy in large scale commercial and residential development.

Section 7.5 Waste Management.

Objective WM02 Facilitate the implementation of national legislation and national and regional waste management policy having regard to the waste hierarchy.

Objective WM03 Implement the provisions of the Eastern Midlands Region Waste Management Plan 2015 -2021 or any subsequent Waste Management Plan applicable within the lifetime of the Development Plan. All prospective developments in the County will be expected to take account of the provisions of the Regional Waste Management Plan and adhere to the requirements of that Plan

Objective WM14 Promote the recovery (including recovery of energy) from waste in accordance with the Eastern Midlands Region Waste Management Plan 2015 -2021 (or any subsequent plan).

Objective WM15 Implement the adopted Sludge Management Plan for the County and update the plan as required. Work with Irish Water and other relevant stakeholders to ensure the provision of facilities for the safe and sustainable management of sludges (sewage, waterworks, agricultural, industrial and septic tank) that are generated within the County having regard to the Fingal Sludge Management Plan and relevant environmental legislation.

Objective WM18 Ensure that construction and demolition Waste Management Plans meet the relevant recycling / recovery targets for such waste in accordance with the national legislation and regional waste management policy.

Section 7.6 Air, Light and Noise

Objective AQ01 Implement the provisions of EU and National legislation on air, light and noise and other relevant legislative requirements, as appropriate and in conjunction with all relevant stakeholders.

Objective LP01 Require that the design of lighting schemes minimises the incidence of light spillage or pollution into the surrounding environment. New schemes shall ensure that there is no unacceptable adverse impact on neighbouring residential or nearby properties; visual amenity and biodiversity in the surrounding areas.

Objective AQ02 Implement the recommendations of the Dublin Regional Air Quality Management Plan (or any subsequent plan) and any other relevant policy documents and legislation in order to preserve good air quality where it exists or aim to improve air quality where it is unsatisfactory.

Objective NP01 Implement the relevant spatial planning recommendations and actions of the Dublin Agglomeration Environmental Noise Action Plan 2013-2018 (or any subsequent plan), working in conjunction with relevant statutory agencies.

Objective NP03 Require all developments to be designed and operated in a manner that will minimise and contain noise levels.

Chapter 8 – Green Infrastructure.

Objective GI03 Develop the green infrastructure network to ensure the conservation and enhancement of biodiversity, including the protection of European Sites, the provision of accessible parks, open spaces and recreational facilities (including allotments and community gardens), the sustainable management of water, the maintenance of landscape character including historic landscape character and the protection and enhancement of the architectural and archaeological heritage.

Objective GI06 Resist development that would fragment or prejudice the County's strategic green infrastructure network.

Objective GI13 Ensure the Green Infrastructure Strategy for Fingal protects the County's natural coastal defences, such as beaches, sand dunes, salt marshes and estuary lands, and promotes the use of soft engineering techniques as an alternative to hard coastal defence works wherever possible.

Objective GI14 Ensure the Green Infrastructure Strategy for Fingal safeguards important agricultural and horticultural lands in the County.

Objective GI15 Ensure the protection of European Sites is central to Fingal County Council's Green Infrastructure Strategy.

Objective GI20 Require all new development to contribute to the protection and enhancement of existing green infrastructure and the delivery of new green infrastructure, as appropriate.

Objective GI22 Require all proposals for large scale development such as road or drainage schemes, wind farms, housing estates, industrial parks or shopping centres to submit a Green Infrastructure Plan as an integral part of a planning application.

Objective GI24 Ensure biodiversity conservation and/or enhancement measures, as appropriate, are included in all proposals for large scale development such as road or drainage schemes, wind farms, housing estates, industrial parks or shopping centres.

Objective GI31 Ensure the provision of new green infrastructure addresses the requirements of functional flood storage, the sustainable management of coastal erosion, and links with provision for biodiversity, Sustainable Drainage Systems (SuDS) and provision for parks and open space wherever possible and appropriate.

Objective GI34 Ensure, wherever possible and appropriate, that elements of the archaeological and architectural heritage are fully integrated into proposals for new developments at the project design stage.

Chapter 9 – Natural Heritage

Statement of Policy

- Conserve and enhance the County's biodiversity.
- Conserve and enhance the County's geological heritage.
- Promote a unified approach to landscape planning and management, provide an understanding of Fingal's landscape in terms of its inherent and unique character and ensure that Fingal's landscape is appropriately protected, managed and planned.
- Protect, enhance and sustainably manage the coastline and its natural resources.

Objective NH10 Ensure that the Council takes full account of the requirements of the Habitats and Birds Directives, as they apply both within and without European Sites in the performance of its functions.

Objective NH11 Ensure that the Council, in the performance of its functions, takes full account of the objectives and management practices proposed in any management or related plans for European Sites in and adjacent to Fingal published by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective NH13 Ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are or were previously present, the applicants will be required to submit a control and management program for the particular invasive species as part of the planning process and to comply with the provisions of the European Communities Birds and Habitats Regulations 2011 (S.I. 477/2011).

Objective NH14 Protect inland fisheries within and adjacent to Fingal and take full account of Inland Fisheries Ireland Guidelines in this regard when undertaking, approving or authorising development or works which may impact on rivers, streams and watercourses and their associated habitats and species.

Objective NH15 Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

Objective NH16 Protect the ecological integrity of proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, and Habitat Directive Annex I sites.

Objective NH17 Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.

Objective NH18 Protect the functions of the ecological buffer zones and ensure proposals for development have no significant adverse impact on the habitats and species of interest located therein.

Objective NH24 Protect rivers, streams and other watercourses and maintain them in an open state capable of providing suitable habitat for fauna and flora, including fish.

Objective NH27 Protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character and ensure that proper provision is made for their protection and management. Objective

Objective NH33 Ensure the preservation of the uniqueness of a landscape character type by having regard to the character, value and sensitivity of a landscape when determining a planning application.

Objective NH36 Ensure that new development does not impinge in any significant way on the character, integrity and distinctiveness of highly sensitive areas and does not detract from the scenic value of the area. New development in highly sensitive areas shall not be permitted if it:

- Causes unacceptable visual harm
- Introduces incongruous landscape elements
- Causes the disturbance or loss of (i) landscape elements that contribute to local distinctiveness, (ii) historic elements that contribute significantly to landscape character and quality such as field or road patterns, (iii) vegetation which is a characteristic of that landscape type and (iv) the visual condition of landscape elements.

Objective NH39 Require any necessary assessments, including visual impact assessments, to be prepared prior to approving development in highly sensitive areas.

Objective NH40 Protect views and prospects that contribute to the character of the landscape, particularly those identified in the Development Plan, from inappropriate development.

Objective NH44 Protect and enhance the character, heritage and amenities of the Howth and the Liffey Valley Special Amenity Areas in accordance with the relevant Orders.

Objective NH48 Participate in and actively support the work of the Dublin Bay Biosphere Partnership.

Objective NH50 Protect and enhance the special landscape character and exceptional landscape value of the islands, including their biodiversity, archaeological and architectural heritage.

Objective NH51 Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place.

Objective NH67 Protect beaches, and bathing areas as valuable local amenities and as a tourism resource and support the maintenance, protection and improvement of access to them.

Objective NH68 Protect bathing waters, including those listed in the Water Framework Directive Register of Protected Areas for the Eastern River Basin District, at Sutton, Portmarnock, Malahide, Donabate, Portrane, Rush, Loughshinny, Skerries and Balbriggan in order that they meet the required bathing water standards and implement the findings and recommendations of the Quality of Bathing Water in Ireland reports as published.

Objective NH69 Protect the quality of designated shellfish waters off the Fingal coast.

Objective NH70 Ensure that the Council, in the performance of its functions, complies with the requirements of the Shellfish Directive (2006/113/EC), statutory regulations pursuant to the Shellfish Directive and the Department of the Environment, Heritage and Local Government's Pollution Reduction Programmes for the Balbriggan/Skerries Shellfish Area and the Malahide Shellfish Area.

Chapter 10 Cultural Heritage

Objective CH02 Favour the preservation in situ or at a minimum preservation by record, of archaeological sites, monuments, features or objects in their settings. In securing such preservation the Council will have regard to the advice and recommendations of the National Monuments Service of the Department of the Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective CH03 Protect all archaeological sites and monuments, underwater archaeology, and archaeological objects, which are listed in the Record of Monuments and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process.

Objective CH05 Ensure archaeological remains are identified and fully considered at the very earliest stages of the development process, that schemes are designed to avoid impacting on the archaeological heritage.

Objective CH06 Require that proposals for linear development over one kilometre in length; proposals for development involving ground clearance of more than half a hectare; or developments in proximity to areas with a density of known archaeological monuments and history of discovery; to include an Archaeological Impact Assessment and refer such applications to the relevant Prescribed Bodies.

Objective CH07 Ensure that development within the vicinity of a Recorded Monument or Zone of Archaeological Notification does not seriously detract from the setting of the feature, and is sited and designed appropriately.

Objective CH09 Recognise the importance of archaeology or historic landscapes and the connectivity between sites, where it exists, in order to safeguard them from developments that would unduly sever or disrupt the relationship and/or inter-visibility between sites.

Objective CH12 Promote best practice for archaeological excavation by ensuring that they are undertaken according to best practice as outlined by the National Monuments Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, The National Museum and the Institute of Archaeologists of Ireland.

Objective CH13 Actively support the dissemination of the findings of archaeological investigations and excavations through the publication of excavation reports thereby promoting public awareness and appreciation of the value of archaeological resources.

Objective CH20

Ensure that any development, modification, alteration, or extension affecting a Protected Structure and/or its setting is sensitively sited and designed, is compatible with the special character, and is appropriate in terms of the proposed scale, mass, height, density, layout, materials, impact on architectural or historic features, and junction with the existing Protected Structure.

Objective CH21 Seek that the form and structural integrity of the Protected Structure is retained in any redevelopment and that the relationship between the Protected Structure and any complex of adjoining buildings, designed landscape features, or designed views or vistas from or to the structure is conserved.

Objective CH25 Ensure that proposals for large scale developments and infrastructure projects consider the impacts on the architectural heritage and seek to avoid them. The extent, route, services and signage for such projects should be sited at a distance from Protected Structures, outside the boundaries of historic designed landscapes, and not interrupt specifically designed vistas. Where this is not possible the visual impact must be minimised through appropriate mitigation measures such as high quality design and/or use of screen planting.

Objective CH46 Require that proposals for development within historic designed landscapes include an appraisal of the designed landscape (including an ecological assessment) prior to the initial design of any development, in order for this evaluation to inform the design which must be sensitive to and respect the built heritage elements and green space values of the site.

Chapter 12 – Development Management

Objective DMS01 Ensure that all plans and projects in the County which could, either individually or in combination with other plans and projects, have a significant effect on a European site or sites are subject to Screening for Appropriate Assessment.

Objective DMS80 Ensure trees, hedgerows and other features which demarcate townland boundaries are preserved and incorporated where appropriate into the design of developments.

Objective DMS120 Ensure that the indicative route for new Metro North and its stops are kept free from development. Require that all development alongside the route of the indicative route for New Metro North includes permeability for pedestrians, cyclists and public transport so as to maximise its accessibility.

Objective DMS122 Ensure that the possible routes of the Light Rail Corridor and its stops are kept free from development. Require that all development alongside the possible routes of the Light Rail Corridor includes permeability for pedestrians, cyclists and public transport so as to maximise its accessibility.

Objective DMS126 Restrict unnecessary new accesses directly off Regional Roads. Ensure premature obsolescence of all county/local roads does not occur by avoiding excessive levels of individual entrances. Ensure that necessary new entrances are designed in accordance with DMRB or DMURS as appropriate, thereby avoiding the creation of traffic hazards.

Objective DMS132 Require the incorporation of rain water harvesting systems in new commercial developments and the use of water butts as a minimum for use in residential developments.

Objective DMS152 A site assessment should be carried out prior to starting any design work to help inform and direct the layout, form and architectural treatment of the proposed development and identify issues that may need to be avoided, mitigated or require sensitive design and professional expertise. The site assessment should evaluate:

- Character of the site in its setting (including existing buildings),
- Access to the site,
- Services,
- Protected Designations,
- Rare and protected species (such as bats).

Objective DMS153 All development proposals that may (due to their location, size, or nature) have implications for archaeological heritage shall be accompanied by an Archaeological Impact Assessment and Method Statement.

Objective DMS159 A Designed Landscape Appraisal should accompany any development proposal for an historic demesne and/or designed landscape, to include:

- Identification and description of the original development, history, structures, features and boundaries of the designed landscape. Ecological assessment, including identification of any protected habitats or species.
- Evaluation of the significance of the historical landscape.
- Determination of the carrying capacity of the lands which should not be exceeded, to be agreed with the Council.
- Assessment of the development proposal and its impact on the designed landscape.

- Recommendations for mitigation and management of the built and natural heritage.

Objective DMS162 Ensure all development proposals include measures to protect and enhance biodiversity.

Objective DMS163

Ensure Screening for Appropriate Assessment and, where required, full Appropriate Assessment is carried out for all plans and projects in the County which, individually, or in combination with other plans and projects, are likely to have a significant direct or indirect impact on any European site or sites.

Objective DMS164 Ensure that sufficient information is provided as part of development proposals to enable Screening for Appropriate Assessment to be undertaken and to enable a fully informed assessment of impacts on biodiversity to be made.

Objective DMS165 Ensure that Natura Impact Statements (NIS) and any other ecological impact assessments submitted in support of proposals for development are carried out by appropriately qualified professionals and that any necessary survey work takes place in an appropriate season.

Objective DMS166 Ensure planning applications for proposed developments likely to have significant direct or indirect impacts on any European Site or sites are accompanied by a Natura Impact Statement prepared in accordance with the Guidance issued by the Department of the Environment, Heritage and Local Government (*Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009*).

Objective DMS167 Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, or rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

Objective DMS170

Protect and enhance the ecological corridors along the following rivers in the County by ensuring that no development takes place, outside urban centres, within a minimum distance of 30m from each riverbank: Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin (see Green Infrastructure Maps).

Objective DMS171 Ensure that no development, including clearance and storage of materials, takes place within 10m – 15m as a minimum, measured from each bank of any river, stream or watercourse in the County.

2.3 Relevant Map Based Policy/Objectives.

The proposed project would transect the following map based objectives.

Orbital Sewer

- Greater Dublin Area Cycle Network)along Connolly Hospital Access Road.
- Indicative Cycle Pedestrian Route at Mill Road (Map 13), Cappagh Road (Map 12)
- (Tolka Valley) Proximity to objective to protect and preserve trees, woodlands and hedgerows.
- (Abbotstown) Proximity to objective to protect and preserve trees, woodlands and hedgerows.
- Local Objective 116 – Ensure greater public access to these publicly owned lands and establish walking trails linking Blanchardstown Village, the Tolka Valley and Abbotstown Lands and encouraging the upgrading of the Snugborough interchange to facilitate this access through extra pedestrian walkways.
- Route proximate to numerous recorded monuments at Abbotstown (DU013-020), Cappoge (DU014-117), Kildonan (DU014-122 and DU014-122001), Dubber (DU014-117), Merryfalls (DU014-105, DU014-107 and DU014-107), Sillogue (DU014-121), Springhill (DU015-126, DU015-127), Kinsaley (DU015-109, DU015-110), St. Doolaghs (DU015-123), Drumnigh (DU015-134, DU015-118, DU015-135, DU015-130, DU015-119).
- Route proximity Record of Protected Structures: RPS:684 – St. Caomhins Church and Graveyard, RPS:683 Abbotstown House, RPS:617- Dubber House, RPS:604 Thatched Cottage, Cloughran,
- Route Proximity – Light Rail Corridor at a number of points– including station halts at Cappoge and Kildonan; Metro North Corridor at Ballymun/Dardistown.
- Lands to the north of construction compound no. 3 are identified as Traveller Accommodation.
- Road Proposal: Intersects with East-West Distributor Road (Malahide to Stockhole Lane and Stockhole Lane to Cherryhound Sections)
- Green Inf. Map 11 – Highly Sensitive Landscape – (Tolka Valley, Connolly Hospital, NSC)
- Green Inf. Map 15 - Nature Development Area (Tolka Valley, NSC Boundary with M50, between Sillogue Golf Course and M50/Junction 4,
- Green Inf. Map 15 - Proximity to Rivers – Tolka, Santry, Mayne, Cuckoo.

Outfall Sewer (Land based section)

- Route proximity Record of Protected Structures: RPS:792 Springhill House, RPS:458 Emsworth, RPS:914 (Former Teagasc Building),
- Route proximity numerous recorded monuments at Springhill (DU015-126, DU015-127), Kinsaley (DU015-109, DU015-110), St. Doolaghs (DU015-123), Drumnigh (DU015-134, DU015-118, DU015-135, DU015-130, DU015-119).
- Road Proposal: Intersects with R106 Malahide Road Re-alignment and R123 Moyne Road realignment.
- Indicative Cycle Pedestrian Route at Coast Road (Map 9)
- Green Inf. Map 14- Highly Sensitive Landscape – to the west and south of Kinsealy Village.
- Green Inf. Map 14- Highly Sensitive Landscape – to the east of the Dublin – Belfast Railway Line at Baldoyle Portmarnock.
- Green Inf. Map 14- Highly Sensitive Landscape – Portmarnock Peninsula.
- Green Inf. Map 14 – Preserve views from Coast Road and Gold Links Road.

- Green Inf. Map 14- Beach – Portmarnock.
- Green Inf. Map 15 – Ecological Buffer Zone at Racecourse Park.

Outfall sewer (marine section)

- Green Inf. Map 15 – Designated Shellfish Waters
- Green Inf. Map 15 – Baldoyle Bay SPA (004016)
- Green Inf. Map 15 – Baldoyle Bay SAC (000199)
- Green Inf. Map 15 –Irelands Eye SPA (004117)
- Green Inf. Map 15 – Irelands Eye SAC (002193)
- Green Inf. Map 15 – Rockabill to Dalkey Island SAC (003000)
- Green Inf. Map 15 – Baldoyle Bay pNHA
- Green Inf. Map 15 – Irelands Eye pNHA
- Green Inf. Map 15 – Fingal Rare Flora Site
- Green Inf. Map 15 – Annex 1 Habitat.
- Green Inf. Map 15 – Statutory Nature Reserve and Ramsar Conservation Wetland, Baldoyle Estuary.

Clonsaugh WWTP

- Falls within the Outer Airport Noise Zone
- Falls partially within the Inner Airport Noise Zone
- Falls within the Outer Public Safety Zone.
- Green Inf. Map 15 - Proximity to Rivers –Cuckoo

Abbotstown Pumping Station

- Proximity to objective to protect and preserve trees, woodlands and hedgerows.

Regional Biosolids Storage Facility

- Falls within the Outer Airport Noise Zone

Dubber Odour Unit.

- Route proximity recorded monuments at Dubber (DU014-117).
- Falls within the Outer Airport Noise Zone.

3) Relevant National and Regional Policies

The following references relate to relevant sections of national and regional planning policies with regards to waste water infrastructure and in certain instances to the specific project.

River Basin Management Plan for Ireland 2018 – 2021

In Ireland, the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. 684 of 2007) gives effect to the requirements of the Urban Waste Water Treatment Directive (Directive 91/271/EEC) and the Water Framework Directive (2000/60/EC).

River Basin Management Plan for Ireland, 2018-2021

Section 7.2.1 notes further that “of the urban areas where works are required, the majority will be compliant by the end of 2021, including Ringsend, which is the single largest waste-water treatment plant in the country, accounting for some 41% of the total waste-water load”. In addition to the above, section 7.2.2 identifies the fact that “Capital investment in waste-water treatment and collection systems, together

with optimal operation of these assets, is necessary to ensure compliance with the Urban Waste Water Treatment Directive and to meet environmental objectives”.

The key objective of the WFD is to protect and improve the quality of rivers, lakes, transitional and coastal waters and groundwater...and Wastewater Discharge Authorisations must set standards (emission limits) that will contribute to the receiving waters complying with the standards for environmental quality laid out in these regulations”.

National Planning Framework

In terms of the National Strategic Outcomes for consideration in developing the National Investment Plan that will support the NPF (Ireland 2040), in respect of the sustainable management of water and other environmental resources, the framework provides explicit support for the proposed Project within National Strategic Outcome 9 (p149) which states:-

Implement the Greater Dublin Strategic Drainage Study, through enlarging capacity in existing wastewater treatment plants (Ringsend) and providing a new treatment plant in North County Dublin - known as the Greater Dublin Drainage Project (GDD) Project.

Increase compliance with the Urban Wastewater Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and 100% by 2040.

Effective Waste Management....will require additional sludge treatment capacity and a standardised approach to managing waste water sludge and including options for the extraction of energy and other resources.

National Development Plan 2018 – 2027

- Major National Infrastructure Projects - Greater Dublin Drainage Project (p10).
- Strategic Investment Priorities 2018–2027: Sustainable Management of Water and Other Environmental Resources, €8.8 billion - Greater Dublin Drainage Project
- Greater Dublin Drainage Project (p84) which states:-
 - *The core deliverables of that project are the provision of a new wastewater treatment plant at a site in the northern part of the GDA and an associated marine outfall which will discharge fully treated effluent into the Irish Sea at a point approximately 1 km northeast of Ireland's Eye; and the provision of a new Orbital Drainage Sewer linking the new plant to the existing Regional sewer network via pumping stations at Abbotstown (near Blanchardstown) and Grange (near Baldoyle), which will enable future connections for identified areas of development within the catchment area.*

Greater Dublin Strategic Drainage Study (2005)

The objectives of the GDSDS were to identify policies, strategies and projects for the development of a sustainable drainage system for the GDA, and in 2005, the GDSDS Final Strategy Report 2005 recommended, “as the optimum drainage solution from a range of alternative scenarios”; the upgrading of all existing wastewater treatment plants in the GDA, the construction of a large WwTP in North County Dublin

discharging to the Irish Sea, and an orbital drainage network to divert either in full, or in part, some existing foul drainage catchments to this new WwTP.

Greater Dublin Strategic Drainage Study (2005) - Strategic Environmental Assessment 2008.

Concludes that a new regional wastewater treatment plant should be built in the Northern Greater Dublin Area, with an orbital sewer serving existing and future sub-catchments in the north, west, and north-west of the Ringsend WwTP catchment area; and that the outfall should be located along the North Dublin coastline, following a detailed site selection process.

Water Services Strategic Plan (Irish Water) (2014-2021) – A Plan for the Future of Water Services

The Plan highlights Irish Water's obligations under sections 33 and 34 of the Water Services (No. 2) Act, 2013, in so far as practicable, that it align with national and regional spatial planning policy and have regard to local spatial planning policy in respect of developing strategies and planning investment in water services.

National Wastewater Sludge Management Plan, (Irish Water), (2016),

Reiterates the provisions contained within the Fingal Sludge Management Plan which envisaged the development of a sludge hub as part of the Greater Dublin Drainage Waste Water Treatment Plant.

Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Section 6.5 – Waste Water & Surface Water Treatment

Strategic Policy PIP3

Protect and work to improve water quality in, and impacted by, the GDA and seek that investment in waste and surface water treatment and management projects is prioritised to support the delivery of the economic and settlement strategy for the GDA through the coordinated and integrated delivery of all essential services supporting national investment.

