Our Case Number: ABP-314724-22

Planning Authority Reference Number:

An Bord Pleanála

Irish Water
Covill House
24-26 Talbot Street
Dublin 1
D01 NP86

Date: 13 December 2022

Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022]
Metrolink. Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above-mentioned proposed Railway Order and will take it into consideration in its determination of the matter.

The Board will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions/observations received in relation to the application will be made available for public inspection at the offices of the relevant County Council(s) and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

PP EM

Niamh Thornton
Executive Officer
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Your Ref: ABP-314724-22

An Bord Pleanála,
64 Marlborough Street,
Dublin.

23rd November 2022

Re: Railway Order Application- Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin

Dear Sir, Madam,

As the National Water Utility Irish Water delivers water services pursuant to the Water Services Act (and other legislation) and in accordance with our statutory functions and ancillary responsibilities and in a manner which is consistent with public policy.

Irish Water is responsible for the delivery of all public water and wastewater services in Ireland. We are committed to continuously upgrading and developing critical infrastructure to support growth in our economy, while protecting the environment and safeguarding water supplies.

Irish Water is delivering improvements to water services throughout Ireland where they are needed most urgently based on a clearly defined set of priorities. Our primary function is to provide clean drinking water to customers and to treat and return wastewater safely to the environment. In providing these services we play a central role in enabling economic growth, protecting both the environment and the health and safety of our customers and the wider public.

This submission has been considered in the context of Irish Water's obligations to provide public water services; Irish Water's Capital Investment Plan to deliver those services, and the protection of existing and future public infrastructure to facilitate growth in those areas identified for expansion under the various Statutory Local Area Plans and County Development Plans relevant to the MetroLink proposal.

Irish Water notes the Railway Order application submitted by Transport Infrastructure Ireland for the MetroLink project and is cognisant of the benefits this project is expected to bring to the Greater Dublin Area. The importance of this project is recognised in current national and local level policies, including the Transport Strategy for the GDA 2016-2035 (NTA, 2016), the Draft Transport Strategy for the Greater Dublin Area 2022-2042 (NTA, 2021), NDP 2018-2027 (Government of Ireland, 2018a) and the revised NDP 2021-2030 (Government of Ireland, 2020).

Irish Water recognises the strategic location of the MetroLink Route (inc. 16 stations), being in proximity to Swords, Ballymun, Glasnevin, Dublin City, Dublin Airport, the national road network and growth areas along the MetroLink route itself, many of which lie within the Strategic Dublin – Belfast Economic Corridor. This area has the capacity and future potential to accommodate above average growth in the Region and this is reflected in the additional 20,000 persons identified in the Regional Spatial Economic Strategy (RSES) Transitional Population Targets.

The proposed works, as outlined as part of TIIs Railway Order application, will enable the construction, operation, maintenance and improvement of a railway designated as a metro including inter alia the construction of a fully segregated and automated railway and metro mostly underground approximately 18.8km in length with 16 stations running from north of Swords at Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and the City Centre and onwards to Charlemont in the south of Dublin City Centre.

Irish Water is cognisant of the significant number of interactions the MetroLink scheme will have with both existing Irish Water infrastructure and future planned infrastructure. It is imperative that Irish Water's infrastructure, both existing and planned, is protected and future proofed to ensure continued provision of critical services. Examples of these interactions include, but are not limited to, multiple diversions and crossings of existing Irish Water assets, interactions with the Greater Dublin Drainage Project, Swords Pumping Station, Catchment Drainage Area Plans and infrastructure projects such as Fosterstown Wastewater Sewer upgrade, North Fringe Sewer and the Dublin City Sewerage Scheme.

With a view to ensuring Irish Waters ability to continue to provide the required levels of water and wastewater services, Irish Water has undertaken an assessment of these interactions using the information published online (www.MetroLinkro.ie), including the Planning Report, Environmental Impact Assessment Report (EIAR), the planning application Drawings and Maps, and associated documentation submitted in support of the subject application. Pre-application consultation has also been held between Irish Water and the applicant (TII) over the past number of years specifically on the proposed

MetroLink route and ancillary infrastructure(s) and its potential impact on existing and planned Irish Water infrastructure.