Table 11.2 Critical Strategic Projects-Waste Water & Surface Water

(2) Identification of suitable site for the new Greater Dublin Regional Drainage Project- Regional Waste Water Treatment Plant, Marine Outfall and Orbital Drainage System and development of plant and network connections.

(9) Upgrading of sewer systems to provide adequate capacity against flooding risk and to mitigate discharges from Combined Sewer Overflows in networks to acceptable environmental standards.

Strategic Policies and Recommendations

SR5(p96), PIR15 and PIR16 (p130 link growth capacity with development of appropriate drainage infrastructure).

PIR17 Identification and development of a suitable site for the Greater Dublin Regional Drainage Project – Regional Waste Water Treatment, Marine Outfall and Orbital Drainage System in the north coast of the GDA to enable the continued population and economic growth and the physical consolidation of the metropolitan area, by reducing the catchment size for Ringsend and providing new treatment capacity through network connections.

3.1 – Economic Development Strategy

- Strategic Policy Recommendations.

PIR25 That reinforcements and new infrastructure are put in place by the key agencies, and their provision is supported in Local Authority policies, to ensure the energy needs of future population and economic expansion within designated growth areas and across the GDA can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.

Eastern-Midlands Region Waste Management Plan (EMRWMP), 2015-2021

Policy H1, Section 7.4.7, provides that local authorities will: *"Work with the relevant stakeholders and take measures to ensure systems and facilities are in place for the safe and sustainable management of sludges (sewage, waterworks, agricultural, industrial, and septic tank) generated in the region having due regard to environmental legislation and prevailing national guidance documents, particularly in relation to the EU Habitats and Birds Directives.*

Other Relevant Local Authority Development Plan Objectives

Dublin City Council 2016 – 2022

Policy SI1: To support and facilitate Irish Water in the provision of high-quality drinking water, water conservation, and in the development and improvement of the water and wastewater systems to meet anticipated demands for clean and resilient water supplies and wastewater requirements for the city and region, all in accordance with the recommendations set out in the 'Greater Dublin Water Supply Strategic Study' and 'The Greater Dublin Strategic Drainage Study'.

Policy SI2: To support and facilitate Irish Water to ensure the upgrading of wastewater infrastructure, in particular the upgrading of the Ringsend Wastewater Treatment Plant, and to support the development of the Greater Dublin Regional Wastewater Treatment Plant, the North Docklands Sewage Scheme, the Marine Outfall and orbital sewer to be located in the northern part of the Greater Dublin Area to serve the Dublin region as part of the Greater Dublin Strategic Drainage Strategy.

South Dublin County Council 2016 – 2022

IE1 Objective 4:

To promote and support the implementation of the Greater Dublin Strategic Drainage Study, Dublin Region Local Authorities (2005) to include the upgrade of Ringsend Sewerage Treatment Works and the construction of a new treatment plant at Clonsaugh and all associated works to increase drainage capacity throughout the Dublin Region.

Meath County Development Plan 2013–2019

Acknowledges the strategic role of the development of the Greater Dublin Strategic Drainage Study and its role in the future sustainable development of the County and the region.

Kildare County Development Plan 2017-2023

The Development Plan highlights the fact that the County is dependent on strategic national and regional solutions to the provision of water and wastewater

infrastructure, and notes further that the Greater Dublin Strategic Drainage Study delivered an overview of the performance of the drainage infrastructure in the region's catchments and proposed infrastructural improvement works to facilitate anticipated growth.

4) Local Area Plans and Masterplans.

The proposed project would be located within the boundaries of the following Local Area Plan and Masterplan zones.

Portmarnock South Local Area Plan (LAP) Extended to 2023.

Section 9.2.2 Greater Dublin Drainage Scheme and Proposed Outfall Pipeline Corridor.

Objective GDDS 1 - Protect existing and further infrastructure through the provision of wayleaves/corridors and the co-ordination of developments with the requirements of infrastructure service providers.

Dardistown Local Area Plan Extended to 2023 (LAP 11D on CDP Map 11)

It is noted that the development of the lands within the LAP, which are not currently serviced, will be facilitated by the proposed project.

Dublin Airport Local Area Plan (LAP 11A on CDP Map 11)

A new LAP is required for these lands. The orbital sewer is generally located outside and along the southern boundary of the LAP lands and would not prejudice appropriate development of the airport and associated land.

Turnapin (LAP 11C on CDP Map 11) – No plan currently prepared.

Masterplans

Dubber (MP 11B on CDP Map 11) – No plan currently prepared

Clonsaugh East (MP 11C on CDP Map 11) – No plan currently prepared

Clonsaugh West (MP 11D on CDP Map 11) - No plan currently prepared

5. Departmental Reports

A number of Council Departments were consulted and their response formed part of the Council's assessment of the proposal. These included:

- Water Services: No objection, subject to conditions
- Transportation: No objection, subject to conditions.
- Parks & Green Infrastructure (including Biodiversity – Terrestrial): No objection, subject to conditions
- Archaeology: No objection, subject to conditions
- Environmental Health: No objection, subject to conditions
- Environment:
 - Contaminated Soil - No objection.
 - Odour Issues - No objection.
 - Waste Management - No objection.
 - Water Quality – Clarification requested.
- Appropriate Assessment Report - No objection, subject to conditions

Copies of the Departmental Reports are attached as Appendix 1.

6) Relevant Planning History

Fingal County Council has been monitoring the planning applications on or proximate to the project area for a number of years. The list is comprehensive and would add significant length to the main body of the report. For this reason the planning history is attached as appendix 2 to this report.

7. Planning Assessment

7.1 Planning Policy Context

Detailed assessment of the requirement for the proposed Greater Dublin Drainage Project has been undertaken in numerous strategic documents since the Greater Dublin Strategic Drainage Strategy (2005) and the Strategic Environmental Assessment of same (2008). The project and its general location is set out in the National Planning Framework, The National Development Plan, Irish Waters 'Water Services Strategic Plan', The National Wastewater Sludge Management Plan, The Regional Planning Guidelines for the Greater Dublin Area, along with the specific policy within the Fingal, Dublin City, Kildare and Meath Development Plans regarding facilitation of the Greater Dublin Drainage Project and the proposed development accords with these framework documents. Specific reference is made to Objectives WT03 and WM15 which fully support the proposed project, along with numerous other ancillary Objectives which support the location and aims of the Greater Dublin Drainage Project in terms of providing for public wastewater treatment to facilitate ongoing sustainable growth of the Greater Dublin Area.

It is considered that the principle of the development is established.

Regarding compliance with zoning, it is noted that the Regional Biosolids Storage Facility (RBSF) as a 'Waste Disposal and Recovery Facility – High Impact' is permitted in principle within the 'HI' zoning of the lands.

The route of the orbital pipeline is generally compliant with the zonings relevant to the route. Certain sections of the pipeline are located within High Amenity and Open Space zoned lands, where the use is subject to assessment in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan. Taking into account the underground nature of this part of the project and the temporary nature of aboveground works to lay the pipeline and provide for construction compounds, it is considered that the proposal, which would achieve multiple aims and objectives regarding providing for the sustainable development of the County is acceptable.

Similarly the outfall sewer – land based section, is located in GB- Greenbelt lands, along with a section of OS- Open Space lands at Racecourse Park in Portmarnock South. It is noted that the works would be located within RS zoned lands at Drumnigh, where the use is permitted. Again having regard to the temporary nature of this section of the works, along with reinstatement proposals, it is considered that the proposal within GB and OS lands, which would achieve multiple aims and objectives regarding providing for the sustainable development of the County is acceptable.

The Odour Control Unit at Dubber would be located on GE – General Employment zoned lands where such uses are permitted in principle.

The pumping station (PS) at Abbotstown would be located in OS – Open Space zoned lands. The proposed structure would be largely underground. The above ground part of the PS would be of limited size and is located in a section of the NSC which is not visually open as part of the wider landscape, being proximate to surrounding tree belts. Having regard to the significant number of objectives within the Development Plan regarding the requirement for the overall project in addition to the chosen location and limited visual impact, it is considered that the PS would not affect the function of the NSC or the open space zoning and is acceptable.

The Wastewater Treatment Plant (WWTP) and north fringe sewer diversion would occupy approximately 29ha in lands zoned GB – Green Belt, HT – High Technology and OS- Open Space. The development is permitted in principle within HT zoned lands. With the exception of the south-eastern corner which would be located in OS lands the remainder would be within the GB zoning. The proposal has been laid out over a wide plot of land generally on an east-west axis in order to provide space between the proposed structures to be contained within the WWTP thereby reducing visual impact. The proposal would provide for landscaped berms, 3 – 4m in height to the east, west and northern boundaries. Associated planting to these berms would further soften visual impact in the longer term. The vision associated with GB zoned lands is to demarcate the boundary between development areas and the countryside, to prevent encroachment, to restrict sprawl, to retain attractive landscapes, retain lands in agricultural use and to achieve regeneration of undeveloped town areas. It is noted that the proposal, being located partly within and at the edge of lands zoned for high technology development would form the northern boundary of the urban area of Dublin. Due to its strategic nature, as part of the Greater Dublin Drainage Project, it would have a significant role in strengthening the Green Belt through ensuring sufficient services for the development and regeneration of appropriately zoned lands. It is further noted that

the lands are not designated as a sensitive landscape within the FCC Landscape Character Assessment and do not have a nature conservation interest. It is considered that the proposed WWTP has clearly demonstrated a functional need for the identified location as set out in the SEA for the Greater Dublin Strategic Drainage Project, in addition to ensuring that development would avoid significant impact on adjoining areas. Having regard to the site area which is sufficiently large to ensure that visual impact is mitigated through allowing space for accommodation of large structures without a clustering effect, in addition to the National, Regional and Development Plan policy regarding the proposed Wastewater Treatment Plant, it is considered that the proposal complies with zoning policy and would contribute to the vision of protecting Green Belt Lands from development pressure through facilitating development in the region within appropriately zoned lands.

It is also noted that the proposed project is provided for within the Portmarnock Local Area Plan and would facilitate development of the Dardistown LAP. Having regard to the generally underdeveloped status of the lands at Tunapin, Dubber, Clonsaugh East and West, the need for strategic infrastructure to allow for sustainable development of these lands, and the longstanding objectives regarding provision of the Greater Dublin Drainage Project and analysis of appropriate infrastructural locations, it is considered that subject to ensuring that temporary construction compounds do not affect station provision for Metro North or West, that the proposed project is acceptable.

7.2 Visual Impact

Orbital Sewer

The proposal would generally involve a 40m wide working area, with retention of a 20m wide permanent wayleave above the sewer. Due to the subterranean nature of the sewer, the most significant visual impact would be during construction and the impact of hedgerow and tree removal as a consequence of the permanent wayleave, which could have a significant effect on the landscape. This is especially of concern in the NSC, where mature trees are located. It is noted that works will be almost wholly underground in the vicinity of the Tolka Valley and Connolly Hospital, however the working and permanent wayleave will permanently remove trees in the park proximate to Mill Road. There are concerns regarding the impact of proposed Compound 1 on trees within the NSC. It is considered that these trees can be identified and protected during construction rather than removed.

The application documentation, specifically the Construction and Environmental Management Plan and Chapter 12 of the EIAR note that replanting would take place within the 40m construction wayleave to compensate for hedgerow removal. It is unclear whether full replacement of hedgerows would take place, however given the nature of the project this is considered unlikely. The report of the Parks Department note a number of issues such as a lack of provision of a tree survey, the need for tree and hedgerow protection measures, replanting of hedgerows to ensure a narrow gap of no more than 10m to ensure bats continue to use hedgerows for feeding/commuting and careful removal, storage and replanting of ancient townland hedgerows. It is noted that a linear project such as this and the cut and cover method of construction will necessitate hedgerow and tree removal. It is therefore considered reasonable to attach conditions to ameliorate and compensate such impact insofar as possible.

Outfall Sewer (Land based section)

As with the section above, the proposal will involve hedgerow and tree removal. In addition the construction compounds will also have a visual impact. However, subject to appropriate measures as set out in the mitigation section of the EIAR along with supplementary tree and hedgerow protection measures as set out in the Parks Department Report, it is considered that this section of the proposal will be sufficiently mitigated.

Outfall sewer (marine section)

The most significant element associated with the marine section of the outfall sewer would be construction compound 10. This is a temporary visual impact and the land would be returned to a similar condition upon completion of the project. Therefore impact is considered to be temporary and acceptable. The remainder of this section of the project will be underground/undersea.

Clonshaugh WWTP

The proposed WWTP comprises a number of buildings of substantial size and scale. These include the coarse and fine screening buildings (18m high), aeration blower building (8m high), combined heat and power (CHP) plant including biogas tanks (15.5m high), 6 no odour control units with discharge flues (9m - 24m high), a flare stack (25m high), administrative buildings (10m high) and sludge processing tanks and buildings (7.5m – 15m high).

The overall size and specifically the east-west arrangement of the WWTP site would ensure that the larger structures would be distributed across the lands in a manner which would introduce significant spatial distribution, thereby reducing visual impact. The buildings would appear from the most sensitive visual receptors, the rural area as a series of individual buildings, separated by planting, berms and lower levels structures which would be largely screened. This spatial arrangement along with colour and tone proposals for cladding would mitigate for visual impact to a large degree, resulting in buildings appearing as a number of smaller developments, rather than as a larger utility plant. In this manner, visual impact within the rural area would be effectively dissipated especially as planting to the berms grows larger. Retention of existing planting to the eastern and northern fringes of the site would assist visual integration, while existing planting along the R139 will effectively screen the proposal from view of that road. Furthermore, as the HT zoned lands develop between the site and the R139, built form will further screen the development.

North Fringe Diversion

This section of the proposal would be developed in tandem with the access road off the R139. It is not considered to have a significant visual impact due to being located beneath the road. The visual impact of the removal of part of the band of trees/hedgerow along the R139 to provide for the access to the WWTP is considered acceptable.

Abbotstown Pumping Station

The pumping station (PS) and compound would involve the removal of recent tree planting in addition to a number of mature trees. The site is located in a sensitive landscape. The compound is limited in size and the majority of the structure is located underground. The development would not be particularly visible due to the location of the site proximate to a large band of planting undertaken during M50

works and location in the south-western section of the NSC, which has limited external and local views. No landscaping plan has been submitted for the PS. This should be provided for in order to further mitigate visual impact.

Regional Biosolids Storage Facility

The RBSF would be located in heavy industry zoned lands. A landscaping scheme has been submitted by the applicant. The Council's Parks & Green infrastructure Section has reviewed the proposal and suggested a number of conditions relating to the existing boundary hedgerows, height of berms, plant selection and scheduling and road boundary treatment. Having assessed the proposal it is considered that the overall landscaping proposed is generally acceptable subject to a number details that can be adequately secured by condition. Therefore if An Bord Pleanála is minded to grant permission a number of conditions addressing the aforementioned are recommended at the end of this report. It is also noted that this facility has previously been subject of a CE report for the SID application for the Ringsend Upgrade and a grant of permission was recommended by FCC

Dubber Odour Unit.

The odour unit is of limited size and scale and would be located in lands identified for General Employment Use. It is considered that subject to appropriate measures as set out in the mitigation section of the EIAR along with supplementary tree and hedgerow protection measures as set out in the Parks Department Report, this section of the proposal will be sufficiently mitigated.

7.3 Residential Impact

Impact on residential amenity from Odour and Traffic generation is assessed under the headings below.

Orbital Sewer

Due to the underground nature of the proposal it is not considered that the orbital sewer would result in significant impact on residential amenity during operation. The proposed sewer route is largely through undeveloped lands zoned for industry or agricultural lands which would limit exposure to residential receptors. It is considered that the construction stage of the development has potential to result in significant impact to residential properties, specifically those at Barn Lodge Grove, Cappagh Road, at Meakstown Cottages/Dubber Cross and Dubber House, the Traveller accommodation at the Ballymun M50 Junction and around Stockhole Lane/Clonsaugh. The applicant has submitted a detailed construction environmental management plan which provides for mitigation of dust and construction noise in the vicinity of these properties. Access to properties will be maintained. It is further noted that as the contractor expects to undertake 15m - 30m of pipelaying per day, construction impacts in the vicinity of any particular residence are considered to be of temporary and shorter duration than the timing for the whole project.

Outfall Sewer (Land based section)

As per the assessment for the Orbital Sewer, impact is limited to the construction period. These would be proximate to the construction compound in Kinsealy, at Drumnigh and the cottages at Maynetown. Again, with the exception of those sites proximate to construction compounds, the process of pipe layout would limit exposure to a shorted timeframe than the whole of the project. Measures within the

CEMP regarding dust mitigation, lighting, noise and hours of operation should be set out as conditions in the event that An Bord Pleanála is minded to grant permission.

Outfall sewer (marine section)

The outfall sewer is largely to be constructed underground or underwater through drilling and dredging, removing impact on residences. It is noted that the house at the entrance to Portmarnock Golf Club, being used to a quiet environment would be subject to significant levels of noise and vibration as a consequence of construction which would result in poor residential amenity. Having regard to the temporary nature of the proposal which would limit impact in the medium term and therefore not prejudice the overall project, it is considered that if adequate mitigation for noise and vibration cannot be achieved, consideration should be given to providing for relocation of the inhabitants of the house for the period of construction.

Clonshaugh WWTP

The most significant impact to be expected from the WWTP would be from odour. This is dealt with under the relevant heading below. While the visual impact of the proposal is significant, this does not represent an impact on residential amenity. The proposed outer edge of the site development would be 400m from Springhill to the east, 700m from the closest residence to the south across the R139, 280m from the closest house to the north and between 200m – 300m from dwellings to the west. It is not considered that the proposed WWTP would overbear or overshadow these dwellings.

North Fringe Diversion

The proposed road and associated North Fringe Diversion pipe are not considered to have a significant effect on residential amenity. It is noted that housing and St. Michaels House are located to the south, across the R139. Having regard to the busy environment already evident in this location, it is not considered that a new access road will have a discernible effect on existing levels of residential amenity.

Abbotstown Pumping Station

There are no residences in close proximity to the pumping station. Issues regarding noise effect on Connolly Hospital and St. Francis Hospice are dealt with under the relevant headings.

Regional Biosolids Storage Facility

Having regard to the inert material proposed to be stored in addition to the construction of the buildings with outer and inner doors for reception of trucks carrying biosolids material to reduce odour escape, it is considered that the biosolids facility would not result in significant impact on residences along the eastern side of the site.

Dubber Odour Unit.

The impact from the odour unit on residences would be from odour generation. It is noted that the unit is in this location in order to ameliorate odour which might be expected at the intersection of the rising and gravity mains. The unit would be located 400m from the closest dwelling to the north, 420m from Dubber House, 520m from the closest house at Dubber Cross and 240m from Rockmount to the south. It is also noted from Chapter 10 and Chapter 24 of the EIAR that effective operation of the unit would ensure no odour nuisance to residential receptors.

7.4 Impact on Tourism, Community, Commercial and Leisure Uses Orbital Sewer

The working wayleave of the proposed works would temporarily impact on Waterville Park, while also removing a 20m wide band of trees permanently. Alternative planting should be provided for elsewhere in the park as compensation. The proposal will have a significant impact on the operation of Connolly Hospital and St. Francis Hospice through noise, vibration and dust. It is noted that works in this location will be tunnelled underground, with the exception of tunnelling entry shafts at the entrance to the hospital, in Waterville Park and at the Abbotstown PS. Traffic will access this part of the project from alternative routes from the north.

The proposal will involve a significant degree of works within the boundaries of the NSC. It is noted that these are largely along the southern boundaries of the campus and are temporary in nature, so while disturbance to the operation of this section of the NSC is to be expected, it will be of limited duration. The proposal will cross under the public golf course at Sillogue by microtunnelling, so impact on the operation of the course is not expected to be significant. Development largely avoids commercial lands which have been developed, with the exception of the long term car park at Ballystruan/Collinstown Cross. As works are temporary, it is considered that no significant long term effect is to be expected. The proposal would result in the temporary removal of sporting facilities at ALSAA. While significant, this is temporary in nature. The submitted documentation proposed re-ordering to ensure some pitches are retained in operation. Works outside of but to the north of Dardistown Cemetery are expected to impact on the ambience of the cemetery, however as this works area is for the pipeline, which is expected to be constructed at a rate of between 15m – 30m per day, effects will be temporary and acceptable. Impact on agriculture is expected, however as the lands will be largely returned to productive use upon completion of works, this impact is temporary and not considered significant.

Outfall Sewer (Land based section)

The proposed outfall sewer works will be located in proximity to Kinsealy Village, with specific reference to the proposed construction compound, tunnel crossing of the Malahide Road and the temporary Educate Together Primary School. It is noted that all of these works are temporary in nature. The primary school is operating under a temporary permission, and it is feasible that it will have relocated by the time works commence in Q1 2022. Furthermore, mitigation measures for noise and vibration are included for this location which would allay concerns. Additionally, it could be required that works take place proximate to the school during the summer break, further reducing impact. While works adjoin the boundary of Trinity Gaels GAA club grounds in Drumnigh, they will not impinge on the operation of the facility. The works within the Racecourse Regional Park, including construction compound 9, will affect the use of the park by members of the public, which would be expected to be open by 2022. Furthermore, the works will be proximate to, but will not directly impact the construction and operation of the Baldoyle to Portmarnock Cycleway. Having regard to the temporary nature of the works and their expected conclusion by Q3 2023, it is considered that the impact is acceptable.

Outfall sewer (marine section)

The impacts considered are upon the public amenity of the beach and bathing waters, commercial shellfishing, the existing car park at Golf Links Road and the golf clubs. It is noted within the submitted documentation that the proposed compound 10 and drilling works would not impact on wells utilised by the golf clubs, nor would the works intrude into the surface of the grounds. The existing car park is to be largely maintained, however the use of the existing green overflow area will be removed for the duration of works. Public access from the car park to the beach will be maintained. It is considered that the works in the compound and associated drilling will have a negative effect on the ambience and enjoyment of this section of the beach, however this is considered temporary and not permanent. It is noted that clarification is required regarding the information provided on bathing water. The submitted documentation indicates maintenance of high quality waters. Existing standards are 'excellent' and as such, while provision of high quality standards is an acceptable achievement, ensuring maintenance of 'excellent' standard in this location is considered a requirement of FCC. A requirement to provide same should be set out as conditions in the event that An Bord Pleanála is minded to grant permission.

The waters off the shore and to the north of Irelands Eye are designated shellfish waters with commercial fishing taking place. Concerns are raised by the FCC Environment Section regarding the information provided, whereby it is not possible to fully determine the levels of Ecoli in these waters as a consequence of the outfall and whether this would render shellfish in certain locations unsuitable for human consumption. Clarification is sought on this matter.

Clonsbaugh WWTP

It is noted that the proposal will replace agricultural land with a utility facility. While this affect is negative, the proposed development will in a strategic sense, ensure that development takes place in sustainable locations on zoned lands, including brownfield and locations suitable for higher density in a plan led manner, thereby having longer term positive benefits for maintaining agriculturally productive lands in other locations within the Greater Dublin Area. This is considered to be a significant planning benefit.

Concerns have been raised regarding the effect of presence of a WWTP on an existing hotel to the west. It is noted that the existing hotel is located on the urban fringe of Dublin, with large motorway infrastructure to the west. The lands around the hotel, including that to the east, is zoned for High Technology, and will be subject to future development. The hotel is not located in a high quality landscape as identified under the Landscape Character Assessment of the Development Plan, as such it is not considered that impact on views from the hotel is an issue of significance. The berming and degree of planting proposed may even improve the visual outlook from the hotel having regard to the existing ESB substation to the east.

North Fringe Diversion

The proposed north fringe diversion and associated access road would be partly located within the grounds of an existing GAA club, however this will not impinge on the clubhouse or pitch. This is considered acceptable.

Abbotstown Pumping Station

The proposed pumping station would be located in a less visited corner of the NSC. Therefore while the station would remove an area from use, it is not currently intensively used and any existing use can be adequately re-accommodated within the large remaining area of the campus. The PS would be approximately 180m from St. Francis Hospice Building. The information submitted within the EIAR and photomontages indicates that it would not be visible, nor would it generate noise and odour during operation which would affect the use of the hospice. The issue of noise and concerns during construction are dealt with under Noise and Vibration below.

Regional Biosolids Storage Facility

The RBSF is located in lands zoned HI. A quarry is located to the south. Having regard to the zoning and existing site context, it is not considered that the proposal will impact significantly on other commercial enterprises in the vicinity.

Dubber Odour Unit.

The odour control unit is of limited size and scale. Subject to effective functioning and mitigation contained in Chapter 24 of the EIAR, it is not considered that the unit would have a significant negative impact on adjoining uses.

7.5 Traffic

The proposed project due to its linear nature and significant scope will generate substantial levels of traffic during the construction period. It is noted from the submitted plans and traffic assessment, in addition to Chapter 13 of the EIAR that an access for construction traffic has been proposed in locations which would minimise impact on sensitive receptors such as Connolly Hospital and St. Francis Hospice. Access to these facilities by day to day traffic will not be subject to restriction. Construction traffic movements will take place across the working wayleave of the pipeline routes and will be centred on the construction compounds which are proposed be in place for between 1 – 12 months. It is noted that crossing of the pipeline over most existing roads is proposed by tunnelling. Some local roads will be crossed by trench, however access is proposed to be maintained.

The report from FCC Transportation Section notes:-

An Outline Traffic Management Plan was provided as part of the application. The document identifies the location of all site accesses from the public road network as well as those along the wayleave for the works and accesses through third party lands. The impact of the works has been minimised along the major roads in particular the N2/M2 and M1 by use of trenchless crossings. The cover levels of the pipelines are well below the formation level of the road construction and consequently should have no impact on the existing road infrastructure. It is noted that the document does not make reference to Metro Link or Bus Connects. It should also be noted that although the Metro West project is not currently under consideration by the NTA, the route still forms part of the current Fingal Development Plan 2017-2023 and as such some consideration should be given to the possible future provision of this route.

The Transportation Section report notes that a final construction traffic management plan is proposed to be agreed with FCC prior to commencement of development to reduce impact of construction traffic on users of roads and streets. It is noted from Section 13.6 of the EIAR, that construction traffic at the area of greater activity, being the WWTP will not unduly impact on existing junctions. A requirement to

provide same should be set out as conditions in the event that An Bord Pleanála is minded to grant permission.

Regarding operational traffic, it is noted that the pipe route, Abbotstown Pumping Station and Odour Control Unit will generate little maintenance traffic. The WWTP will generate substantial levels of traffic as it will take sludge by road from the Fingal area as incoming traffic, in addition to movement of biosolids to the RBSF in Newtown. Access is proposed as an access only route from the R139 and outward only to the Clonshaugh Road. The information provided in Chapter 13, Section 13.8 of the EIAR notes that the proposal will not affect the R139/Clonshaugh Road junction which will continue to be under capacity. The Junction of the roundabout with the R139 east and west is currently over capacity. The project would add a limited amount of time to predicted long delays by 2040.

While it is noted that the report from the Transportation Section of FCC indicates a future determination should be made regarding the amendment of the access from the Clonshaugh Road to be two-way, with access from the R139 being reserved for emergency vehicles, the report does state that the proposed access/egress arrangements are unsuitable. It is considered that for clarity, in the event that An Bord Pleanála are minded to grant permission, a condition should be attached to this effect.

With regard to the Biosolids Facility, the following report from the Transportation Section applies:-

Access

The development would be accessed through an upgraded access point from the R135 North Road. The proposed road layout would provide both a right turn pocket and a left lane diverge. The cross-sectional details of the works required (road, footpath and verge) to the R135 North Road over the full length of the boundary to the site should be agreed with the Transportation Planning Section prior to construction. The details of the transition of the proposed footpath to the adjacent site boundary to the south should be agreed between both parties to the satisfaction of the Transportation Planning Section prior to construction.

Internal Layout & Parking

A separate pedestrian access has been provided both to the south and the north of the proposed vehicular access staff parking and HGV parking would be segregated. The internal road network would operate as a one-way system and there would be demarcated pedestrian routes. The layout would be acceptable.

Traffic Assessment

A Traffic and Transport Assessment has been included in the application as part of the EIAR. The Traffic and Transportation Assessment provided assesses the N2 North Bound Slip Road priority junction, R135 signalised junction, Elm Road roundabout and Kilshane Cross signalised junction.

It should be noted that there appears to be a typo error within the junction capacity analysis tables. The N2 North Bound Slip Road junction is referred to as the Elm Road roundabout junction. The RFC's correspond correctly in the body of the accompanying text.

The analysis takes into account construction traffic and the phasing of the proposed development. The analysis indicates that there would be a slight negative impact in both the 2020 and 2024 construction years in both the AM and PM peaks. This would be a short term (temporary) impact and the applicant should provide a detailed Construction Management Plan and Construction Traffic Management Plan for the approval of the Transportation Planning Section prior to construction.

The Traffic Assessment would indicate in tables 13-28 to 13-31 that during the operational phases of the proposed development there would be long term negative impacts on the junctions analysed. The Transportation Planning Section would accept that the reduction in capacity at the junctions for the 'With Project' scenario is marginal when compared to the development 'Do nothing Scenario'. However, it should be noted that the level of delay when a junction approaches capacity is highly non-linear with respect to the volume of traffic and increases disproportionately to queuing and delay. Therefore, mitigation works to the junctions would be required.

It should be noted that there is a local Objective to upgrade Kilshane Cross which will improve the capacity of this junction in the future. However, the applicant has not proposed any works to upgrade of the R135 and the N2 North Bound Slip priority junction and improve capacity. This is not acceptable.

The Operations Department has estimated the costs for the upgrade of the R135 and the N2 North Bound Slip priority junction to a signalised junction at €202,950.

With respect to adjacent planning applications in the vicinity of the R135 and the N2 North Bound Slip priority junction, notably Reg. Reference F18A/0139, the applicant has been conditioned to pay a special contribution of €202,950 (two hundred and two thousand, nine hundred and fifty euros), under Section 48(2)(c) of the Planning and Development Act (2000) in respect of the upgrade and signalisation of the R135 and the N2 North Bound off Slip priority junction.

The same condition should also apply to this application. It should be noted that where more approved developments commence in the vicinity of the junction the cost should be shared out on a prorate basis.

Construction Management Plan

The applicant has provided an outline Construction Management Plan. A detailed Construction Management Plan should be agreed with the Transportation Planning Section in writing prior to commencement of the development.'

The report concludes that there are a number of engineering items to that should be agreed.

Having assessed the proposal it is considered that the traffic, access, layout and parking, traffic management is generally acceptable subject to a number details that can be adequately secured by condition. Therefore if An Bord Pleanála is minded to grant permission a number of conditions addressing the aforementioned are recommended at the end of this report.

7.6 Air Quality and Odour

Issues regarding odour generation from the operation of the WWTP, the Abbotstown PS and the Odour Control Unit (OCU) have been raised consistently through the process regarding the Greater Dublin Drainage Project.

The applicant has submitted detailed analysis of these issues within Chapter 14 of the EIAR. The information provided focuses on the key pollutants which may be emitted from the activities associated with the Construction Phase and Operational Phase of the Proposed Project. The pollutants potentially emitted during construction activity are dust and particulate matter (PM) and gases such as nitrogen oxides (NO_x), carbon dioxide (CO₂) and benzene from traffic associated with the Construction Phase. The principal pollutants of concern in relation to the Proposed Project during the Operational Phase are odour, which could be emitted from the proposed Abbotstown pumping station, the rising main connection to the gravity sewer along the proposed orbital sewer route and the proposed Wastewater Treatment Plant (WWTP); fine PM (PM₁₀ and PM_{2.5}); and carbon monoxide (CO); NO_x; methane (CH₄); and sulfur dioxide (SO₂) potentially released from transport and the various energy systems associated with the activity.

Abbotstown PS would be 180m from St. Francis Hospice and 300m from the closest part of Connolly Hospital. The closest large cluster of residential receptors would be 450m to the south-west across the N3. The OCU would be located in a rural area. Existing rural housing would be between 240m – 500m from the site. The WWTP would be located on greenfield lands. Rural housing is located between 200m – 400m from the boundary of the site. The closest large cluster of residential receptors would be housing for the travelling community to the south of the R139, 700m away. Larger housing areas are located in Darndale, 950m from the site and Northern Cross, 1.2km east of site. It is noted that Belcamp lands, zoned for residential development begin 180m from the eastern boundary of the site.

Section 14.2.2 of the EIAR notes that there are no European or Designated Sites within 50m of the site boundary on land, which is the threshold distance for ecological sensitivity. Therefore, there are no significant Construction Phase air quality impacts predicted for ecological sites from the land based works, and this element is not assessed further. This is considered acceptable.

The baseline is set out in Section 14.3. Use of meteorological data from Dublin Airport is considered appropriate. Location of the WWTP and PS in Zone A – Dublin Conurbation is acceptable. The existing heavily trafficked roads proximate to the proposed WWTP are noted. Page 16 of Chapter 14 notes that existing ambient air quality in both locations is good.

Odour

The potential Operational Phase impacts are assessed principally by means of a dispersion modelling study using computerised dispersion modelling to evaluate the impact of emissions to atmosphere during the Operational Phase on ambient air quality.

Within Section 14.2.3 of the EIAR, the applicant has set out the impact assessment criteria. These include the WHO guidelines and the EU Air Quality Standards (AQS). Furthermore specific Irish legislation (European Communities (Waste Water Treatment) (Prevention of Odours and Noise) Regulations 2005 (S.I. No. 787 of 2005), on the matter is also part of the assessment. The EPA's (2010) *Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)*, which includes guidance

on appropriate odour standards against which odour emissions may be evaluated is also referenced.

The applicant has set the target specification as no odour nuisance beyond the Proposed Project site boundary and has specified a performance target of 1.50UE/m³ for the 98th percentile of one-hour average concentration at the site boundaries. Table 14.3 of the EIAR sets out the relevant AQS Regulations 2011 regarding pollutants, limits and values.

Construction Impacts

The impacts on air quality from the Construction Phase will arise through the generation and subsequent deposition of dust and elevated local PM₁₀ concentrations. High sensitivity receptors are located close to every major element of the Proposed Project, and therefore as a worst-case approach, the EIAR assessment is based on a high sensitivity rating for all receptors.

Section 14.4.2 sets out potential construction phase impacts on air quality as being related to dust generation and construction traffic. Dust deposition is not expected to carry further than 100m from any site. It is further noted that concerns have been raised regarding *Aspergillus* (fungal) emissions from construction in proximity to the hospice and hospital. The applicant has proposed mitigation measures within the CEMP in order to ensure dust levels from construction as reduced to acceptable levels for a construction project. This is acceptable. The National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis During Construction/Renovation Activities (Health Protection Surveillance Centre 2018) deals specifically with construction works occurring within or adjacent to hospitals. The applicant proposes to adhere to these guidelines in full. This is acceptable. Dust and particulate matter are not considered an issue for the marine section of the pipeline as it will be underwater.

Operational Impacts

Section 14.4.3 and Table 14.10 of the EIAR sets out the potential emissions from the project, including the wet and dry well and diesel generator of the PS, the OCU and the inlet area, preliminary, primary and secondary treatment areas, the sludge plant and sludge handling areas within the WWTP. It is also noted that the Combined Heat and Power system would generate emissions to air.

Studies of odorous emissions from WwTPs have identified a broad range of chemical substances which include organic acids, organic nitrogen compounds and organic sulfides. The primary source of odour from WwTPs is the degradation of organic matter by microorganisms under anaerobic conditions. The principal odorous gases potentially present in emissions from this proposed facility will include various organic substances, ammonia, H₂S, traces of methane and organic nitrogen compounds. Sludge handling within the WWTP is indicated to be transported in tankers, while removal to the RBSF will be in tankers. Odours associated with the operations within the WWTP will be captured and vented for abatement in six dedicated ODUs as set out in table 14.12 of the EIAR.

Emissions from diesel generators are noted at the PS. As these will only be used in an emergency, the emissions, while significant would be infrequent.

Section 14.6 of the EIAR sets out the expected impact from the operational phase. It is noted that the PS will ventilate and treat extracted air in internal OCUs.

Increased extraction and treatment rates are capable in storm conditions. Tables 14.28 – 14.35 set out ground level odour and pollution levels for the PS. The proposed PS would not breach AQS for odour or other pollutants. This is acceptable. Furthermore tables 14.39 sets out the minimal impact which the PS would have on selected ecological receptors. This is acceptable.

Tables 14.36 and 14.37 set out the maximum predicted ground levels of odour at the OCU. These are below the 1 hour limit at the 98th percentile.

Table 14.41 and 14.42 notes an incremental increase in PM10 and PM25 in the vicinity of the WWTP. It is noted that these levels are significantly below the AQS. Additionally, table 14.43, 14.44, 14.45 and 14.46 indicate that CO levels would be below the 8 hour AQS limit. This is acceptable.

Tables 14.47 indicates that ground level odour at the WWTP would be significantly below the AQS. The odour is indicated to be undetectable at the closest receptors. It is noted from the appendices relevant to Chapter 14 that the monitoring locations include St. Michaels House, Springhill House and locations generally corresponding with the four corners of the site (AQ7, AQ8, AQ9 and AQ10 refer). This is considered robust and is acceptable. It is also noted that H2S levels from the OCUs in the plant and the CHP plant would be less than half the Air Quality Standard. Table 14.49 and 14.50 indicate WWTP predicted air impacts on human and ecological receptors. The predicted concentrations are below each AQS.

Furthermore the matter of odour has been assessed by the Environment Section of FCC. The received report notes no objections, indicating that covered structures are proposed for use within the WWTP and requiring a condition be attached to ensure use of such structures to comply with the outcomes set out in the EIAR. This is considered reasonable.

It is therefore concluded that the proposed PS, OCU and WWTP would not result in the generation of air pollution or odour such that it would represent a significant nuisance on sensitive receptors outside the boundaries of the WWTP or in proximity to the PS or OCU. This is acceptable.

7.7 Noise and Vibration

A project specific baseline noise and vibration survey was carried out for the project in 20 locations. Having reviewed these locations as set out in table 15.9, it is considered representative and acceptable for assessment. These are set out below:-

Location no.	Location description
N1	St. Francis Hospice
N2	Elmgreen Nursing Home
N3	Irish Sport HQ
N4	28 Dubber Cottage Rd
N5	St. Michaels House
N6	House, Clonsaugh Rd.
N7	House, Clonsaugh Rd.
N8	House 300m north of WWTP
N9	House, Carrs Lane
N10	West Wing Connolly Hospital.
N11	Outpatient Wing Connolly Hospital.
N12	House R106 Coast Road
N13	House R106 Coast Road
N14	House, Portmarnock Golf Club
N15	St. Nicholas of Myra NS
N16	House, Old Airport Road/R132
N17	Ballymun NCT centre.
N18	House, R135 Finglas Road
N19	House, Cappagh Road
N20	Portmarock Beach.

It is noted that the daytime baseline in many locations was high.

Table 15.12 of the EIAR indicates noise sensitive receptor locations (NSR). These are considered representative.

Construction noise activity is set out in the Guidelines for the Treatment of Noise and Vibration in National Road Schemes (NRA 2004) (the NRA Guidelines). Furthermore BS 5228-1 (British Standards Institution 2014a) is commonly used to assess noise impact from projects. This states:-

'noise levels, between say 07.00 and 19.00 hours, outside the nearest window of the occupied room closest to the site boundary should not exceed:

70 decibels (dBA) in rural, suburban and urban areas away from main road traffic and industrial noise;

75 decibels (dBA) in urban areas near main roads in heavy industrial areas.'

The proposed construction noise criteria applicable at the nearest facades of the NSRs that may be impacted by the construction works for the Proposed Project are summarised as follows:

- Monday to Friday (07:00 to 19:00) 70dB LAeq,1hr
- Saturdays (08:00 to 16:30) 65dB LAeq,1hr
- Monday to Friday (19:00 to 22:00)[1] 60dB LAeq,1hr
- Sundays and Bank Holidays (08:00 to 16:30)[1] 60dB LAeq,1hr
- Night-time (22:00 to 07:00)[1] 45dB LAeq,1hr

This is considered reasonable for assessment.

Table 15.3 sets out the impact scale for comparison of future noise against existing noise, indicating DB levels of <1 are imperceptible, rising through >5 being significant and >15 being profound.

The applicant has noted that the tunnel boring machines (TBM) to be used to create 1km of tunnel at from the westernmost start point of the project to Abbotstown PS through the grounds of Connolly Hospital (1km distance) will operate 24 hours a day. Works will take 6 months.

It is noted that there are no significant sources of vibration in the project area. Vibration monitoring was carried out proximate to the WWTP and at Connolly Hospital. Vibration is indicated in Section 15.2.6 of the EIAR as not being expected to cause damage to buildings. The operation phase would not generate significant vibration emissions. Vibration standards are defined for dealing with human comfort, and for dealing with structural or cosmetic damage to buildings and are considered in Peak Particle Velocity (PPV) measures in millimetres per second (mms). Humans are particularly sensitive to vibration, with the threshold of perception typically being in the range of 0.14mm/sec PPV to 0.3mm/s PPV. Levels above this may cause annoyance. However, significantly higher levels than this can be tolerated for single short-term events and do not cause annoyance or disturbance to humans.

As the WWTP would not be located in a quiet area, operation noise limits are set out in table 15.5 of the EIAR, indicating that daytime criteria of 55dB, evening 50dB and night 45dB.

Noise during construction is largely expected to be confined to the PS due to piling, rock breaking and vibrations.

Table 15.13 and 15.14 of the EIAR sets out the noise levels to be expected from certain construction activities at the WWTP and PS and also the noise levels predicted at NSRs. R2 – R5 represent Connolly Hospital, the hospice, a house on Dunsink Lane and Elmgreen Nursing Home. Noise levels are generally predicted to be around 55dBA, with the exception of the hospice which will experience levels of 59dBA during site excavation.

Noise impact during construction at sensitive receptors proximate to Abbotstown PS would be below the 70dBA limit for daytime construction. Tunnelling proximate to Connolly Hospital is of concern, being of 24 hour duration and 1km in length. The construction of the launch shafts is considered the noisiest element of this. Table 15.26 indicates that significant noise impact of 69, 64 and 68dBA are predicted at a residential ward at Connolly Hospital, a house on Cappagh Road and the Educate Together NS, relative to the baseline. The use of tunnel boring machines is set out in Table 15.28. This indicates that daytime operation is within acceptable limits of 70dBA. Table 15.29 indicates that night time operation of TBMs would breach guidance at the hospital. While it is noted that the ward is noise sensitive at night time, an existing high baseline noise level prevails.

Table 15.30 relates to groundbourne noise levels from tunnelling and adopts a level of 30dBA for continuous noise events. This is breached at three houses, however is noted to be for short duration. The levels at Connolly Hospital are of greater

concern, being at 49dBA. It is proposed therefore to only operate tunnelling in this location (closer than 63m from the building) during the daytime.

It is noted from Table and 15.36 that works within the water would range from imperceptible to not significant for beach users.

Table 15.16 notes that the baseline around the WWTP is already high. Construction would not result in increase in the noise levels experienced. Provision of site hoarding where development is proximate to sensitive receptors is required.

Vibration

Regarding piling and rockbreaking at the PS, the EIAR notes that the location of the site from the Noise Sensitive Receptor of the hospice will reduce effects to imperceptible levels. Piling is only proposed during daytime hours. This is acceptable. Vibration from tunnelling is set out in table 15.43. Levels close to or beyond 1mm/s, which is a limit of toleration include the west wing and out-patient unit in Connolly Hospital, a cottage at Cappagh Road, a house on Clonsaugh Road, the Educate Together School on the Malahide Road and the house on the grounds of Portmarnock Golf Club. The levels to the school are acceptable having regard to the short length of time that the works will take. The high level of vibration to the house on the golf club requires remediation. The levels of vibration to the ward in the hospital is to be expected only during daytime hours.

The submitted information was reviewed by the Principal Environmental Health Officer who has recommended the following conditions:-

- 1. Noise emissions from the microtunneling, pipe jacking and rock breaking shall not exceed 70 dB(A) during the day time at any noise sensitive receptor. Piling or rock breaking shall not be permitted during night time hours, weekends or Bank holidays.*
- 2. Noisy works such as pile driving/rock breaking and the launch shaft construction shall take place for 30 mins of every hour between 7.30 and 19.00*
- 3. Special consideration must be given to the site location at St Francis Hospice and the west wing of Connolly Hospital, i.e. 55dB during the day time and 45dB at night. It is not acceptable to expect the windows of the hospital to remain closed as part of a noise mitigation measure.*
- 4. All night time work shall be assessed against the night time criteria of 45dB. The predicted cumulative effects for night time submitted are well above the night time criterion and will have an adverse effect on Patients and local Residents.*
- 5. The velocity vibration levels for the microtunneling works at West Wing Connolly Hospital are noted as 2.37mm/s. 1.49 mm/s at the school on the Malahide road and 5.32 mm/s at the residence on the golf links road (page 55) The Guidance on impacts of vibration levels (page 11) state that at 1mm/s it is likely to cause complaint. This level needs to be addressed and mitigation measures are required.*
- 6. Acoustic enclosures shall have a mass $\geq 15\text{kg/m}^2$ and shall be of sufficient height and length to avoid flanking transmission.*
- 7. Noise and Dust Mitigation measures shall be put in place to minimise the noise levels at the Temporary compounds.*
- 8. Prior to commencement of any works a Noise and Vibration plan and a dust management plan will be submitted to the Environmental Health Section, Fingal County Council.*

Having regard to the above, it is considered reasonable to protect amenity for occupants of the hospital through restriction of night-time working, however restriction during Saturdays, Sunday and Bank Holidays would slow works down to such a degree as to significantly extend the build period, potentially extending the period of impact. This is also considered to be the case for item 2. It is not recommended that these be attached in their current form. In addition, it is noted from the EIAR, that mms levels are required to be at 10mms in order to be intolerable. The levels predicted proximate to the Hospital wards are at 2.37mms. It is not considered that there is an alternative to this construction methodology. Restriction of works to daytime periods is considered the most appropriate.