Irish Water Observations

Provision of Public Services

As previously noted Irish Water recognises the strategic location of the MetroLink Route within the Strategic Dublin – Belfast Economic Corridor particularly in the context of capacity and future potential to accommodate above average growth in the Region reflected in the Regional Spatial Economic Strategy (RSES) Transitional Population Targets.

Planning Authorities have therefore proposed zoning for land comprising the Metro Economic Corridor and Long-Term Strategic Reserve. These lands will also facilitate opportunities for high-density mixed-use employment, generating activity and commercial development, and support the provision of an appropriate quantum of residential development within the Metro Economic Corridor. This will include high density populations and increased residential development around proposed MetroLink stations.

Irish Water is required to provide for public services to meet this demand. Therefore, Irish Water needs to be in a position to plan, design and construct infrastructure to service these existing and future lands. In order to enable Irish Water to facilitate future growth within the required timeframe, TII must commit to protecting locations for future key Irish Water infrastructure including the provision of necessary culverts and crossing points, ahead of any works commencing. In this regard, TII will need to agree, at the Detailed Design stage of the MetroLink, and prior to any construction works taking place, the manner in which the proposed MetroLink works will interact with existing and planned future Irish Water infrastructure, including but not limited to wayleaves and/or rights of way and provision of necessary culverts for future crossing points.

To date, Irish Water has not received Detailed Designs from TII for each of the specific interaction(s) between MetroLink and Irish Water's assets; Therefore, as noted above, this submission is based on the outline designs and layouts currently available and pre-application consultation between Irish Water and the applicant (TII) to date.

Recommendations to An Bord Pleanála

A full description of the known and future likely interactions between the proposed MetroLink works and existing and planned Irish Water infrastructure is provided below. In summary;

Based on the information available, Irish Water is of the opinion that many of the interactions proposed could be facilitated subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works, together with other valid agreements including easements for private lands and transfer of ownership, and continued engagement with Irish Water both on any approval of this Railway Order and on a continuous basis throughout the process of Detailed Design proposals.

However, given the critical nature of the provision of public water and wastewater facilities, Irish Water is of the opinion that Further Information is required to be provided by TII on certain aspects of the proposals, which may have the potential to impact Irish Water's delivery of critical water infrastructure. In particular, Irish Water considers that further information is necessary regarding the MetroLink's interactions with the Greater Dublin Drainage Project (GDD), which is a live Strategic Infrastructure Development application and a critical strategic water infrastructure project. Irish Water provides details in Section M below on the specific concerns, summarised as principally relating to the following points;

- The significant overlap of the MetroLink and GDD Planning (redline boundary)/ Compulsory Purchase Order (CPO) areas at the proposed Dardistown Main Compound and appropriate consideration of both projects; and in particular Irish Waters confirmed CPO during what is noted as an extensive construction period (up to nine years)

- The proposed Embankment where MetroLink interfaces with GDD (during previous discussions with TII it had been agreed that an overbridge would be the optimal interface solution)

- The GDD project is represented incorrectly on the drawings and does not appear to be referenced in the Planning Report

- Constructability – greater detail is required on the likely interactions between GDD and MetroLink during construction (i.e., Programme Scenarios)

Description of the Known and Future Likely Interactions

A) Diversion of Irish Water's Assets

Irish Water can confirm that pre-application consultation was undertaken with the applicant regarding locations where it is considered the proposed MetroLink works may impact on existing Irish Water infrastructure, and a diversion would be required.

A full list of all known diversions is set out in Appendix 1a and 1b of this Response. As noted in Appendix 1a and 1b, the diversions will include 44 no. new watermains (total length approximately 4.8km) and 25 no. new wastewater sewers (total length approximately 4.4km).

Irish Water would like to specifically note to ABP that while the known diversions required to facilitate the proposed development are listed in Appendix 1a and 1b at length, this list is not exhaustive and is based on the best information available to, and provided by, the applicant at this time. It should not be considered an exhaustive list of all diversions that may be required. Designs for all diversions, including any additions in excess of those listed below, are required to be agreed with Irish Water at the Detailed Design stage, and in all instances prior to the commencement of development in order to allow Irish Water to continue to provide critical public services.

TII must, as part of the MetroLink works, take account of the location of all Irish Water Assets both below and above ground and in some cases, where those assets are attached to bridges. TII must protect Irish Water's assets over the course of the project, both during the construction and operational phases, to allow Irish Water to continue to provide critical public services.

B) Ground Movement and Locations Requiring Protection Measures

Irish Water has held pre-application consultation with TII regarding the potential and likely effects of ground movement on the Irish Water network caused by construction works of the MetroLink.

Based on initial analysis and modelling carried out by the applicant, protection measures may be required for 268 no. watermain locations and 80 no. sewer locations. These locations are set out in detail in Appendix 2 below. This list is based on the information provided by TII at this time. It should not be considered an exhaustive list of all locations where protection measures may be required. Further detailed analysis is to be carried out by the applicant at Detailed Design phase to determine the full list of locations at which protection measures are required. This full list of locations at which

protection measures are required, and all associated designs, are required to be agreed with Irish Water at the Detailed Design stage, and in all instances prior to the commencement of development. These requirements will be subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works.

C) New Pumping Station Seatown/Swords

Pre-application consultation has been held with the applicant regarding the proposed new wastewater pumping station in the vicinity of the Estuary Roundabout on the R132 and R125 roads in Swords. Based on the details provided by TII, Irish Water can confirm that subject to Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works, and other valid agreements including Easements for Irish Water pipes on private lands being put in place, the proposals can be facilitated. This comprehensive legal agreement will include the requirement that ownership of the new wastewater pumping station and associated lands must be transferred to Irish Water in advance of operation and that any assets transferred will be in accordance with Irish Water commissioning standards.

D) Railway Works & Related Provisions

In addition to above and in relation to the following Articles. Article 8 – Power to Alter Layout of Public Roads, Article 9 – Temporary Closure of Public Roads, Article 10 – Construction of New Roads and Article 11 – Bridges and Culverts.

Where road upgrades, widening, alignments etc are being undertaken, the applicant must consult with Irish Water regarding impact on existing and future planned Irish Water assets ahead of any works commencing. For example, if the proposed works involve road widening, thereby potentially changing the location of a below ground Irish Water asset from a non-trafficable area to a trafficable area then diversions or alterations may be required. Also, the raising or lowering of footpath/road levels could impact on Irish Water assets.

Where road closures are necessary, Irish Water Operations Staff will still require access to carry out emergency repairs of watermains or to clear sewer blockages etc. Early consultation and notification from TII is required to enable Irish Water to plan works accordingly and ultimately minimise disruption to the public. These requirements will be subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works.

E) Wastewater Sewer, Water Mains, Culverts Requirements & Culvert Crossing(s) to Service Future Lands

For likely locations of future Irish Water network pipes crossing above/below the MetroLink infrastructure, additional Culverts (or sleeves) are required to be provided. The design for the location, size and specification of these additional Culverts is required to be agreed by Irish Water at Detailed Design phase in advance of any physical works on the ground. The applicant will be required to engage with Irish Water during the Detailed Design and construction stages to agree culvert requirements & crossings to ensure that the servicing of future strategic reserves and zoned lands is catered for through the incorporation of these culverts at agreed locations.

TII must protect locations for future key Irish Water infrastructure including the provision of necessary culverts and crossing points, ahead of any works commencing. TII will be required to agree, at the Detailed Design stage of the MetroLink, and prior to any construction works taking place, wayleaves and/or rights of way and provision of necessary culverts for future crossing points.

F) Easements & Wayleaves

In relation to acquisition and possession of land rights, where TII require the acquisition of lands, at a minimum, Irish Water will seek to maintain our wayleave rights over pipeline routes, to ensure access is facilitated for maintenance works. TII must engage with Irish Water at design stages to discuss wayleave rights and access and any other protection measures required to ensure the continued provision of water services. Wayleaves for all pipe work will be required in favour of Irish Water.

The applicant shall provide and arrange registration of Easements, in accordance with Irish Water requirements, for all locations where diversions / protection measures / new assets for the Irish Water network are proposed for private lands. It is Irish Water's opinion that all land with Irish Water infrastructure in closed off sites should transfer to Irish Water. These requirements will be subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works.