Regional Biosolids Storage Facility

Noise is not considered to be an issue having regard to the daytime hours of operation and the nature of the proposed storage structures.

In conclusion, the most significant noise and vibration impact for the whole project will be during construction. There are operational noise issues expected from the PS and the WWTP. There are many sensitive receptors set out in the Chapter 15 of the EIAR. Those along the route of the orbital sewer and the land based outfall can expect significant noise and vibration impact in certain cases, however due to the temporal nature of the construction project and the use of a given compound for a period of less than 1 year, along with the expected progression rate for pipe laying of 15m – 30m per day, it is considered that noise impact would be temporary. The exception to this appears to be the cottage at the entrance to Portmarnock Golf club, which due to proximity to construction compound 10 would suffer significant noise and vibration to an unacceptable degree. The applicant has indicated that mitigation in the form of a building survey and potential for temporary relocation of inhabitants is proposed. It is also noted that noise and vibration would be significant to the Educate Together National School, however this may be mitigated by ensuring construction takes place at school holidays.

7.8) Heritage

The project, being linear in nature would generate significant impact on archaeological sites, protected structures and associated setting and designed landscape. These are set out in detail in Chapter 16 of the EIAR and associated appendices.

Abbotstown Pumping Station

The pumping station would be located within the designed landscape associated with Abbotstown House. The PS would be located in the south-western corner of the lands with no visual connection to the house. The Conservation Officers report notes that the location of the pumping station is within an older line of trees associated with a former field boundary. Having regard to the modifications to this section of the landscape over time, including use of part of the lands for the M50 and associated bands of planting, it is considered that the legibility of the designed landscape in the area proximate to the PS is not high quality and amendment of the PS location is not required. Amendments to boundary treatments and use of bespoke lighting in this visually sensitive and biodiverse location are considered reasonable.

Orbital Sewer

It is noted that insufficient details have been provided regarding compound 1 for the Parks Department and Conservation Officer. The compound would be proximate to St. Caoimhins Church and graveyard. Mature trees are noted inside the compound area. It is considered reasonable to relocate the compound away from the graveyard, a Protected Structure and to ensure adequate tree and root protection is provided to trees within and proximate to the compound. A site specific tree survey should also be provided for, identifying mature specimen trees in the grounds of Abbotstown within the 40m and 20m wayleaves and proposing measures for retention where possible.

The Conservation Officer also noted that the route of the proposed pipeline through Dubber House and proximate to the Thatched Cottage at Dardistown would have no significant impact on that Protected Structure.

Clonshaugh WWTP

Concerns are raised regarding the visual impact of the proposed WWTP on Springhill House. It is noted that the edge of the WWTP site would be 400m from the house. Reference is made to viewpoints 3 and 5 within the submitted photomontage booklet, indicating that visual impact is minimal. Having regard to this, it is not considered a reasonable to require the applicant to plant additional trees/hedges on the grounds of Springhill.

Outfall Sewer (Land based section)

The concerns of the Conservation Officer regarding the impact of the pipeline on Emsworth in Kinsealy are noted. The pipeline and construction compound 7 would be proximate to the boundary of the grounds of the house. The proposed compound and pipe corridor are largely outside of the grounds of the house. It is noted that the permanent wayleave will have an effect on recent plantations to the north of the house, however it is not considered that this is significant or would warrant relocation of the pipeline. The construction compound is temporary in nature and its impact on Emsworth is temporal. Relocation is not required in this instance.

Similarly, the proposed compound no. 8 is not considered to have a significant impact on the setting of Old Portmarnock ACA in the longer term, as this ACA is largely based on the setting of houses within large leafy grounds and use of local materials. The temporary compound is not considered to have a long term effect on character subject to being set off the treeline to the north which forms the southern boundary to Trinity Gaels GAA Club.

The Community Archaeologist has noted the contents of Chapter 16 of the EIAR regarding identification of the 52 Recorded Monuments, 21 sites of archaeological potential, 27 recorded shipwreck sites and 24 townland crossings identified within the study area. The report further notes that predicted impacts of a direct and/or negative nature were identified for 10 Recorded Monuments; 16 sites of archaeological potential; none of the recorded shipwreck sites and 16 townland boundaries.

The report notes that:-

Geophysical survey was undertaken at the WwTP (Licence Ref: 13R0025) and at eight locations within the proposed orbital sewer and outfall pipe (Licence Ref:

14R0045) followed by several phases of test-excavation. Underwater archaeological assessment included intertidal survey, marine geophysical survey (Licence Ref: 15R0092) and dive surveys. Excavation of trial pits, soakaways and boreholes don't appear to have been archaeologically monitored.

As with the reports from the Parks Department and Conservation Officer, concerns are raised regarding the proximity of construction compound 1 to the graveyard and church of St. Caoimhin, which is a recorded monument. The relocation of the compound is requested. Access from the compound to the orbital sewer route is also queried.

It is considered that this area is a sensitive receptor, with potential for impact on trees and potentially subterranean bodies. It is considered that in the event that an Bord Pleanála is minded to grant permission a condition requiring further site investigations in this location along with agreement with FCC regarding the defined location of the compound relative to existing trees and the grounds and a buffer associated with the graveyard complex be agreed with the Planning Authority.

The Community Archaeologist references the mitigation measures set out in within the EIAR, including:-

- *Preservation by record i.e. archaeological excavation of 10 Recorded Monuments (AH11, AH31, AH33, AH34, AH38, AH39, AH41, AH42, AH44, AH45), preceded by archaeological testing.*
- *Preservation by record i.e. archaeological excavation of 10 Areas of Archaeological Potential (AAP2, AAP3, AAP5, AAP6, AAP8, AAP10, AAP12, AAP16, AAP17, AAP19), preceded by archaeological testing.*
- *Underwater/wade survey of watercourses (AAP7, AAP8, AAP9, AAP10).*
- *Archaeological testing of 12 townland boundaries (TB3, TB6, TB10, TB12, TB13, TB14, TB18, TB19, TB21, TB22, TB23, TB24) including a written and photographic survey of these and an additional six townland boundaries (TB4, TB5, TB9, TB11, TB16, TB20).*
- *Archaeological test-trenching of the proposed orbital sewer and further archaeological test-excavation of the WwTP site.*

The report notes that the level of excavation proposed would require adequate time. It is noted from Section 3 of the outline Construction Environmental Management Plan that this phase of development is allocated 3 months, which would not appear to be sufficient. In the event of a grant of permission, it is recommended that the conditions recommended by the Community Archaeologist be attached in order to ensure adequate time and examination of identified areas of archaeological sensitivity. These include:-

- a. Archaeological monitoring of topsoil stripping or similarly impactful groundworks of greenfield Construction Compound sites*
- b. Once each RMP site or Area of Archaeological Potential has been archaeologically excavated, a detailed technical report setting out findings and linking these with the studies already conducted shall be submitted with planning documentation, within four weeks of the completion of excavation. Once each site is archaeologically excavated the area can then be released to*

the contractor.

- c. Satisfactory arrangements for post-excavation analysis and archiving to the Collections Resource Centre, shall be agreed with the National Monuments Service (DCHG), the National Museum and the Planning Authority.*
- d. A comprehensive over-arching final report on the completed archaeological works which places the testing, excavation, monitoring and survey results in a cohesive narrative and context shall be submitted to the National Monuments Service (DCHG), the National Museum and the Planning Authority within a period of one year or within such extended period as may be agreed.*
- e. Given the scale of the impact of the project-i.e. archaeological excavation of approximately 1% of all known monuments in Fingal-and on the unknown archaeological landscape, provision should be made for publication and/or public outreach, to share the results of the archaeological resolutions with the general public.*

It is further noted that retention and re-use of existing townland boundary hedging should be required wherever possible due to the ancient age and biodiversity value of these hedges.

It is noted that the Parks Department report also raises issues regarding impact on trees in designed landscapes or grounds associated with Protected Structures such as Abbotstown, Bohammer (Emsworth) and recommends a tree survey and tree protection measures as part of an overall requirement for same for the whole length of the project. This is considered a reasonable measure and a primary tool in ensuring identification and retention of trees, along with adequate provision of protection during construction.

Overall it is considered that while the proposed development will have significant negative consequences for a number of recorded monuments and townland boundaries, the proposed development is of a strategic nature and is required for the comprehensive and sustainable development of the Greater Dublin Area. Such a project, being linear in nature will have an impact on certain features which cannot be avoided. It is considered that subject to implementation of the recommendations noted above, that the proposed project would adequately protect archaeological heritage where possible, would not result in significant negative consequences for the coherence of the designed landscape at Abbotstown and would not have long term consequences for landscapes associated with other protected structures proximate to the project route.

7.9) Surface Waters

The proposed development will interact with a number of surface water bodies such as the Tolka River, Santry River, Cuckoo Stream, Mayne River and Sluice River, both during construction and operation. All of these rivers provide pathways to downstream European Sites, therefore effective construction management is of importance. Appropriate Assessment of the development is undertaken under the relevant section. It is noted that all crossings of rivers and streams identified within the study area are proposed by microtunnelling, with 20m setback from the river/stream edges. This, along with appointment of an Ecological Clerk of Works and the other construction management measures set out in the CEMP and Chapter 24 Mitigation of the EIAR are considered to effectively ensure that impact from construction on riparian systems is minimised.

Clonshaugh WWTP

The site is bounded to the north by the Cuckoo Stream, a tributary of the Mayne River. Surface water from the proposed WWTP would be discharged to the stream. It is noted that no green roofs have been proposed within the facility. No rationale has been submitted to justify this. It is noted that the northern berm and planting will provide a 50m buffer between the WWTP and the stream. Sustainable urban Drainage (SuDS) Measures are proposed including use of attenuation and interceptors, swales, permeable paving and infiltration ditches. Rainwater from roofs is to be collected in a greywater tank for re-use. It is noted within Section 11.14.12 of the EIAR that both the WWTP and the PS are to be designed for full secondary containment to ensure that in the event of leakage, untreated wastewater will be retained on site.

While it would be preferable on a site of this size to provide for improvement to biodiversity through provision of an integrated constructed wetland, difficulties in providing such a facility, which would act as a bird attractant, in close proximity to Dublin Airport would render such a proposal unwelcome.

North Fringe Diversion

The north fringe diversion is proposed to cross the Mayne River through use of a bottomless culvert, which will allow maintenance of the riverbed. This is considered acceptable. It is recommended that the applicant liaise with Inland Fisheries on this matter prior to commencement of development to agree a construction methodology. It is considered that in the event that An Bord Pleanála are minded to grant permission, a condition should be attached to this effect.

Abbotstown Pumping Station

The pumping station would be of limited size. Surface water would be discharged to a crushed stone filter prior to discharge to a water course along the southern boundary of the site. It is noted from the submitted Site Specific Flood Risk Assessment that the WWTP and the Pumping Station are located in flooding zone C, being the zone of lowest flooding potential.

It is considered that the pipeline, would be significantly below river levels, would be self-contained and would not pollute the water course it passes beneath. It is also noted that the pumping station and WWTP contain backup power sources in the unlikely event of mains power failure. It is further noted that the WWTP would largely supply its own power needs through the biogas facility within the sludge farm.

Regional Biosolids Storage Facility

Ground water and the arrangements proposed for foul and surface water drainage and water supply are noted. These have been assessed by the Council's Water Services Section who has raised no objection to the ground water and water supply arrangements.

Overall, it is noted that the Water Services Section report raise no objections subject to minor amendment, however details of SuDS measures for the WWTP and the PS are required to be agreed with the Planning Authority. It is considered that in the

event that An Bord Pleanála are minded to grant permission, a condition should be attached to this effect.

7.8) Biodiversity

In addition to the relevant sections of the EIAR, significant additional documentation in the form of i) a bat survey ii) a newt survey, iii) a habitat survey, iv) a badger and otter survey, v) a winter bird survey, vi) a breeding birds survey, vii) a freshwater habitat assessment, viii) Freshwater Flora and Fauna Assessment were undertaken. Additional surveying included estuarine and marine surveys, reef assessment, marine mammal survey, fish survey, and underwater noise modelling.

It is noted that aside from the pipeline from the Coast Road to the outfall there are no other proposed elements near any European Sites. The impact of the proposed works on European Sites is assessed under the heading of Appropriate Assessment, although it is noted that no element of the proposed development above the high tide mark will be located within a European Site, as all works in this location are underground.

The route of the sewer does not appear to contain any habitats of national or regional significance. It is noted that hedgerows, wet grassland, wet ditches and woodland which have local value are evident. Removal of hedgerows and trees will have a permanent impact on bat foraging and is considered to have a moderate adverse permanent impact which is significant. The connectivity of the green network can be appropriately mitigated through replanting to reduce hedgerow gaps. Overall, removal of trees and hedgerows should be undertaken in a manner which ensures that bats can escape from overnight roosts. No breeding roosts were found, although the ecological clerk of works can ensure that trees are checked for roosting prior to removal. This applies to the WWTP and outfall sewer area.

Ponds are also evident which contain newt. Mitigation is proposed to ensure that these populations are not unduly affected. Badger setts will be negatively affected, however these are considered to be abandoned non-breeding setts.

Table 11.11 indicates badger sett locations. No otters were observed within the project area. Section 11.3.5 of the EIAR indicates that the only Annex 1 Birds Directive Species found was Kingfisher in the Tolka Valley. No wintering birds were found to be reliant in the farmlands within the project area.

The proposed project will have limited negative consequences for the Nature Development Area within Abbotstown due to permanent tree removal to facilitate the wayleave. The Baldoyle Bay Ecological Buffer Zone will also be affected due to the presence of the pipe route and construction compound. It is noted that this will be temporary and reversible. It is acknowledged that the proposed development will result in the permanent removal of hedgerow, trees and agricultural farmland at the WWTP. Section 11.4.2 of the EIAR notes that this is moderate adverse, permanent and is significant. While the trees and hedgerows, especially those townland boundaries are of high local value, the proposed development would ensure sustainable development in appropriate locations such that other similar and more valuable habitats would be maintained. Additionally, loss of the hedgerows would have a moderate adverse, permanent and significant impact on bat species. Lighting of the WWTP could also impact bats. It is considered of importance to ensure that

replanting of the boundaries of the WWTP provide for compensatory measures for bats. Lighting can be directional and cowed.

The works compound 10 will be located in a mapped area of the Fingal Development Plan 2017 – 2023 Green Infrastructure Map 15 of Annex 1 habitat. It is an objective of the plan to protect such habitat. It is noted from p30 of Chapter 11 of the EIAR, that the area was subject to a botanical survey which found that the site did not contain rare plants or species of habitats which correspond to those which Baldoyle Bay SAC was designated. The lands are not considered to be fixed dune habitat. It is considered that re-instatement works should require a biodiversity plan to be established to ensure that the car park field provides for diversity of species.

Sea Outfall

Section 9.2.5 of the EIAR indicates that the sea outfall has potential to impact the sub-sea environment including reefs due to increase of suspended sediment, construction pollution, bentonite pollution from tunnelling beneath Baldoyle Bay, loss of a small area of habitat at the location of the subsea diffuser, contaminated run-off from streams into the sea, noise generation, affect on bird nesting and migration, marine mammal and fish migration. Additionally the effect of the treated wastewater on shellfish and water quality is identified. It is noted that all cetacean species are protected under the habitats directive. Furthermore the Harbour Porpoise is a qualifying interest for the Rockabill to Dalkey SAC. It is noted that the proposed outfall pipeline would be located outside the designated shellfish waters under the Quality of Shellfish Waters Regulations 1994. Table 9.18 sets out the relevant receptors, ranging from European Sites and marine habitats, to species of conservation interest to other species.

It is noted that the tunnelling beneath the bay is not considered to have an impact on the habitat of the bay/estuary/beach. Potential for air and bentonite breakout is noted, however mitigation through appropriate use of construction management and the CEMP is proposed. Noise generation from the tunnelling is set out, with certain impacts expected on fish, depending on species. Limited impact is expected on the seabed benthos. The noise output from the tunnelling machine is considered to be below the hearing of harbour porpoise, bottlenose dolphin and seals.

The dredging operation would take 6 months. Dissipation of suspended sediment drops away rapidly from between 50m – 100m from the area of activity. None of the discharged sediment is stated as having an impact on the qualifying Annex 1 habitats of littoral and sublittoral reef features of the Rockabill – Dalkey SAC along the northern and eastern coastline of Irelands Eye. Suspended sediments throughout the remainder of the SAC were stated to be limited to near bed impacts. The impact is stated to be short-term with negligible magnitude. Temporary impact is to be expected to seals and harbour porpoise due to reduced visibility. Noise impact from dredging to cetaceans is noted and are not indicated to cause damage to relevant species. Potential piling for the crossing of the pipe and the subsea fibre optic cable is noted as having potential for minor significant impact on cetaceans.

The impact of the proposed development on sub-sea habitat is set out in section 9.5 of the EIAR. The report states that 'the impact of the discharged plume into the Rockabill to Dalkey Island SAC will be long-term. It also notes that the magnitude of this impact is expected to be negligible for the Annex II designated species, harbour

porpoise, as this area constitutes a small fraction of the animal's habitat range. Furthermore the plume is unlikely to impact on the designated sublittoral reef features within the SAC as the plume is predicted to disperse and dissipate away from these locations. The report concludes that with no magnitude of impact, the predicted significance of this impact will be none or Negligible. Furthermore the impact on sea benthos is indicated to be low. The plume would be visible to sea mammals but is stated not to impact on the presence of cetaceans. The nutrient enriched plume is stated as not affecting inshore water quality as it diffuses offshore. As was noted earlier, this requires clarification from the Bord. The EIAR also indicated that the nutrient enrichment may stimulate excessive algal growth locally which may impact positively or negatively on commercial shellfish populations.

It is further noted in Section 10.6 of the EIAR that the impact of the proposed works on marine birdlife would be limited to the construction phase, including displacement of birds who use the area proposed for the construction compound 10 for roosting and feeding. It is noted that this displacement is temporary. It is further noted that impact from lighting/visual impact of the compounds 9 and 10 would be significant upon use of Baldoyle Estuary by bird species. Mitigation is proposed in the form of hoarding to allow undisturbed use of the estuary. Impact from piling at these locations is not considered significant. The EIAR also sets out the disturbance to birds from boat related activity during dredging and pipelaying. These impacts range from moderate impact significance for Guillemot and Razorbill, to minor impact for Shag and Cormorant to negligible impact for Puffin. Common Scoter and Red Throated diver are considered to have high impact from disturbance. This has resulted in revision to the proposed time for dredging and pipe laying works to be from April to October to reduce impact levels from moderate to minor. Vessel management during the construction of the diffuse in the months of July and August is proposed to reduce impact on potentially flightless sea birds. No impacts are predicted within the EIAR on marine ornithology as a consequence of the operation of the project.

Regional Biosolids Storage Facility

The RBSF is to be located within a brownfield site in HI zoned lands. Issues of significance were not raised regarding the site within the submitted documentation.

No invasive species were found along the route of the project. No protected plant species were found along the route. This includes within rivers crossed by the proposed project. Subject to compliance with mitigation, the proposed project would not affect the water quality status within rivers and streams. It is noted within Section 11.11 of the EIAR that pollution of the Tolka, Santry or Mayne River Systems from the leakage or spillage of untreated wastewater during the operational phase of the proposed WWTP and the proposed Abbotstown PS or from the sewer would have significant negative short term impacts. Section 11.14.2 of the EIAR sets out that the watertightness of the pipe, use of flow monitors and secondary containment would ensure that leaked wastewater would not discharge to receiving waters.

8) EIAR

Review of the EIAR has been undertaken by the Planning Authority having regard to the contents of the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018)

Scoping

The scoping of the EIAR is set out in the Public Stakeholder Participation document submitted within the 'Planning Documentation' folder. This sets out consultation which took place from 2011 – 2018, indicates how public participation informed the project, development of study area constraints, development of alternatives, assessment of emerging preferred sites, feedback on issues to be contained within an EIS. Having regard to the document submitted and the detailed consultations undertaken, it is considered that the scoping for the EIAR sufficiently identified the methodology and information to be contained in the EIAR and undertook consultations with proscribed bodies and An Bord Pleanála.

The applicant has submitted a detailed EIAR with the application. In terms of the EIAR has regard to the provisions of the EIA Directive 2014/52/EU. The EIAR was prepared using the EPA's Guidelines on the information to be contained in Environmental Impact Assessment Reports Draft August 2017 and Advice Notes for Preparing Environment Impact Statements Draft September 2015.

Non-Technical Summary.

A non-technical summary (NTS) was submitted with the EIAR. The non-technical summary has included a description of the development, the baseline conditions, discussion of reasonable alternatives which were identified within the GSDS and associated SEA. Methods of assessment are set out and the NTS is written in clear and concise language. The NTS has discussed the likely significant effects and mitigation measures. The monitoring measures do not appear to be clearly set out within the NTS.

Competent Experts.

The EIAR contains detailed information on the environment. The methodology section of each chapter and the relevant appendices contain the details of the consultants who undertook the work. This is considered to comply with the requirements of the Directive.

It should be noted that assessment of the relevant chapters of the EIAR was undertaken by FCC. No expertise was available to FCC to undertake expert analysis of the chapters with regard to Marine Biodiversity and Marine Ornithology. Regarding comprehensive assessment of the EIAR, An Bord Pleanála is the competent Authority on this matter.

Environmental Factors

The EIA must identify, describe and assess, in an appropriate manner, the direct and indirect effects of a proposed development on the following:

- Population and human health;
- Biodiversity, with particular attention to species and habitats protected under Council Directive 92/43/EEC of

21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive);

- Land, soil, water, air and climate;
- Material assets, cultural heritage and the landscape; and
- Interactions between the factors referred to above.

The submitted EIAR provides for assessment of environmental factors under the following headings:-

population and human health, marine water quality, biodiversity (marine) biodiversity (marine ornithology), biodiversity (terrestrial and freshwater aquatic), landscape and visual, traffic and transport, air quality (odour and climate), noise & vibration, archaeological, architectural and cultural heritage, hydrology and hydrogeology, soils and geology, agronomy, waste, material assets, risk of major accidents and/or disasters, cumulative impacts and environmental interactions, summary of mitigation measures, and summary of residual impacts.

In addition the applicant has provided detailed description of the EIAR process in Chapter 2 of the submitted document. The requirement for the project is set out in Chapter 3, which contains details of the Grater Dublin Drainage Study, upgrade of existing plants, existing and projected loading and capacity to existing WWTP including Ringsend. The projected treatment requirements at the proposed WWTP are provided, as is the existing catchment of Ringsend WWTP and diversion to the proposed WWTP. Strategic documents in the form of Irish Water's Water Services Strategic Plan, the National Wastewater Sludge Management Plan are provided.