G) Discharge of Water

In relation to Article 15 discharge of water, the Greater Dublin Area Planning Authorities have policies regarding Sustainable Urban Drainage (SUDs). In support of appropriate management of discharge of water, Irish Water would like to see a reduction in stormwater runoff from all existing roads, hardstanding & paved areas. No additional surface water is to be discharged to existing foul/combined sewer networks.

Irish Water would like to see the MetroLink project promote Blue and Green Infrastructure and SUDs wherever possible, to include, planting along road and railway verges and canal banks as these form important corridors for both storm water management, biodiversity, and carbon capture.

H) Wastewater Section 16 Temporary Discharge

Irish Water does not recommend dewatering to Foul sewers including the North fringe Sewer (NFS) and/or the Swords Wastewater Treatment Plant foul network. Ahead of any proposals to discharge to the public network, a full assessment with Irish Water is required to be carried out and any arrangements agreed with Irish Water prior to works commencing.

I) Drinking Water Protection Measures

Irish Water has had consultation engagement with TII regarding the scope of the subject EIAR, specifically relating to the protection of Irish Water abstraction points likely to be impacted by the proposed scheme.

It is noted that Irish Water's internal assessment of the subject development, identified 3 no. potential abstraction points the development has the potential to impact on. These points are all located in close proximity to the proposed Dublin Airport Metro Station. While the application should have consideration for these abstraction points and any potential impacts, it is noted that none of these abstraction points are in the ownership of Irish Water, nor are they connected to Irish Water's network. Given these points are not owned by Irish Water, they have not formed part of the subject assessment. However, Irish Water notes that an assessment of these points is included in Chapter 20.3.3.7 of the EIAR. Irrespective of above, the applicant must ensure that proposals do not impact any Irish Water Drinking Water Source and/or waters used for the abstraction of drinking water nor cause any deterioration in quality during the construction and operational phase of the proposed development.

As part of early engagement with the applicant, Irish Water advised, in accordance with the 'Guidelines on the Information to be Contained in Environmental Impact Statements' (EPA, 2002) and 'Advice Notes on Current Practice in the Preparation of Environmental Impact Statements' (EPA, 2003), a no. of assessments were to be provided in the applicant's EIAR, including; impacts to water services and Irish Water physical assets; discharge to an Irish Water collection network (for operation and construction stages); any potential impact on stormwater discharges to combined sewer networks and measures to mitigate; impacts on receiving waters (used for abstraction for public supply); any connections required; mitigation for said aspects. It is noted that these assessments and considerations have been provided in the subject

EIAR, specifically Chapters 18 (Hydrology), Chapter 19 (Hydrogeology) and Chapter 20 (Soils and Geology).

J) Catchment Drainage Area Plan

The Drainage Area Plan (DAP) and associated infrastructure delivery within the catchment seeks to facilitate future growth. The MetroLink runs through four DAP areas of the catchment. Irish Water is assessing these four areas in respect to growth requirements. The City Center Sewerage Scheme (CCSS) initial project scoping under the DAP is complete and is inclusive of growth projections agreed with Dublin City Local Authority. The Swords DAP is in the final stages of initial project scoping with growth provisions agreed with Fingal Local Authority. There has been an additional growth scenario created for the MetroLink densification based on discussions with both Fingal and Dublin City Local Authorities.

Irish Water is progressing planned assessments for the remaining North Fringe Sewer (NFS) and Mainlift DAP areas and Irish Water will adopt the same approach with respect to inclusion of growth projections. Any densification in areas of the Mainlift DAP catchment will be captured and all projects in these DAP areas will take into account the full future growth figures when designing infrastructure for the long-term horizons. Areas expected to be relevant include Rathmines and Pembroke drainage catchment(s).