A detailed description of the proposed development is set out in Chapter 4 of the EIAR, indicating the elements of the project and the location of the overall project. The proposed wastewater treatment plant is described, including the associated sludge hub centre, landscaping proposals, services and operation. Greater description of the size and scale of the proposed buildings would have been useful in this section. The RBSF, the Outer Orbital Sewer, North Fringe Sewer, Land and Marine sections of the outfall pipeline are described and details provided of the infrastructure crossed or impacted by the proposed development. Details are provided in terms of the outline construction methodology for the proposal and construction period programme is outlined. The operational function of the proposal including use of existing services is outlined. The information provided is considered adequate to facilitate understanding of the project.

Chapter 5 of the EIAR sets out consideration of alternatives. This provides the background to the proposed project, including the GSDS and associated Strategic Environmental Assessment (SEA), which identified alternatives to the proposed project. A comprehensive alternative site analysis and route selection study was recommended within the SEA. Chapter 5 provides tabular detail of the alternatives considered to the orbital sewer and WWTP. Section 5.6 indicates alternative site and route selection for the proposed project once other solutions had been discounted. Review of the need for the proposal was undertaken recently (Assessment of Domestic and Non-Domestic Load on Proposed Regional WWTP – December 2017 – Appendix A.3.1 refers). This section of the EIAR reflects the information on alternatives available on the public record regarding this proposed development.

This section of the EIAR has provided sufficient detail on the alternatives considered and the rationale for the proposed development in the location outlined.

Chapter 6 – population and human health (population), sets out the methodology and baseline for the study area. The impact of the proposed project during construction and operation is set out. It is noted that significant overlap occurs within this chapter and others in the EIAR. Where impacts are directly relevant to other environmental headings (for example dust from construction) these are assessed under those chapters. This is considered appropriate. The chapter considers impact of the proposal on population, settlement, economic activity, tourism and amenities. The effects described within the chapter regarding impacts are likely to occur. Where negative impacts are predicted, these are generally related to the construction stage and are slight to moderate, but are temporary in nature. Impacts on surrounding communities are classed as slight and not significant through implementation of mitigation measures set out in Chapter 24. From review of the remainder of the EIAR, this effect is considered reasonable. The document refers to a slight negative temporary impact regarding loss of fishing grounds. Having regard to the report of the Environment Section of FCC, it cannot be concluded at this stage, whether water quality will affect fishing grounds for shellfish. Concerns are raised regarding the slight negative impact of proposed construction on St. Francis Hospice, however the temporary nature of construction is noted and appropriate mitigation measures are detailed.

Chapter 7 - population and human health (human health) sets out the methodology and baseline for the study area. Review of sections 7.2.2 and 7.2.3 indicates that the methodology is reasonable. The assessment adequately identifies sensitive receptors. Consultations undertaken are outlined. It is noted that significant overlap occurs within this chapter and others in the EIAR. Noise impact during construction is classed as not significant to moderate to receptors during construction and temporary in nature. Having regard to the FCC Environmental Health Officer report, the impact on patients within Connolly Hospital from construction may be significant and negative. The period of construction for tunnelling is taken into account. It is noted that mitigation is proposed within the EHO report which would reduce this impact, which is temporary in nature to minor. The benefits of the proposal during operation on human health are noted. Odour impact is undertaken in more detail in chapter 13. Impact on human health at beaches from water quality is classed as imperceptible. It is noted from the FCC Environment Report, that insufficient evidence has been provided to assess this matter.

Chapter 8 - marine water quality has been reviewed by FCC. The relevant chapter adequately sets out the legislative framework for water quality. Detailed information has been supplied regarding the inputs for the water quality modeling. The baseline is set out in terms of hydrography, hydrographic monitoring, river catchments and water quality. No concerns have been raised by FCC Environment Department regarding the baseline. Impacts of the proposed project from construction are set out, including dredging and operational discharge. The report from the FCC Environment Department indicates that information has not been provided to sufficiently support statements regarding ecoli levels within treated discharge water. Furthermore claims regarding impact on shellfish cannot be fully verified. These relate to operation of the facility. No concerns have been raised regarding the effects during construction stage on water quality.

Chapter 9 - biodiversity (marine) was reviewed. It should be noted that FCC do not have sufficient expertise available to provide detailed analysis of the information within this chapter. The chapter set out the methodology, and provided information to allow for assessment of impact on impact on benthos, marine mammals, fish, plankton and water quality. The field surveys for the relevant matters are detailed in the EIAR chapter. Concerns are raised regarding the omission of certain referenced survey documents from the EIAR appendices.

The chapter sets out determination of significance and confidence of prediction and details aspects of the proposal which have potential to impact on the marine environment. This is clearly set out in a methodical manner within section 9.2.4. Significant detail is provided regarding the marine environment as surveyed. Summary evaluation is provided on the key sites, habitats and sensitive receptors. Construction phase impacts range from minor significant impact for air pocket or bentonite breakout within the estuary. Impact on fish, marine mammals from tunneling and dredging is negligible. Impact on the reefs and porpoise within the Rockabill to Dalkey SAC is classed as minor. Similarly impact on salmonids from piling is also minor. It is noted that this impact would be temporary. These conclusions seem reasonable.

Section 9.5 sets out operational impact. Impact from the discharge plume on porpoise is indicated as minor due to limited spatial impact. Impact on protected reefs is classed as negligible. It is noted that the EIAR indicates that the impact of the proposal on shellfish is classed as beneficial for shellfish, but either positive or negative for shellfishing. Having regard to the contents of the FCC Environment Section report, this matter requires clarification.

Chapter 10 - biodiversity (marine ornithology) was reviewed. It should be noted that FCC do not have sufficient expertise available to provide detailed analysis of the information within this chapter. The chapter set out the methodology, including use of detailed surveys. The baseline environment is detailed, including European Sites and the associated conservation and qualifying interests. Parameters for assessment include an overview of the project works and associate magnitude of impacts with certain elements excluded due to prevalence of such impacts in the locality, lack of impact from microtunnelling and subsea piling. These exclusions appear reasonable. Impacts during construction phase on birds include land take from construction compounds and disturbance impact from compound activity, which is classed as minor and major. Mitigation is provided in the form of fencing which would ensure such an impact is minor. This is considered reasonable. Regarding impact on birds at sea as a consequence of boat traffic, medium impacts are assessed with certainty on sensitive species. Mitigation in the form of timed work period during the year are considered reasonable in terms of reducing impact to minor levels. Operational impact on marine ornithology is considered to be negligible.

Chapter 11 - biodiversity (terrestrial and freshwater aquatic) was reviewed. The Chapter is divided into terrestrial biodiversity (Section 11.2 to Section 11.8) and freshwater aquatic biodiversity (Section 11.9 to Section 11.15). Section 11.2 details the methodology for both terrestrial and freshwater aquatic biodiversity assessments. Section 11.3 to Section 11.8 provide the terrestrial biodiversity assessment of the likely impacts for the Construction Phase and Operational Phase of the Proposed Project. Section 11.9 to Section 11.15 provide the freshwater aquatic biodiversity

assessment of the likely impacts for the Construction Phase and Operational Phase of the Proposed Project. This Chapter identifies relevant terrestrial and freshwater aquatic biodiversity receptors within the planning application area and a Zone of Influence of the Proposed Project and provides baseline data against which future changes can be assessed. It also assesses the general status of the potentially affected watercourses from an ecological and fisheries perspective in the context of downstream catchments, coastal Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Field surveys are noted and ecological value criteria identified. Table 11.14 provides a useful synopsis of the construction stage impacts for terrestrial biodiversity. Potentially significant impacts are identified as a consequence of tree and hedgerow loss, habitat division and impediment to animal movement, specifically, bats, badgers, birds and newts. The impact on bats is considered significant and permanent. The impacts identified are likely to occur. It is noted that mitigation is proposed, however. It is the opinion of the planning authority that more effective mitigation should be provided regarding hedgerow removal, retention and replacement. No likely significant impacts are identified during the operation stage.

Impacts of construction on river systems are detailed. Construction impact without mitigation on the 4 river systems from pollution, suspended solids, invasive species trenchless crossings, culvert construction, road construction compounds and environmental incidents are identified as being short term and from slightly to significantly negative in the absence of mitigation. Operation phase impacts such as untreated waste water spillage, runoff pollution and fuel oil spillage is stated as slightly negative without mitigation. It is noted that the effects of mitigation in terms of reducing impact is not clearly set out in the EIAR.

Chapter 12 - landscape and visual has been reviewed. The chapter contains a visual impact assessment. Reference is made to the accompanying photomontages. The applicant has set out the methodology, study area and field studies along with assessment criteria including relevant guidance of the matter. This is considered robust. Sensitive receptors are identified, human influence, aesthetic aspects, landscape character, landscape quality and scenic quality along with rarity conservation, amenity and perceptual aspects identified. The assessment of the baseline is robust. The impact on the landscape of construction and operation is identified, including areas of sensitivity. With regard to table 12.8 and 12.9 dealing with significance of construction phase landscape impacts and effects, the planning authority has concerns that impacts of the pipeline route on trees and hedgerows are rated as low and slight, given that mitigation measures are not fully detailed and conflict, with certain statements indicating full replanting and others indicating no replanting except for grass. It is noted that appropriate mitigation such as replanting to ensure minimal gaps would render effect slight, however the applicant has not detailed this. It is noted that medium to high visual impact is noted from certain viewpoints regarding the WWTP. It is agreed that berms, planting and design would mitigate this impact.

Chapter 13 - traffic and transport has been reviewed. The applicant has set out the methodology, study area and field studies along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. The main traffic and transport issues will arise during construction. Dust is dealt with under air quality. The applicant has identified the construction phases and

baseline utilizing traffic counts at identified junctions. Trip generation is set out, as are access/egress to the construction sites. Section 13.10 of the EIAR sets out the significance of traffic impacts and notes that slight to not significant negative effects from construction traffic at a number of junctions. The temporary nature of these works is noted, although table 13.22 notes that duration at each junction will be a year. It is noted that WWTP construction is for 3 years. This would affect junctions 1, 2, A and B. It is still considered temporary in duration. It is noted that operation traffic would increase impact to junction 1 permanently. Mitigation is proposed to reduce impact to receptors during construction. This is considered acceptable. Furthermore it is noted that no significant concerns were raised on this matter by the Transportation Section.

Chapter 14 - air quality (odour and climate) has been reviewed. The applicant has set out the methodology, study area and field studies along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. No concerns have been raised regarding these matters within the EHO or Environment Section report. The existing ambient air quality is set out. Dust emissions, transport emissions and aspergillus (fungal) emissions during construction are detailed. Operational phase emissions from generators, the pumping station, the WWTP are detailed including odour. Short term adverse effects are noted on human health from excavations and construction including soil stripping, pipe laying back filling and reintegration. None of the impacts has been assessed as significant, with the exception of soil stripping and construction traffic for the WWTP. The impacts are considered of short duration and the applicant has proposed mitigation in the form of a detailed CEMP. Review of the emissions to air from the proposed operation of the project has determined that all Air Quality Standards would be met and the impact not significant. Having regard to the above and the contents of the Environment Report, the information contained within the chapter is robust.

Chapter 15 noise & vibration has been reviewed. The applicant has set out the methodology, study area, noise and vibration surveys and field studies along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. It is noted that operational noise levels are considered low, with the majority of noise and vibration being generated during construction. Slight to moderate noise impact is predicted for St. Francis Hospice during the day. Launch shaft construction works are predicted to create significant impact for Connolly Hospital, Cappagh Road and the Educate Together School. Duration of these works is not clear. Tunnel boring works are also assessed as being from imperceptible to not significant during day and night time. However Table 15.29 indicates that certain locations do not comply with nighttime assessment criteria. Mitigation is required, however concerns have been raised within the EHO report regarding noise and vibration impact. While these do not directly query the assumptions within the EIAR, it is considered that the effect on Connolly Hospital from 24 hour construction over a 1 year period should be queried in terms of significance along with use of closed windows as mitigation for noise.

Chapter 16 archaeological, architectural and cultural heritage has been reviewed. The applicant has set out the methodology, study area and field studies along with assessment criteria including relevant guidance of the matter and the methodology. This information provided is detailed and is considered robust. The baseline is established, with areas of heritage designation identified. Additional investigation in

terms of geophysical surveywork and intertidal survey was undertaken. The impact of the proposed project on recorded monuments, and built heritage is noted. It is agreed that the impact on some recorded monuments and areas of archaeological protection is permanent and significant negative. It is also noted and agreed that the project due to its length and scale would not be able to avoid the archaeological sites and that preservation by record is the most appropriate solution. FCC does not agree with the determination within table 16.11 that the impact on AH2 is neutral as this is not explored and FCC departmental reports raise concerns regarding compound proximity in this location. Additionally, impact to the designed landscape at Abbotstown (table 16.15 location DL1) may be greater than not significant negative due to the lack of quantifiable information on mature tree removal in this location. Within Table 16.17, removal of townland boundaries is considered slight negative to moderate negative. FCC agrees with this methodology, subject to use of a more effective requirement for retention of original hedgerow for appropriate replanting. Review of the impact for the operation phase concludes that the stated impacts are acceptable.

Chapter 17 hydrology and hydrogeology has been reviewed. The applicant has set out the methodology, study area, domestic well surveys and field studies along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. The baseline environment is identified including relevant riverine systems and wells and associated coastal and estuary areas. Flooding risk was undertaken for the proposed project and included within this chapter. Aquifer classification and vulnerability was assessed. Construction impacts from flooding, culverting, surface water contamination and hydrogeology was indicated to be slight. Impact on wells at Portmarnock Golf Club is noted and imbedded mitigation provided for. Regarding the operational phase, impacts are identified as being slight from accidental spillage of sewage, sludge, fuel or pipe burst. Taking into account the location of the pipe beneath all water courses, it is considered that this is an acceptable assessment.

Chapter 18 soils and geology, has been reviewed. The applicant has set out the methodology, study area, site specific and neighbouring site surveys and field studies to provide a conceptual site model along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. The baseline sets out the regional, and site specific overview for the various elements of the project. Areas of concerns, such as the presence of soft or contaminated ground in addition to marine sediments within the outfall area are identified. It is noted from review of the construction stage impacts, that significance is considered imperceptible. This is considered reasonable based on the information provided. Loss of agricultural land is identified as moderate as is removal of contaminated ground and impact on quarry resources at Huntstown. It is noted that impact on geology beneath Baldoyle/Portmarnock is imperceptible. It is noted that a moderate impact is identified regarding the slight potential for polluted sediment to be excavated. It is noted that testing has indicated no contamination, however it is mentioned as a small possibility. The classification as moderate/slight is considered appropriate. Reasonable mitigation measures are proposed. The Environment Section report raises no concerns regarding measures to remediate contaminated land.

Chapter 19 - agronomy, has been reviewed. The applicant has set out the methodology, study area, farm and land surveys and interviews and field studies to provide a conceptual site model along with assessment criteria including relevant guidance of the matter and the methodology including evaluation of farm type sensitivity. This is considered robust. The baseline establishes the number of farms and type in addition to temporary and permanent land loss as a consequence of the proposed development. Disturbance to farm operations as a consequence of disturbance from construction is also outlined. It is noted that the proposed development would not result in the loss of significant lands from overall production. This is considered correct. On an individual farm basis the construction would result in significant and very significant impacts on farms during construction. One horticultural farm is considered to be impacted by the developed project to a significant – very significant degree. Having regard to the location and size of the proposed WWTP, this impact cannot be avoided. It is considered that the measures proposed for mitigation during construction are robust.

Chapter 20 – waste has been reviewed. The applicant has set out the methodology through construction estimates and preliminary site investigations along with assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. The baseline establishes the waste facilities in the area capable of accommodating generated waste. Volumes of waste are estimated along with estimated of re-use on site. Impacts are details as being moderate, negative and short term due to waste generation and traffic. The operational phase sources of waste are identified including biosolids. This is considered to be not significant, negative and long term. It is acknowledged that a project of this scale will generate significant volumes of construction waste. Mitigation in the form of a CEMP and a Waste Management Plan are proposed. Having regard to the scope and nature of the proposal, it is acknowledged that the production of biosolid is negative and long term, but not significant due to its potential for re-use as a fertiliser.

Chapter 21 - material assets has been reviewed. The applicant has set out the methodology through including meetings with relevant service providers and infrastructural companies and assessment criteria including relevant guidance of the matter and the methodology. This is considered robust. The relevant utilities, infrastructure, water courses and amenities are identified. The Chapter provides adequate response to the crossing of infrastructure with the exception of the Dublin to Southend Fibre Optic cable for which final details have not been given. Impacts are stated as being moderate, negative and short term. As these impacts relate to construction which for a project such as this, would be of short duration in any one area, this is considered reasonable. Raw materials are also detailed and is considered imperceptible, negative due to use of resources and permanent. This is acceptable.

Chapter 22 - risk of major accidents and/or disasters has been reviewed. The applicant has set out the methodology in order to comply with Article 3 of Directive 2014/52/EU through use of flood risk assessment, unplanned incidents, identification and screening, risk classification and references guideline material in this regard. This is considered robust. Table 22.4 provides the main assessment tool for rating of accidents in the absence of mitigation for this chapter. The planning authority concur that this table is robust. Table 22.6 indicated accidents – assessment of mitigation measures. This is also considered robust especially with reference to the

unlikelyhood of discharge of untreated wastewater. Embedded mitigation relating to total failure of the WWTP, Pumping Station and Sludge Treatment facility are set out including backup power sources. It is noted that mention is not made in this section of measures detailed elsewhere regarding storage on-site of untreated material in case of breach at the WWTP or PS.

Chapter 23 - cumulative impacts and environmental interactions has been reviewed and is considered to be an accurate representation of interactions between the relevant chapter and issues. As was noted in the NIS assessment, the Dublin Array on the Kish Bank is not noted. It is unclear if this project has gained foreshore licenses which would allow it to proceed.

Chapter 24 - summary of mitigation measures. This section has been reviewed and is considered a concise summary of measures.

Chapter 25 - summary of residual impacts.
This section has been reviewed. Reference is made to comments regarding the previous chapters on matters of impact.

8.1 Conclusion Regarding Adequacy of the EIAR

The EIAR has regard to the provisions of the EIA Directive 2014/52/EU. The EIAR for the Greater Dublin Drainage Project, including the RBSF was prepared using the EPA's Guidelines on the information to be contained in Environmental Impact Assessment Reports Draft August 2017 and Advice Notes for Preparing Environment Impact Statements Draft September 2015. The impact of the proposed development was assessed under all the relevant headings with respect to, population and human health, water, biodiversity (terrestrial), land & soils, air & climate, noise & vibration, odour, cultural heritage, material assets, traffic, landscape, risk management and environmental interactions. Additionally for each chapter (where relevant) up to date guidance document/s for the discipline was referred to in the methodology. Review of the EIAR has been undertaken by the Planning Authority having regard to the contents of the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018). It is noted that this EIAR was submitted before the release of this document. Having regard to the above, the content and scope of the EIAR is generally considered to be acceptable and in compliance with updated guidance documents.

As was stated during assessment of SID/02/18 – Ringsend WWTP upgrade and Regional Biosolid Storage Facility (Newtown), the following is noted regarding the EIAR for the RBSF -

Additionally, within the population and human health chapter for regional recreational locations in the area the National Sports Campus and Blanchardstown Shopping Centre both c.3km and c.4.5km from the application site were not referred to.

In conclusion, other than these issues noted, and other issues noted elsewhere in this report the Planning Authority considers that the EIAR and Mitigation Measures proposed appears to have adequately addressed the concerns of the Planning Authority.

It is also noted that *'The proposed RBSF Component will result in a Slight Negative Short Term Impact in Traffic during the 2024 Construction Year in both morning and afternoon peak hours and an Imperceptible Long-Term Impact during the 2040*

Design Year during both morning and afternoon peak hours on adjoining roads, in particular at Kilshane Cross. Under the Mitigation Measures it is stated that 'There are no effects on Traffic that require specific mitigation. Best practice measures to be adopted include the provision of a preliminary Traffic Management Plan.' Having regard to the observations of the Council's Transportation Engineers, noted earlier in this report it is considered that An Bord Pleanála should be recommended to attach a condition to address this issue.

9) Natura Impact Assessment

A screening for AA exercise described in Section 4 of the report has concluded that, on the basis of objective information, the Proposed Project either individually or in combination with other plans or projects is likely to have significant effects on European sites in view of their conservation objectives. As such, the Proposed Project must be subject to AA in accordance with Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora; the Planning and Development Act 2000 (as amended); and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) (as amended).

The NIS document comprises a two-stage evaluation and analysis exercise (Stage 1 – shadow screening for appropriate assessment in Section 4; and Stage 2 – a shadow assessment of implications for European sites in Sections 6-7) to inform the AA of the proposed GDD project by the competent authority for planning which is An Bord Pleanála and subsequently the competent authority for a Foreshore Licence application which is the Marine Planning and Foreshore Section of the Department of Housing, Planning and Local Government and the competent authority for a Waste Water Discharge licence, which is the EPA Environmental Licensing Programme Office of Environmental Sustainability.

In the assessment, the competent and public authorities concerned must arrive at a definitive determination under Article 6(3) of the Habitats Directive and transposing domestic legislation applicable to the various consents as to whether or not the project, on its own or in combination with other plans and projects, will adversely affect the integrity of any European site.

Determination of this Proposed Project's Zone of Influence (ZoI) was achieved by assessing all elements of the Proposed Project against the ecological receptors within the Proposed Project footprint, in addition to all ecological receptors that could be connected to and subsequently impacted by the Proposed Project through impact pathways. To this end, the ZoI extends outside of the Proposed Project infrastructure footprint to include ecological receptors connected to the Proposed Project through overlap / intersection, proximity and connectivity through features such as watercourses. The proposed GDD project is located within the following three European sites (see Figure 1-1 & Figure 1-2):

- Baldoye Bay Special Areas of Conservation (SAC) (000199) – the proposed outfall pipeline will pass in a tunnel under Baldoye Bay SAC. The two tunnelling compounds will be located either side of Baldoye Bay but outside the SAC;
- Baldoye Bay Special Protection Areas (SPA) (004016) – the outfall pipeline passes under Baldoye Bay SPA. The two tunnelling compounds are located either side of Baldoye Bay but outside the SPA; and

- Rockabill to Dalkey Island (SAC) (003000) - the marine diffuser and approximately 1,300m of the outfall pipeline are located within the Rockabill to Dalkey Island SAC.

Section 3.3 of the NIS states:-

'3-dimensional hydrodynamic modelling studies undertaken on the proposed discharge have confirmed that, for the identified outfall location and the emission limit values set out in Table 3-1, the receiving water (apart from the small mixing zone) will meet good status criteria and meet the environmental quality objectives for coastal water nutrients levels. The modelling studies have also confirmed that:

- The Proposed Project will have negligible impact on the water quality of the coastal waters off County Dublin;
- The Proposed Project will not impact achieving the goals of the WFD of reaching good status in all water bodies; and
- The proposed discharge location will not negatively influence any designated bathing waters.'

It is noted that the report of the FCC Environment Section has raised concerns regarding the information contained within the EIAR regarding water quality due to lack of sufficient information relating to e-coli levels.

The screening exercise undertaken in Section 4 of the NIS, with specific reference to table 4 – 1 indicates the expected effect and pathways from the proposed project on European Sites.

These include:-

- Water quality and habitat deterioration from the enabling and construction works for the WWTP, the Orbital Sewer, the North Fringe Sewer, Outfall Pipeline (Land Section) and (Marine Section) and tunnelling compounds 9 and 10, the Abbotstown PS, the interface between the tunnel and dredged area, the diffuser, the RBSF, satellite compounds 1 – 8, utility connections at Clonsaugh WWTP and the Abbotstown PS, and the fibre optic cable protection measures.
- Airborne noise and visual disturbance from the outfall pipe (land section)
- Habitat loss from the Outfall pipeline marine sections – micro tunnelling & tunnelling compounds (compounds 9&10)
- Airborne noise, vibration and visual disturbance. Habitat loss from the Outfall Pipeline (Marine Section – sub sea pipelaying)
- Underwater noise and disturbance Airborne noise and visual disturbance Habitat loss from the interface options and the Fibre Optic cable.

It is noted that the NIS screens out the effects from the RBSF due to the absence of discharge and emissions from the site.

Impact pathways are noted as:-

- Pathway connections from the Tolka, Mayne, Cuckoo and Sluice river systems to Dublin Bay and Baldoye Bay European Sites.
- There is a possibility of disturbance and/or displacement by habitat loss, visual stimuli, general construction noise, piling noise, vibration or the presence of construction plant, machinery and operatives at the eastward terminal of the *Outfall pipeline (land-based section)* directly on qualifying

- species (outside the SPA boundary) and in proximity to lands used by Special Conservation Interest (SCI) species of European sites.
- There is a possibility of habitat loss at construction phase
 - *With regard to the microtunnelling and associated compounds 9 and 10.* This element of the Proposed Project is located immediately adjacent to a European site, on habitats potentially utilised by SCIs of European sites outwith their boundaries.
 - *With regard to the Outfall Pipeline (Marine Section – sub sea pipelaying)* There is a possibility of general construction noise or the presence of construction vessels, construction plant, machinery and operatives along the working corridor of the marine outfall pipeline corridor affecting habitats outwith European sites being used by their SCI species. This could result in disturbance and/or displacement. There is a possibility of construction noise emissions in the water column of the working corridor of the marine outfall pipeline corridor which could disturb or injure mobile marine mammal feature species of Rockabill to Dalkey Island SAC or Lambay Island SAC. There is a possibility of habitat loss occurring where this element of the Proposed Project passes through a European site.
 - There is a possibility of suspended sediment plumes or contaminated run off from marine vessels at construction stage, as the interface options are located in the nearshore waters of Velvet Strand within Baldoyle Bay SAC. The piling noise, vibration and the presence of vessels, construction plant, machinery and operatives at the interface between the land-based and marine-based outfall pipeline could impact areas of habitat used by SCI species beyond the boundaries of European sites. This could result in disturbance and displacement. There is a possibility of construction noise emissions in the water column at the interface between the land-based and marine-based outfall pipeline which could disturb or injure mobile marine mammal feature species of Rockabill to Dalkey Island SAC or Lambay Island SAC. There is a possibility of habitat loss occurring as this element of the Proposed Project is located in proximity to nearshore waters of Velvet Strand within Baldoyle Bay SAC.
 - With regard to the FO works there is a possibility of suspended sediment or contaminated run off from marine vessels at construction stage, as this element of the Proposed Project is located in the marine waters between Baldoyle Bay SAC and Rockabill to Dalkey Island SAC. There is a possibility of construction noise or the presence of marine vessels, construction plant, machinery and operatives at the FO cable in areas used by breeding seabirds of nearby SPAs. There is a possibility of construction noise emissions in the water column at the FO cable which could disturb or injure mobile marine mammal feature species of Rockabill to Dalkey Island SAC or Lambay Island SAC. There is a possibility of habitat loss occurring as this element of the Proposed Project is located in proximity to nearshore waters of Velvet Strand within Baldoyle Bay SAC.
 - With regard to the diffuser, there is a possibility of suspended sediment plumes or contaminated run off from marine vessels at construction stage, or release of elevated levels of pollutants as a result of operational emissions, as this element of the Proposed Project is located in Rockabill to Dalkey Island SAC and in proximity to Ireland's Eye SPA. The construction noise, vibration and the presence of marine vessels, construction plant, machinery and operatives at the marine diffuser could impact areas of habitat used by SCI

species within and beyond the boundaries of European sites. This could result in disturbance and displacement. There is a possibility of construction noise emissions in the

water column at the diffuser which could disturb or injure mobile marine mammal feature species of Rockabill to Dalkey Island SAC or Lambay Island SAC. There is a possibility of habitat loss occurring as this element of the Proposed Project is located in Rockabill to Dalkey Island SAC

Section 4.3 of the NIS indicates the European Sites within the study area. Section 4.4 indicates the potential for likely significant effects. It is noted within Section 4.3 that Ireland's Eye SAC is screened out due to lack of hydrological link and no open pathway of effect. The report from the FCC appointed ecological consultant on this matter expresses concern regarding the lack of information provided by the applicant for this statement and recommends clarification is provided.

The screening assessment concludes that:-

'From the findings of the Screening for Appropriate Assessment, it was concluded that the Proposed Project (as described in Section 3):

- Is not directly connected with or necessary to the management of any European site;*
- Has the potential to give rise to significant effects on the qualifying interests of seven SACs and eleven SPAs as outlined in Table 4-3; and*
- Does not have the potential to affect the remaining SAC and SPA sites identified in the wider study area. These sites have therefore been screened out as discussed in Section 4.3. Having regard to the methodology employed and the findings of the screening stage exercise, it is concluded that an appropriate assessment of the implications of the Proposed Project on European sites is required, in view of their conservation objectives and in combination with any other relevant plans or projects.'*

Section 5 of the NIS indicates the scientific investigations to support Appropriate Assessment

These include:-

- Estuarine Ornithological Survey
- Coastal and Marine Vantage Point (VP) Ornithological Surveys
- Boat-based Assessment of Auk Fledging
- Baldoyle Estuary Walkover
- Surveys for Reefs (1170) in Ireland's Eye SAC and Rockabill to Dalkey Island SAC
- Surveys for the Harbour Porpoise in Rockabill to Dalkey Island SAC
- Airborne Noise Modelling at Microtunnelling Compounds
- Suspended Sediment Plume Analysis, including construction plume and operational plume.
- Turbidity Monitoring
- Underwater Noise Modelling

The report from the FCC appointed ecological consultant on this matter indicates that the level of detail within the NIS is of a good standard.

Section 6 of the NIS assesses implications for European Sites.

The following sections discuss each of the 18 sites under one or more of the following impact pathways as identified in the screening assessment

- Water quality and habitat deterioration;
- Airborne noise and visual disturbance;
- Underwater noise and disturbance; and
- Habitat Loss

The assessments for each of the sites are presented in the following sections

6.1 Impact Pathway - Airborne Noise and Visual Disturbance

- 6.1.1.3 Baldoyle Bay SPA (p69)
- 6.1.2.3 Ireland's Eye SPA (p75)
- 6.1.3.1 North Bull Island SPA (p83)
- 6.1.3.2 Malahide Estuary SPA (p83)
- 6.1.3.3 Howth Head Coast SPA (p83)
- 6.1.3.4 South Dublin Bay and River Tolka Estuary SPA (p84)
- 6.1.3.5 Rogerstown Estuary SPA (p85)
- 6.1.3.6 Lambay Island SPA (p86)
- 6.1.3.8 Skerries Islands SPA (p87)
- 6.1.3.9 Rockabill SPA (p87)

6.2 Impact Pathway - Water Quality and Habitat Deterioration

- 6.2.1 Baldoyle Bay SAC (p93)
- 6.2.3 Lambay Island SAC (p97)
- 6.2.4.1 Baldoyle Bay SPA (p98)
- 6.2.4.2 Ireland's Eye SPA (p99)
- 6.2.4.3 North Dublin Bay SAC (p100)
- 6.2.4.4 North Bull Island SPA (p100)
- 6.2.4.5 Malahide Estuary SPA (p100)
- 6.2.4.6 Malahide Estuary SAC (p101)
- 6.2.4.7 Howth Head Coast SPA (p101)
- 6.2.4.8 South Dublin Bay and River Tolka Estuary SPA (p102)
- 6.2.4.9 Rogerstown Estuary SPA (p102)
- 6.2.4.10 Rogerstown Estuary SAC (p102)
- 6.2.4.11 South Dublin Bay SAC (p103)
- 6.2.4.12 Lambay Island SPA (p103)
- 6.2.4.13 Dalkey Island SPA (p103)
- 6.2.4.14 Skerries Islands SPA (p104)
- 6.2.4.15 Rockabill SPA (p104)

6.3 Impact Pathway - Underwater Noise and Disturbance

- 6.3.1 Baldoyle Bay SAC (p105)
- 6.3.2 Rockabill to Dalkey SAC (p106)
- 6.3.3 Lambay Island SAC (p107)

6.4 Impact Pathway – Habitat Loss

- 6.4.1 Baldoyle Bay SAC (p108)
- 6.4.2 Rockabill to Dalkey Island SAC (p109)
- 6.4.3 Baldoyle Bay SPA (p110)
- 6.4.4 Ireland's Eye SPA (p111)
- 6.4.5.1 North Bull Island SPA (p112)
- 6.4.5.2 Malahide Estuary SPA (p112)
- 6.4.5.3 Howth Head Coast SPA (p113)
- 6.4.5.4 South Dublin Bay and River Tolka SPA (p113)

- 6.4.5.5 Rogerstown Estuary SPA (p113)
- 6.4.5.6 Lambay Island SPA (p113)
- 6.4.5.7 Dalkey Islands SPA (p114)
- 6.4.5.8 Skerries Islands SPA (p114)
- 6.4.5.9 Rockabill SPA (p114)

It is noted that the report from the ecological consultant review of the NIS that the information supplied meets the level of detail required. See comment regarding mitigation under Section 7.

6.5 Assessment of In-Combination Effects with Other Plans and Projects

Table 6.11 sets out the Permitted Projects and the potential for Cumulative Effects during Construction. The report from the ecological consultant review of the NIS indicates that three projects were not included in the table. These are the Alexandra Basin Redevelopment Project, the Dublin Array on the Kish Bank and the proposed Howth Harbour extension. It is noted that the Alexandra Basin Redevelopment Project is identified in Table 23.1 Stage 1 and Stage 2 Assessment – Identification and Shortlisting. This project was not considered relevant as the EPA permit allowed dumping at sea to occur up to March 2021. The commencement date of the proposed project is Q1 2021 and overlap was considered unlikely. The Dublin Array website indicates that a Foreshore License application has been made to the relevant Government Department. No further information is available. It is noted that no application has been received for the proposed Howth Harbour Extension – East Pier and as such it would be unreasonable to include this.

Section 7 sets out mitigation measures.

While it is noted that the report from the ecological consultant review of the NIS that the information supplied meets the level of detail required, mitigation measures set out in the assessments associated with the above were not all included within the NIS and Appendices. It is recommended as best practice to include these within the document in order to accurate review and verification.

Section 8 Conclusions states:-

'With the implementation of mitigation measures the project will not result in direct, indirect or cumulative impacts which would have the potential to adversely affect the qualifying interests/special conservation interests of the Natura 2000 sites within the study area with regard to the range, population densities or conservation status of the habitats and species for which these sites are designated (i.e. conservation objectives). It is therefore concluded, beyond reasonable scientific doubt, that the Proposed Project with the implementation of the prescribed mitigation measures will not give rise to significant impacts, either individually or in combination with other plans and projects, in a manner which adversely affects the integrity of any designated site within the Natura 2000 network.'

9.1 Conclusion Regarding Adequacy of the NIS

An Bord Pleanála is the Competent Authority with regard to this proposal. The comments of the ecological consultant engaged by FCC are noted, and which raise concerns regarding sections of the Screening and NIS which do not appear complete in terms of screening out certain European Sites, lack of information regarding addressing concerns raised by Statutory Bodies, use of relevant guidance relating to

man made sound and impacts on marine mammals, lack of a comprehensive schedule of mitigation measures, inclusion of certain projects when assessing cumulative impact, and inclusion of the basis for the proposed outfall design from the EIAR into the NIS. It is considered appropriate for An Bord Pleanála to seek clarification on these matters.

10) View on Community Gain conditions.

The applicant has provided a Community Benefits document. This sets out that the project will underpin the sustainable growth of the Dublin region to 2050 forming a vital part of the primary infrastructure network that is essential to enable residential, commercial and public development. The applicants state that the project will bring significant lasting benefits for the environment, for public health and for the economic and social growth through providing the wastewater treatment capacity that the region needs to support its growth. This is acknowledged. The applicants have submitted that feedback from the public indicated that appreciable community benefits should form part of the GDD project and that benefits should be targeted to areas in proximity to the proposed infrastructure. A community infrastructure audit was then undertaken to identify, map and analyse existing community amenities and services within the GDD project area. The outcome was that sporting facilities and amenities are adequately provided for. Participation within DEIS programme is high and educational disadvantage is noted.

Three categories of commitments are outlined.

1. Providing local employment opportunities to support long-term unemployed persons returning to work, youth unemployed, or persons entering the workforce for the first time. Providing opportunities for SMEs and social enterprises to benefit from the delivery of the GDD project.
2. Initiatives that encourage progression in education at all levels or which seek to reduce early school leaving in the project area.
3. The GDD project will safeguard public health and will protect and improve the environment through providing effective wastewater treatment to enhance water quality in compliance with EU and national regulations. In addition, Irish Water will provide supports for local projects that seek to enhance or protect the local built or natural environment.

This is proposed as:-

1. Irish Water will require, through the use of social clauses in the aforementioned contracts that a minimum of 10% of the person weeks worked on the GDD project during construction are delivered by new entrant employees/job seekers.
2. Irish Water will work with its appointed contractors and other stakeholders to identify suitable opportunities for social enterprises and SMEs to benefit from the delivery of the GDD project.
3. Ensuring the availability of skills locally will be a key requisite of meeting the targets set out in the social procurement initiative. Irish Water will appoint a Community Liaison Officer who will coordinate with local employment and training organisations and the appointed Contractor(s) to ensure that all employment opportunities are identified at the earliest possible stage.
4. The design for the new regional wastewater treatment plant at Clonshagh (Clonsaugh) will include a wastewater education zone. The wastewater education zone will comprise a permanent multimedia exhibition and meeting

space. It will include interactive displays showing the journey our water and wastewater takes from drain to sea. The displays will also highlight the important role which wastewater treatment plays in protecting and enhancing our natural environment.

5. A Community Liaison Officer will be appointed to coordinate with educational institutions at all levels and will offer guided tours to the wastewater education zone and the GDD facility during its operation.

While these aims are considered appropriate, it is considered that more tangible community benefit could be provided for through the creation of a community fund in order to provide local projects in the area of the Greater Dublin Drainage Scheme, including where relevant, adjoining parts of Dublin City Council Area in order to provide support for the development of sporting facilities, community gardens, amenity areas and other community organisations.

Furthermore, and having regard to Local Objective 116, provision of a short section of public pathway between chainage 0+500 to 0+700 along the pipe route from the Connolly Hospital Roundabout to the old road/lane in Abbotstown would provide significant public health and amenity benefit through creation of a looped connection from Waterville Park through to Abbotstown, opening up pedestrian access to the NSC from the wider area.

This could be attached as a condition in the event of a grant of permission by An Bord Pleanála.

11) Contributions

There are no Section 49 supplementary contributions either adopted or proposed that would affect this proposed development site.

12) Planning Authority overall considered view of this proposed development and the attachment of conditions in the event of a grant of permission

During consideration of the submitted documentation the Council has established that further information is required particularly in relation to;

- Information on Marine Water Quality Modelling
 - The modelling shows that excellent water quality is achieved however this is based on an e coli concentration in the final effluent from the plant which appears to be low for the plant as described in the EIAR. The input into the marine water quality model is 39,105 e coli per 100ml (Table 8.10 Vol 3 Part A of 6. Published information for conventional secondary wastewater effluent without disinfection indicates concentrations in 100,000 and 1,000,000 e coli/100ml (Metcalf & Eddy 4th edition 2003 table 12-13) similar to the figure used in the model for Ringsend Wastewater treatment plant of 300,000 e coli/100ml. Clarification on this matter should be sought from the applicant.
 - The methodology in assessing the impact on bathing water quality is acceptable. However this is subject to the clarifications sought above.

- The modelling of the outfall shows excellent bathing water quality at designated beaches however the proposal does not explicitly aim for “Excellent” bathing water quality at designated beaches. This should be achieved.
- The report concludes that the proposal will have no influence on designated shellfish waters to the North of the outfall location. The shellfish regulations guideline values (ie Class A shellfish requiring no treatment) for faecal coliforms is < 300 /100ml in the Shellfish Intervalvular Liquid. This is not a standard for the seawater on which the shellfish feed. Some shellfish are filter feeders and can concentrate bacteria to unacceptable levels. Clarification should be sought from the applicant on the ecoli concentration in seawater that would cause the guideline values to be exceeded.
- The output from the dispersion model is presented in charts. The contours on these charts do not go below 250 e coli/100ml. This may be too high to allow an valid assessment of the impact of the proposal on designated shellfish areas. Clarification should be sought in this regard.

Regarding the Natura Impact Assessment

1. The applicant is requested to provide details of all of the mitigation measures proposed and referenced within the NIS as a single document within the NIS instead of within other documents submitted as part of the application process.
2. The applicant is requested to provide details regarding the rationale behind screening out of Irelands Eye SAC, which has not been detailed sufficiently.
3. The applicant is requested to confirm that NPWS *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* (January 2014) has been adhered to in full for marine mammals as this is not clearly stated within the NIS.
4. The applicant does not appear to have considered in combination effects with other dredging/dumping at sea projects (e.g. from Dublin Port’s Alexandra Basin development works, Dublin Array project etc.) within the NIS. The possibility of in combination effects with other projects that involve works or activities within the Rockabill SAC (i.e in the case of some or all of the stated projects dumping at sea at the Burford Bank within the SAC) should be assessed as part of the AA process.
5. The competent authority should consider whether the available documentation adequately addresses the issues and concerns raised by the National Parks and Wildlife Service, BirdWatch Ireland, Inland Fisheries Ireland and the Irish Whale and Dolphin Group. Appendix A2.1 and A2.2 of the EIAR summarise issues raised by these bodies and provides brief responses as to how these have been addressed. However detailed consideration should be given by the competent authority as to whether the brief responses provided in these appendices are sufficient to address the issues raised as relevant to the AA process.

Notwithstanding the above issues Fingal County Council’s overriding view is that this proposed development will be of positive benefit for the sustainable development and growth of the Greater Dublin Region and County having regard to the provision of adequate waste water treatment to facilitate development of zoned lands and to

achieve numerous objectives regarding the proper planning and sustainable development of the Greater Dublin Area.

Subject to clarification of the information indicated above, the Planning Authority has no objection in principle to the granting of permission for the works comprising the Greater Dublin Drainage Scheme subject to conditions.

13. RECOMMENDED CONDITIONS

1. Planning permission is granted in accordance with submitted documentation except as otherwise required in order to comply with conditions set out below.

Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

2. Prior to commencement of development the applicant shall submit a comprehensive document for the written agreement of the planning authority which contains the mitigation measures set out in the EIAR, the Natura Impact Statement and the CEMP and clearly outline the monitoring and implementation measures for each, as appropriate.

Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

3. Details with regard to building finishes and design features for the buildings within the WWTP and Abbotstown Pumping Station and Odour Control Unit and shall be agreed with the planning authority, prior to the commencement of development.

Reason: In the interest of visual amenity.

4. Prior to construction a final Construction Environmental Management Plan and a Construction Traffic Management Plan shall be agreed in writing to the satisfaction of the Planning Authority.

Reason: In the interest of ensuring protection of environmental amenity and human health.

5. The applicant shall ensure the protection of the existing boundary hedgerows and trees (in particular along the western and southern boundaries) during the course of development works in accordance with the provisions of *BS 5837: 2012, Trees in relation to design, demolition and construction - Recommendations*. Prior to the commencement of the development on site, the applicant shall provide a tree and hedgerow survey of the proposed development area from Waterville Park, Blanchardstown to the Coast Road, Baldoyle and agree in writing with the local authority the precise location of the protective fencing and other tree/hedgerow protection measures during the course of the works. Agreement shall be required for the removal of identified mature trees within the Abbotstown NSC. The mature tree within the roundabout at Connolly Hospital shall be protected for the duration of the works.

Reason: In the interest of biodiversity and protection of visual amenity.

6. Prior to the commencement of development the applicant shall agree a landscape plan for the Pumping Station and WWTP to the satisfaction of the Planning Authority. The landscaping plan shall contain the following information:-

- a. Details on tree species/varieties, quantities, sizes and all specifications in relation to both hard and soft landscaping. The landscape design plan including specifications must be prepared by suitably qualified landscape professionals.

- b. Boundary treatments, including use of black paladin fencing
 - c. Provision of grassed meadow in place of gravel within compounds.
Reason: In the interest of biodiversity and protection of visual amenity.
7. Prior to the commencement of development the applicant shall submit a revised plan for works within Waterville Park which shall reduce the temporary and permanent wayleave in order to reduce impact on tree planting within the public park. The revised plans shall contained a landscape re-instatement plan for the works area within Waterville Park and Mill Road to the satisfaction of the Planning Authority.
Reason: In the interest of biodiversity and protection of visual amenity.
8. Prior to the completion of development the applicant shall submit for the written agreement of the planning authority a biodiversity management plan for the re-instatement and improvement of the area to be occupied by Compound 9 and 10 at Portmarnock. Works shall be undertaken within the first planting season after removal of the compound.
Reason: In the interest of biodiversity and protection of visual amenity.
9. Prior to the commencement of development the applicant shall agree a hedgerow re-instatement plan for the area of the proposed project to the satisfaction of the Planning Authority. This shall contain details of the following:-
- a. Provision for removal, retaining and reusing sections of townland boundary hedgerow within their original location where feasible.
 - b. Provision for planting within the wayleave to facilitate reduction of hedgerow gaps to no more than 10m to facilitate bat movement. All treatment units within the WWTP shall be covered. In the event that odour management does not result in achieving the required odour reduction, the applicant shall be required to undertake additional management measures to the satisfaction of the planning authority.
 - c. **Reason:** In the interest of biodiversity and protection of visual amenity.
10. The following requirements of the Community Archaeologist shall be complied with in full.
- a. Archaeological monitoring of shall be undertaken of topsoil stripping and groundworks of greenfield Construction Compound sites.
 - b. Once each RMP site or Area of Archaeological Potential has been archaeologically excavated, a detailed technical report setting out findings and linking these with the studies already conducted shall be submitted with planning documentation, within four weeks of the completion of excavation. Once each site is archaeologically excavated the area can then be released to the contractor.
 - c. Satisfactory arrangements for post-excavation analysis and archiving to the Collections Resource Centre, shall be agreed with the National Monuments Service (DCHG), the National Museum and the Planning Authority.
 - d. A comprehensive over-arching final report on the completed archaeological works which places the testing, excavation, monitoring and survey results in a cohesive narrative and context shall be submitted to the National

Monuments Service (DCHG), the National Museum and the Planning Authority within a period of one year or within such extended period as may be agreed.

- e. Given the scale of the impact of the project-i.e. archaeological excavation of approximately 1% of all known monuments in Fingal-and on the unknown archaeological landscape, provision shall be made for publication and/or public outreach, to share the results of the archaeological resolutions with the general public.

Reason: In the interest of protection of archaeological heritage.

- 11. Prior to commencement of development the developer shall agree the exact location of all temporary construction compounds to the satisfaction of the Planning Authority.

Reason: In the interest of protection of architectural heritage, archaeological heritage and biodiversity

- 12. Lighting to the Pumping Station and Waste Water Treatment Plan shall be cowled and directional and shall minimise light spillage to the boundaries of pumping station and treatment plant. Bat disturbance from lighting shall be minimised.

Reason: In the interest of protection of bats and to avoid nuisance.

- 13. Prior to commencement of any works a Noise and Vibration and Dust Management plan will be submitted for the agreement of the Planning Authority. The plan shall contain the following information and development shall be subject to the amendments set out below.
 - a. Noise emissions from the microtunneling, pipe jacking and rock breaking shall not exceed 70 dB(A) during the day time at any noise sensitive receptor. Piling or rock breaking within the grounds of Connolly Hospital and Abbotstown Pumping Station shall not be permitted during night time hours, i.e. between 8pm and 7am.
 - b. The applicant shall submit alternative measures to mitigate noise to the west wing of Connolly Hospital and St. Francis Hospice to achieve 70dB(A) during daytime which do not involve the closure of windows.
 - c. The applicant shall liaise with the school within the former Teagasc building in Kinsealy to provide a construction schedule which would minimise potential impact, such as undertaking works during school holidays.
 - d. The applicant shall provide measures to ensure adequate noise and vibration mitigation to the occupants of the house at Golf Links Road.
 - e. Acoustic enclosures shall have a mass $\geq 15\text{kg/m}^2$ and shall be of sufficient height and length to avoid flanking transmission.
 - f. Noise and Dust Mitigation measures shall be put in place to minimise the noise levels at the Temporary compounds.

Reason: To ensure the protection of residential amenity, protect public health and to avoid generation of nuisance.

- 14. The applicant shall submit the following for the agreement of the Planning Authority:

- a. Information outlining the operational parking demand based on the peak staff numbers on site at any one time shall be provided in order to determine the appropriate level of parking being provided for the proposed Treatment Plant.
- b. A Mobility Management Plan shall be provided for the Clonshagh Waste Water Treatment Plant.
- c. The proposed project shall take account of the finalised route for Metrolink to ensure there are no conflicts between the proposed works and the construction of the Metro line. Similarly the impact, if any, of the proposed development on the proposed Bus Connects shall be accounted for in the final design.

15. The applicant shall submit the following for the written agreement of the planning authority.

- a) Irish Water's Standard Details call for a standoff manhole at the end of a rising main. A detail at the junction of the rising main and the beginning of the gravity main is required.
- b) At Manhole AC - 41 Ch5+379 the invert of the pipe falls from -1.26mOD to -14.79mOD. A detail is required.
- c) No foul drainage is to discharge into the surface water system under any circumstances.
- d) The foul drainage shall be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works Version 6.0" FCC April 2006 or *the* EPA Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Dwellings (October 2009) whichever is applicable.

16. The applicant shall submit the following for the written agreement of the planning authority.

- a. The proposed Developments at Abbotstown PS, OCU @ MH07 and the treatment works at Clonshaugh shall incorporate SUDS (Sustainable Urban Drainage Systems) in the surface water design. Applicants are referred to the "Greater Dublin Region Code of Practice for Drainage Works. Version 6.0, April 2006", Section 16. Prior to construction, the applicant shall submit details of the proposal, including details of the SUDS devices (soakaways, swales, permeable paving, filter drains, storage ponds, roof gardens, etc.), drainage pipework details, with calculations as appropriate.
- b. All culverts shall be designed in accordance with "Culvert Design Guide" Report 168 by CIRIA, latest revision or its replacement, and shall also comply with the recommendations of the OPW. Design calculations are to be submitted.
- c. The Developer shall apply to the OPW to obtain permission under Section 50, Arterial Drainage Act 1945, for culverting of any watercourse.
- d. The applicant will examine his proposals for the River Mayne crossing headwalls and submit revised details which include safety features.
- e. No surface water/rainwater shall discharge into the foul sewer system

under any circumstances.

- f. The surface water drainage shall be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works Version 6.0" FCC April 2006.

17. The developer shall liaise with the HSE to provide for a cinder type public path above the pipeline route between chainage 0+500 and 0+700 within the grounds of Connolly Hospital in order to ensure public access to the NSC. Prior to the commencement of development, the developer shall agree any required works in writing with the Planning Authority and all works shall be implemented prior to the completion of the Abbotstown Pumping Station.

Reason: To achieve the aims of Local Objective 116 and provide for increased amenity in the wider area.

18. The developer shall create a community fund to benefit sporting, amenity and community clubs and facilities within the areas through which the proposed project passes. This shall include the areas of Darndale and Clongriffin within the Dublin City Council area, or such other boundary which may be agreed between the applicant, FCC and DCC, or which in the event of no agreement being reached, shall be referred to An Bord Pleanála for determination.

Reason: To provide for improvement in amenity within the project area.

19. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided by or intended to be provided by on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under Section 48 of the Planning & Development Act 2000. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the Scheme.

Reason: The provision of such services in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing the services.

Conditions specific to the Regional Biosolids Storage Facility.

1. Planning permission is granted in accordance with submitted documentation except as otherwise required in order to comply with conditions set out below.

Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

2. Prior to construction the applicant shall submit for the written approval of the Planning Authority the following:

- (i) Details of any alternations to the existing pumping station, including drawings and revised specifications as may be required to facilitate the development.

- (ii) Submit evidence of long term storage or a revised Q_{bar} rate and revised calculations for attenuation storage.

- (iii) Examine the site for further SuDS opportunities such as permeable paving, integrated tree pits etc. and submit a revised SuDS proposal.

Reason: In the interest of proper planning and sustainable development.

3. The applicant shall comply with the following requirements of the Planning Authority:

- (i) Provide a 10m wayleave over realigned surface water pipe.

- (ii) No surface water/rainwater shall discharge into the foul sewer system under any circumstances.

- (iii) The surface water drainage shall be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works Version 6.0" FCC April 2006.

Reason: In the interest of proper planning and sustainable development.

4. Prior to commencement of development the following details shall be agreed in writing with the Planning Authority:

- (i) The cross-section details of the works required (road, footpath and verge) to the R135 North Road over the full length of the boundary to the site

- (ii) The construction details for the road widening and left diverge lane.

- (iii) The transition of the proposed footpath to the adjacent site boundary to the south.

Reason: In the interest of road safety, proper planning and sustainable development of the area.

5. Prior to construction the transition of the proposed footpath to the adjacent site boundary to the south shall be agreed in writing between the applicant and adjoining landowner to the satisfaction of the Planning Authority.

Reason: To ensure orderly development of the site.

6. Prior to construction a final Construction Management Plan and a Construction Traffic Management Plan shall be agreed in writing to the satisfaction of the Planning Authority.

Reason: In the interest of proper planning and sustainable development.

7. The applicant shall pay a special contribution of €202,950 (two hundred and two thousand, nine hundred and fifty euros), under Section 48(2)(c) of the Planning and Development Act 2000 (as amended) in respect of the upgrade and signalisation of the R135 and the N2 North Bound Slip priority junction.
Reason: To provide a contribution to ensure the provision of necessary infrastructure in accordance with Section 48(2)(c) of the Planning Development Act 2000 (as amended).
8. Prior to commencement of development design detail shall be submitted for approval in writing for the prevention of environmental pollution in designing for fire risk. Such detail shall also include an assessment of risk of environmental pollution due to fire water and any mitigation measures that may be necessary.
Reason: To protect the amenities of the area.
9. The applicant shall ensure the protection of the existing boundary hedgerows and trees (in particular along the western and southern boundaries) during the course of development works in accordance with the provisions of *BS 5837: 2012, Trees in relation to design, demolition and construction - Recommendations*. Prior to the commencement of the development on site, the applicant shall agree in writing with the local authority the precise location of the protective fencing and other tree/hedgerow protection measures during the course of the works.
Reason: In the interest of ecological and environmental benefits.
10. The applicant shall ensure that excess topsoil is transported off site and that proposed berms do not exceed 2m in height nor are steeper than a 1:4 slope.
Reason: In the interest of visual amenity and ease of landscape maintenance.
11. The applicant shall ensure that the proposed mixed species planting on existing and proposed berms and along the road boundary are performed within the first planting season following the commencement of on-site works. The planting mix shall omit ash (*Fraxinus excelsior*) and replace it with field maple (*Acer campestre*) or willow (*Salix sp.*) or similar. At least 30% of the tree planting quantities (excluding Pine species) shall be a minimum girth size of 10-12cm with the remainder a minimum transplant size of 90-120cm. The planting schedule proposes Alexanders for the Meadow Planting; this species should be omitted and replaced with Yellow Rattle.
Reason: To ensure the establishment of an appropriate planting scheme for screening and ecological functions.
12. The proposed road boundary hedge shall be revised to a mixed native species hedge consisting of 70% hawthorn (*Craetagus monogyna*) with the remaining 30% consisting of hazel (*Corylus avellana*) and elder (*Sambucus nigra*) or similar.
Reason: To ensure the use of native species as per objective DMS103 in the Fingal County Development Plan 2017-2023.

13. That all public services to the proposed development, including electrical, telephone cables and associated equipment be located underground throughout the entire site.

Reason: In the interests of amenity

14. All necessary measures be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works.

Reason: To protect the amenities of the area.

15. Site development works shall be carried out between the hours of 08.00 to 19.00 Mondays to Fridays inclusive, between 08.00 to 14.00 on Saturdays and not at all on Sundays and public holidays unless otherwise agreed in writing with the Planning Authority.

Reason: On order to safeguard the amenities of the area.

Appendix 1

Report of the Transportation Section

Register Reference:	SID/03/18
Development:	Greater Dublin Drainage Project Proposed Wastewater Treatment Plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility. The proposed Project will be located in County Fingal and with a 60m section of pipeline Dublin City and is approximately 25km long. The planning application proposes a new regional wastewater treatment facility to be located in the townland of Clonsaugh, an underground orbital sewer from Blanchardstown to Clonsaugh (to intercept existing flows to Ringsend), a new pumping station at Abbotsown, and an outfall pipeline to return the treated water to the Irish Sea. The project also includes a regional sludge treatment centre at the new GDD facility and an associated biosolid storage facility at Newtown near Kilshane Cross. To view documentation for this planning application please use the following website address: https://www.gddapplication.ie
Location:	Blanchardstown to Clonsaugh/, Clonsaugh to Maynetown (Coast Rd R106)/, Baldoyle Estuary/, Portmarnock Golf Club, To Ireland's Eye
Report Type:	Strategic Infrastructure Development
Lodged:	20 June 2018
Rec'd in Transport:	27 August 2018

General

An Outline Traffic Management Plan was provided as part of the application. The document identifies the location of all site accesses from the public road network as well as those along the wayleave for the works and accesses through third party lands. The impact of the works has been minimised along the major roads in particular the N2/M2 and M1 by use of trenchless crossings. The cover levels of the pipelines are well below the formation level of the road construction and consequently should have no impact on the existing road infrastructure. It is noted that the document does not make reference to Metro Link or Bus Connects. It should also be noted that although the Metro West project is not currently under consideration by the NTA, the route still forms part of the current Fingal Development Plan 2017-2023 and as such some consideration should be given to the possible future provision of this route.

As outlined in the Outline Traffic Management Plan, a construction phase Traffic Management Plan will be agreed with the Council once a contractor has been awarded the contract. All details regarding safety issues including the provision of the required sightlines at all accesses to the construction areas as well as the appropriate signage and traffic management (as required) shall form part of the Plan. This Document shall be agreed with the Council and all relevant road opening licenses, as well as abnormal load licenses shall be obtained within the appropriate time periods prior to the commencement of construction works for the proposed development.

The document indicates that the 85th percentile traffic speeds on public roads providing access to the works shall be used to ensure the appropriate sightline

distances at the proposed site accesses are achieved. The posted speed limit should be used to determine the sightline requirements for site accesses except where the 85th percentile exceeds the posted speed limit in which case the sightlines provided should meet the higher requirement.

Site Compounds

The locations of and provisions made for the required site compounds are generally acceptable. The outline Traffic Management Plan has indicated that staff parking will be facilitated within the compound sites and that all HGV activity associated with the works shall have suitable access to the sites that will avoid the potential for queuing of HGV's on the public Road. All measures to mitigate the impact of the proposed works on the public road network will be agreed as part of the Construction Stage Traffic Management Plan in conjunction with the Council. Compound number 8 is located along the boundary of the R124 just south of the Trinity Gaels GAA club. This compound does not take account of the Mayne Road/Hole-in-the Wall junction upgrade. This project is due to commence on site within the next 6 months and as part of the works the R124 from the Mayne Road junction as far as the entrance to Trinity Gaels GAA club is to be upgraded. This will require amendments to the proposed location and/or size of the proposed number 8 compound as well as liaising with the contractor for the for the junction upgrade project if the works overlap.

The Regional Waste Water Treatment Plant Clonshagh

The layout and access arrangements for the proposed treatment plant are generally acceptable. The plant also takes into account the proposed future east-west distributor road that runs along the south of the site parallel to the R139 as indicated in the current County Development Plan 2017-2023. The Outline Traffic Management Plan has indicated that the proposed future realignment of the Malahide has been considered and is not adversely affected by the proposed project. Access to the plant is via a left-in entrance of the R139 in the immediate term and off a left-in from the proposed future east-west distributor road upon its completion. A one-way system provides egress from site via the Clonshagh Road to the east of the proposed development. There are 58 parking spaces indicated in the proposed layout this appears to be quite high. Information outlining the operational parking demand based on the peak staff numbers on site at any one time should be provided. This information should be used to inform the appropriate level of parking for the proposed development. The anticipated traffic volumes and vehicle types should also be provided as well as the anticipated peak times for this traffic for the operation stage of the proposed plant. This information will help to determine if the southern access of the R139/future east-west distributor road may be more appropriate as an emergency access only with a two-way access of Clonshagh Road. A Mobility Management Plan should be provided for the proposed plant to minimise dependency on private vehicle use.

Conclusion

The Transportation Planning Section has no objection to the proposed development and recommends that the following conditions are included:

- 1) The proposed project should take account of the finalised route for Metro North to ensure there are no conflicts between the proposed works and the construction of the Metro line. Similarly the impact, if any, of the proposed development on the proposed Bus Connects shall be accounted for in the final design.

20. Compound number 8 that borders Trinity Gaels GAA club to the South and the R124 to the east shall be relocated and/or resized to account for the upgrade of the Mayne Road/Hole-in-the Wall Road junction. Details of the final compound location and layout shall be agreed with Fingal County Council prior to construction.
21. Information outlining the operational parking demand based on the peak staff numbers on site at any one time shall be provided in order to determine the appropriate level of parking being provided for the proposed Treatment Plant.
22. The anticipated traffic volumes and vehicle types shall be provided as well as the anticipated peak times for this traffic for the operation stage of the proposed plant to determine the impact of the proposed Plant on the current and future road network.
23. A Mobility Management Plan shall be provided for the Clonshagh Waste Water Treatment Plant.

Signed:

Endorsed:

Date:

Date:

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Conservation Officer

Register Reference: SID/03/18

Registration Date: 20/06/2018

Development: Greater Dublin Drainage Project Proposed Wastewater Treatment Plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility. The proposed Project will be located in County Fingal and with a 60m section of pipeline in Dublin City and is approximately 25km long.

The planning application proposes a new regional wastewater treatment facility to be located in the townland of Clonshaugh, an underground orbital sewer from Blanchardstown to Clonshaugh (to intercept existing flows to Ringsend), a new pumping station at Abbotsown, and an outfall pipeline to return the treated water to the Irish Sea. The project also includes a regional sludge treatment centre at the new GDD facility and an associated biosolids storage facility at Newtown near Kilshane Cross.

To view documentation for this planning application please use the following website address: <https://www.gddapplication.ie>

Location: Blanchardstown to Clonshaugh/, Clonshaugh to Maynetown (Coast Rd R106)/, Baldoyle Estuary/, Portmarnock Golf Club, To Ireland's Eye

Applicant: Irish Water

Application Type: Strategic Infrastructure Development

Report

The Strategic Infrastructure Development (SID) application was referred to the Conservation Officer for comment. The proposed pipeline pass through a considerable amount of land in southern Fingal and requires the construction of a number of pumping stations and also a large wastewater treatment plant. The Conservation Officer's comments are focused on the potential impacts to the

architectural heritage namely Protected Structures, designed landscape and Architectural Conservation Areas.

N3 –N2 geographical area

- Abbotstown House and Demesne

N2 –M1 geographical area

- Dubber House
- Thatched Cottage, Dardistown

M1 – Irish Sea geographical area

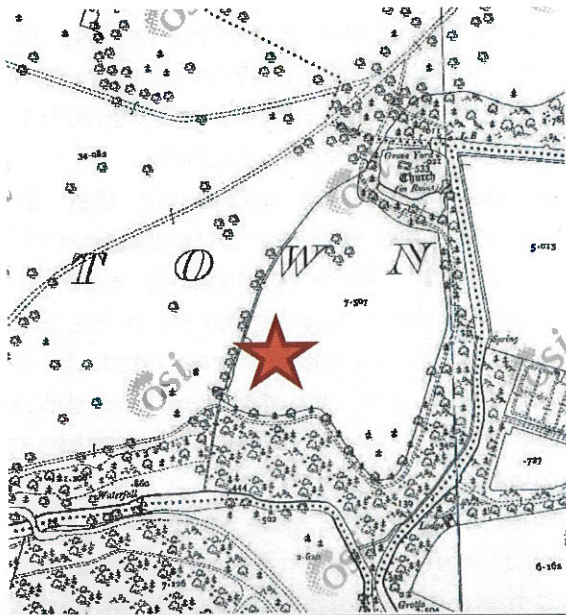
- Springhill House
- Emsworth
- Architectural Conservation Area for Old Portmarnock/Drumnigh Road

1. Abbotstown House and Demesne (Refs from Tables in EIS Chapter 16 - BtH 2, BtH4 & DL1)

Abbotstown House is a Protected Structure (RPS No. 683). The house and its demesne lands are now part of the National Sports Campus. The nature of the area has changed over time and continues to change with the continued development of the National Sports Campus but this is mainly to the north of the house. To the south a significant amount of the designed landscape survives intact including large groups of mature trees. Also within this area are the remains of the medieval church of St. Coemhin and its surrounding graveyard. These are also Protected Structures (RPS No. 684) and Recorded Monuments (RMP Ref. DU013-020001 and DU013-020002). The SE corner of the Abbotstown Demense was removed to facilitate the construction of the M50.

The location of the Abbotsown Pumping Station is within the surviving designed landscape and close to St. Coemhin's Church and graveyard. The Conservation Officer has a number of comments in relation to this facility and the route of the pipeline within the demesne.

- Positioning of Pumping Station & its Enclosure: An analysis of the historic maps and older aerial photographs indicate that the area where the pumping station is to be located had a line of trees planted to divide the current open area in two. The Conservation Officer would ask if the position of this station and enclosure could be slightly altered so that it is to the east of this line and that planting be introduced to recreate part of this line of trees to screen the compound from outside the fence of the enclosure. Currently the proposed pumping station truncates this.



- **Extent of Access Road:** Drawing No. 32102902-2141 shows a long linear length of access road from the existing road. It is not clear from the drawing what material is being used for the surface of this road. It is asked that the material used is designed to blend into the grassed area and it would be better if the route kept closer to the planted edge then cut directly across to the station. Any lighting proposals would need to be carefully considered as there may be protected species within the woodland areas and so standard lighting columns may not be appropriate. It is important that lighting, signage and boundary treatments are consistent with the overall design for such elements within the National Sports Campus
- **External Boundary Treatment to Pumping Station:** Drawing No. 32102902-2205 sets out typical details of the security fencing for the pumping stations and other buildings. Due to the sensitivity of this location within a designed landscape it would not be appropriate for the outward boundary finish to be a typical palisade fence or paladin fence

- unless there is a band of planting on the outward side of the fencing, and not just the internal side. So the design for the boundary treatment in this location needs to be reconsidered. All fencing and gates should be painted black (not green) to better blend into the environment.
- **Extent of Construction Compound:** It is not acceptable that the construction compound directly adjoins the sensitive archaeological site of the historic church and graveyard. Many graveyards were not enclosed until the 19th century and so there may be burials in the area outside the walls of the graveyard. The compound area needs to be redesigned to move it away from the church and graveyard and should also avoid any mature trees in the area or contain protective measures to ensure trees are not damaged during construction.
 - **Gate Lodges off Ballycoolin Road:** The original gate lodges along the northern boundary of Abbotstown were made Protected Structures in 2016 (RPS No. 938 and 939) but there are not listed in the EIA as part of the built heritage structures within the study area Table 16.4. The route of an internal pipeline runs close to RPS 938 but appears to be contained within the road network so should not directly impact on.
 - **Potential Loss of Mature Trees –** The Conservation Officer has concerns that the proposed pumping station and pipeline within Abbotstown Demesne will necessitate the loss of some mature trees. The design of the scheme should seek to prevent any loss of mature trees along the full extent of the project. Should this be unavoidable then it needs to be clearly shown where trees are being removed and replacement planting should be considered.

2. Dubber House (BtH26)

Dubber House is a Protected Structure (RPS No. 617) and a Recorded Monument (DU014-019). The route of the pipeline appears to be through an agricultural field to the south of the house and not the paddock in front of the house and so the Conservation Officer has no specific comments.

3. Thatched Cottage, Dardistown (BtH5)

The Thatched Cottage at Dardistown is a Protected Structure (RPS No. 604) and a Recorded Monument (DU014-019). There appears to be sufficient separation between the route of the pipeline and this house and its lands that the proposal should not directly impact on it and so the Conservation Officer has no specific comments.

4. Springhill House (BtH14 & DL4)

While there are a number of fields separating the proposed Wastewater Facility from the Protected Structure of Springhill House (RPS No. 792) the structures proposed along the eastern boundary are the tallest within the facility. However, the

Viewpoints submitted (Numbers 3 and 5) appear to suggest that the facility should not have a visual impact on views from Springhill House. However, it may be prudent to consider a level of supplemental planting within the Springhill lands along existing treelines and hedgerows to the west of the house to strengthen the levels of screening in the foreground of the historic house.

5. Emsworth (BtH18)

The Conservation Officer would have concerns regarding the positioning of Construction Compound No. 7 in lands adjoining Emsworth a Protected Structure (RPS No. 458) designed by the renowned 18th century architect James Gandon. It possible this should be relocated to a less sensitive site. If it cannot be moved then the design of and activity within this compound needs to be carefully considered and is not to detrimental impact on Emsworth either physically or visually.

6. Architectural Conservation Area of Old Portmarnock (Drumnigh Road)

Again the Conservation Officer raises issues regarding the positioning of Construction Compound No. 8 in lands that adjoin the ACA of Old Portmarnock and directly beside a historic house. Within Table 16.7 of the EIS is states that UBH14 Drumnigh Lodge and UBH15 Merton are unrecorded built heritage structures but these are both within the ACA and so there is a level of protection on their exteriors. The location of this compound should be reconsidered or should ensure no negative impacts on the adjoining ACA and historic buildings.

Signed:

Helena Bergin

Position:

Conservation Officer

Date:

03/08/2018

Appendix 2

Report of the Environmental Services Department – Surface Water Drainage – South Dublin County Council.

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of Parks Division

With reference to the planning application SID/03/18, the Parks and Green Infrastructure Division's comments are as follows:

Tree & Hedgerow Management

No tree survey information has been received with this application. Given that the proposed works, route of the pipeline, work compounds and built structures are in close proximity to & propose the removal of mature trees, groups of trees, hedgerows and woodland it is important that trees & hedgerows within the red line or along the access routes are surveyed in detail. The applicant shall appoint an arboricultural consultant to perform tree surveys, submit tree protection plans, monitor tree protection measures and liaise with the Council during all project stages, in order to:

1. Survey & map trees potentially impacted (directly and indirectly) by the works to industry standard *BS 5837: 2012, Trees in relation to Design, Demolition and Construction – Recommendations*.
2. Identify protective measures plans for retained trees including drawings showing the location and specification of protective fencing.
3. Quantify the tree loss and recommend replacement tree planting either on-site or in a public open space (under the Council's control) in the vicinity of the tree removal areas. Such planting shall be in addition to any proposed landscaping for screening purposes and shall take place prior to or within the first planting season after tree felling.
4. Tree Protection Plan measures proposed by the applicant's arboricultural consultant to be submitted to the Council for agreement. Such measures will be installed prior to commencement of each works phase. The arboricultural consultant shall monitor, check & report on tree protection measures as agreed with the Council before, during and after the construction stage on a regular (monthly) basis.
5. Submit post completion reports for each construction phase assessing the success of protective measures and the need for any further replacements. These shall be monitored for a minimum of 2 years post planting.

Trees, hedgerows, woodlands and tree groups that are of particular concern to the Parks & Green Infrastructure Division are located at:

1. Abbotstown
2. Bohammer and Emsworth
3. James Connolly Memorial Hospital lands and road plantings including the mature tree at entrance roundabout
4. Waterville Park and adjoining lands

5. Trinity Gaels sportsgrounds
6. Dardistown Cemetery
7. Roadside trees & hedgerows
8. Townland boundary hedgerows

It is noted that tunnelling is proposed in some locations, however the impact of this construction technique must be assessed by a competent arboricultural consultant.

Hedgerow Management & Replacement

The submitted application proposes different landscape treatments for hedgerow replacement from no planting to full re-instatement.

The applicant shall ensure that a minimal amount of hedgerows are to be removed at each location. The arboricultural consultant shall advise on the location of protective fencing to ensure the maximum amount of hedgerow is retained, with prior agreement of the Council. The applicant shall ensure that no hedgerow gap extends beyond 10m in length, in the interest of ecology. The pruning, lifting and transplanting of hedgerow sections shall be considered at all hedgerow removal locations and if appropriate used for replacement or filling gaps in existing hedgerows in the vicinity. Any new planting shall take place in the first planting season post works and shall use native species (as removed) of Irish provenance. The successful establishment of transplanting and planting shall be assessed 2 years post construction phase and replacement planting may be necessary in order to meet this condition.

Landscaping & Boundary Treatments

No landscape plans have been submitted with this application. Details of proposed landscaping and boundary treatments shall be submitted to the Council prior to construction for agreement. This plan must include details on tree species/ varieties, quantities, sizes and all specifications in relation to both hard and soft landscaping. The plan should include details for all boundary treatments and be prepared by a suitably qualified landscape architect.

These shall include:

1. All construction compounds, in particular post works treatments and those that are in public locations or historic landscapes.
2. Pumping stations and utility buildings, in particular the landscape plan for Abbotstown should be cognisant of its location within a historic landscape and the need for suitable screening species, layouts and patterns including the proposed WWTP facility.
3. Individual road crossings – not a template or standard treatment but site specific landscape proposals.
4. Green palisade fencing should be changed to black paladin fencing or similar as agreed with the Council.
5. Pollinator friendly planting where possible rather than large expanses of gravel mulch (which would likely require regular herbicide applications).

Potential for Cycle/Pedestrian Links to Planned Greenway

There is potential for a significant community green infrastructure benefit in the provision of cycle & pedestrian routes to connect into the north-south greenway at Coast Road, Portmarnock. The applicant should consider the use of lands/wayleaves under their future control for this use. In locations where this is not possible the applicant should pay a contribution towards the provision of green infrastructure projects in the locality of the works.

Signed: Mark Finnegan

Endorsed: _____

Date: 31/08/2018

Date: _____

Report of the Principal Environmental Health Officer

Noise Monitoring;

The attended noise measures shall be completed weekly. These results shall be made available to the Air & Noise Unit Environmental Health Section of Fingal County Council on request. Mitigation measures shall be put in place immediately should the noise /vibration levels be in exceedance.

Noise & Air

1. Noise emissions from the microtunneling, pipe jacking and rock breaking shall not exceed 70 dB(A) during the day time at any noise sensitive receptor. Piling or rock breaking shall not be permitted during night time hours, weekends or Bank holidays.
2. Noisy works such as pile driving/rock breaking and the launch shaft construction shall take place for 30 mins of every hour between 7.30 and 19.00
3. Special consideration must be given to the site location at St Francis Hospice and the west wing of Connolly Hospital, i.e. 55dB during the day time and 45dB at night. It is not acceptable to expect the windows of the hospital to remain closed as part of a noise mitigation measure.
4. All night time work shall be assessed against the night time criteria of 45dB. The predicted cumulative effects for night time submitted are well above the night time criterion and will have an adverse effect on Patients and local Residents.
5. The velocity vibration levels for the microtunneling works at West Wing Connolly Hospital are noted as 2.37mm/s. 1.49 mm/s at the school on the Malahide road and 5.32 mm/s at the residence on the golf links road (page 55) The Guidance on impacts of vibration levels (page 11) state that at 1mm/s it is likely to cause complaint. This level needs to be addressed and mitigation measures are required.
6. Acoustic enclosures shall have a mass $\geq 15\text{kg/m}^2$ and shall be of sufficient height and length to avoid flanking transmission.
7. Noise and Dust Mitigation measures shall be put in place to minimise the noise levels at the Temporary compounds.
8. Prior to commencement of any works a Noise and Vibration plan and a dust management plan will be submitted to the Environmental Health Section, Fingal County Council.

Yours truly,
George Sharpson.

Report of the Environment Section

Greater Dublin Drainage Project planning permission

Environment Division Report

GDD Engineering design report, Chapter 3 – Planning Docs (Section 4 –earthworks)

Not reviewed

Regional Biosolids Storage Facility – Engineering design report, Chapter 4 Planning Docs

See environment report submitted for SID/02/18

Outline Construction Environmental Management Plan. Chapter 6 Planning Docs

The volumes of surplus soil are high and the project will be relying on capacity being available to dispose/recover this soil. It is recommended that a condition be inserted that prior to construction or each phase of construction the applicant submit a plan to manage the disposal and recover of surplus soil - the plan to show end destinations, volumes to be managed and available capacity at each end site.

EIAR Volume 3 Part A

Chapter 8, Marine Water Quality

Modelling

The modelling shows that excellent water quality is achieved however this is based on an ecoli concentration in the final effluent from the plant which appears to be low for the plant as described in the EIAR. The input into the marine water quality model is 39,105 ecoli per 100ml (Table 8.10 Vol 3 Part A of 6. Published information for conventional secondary wastewater effluent without disinfection indicates concentrations in 100,000 and 1,000,000 e coli/100ml (Metcalf & Eddy 4th edition 2003 table 12-13) similar to the figure used in the model for Ringsend Wastewater treatment plant of 300,000 e coli/100ml. Clarification on this matter should be sought from the applicant.

Bathing Waters

The methodology in assessing the impact on bathing water quality is acceptable. However this is subject to the clarifications sought above.

The modelling of the outfall shows excellent bathing water quality at designated beaches however the proposal does not explicitly aim for “Excellent” bathing water quality at designated beaches.

Extract from Metcalf and Eddy table 12-13

Shellfish Waters

The report concludes that the proposal will have no influence on designated shellfish waters to the North of the outfall location.

The shellfish regulations guideline values (ie Class A shellfish requiring no treatment) for faecal coliforms is < 300 /100ml in the Shellfish Intervalvular Liquid. This is not a standard for the seawater on which the shellfish feed. Some shellfish are filter feeders and can concentrate bacteria to unacceptable levels. Clarification should be sought from the applicant on the ecoli concentration in seawater that would cause the guideline values to be exceeded.

The output from the dispersion model is presented in charts. The contours on these charts do not go below 250 e coli/100ml. This may be too high to allow an valid assessment of the impact of the proposal on designated shellfish areas. Clarification should be sought in this regard.

Dredging

We are unable to comment on the water quality impacts of the dredging operation

Chapter 13 – Soils - contaminated soils

No objection

Chapter 18 – soils

No report

Chapter 20 Waste

No objection

Chapter 21 – Material Assets

No report

Chapter 22 – Accident/disasters

No report

(Volume 3 Part B Folder IV) – A17.2 – A17.4 & A18.1 – A18.2

Odour

The assessment methodology is standard and is acceptable, It should however be redone when the final arrangement for the plant is finalised. Based on the inputs to the model as described in the EIAR we have assumed that all treatment units are covered, we ask for confirmation that this will be a requirement of the final design.

Notwithstanding any modelling the approved design should allow for retrofit of additional odour treatment units to be installed in the event that unacceptable odours are emitted by the treatment plant

John Daly
30/08/2018

Metcalf & Eddy 2003 Wastewater Engineering Treatment and Reuse 4th edition Mc Graw Hill
Higher Education

Community Archaeologist Report

Register Reference: SID/03/18

Greater Dublin Drainage Project

Location: Blanchardstown to Clonshaugh/Clonshaugh to Maynetown
(Coast R106)/Baldoye Estuary/Portmarnock Golf Club, to
Ireland's Eye.

Report Type: Strategic Infrastructure Development

Greater Dublin Drainage project

Environmental Impact Assessment Report: Volume 3 part A of 6

Chapter 16: Archaeological, Architectural and Cultural Heritage

Chapter 16 provides an overview of the known archaeological sites and area of archaeological potential and maritime archaeology that are within the study area of the proposed project. A total of 52 Recorded Monuments, 21 sites of archaeological potential, 27 recorded shipwreck sites and 24 townland crossings were identified within the study area. Predicted impacts of a direct and/or negative nature were identified for 10 Recorded Monuments; 16 sites of archaeological potential; none of the recorded shipwreck sites and 16 townland boundaries.

Geophysical survey was undertaken at the WwTP (Licence Ref: 13R0025) and at eight locations within the proposed orbital sewer and outfall pipe (Licence Ref: 14R0045) followed by several phases of test-excavation. Underwater archaeological assessment included intertidal survey, marine geophysical survey (Licence Ref: 15R0092) and dive surveys. Excavation of trial pits, soakaways and boreholes don't appear to have been archaeologically monitored.

The following requires clarification:

The proposed Construction Compound No.1 (Drawing No. 32102902-SWMP-2 (1/6) is not denoted on the drawings showing 'site of Cultural Heritage Significance' specifically drawing 32102902-EIAR-1601 which has implications for the assessment of impact on Abbottstown Church and Graveyard (RMP DU013-020001-3; RPS 684). The predicted impact has been classified as neutral (EIAR Chapter 16-p.37) which should be reassessed and the positioning of the compound rethought. The AAP 1 has been colour-coded incorrectly (blue) and there is an unlabelled area of colour-

coding (pink) in this area which may indicate an additional area of archaeological potential, that needs to be addressed. It is also unclear how transportation access will be undertaken in the area between Construction Compound No.1 and orbital route which will act as a haul road, as it passes Abbottstown graveyard.

The following archaeological mitigation measures are suggested within the report;

- Preservation by record i.e. archaeological excavation of 10 Recorded Monuments (AH11, AH31, AH33, AH34, AH38, AH39, AH41, AH42, AH44, AH45), preceded by archaeological testing.
- Preservation by record i.e. archaeological excavation of 10 Areas of Archaeological Potential (AAP2, AAP3, AAP5, AAP6, AAP8, AAP10, AAP12, AAP16, AAP17, AAP19), preceded by archaeological testing.
- Underwater/wade survey of watercourses (AAP7, AAP8, AAP9, AAP10).
- Archaeological testing of 12 townland boundaries (TB3, TB6, TB10, TB12, TB13, TB14, TB18, TB19, TB21, TB22, TB23, TB24) including a written and photographic survey of these and an additional six townland boundaries (TB4, TB5, TB9, TB11, TB16, TB20).
- Archaeological test-trenching of the proposed orbital sewer and further archaeological test-excavation of the WwTP site.

This is a comprehensive archaeological approach that requires adequate time within the construction programme should permission for the proposal be granted. In addition the following is suggested;

- f. Archaeological monitoring of topsoil stripping or similarly impactful groundworks of greenfield Construction Compound sites
- g. Once each RMP site or Area of Archaeological Potential has been archaeologically excavated, a detailed technical report setting out findings and linking these with the studies already conducted shall be submitted with planning documentation, within four weeks of the completion of excavation. Once each site is archaeologically excavated the area can then be released to the contractor.
- h. Satisfactory arrangements for post-excavation analysis and archiving to the Collections Resource Centre, shall be agreed with the National Monuments Service (DCHG), the National Museum and the Planning Authority.
- i. A comprehensive over-arching final report on the completed archaeological works which places the testing, excavation, monitoring and survey results in a cohesive narrative and context shall be submitted to the National Monuments Service (DCHG), the National Museum and the Planning Authority within a period of one year or within such extended period as may be agreed.
- j. Given the scale of the impact of the project-i.e. archaeological excavation of approximately 1% of all known monuments in Fingal-and on the unknown archaeological landscape, provision should be made for publication and/or public outreach, to share the results of the archaeological resolutions with the general public.

Signed:

Christine Baker

Position:

Community Archaeologist

Date:

13/08/2018



Scott Cawley, College House, Rock Road, Blackrock, Co.
Tel: + 353 (0)1 6769815 Fax : +353 (0)1 6769816 www

Memo

Review of Natura Impact Assessment Report.

To: David Murray (Fingal County Council)

From: Aebh n Cawley (Scott Cawley Ltd.)

Cc: Thomas Burns (Brady Shipman Martin)

Date: 5th September

Re: Review of Natura Impact Statement submitted with the Greater Dublin Drainage Study

Dear David

This memo outlines a summary of findings a review of the Natura Impact Statement submitted with the Greater Dublin Drainage Study.

1. Without scrutinising technical aspects (e.g. survey types, methodologies, judgement calls on impact significance on specific species/habitats etc.), overall the NIS would appear to be well laid out and well drafted, and appears to broadly meet the level of detail and standard you would want to see to meet the legal AA test. Expertise and authority of the authors and specialist contributors appears to be good.
2. It would have been helpful to have the basis for selecting the proposed design, in particular the location of elements of the proposal within the Rockabill SAC and in close proximity to Ireland's Eye SAC and SPA, discussed within the NIS. While

the EIAR Chapter 5 does provide information on consideration of alternatives, it would have been beneficial for appropriate elements of this information to also have been included in the NIS. While the legal test around examination of alternatives in the context of Article 6(3) of the Habitats Directive does not arise where there is a finding of no adverse effects on the integrity of European sites (which is the case presented in the NIS), it nonetheless would have been useful to demonstrate the efforts to implement the commonly accepted hierarchy of mitigation i.e. to first avoid and then reduce or remedy impacts.

3. The report rules out any potential for significant effects on Ireland's Eye SAC, which is in close proximity, based on a lack of a hydrological link and there being no pathway. It may well be correct that there won't be any risk to this SAC but the reasoning could have been better and more robustly explained within the NIS. This is an important step in the process to ensure that no site is inadvertently 'screened' out of the process and not subjected to further more details assessment and analysis if indeed it requires it.
4. The mitigation section relies heavily on detail included in at least three other stand-alone reports – only one of which appears to be included as an appendix to the NIS itself. We have struggled to locate two of these documents (a *Construction Environmental Management Plan* and a *Surface Water Management Plan* which are referred to as being located at *Volume 2 Part B Appendices*) and it may be that there are typographical errors in the referencing to these within the NIS? It is likely that the documents that it is intended to refer to are large documents covering some issues relevant to the NIS but also many broader issues not specifically relevant to the NIS. As such it is not ideal that in order to understand the mitigation relevant for the NIS a reader has to pick through separate voluminous reports and deduce which aspects of some may be relevant to the impacts identified within the NIS. In order to properly inform the AA it would be beneficial if the specific mitigation required for specific European sites and their specific qualifying interests/special conservation interests at risk, was clearly laid out so as the reader and competent authority for the AA can have confidence regarding what mitigation is required for which site and for which of its species/habitats, as well as regarding what the mitigation entails and to give confidence regarding its effectiveness in avoiding significant adverse effects on the integrity of European sites. It is likely that this could be best done by way of tables and/or matrices or along the lines of the approach that Chapter 24 of the EIAR has taken.
5. It is unclear whether NPWS *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* (January 2014) has been adhered to in full for marine mammals. It well may have been, or indeed the specialist may have deemed it to not be applicable or necessary in this instance, but if that is the case then confirmation of same would be beneficial.
6. It does not appear that consideration has been given to potential in combination effects with other dredging/dumping at sea projects (e.g. from Dublin Port's Alexandra Basin development works, Dublin Array project, proposed Howth Harbour extension etc.). The possibility of in combination effects with other projects that involve works or activities within the Rockabill SAC (i.e in the case of some or all of the stated projects dumping at sea at the Burford Bank within the SAC) should be assessed as part of the AA process.
7. The competent authority should consider whether the available documentation adequately addresses the issues and concerns raised by the National Parks and Wildlife Service, BirdWatch Ireland, Inland Fisheries Ireland and the Irish Whale

and Dolphin Group. Appendix A2.1 and A2.2 of the EIAR summarise issues raised by these bodies and provides brief responses as to how these have been addressed. However detailed consideration should be given by the competent authority as to whether the brief responses provided in these appendices are sufficient to address the issues raised as relevant to the AA process.

Some of the issues raised above might be very readily and easily addressed if additional information and confirmation was provided by the applicant, while others might require more work and analysis to address. Of the issues raised above I would be of the view that items 4, 6 and 7 fall are likely to fall into this latter category. It is likely that all could be addressed by way of the competent authority requesting the necessary detail and information from the applicant.

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Water Services Department

Register Reference: SID/03/18

Registration Date: 20/06/2018

Development: Greater Dublin Drainage Project Proposed Wastewater Treatment Plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility. The proposed Project will be located in County Fingal and with a 60m section of pipeline in Dublin City and is approximately 25km long.

The planning application proposes a new regional wastewater treatment facility to be located in the townland of Clonshaugh, an underground orbital sewer from Blanchardstown to Clonshaugh (to intercept existing flows to Ringsend), a new pumping station at Abbotsown, and an outfall pipeline to return the treated water to the Irish Sea. The project also includes a regional sludge treatment centre at the new GDD facility and an associated biosolids storage facility at Newtown near Kilshane Cross.

To view documentation for this planning application please use the following website address: <https://www.gddapplication.ie>

Location: Blanchardstown to Clonshaugh/, Clonshaugh to Maynetown (Coast Rd R106)/, Baldoyle Estuary/, Portmarnock Golf Club, To Ireland's Eye

Applicant: Irish Water

Application Type: Strategic Infrastructure Development

Foul Sewer: NO OBJECTIONS SUBJECT TO:

1. Irish Water's Standard Details call for a standoff manhole at the end of a rising main. A detail at the junction of the rising main and the beginning of the gravity main is required.
2. At Manhole AC - 41 Ch5+379 the invert of the pipe falls from -1.26mOD to -14.79mOD. A detail is required.
3. No foul drainage is to discharge into the surface water system under any

circumstances.

4. The foul drainage shall be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works Version 6.0" FCC April 2006 or *the* EPA Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Dwellings (October 2009) whichever is applicable.

Surface Water: NO OBJECTIONS SUBJECT TO

1. The proposed Developments at Abbotstown PS, OCU @ MH07 and the treatment works at Clonsaugh must incorporate SUDS (Sustainable Urban Drainage Systems) in the surface water design. Applicants are referred to the "Greater Dublin Region Code of Practice for Drainage Works. Version 6.0, April 2006", Section 16. Prior to construction, the applicant must submit details of the proposal, including details of the SUDS devices (soakaways, swales, permeable paving, filter drains, storage ponds, roof gardens, etc.), drainage pipework details, with calculations as appropriate.
2. All culverts shall be designed in accordance with "Culvert Design Guide" Report 168 by CIRIA, latest revision or its replacement, and shall also comply with the recommendations of the OPW. Design calculations are to be submitted.
3. The Developer shall apply to the OPW to obtain permission under Section 50, Arterial Drainage Act 1945, for culverting of any watercourse.
4. The applicant will examine his proposals for the River Mayne crossing headwalls and submit revised details which include safety features.
5. No surface water/rainwater shall discharge into the foul sewer system under any circumstances.
6. The surface water drainage shall be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works Version 6.0" FCC April 2006.

Water Supply: NO OBJECTIONS

Officer: FF Endorsed:

Date: _____ Date: _____

Appendix 2

Planning History.

Planning Histories along the Proposed GDD Pipeline running along Fingal's Southern Fringe.

M1 - Irish Sea Section	N2 - M1 Section	N3 - N2 Section
F07A/0424/E1	F08A/0600	F07A/0627
F07A/0746	F10A/0213	F07A/1536
F07A/0946	F10A/0240	F07A/1551
F07A/0947	F11A/0083	F08A/0305
F07A/0947/E1	F13A/0007	F08A/0450
F08A/0955	F14A/0216	F08A/0491
F08A/1113	F15A/0606	F08A/0830
F09A/0170	F17A/0026	FW09A/0099
F12A/0165	F17A/0027	FW10A/0078
F12A/0165/E1	F17A/0244	FW10A/0183
F14A/0132	F17A/0769	FW11A/0009
F14A/0316	F18A/0139	FW11A/0032
F16A/0374		FW11A/0033
F16A/0397		FW12A/0019
F16A/0464		FW12A/0022
F17A/0412		FW13A/0021
F17A/0593		FW13A/0029
F15A/0141		FW13A/0053
300 m Buffer		FW13A/0089
F12A/0066		FW14A/0024
		FW14A/0090
		FW14A/0135
		FW14A/0153
		FW15A/0060
		FW15A/0118
		FW15A/0159
		FW15A/0165
		FW16A/0062
		FW16A/0081
		FW17A/0083