K) Capital Infrastructure Projects

The following Irish Water projects must be considered in the context of MetroLink.
The Swords Wastewater Pumping Station discussed above, the Rosie Hackett Bridge which is located beside an existing Siphon. The Rosie Hackett siphon project is at early design stage. The main risk is a future construction risk of two major projects occurring in the same area of the quays. The Fosterstown wastewater sewer upgrade (Appendix 3, Figure 1) shows the area interacting with the MetroLink route on R132 bypassing Swords. The carriageway to the Southeast has been ear-marked already for MetroLink therefore Irish Water requires a clear route for our pipe on the other side of the R132 road. This design has been agreed with Fingal Local Authority and Irish Water's works are planned to start and finish on site in 2023. The applicant is required to continue engagement with Irish Water to ensure there is no impact to the delivery of this public infrastructure.

L) New Connections

TII have engaged with Irish Water on the feasibility and provision of new connections for a number of MetroLink sites. Pre-Connection Enquiries have been submitted by TII. Irish Water is currently assessing these enquiries in respect to feasibility of

connections. Any new connection(s) are subject to a Connection Agreement with Irish Water, prior to any works commencing for new connections to the Irish Water network. Any temporary service connections throughout the construction phase will also be subject to a connection agreement with Irish Water.

Summary Observations on Paragraphs A-L

In respect to paragraphs A-L above, and based on the information available, Irish Water is of the opinion that many of the interactions could be supported subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works, and other valid agreements including easements for private lands and transfer of ownership, being put in place.

Detailed Design proposals must be in accordance with Irish Water's Technical Standards, Codes of Practice, and Standard Details and other associated Irish Water requirements. This includes, but is not restricted to, requirements for separation distances between the existing Irish Water assets and proposed structures, other services, trees, etc. Additionally, where a watermain or wastewater sewer is proposed in an area of future restricted access, such as crossing above or below the MetroLink tunnel or tracks, a duplicate watermain or wastewater sewer will be designed and installed to maintain supply in the event of a problem with the future live Irish Water Network, until access is available to carry out repairs.

The applicant will be required to arrange registration of easements, in accordance with Irish Water requirements, for all locations where diversions / protection measures / new assets for the Irish Water network are proposed for private lands. Where the applicant acquires lands, the applicant is required to engage with Irish Water to agree easements and wayleaves and any other protection measures required to ensure the continued provision of water services. At any locations where infrastructure (pipework and/or above ground assets) for the Irish Water network are proposed, e.g., new wastewater pumping station in the vicinity of the Estuary Roundabout on the R132 and R125 roads in Swords, the associated land is required to be transferred to the ownership of Irish Water. Furthermore, the applicant will be required to ensure access to Irish Water's existing infrastructure is maintained for Irish Water employees, representatives and contractors during the construction and operational phases of the development and that in the event any Irish Water owned asset being impacted or damaged as a result of the proposed construction and operation of the proposed development, the effects of any impacts or damage will be adequately addressed by TII any damage to Irish Water's network will be reinstated, to the satisfaction of Irish Water.

As part of the works TII will need to facilitate third party oversight and/or on-site supervision as required by Irish Water. It should be noted that Irish Water reserve the

right to 'step in' and to carry out certain works for example, vibration monitoring or any other specific piece of work (this will be detailed in the legal agreement to be entered into between TII and Irish Water).
Subject to above, it is expected that the MetroLink proposals, on the whole, could be facilitated.

M) Greater Dublin Drainage (GDD) Project

The proposed Greater Dublin Drainage (GDD) project (Appendix 4, Figure 1) involves the development of a new regional wastewater treatment facility and associated infrastructure to serve the Greater Dublin Area, in particular the population of north Dublin along with parts of the surrounding counties of Kildare and Meath. It is required to provide the additional treatment capacity needed once the country's largest wastewater treatment facility at Ringsend reaches its maximum upgraded capacity. The GDD Project is necessary to meet environmental compliance obligations under both the EU Urban Wastewater Treatment Directive (UWWTD) and the Water Framework Directive (WFD) as well as other relevant EU Directives and National Regulations related to water quality.

The proposed MetroLink project will interface with the GDD project at MetroLink's proposed Dardistown Section (detailed further below). Whilst Irish Water welcomes the principle of the MetroLink project (as noted above) and has engaged in detailed discussions with TII in respect of how both projects might interact, we have concerns regarding issues arising from the content of the Railway Order. These are summarised and detailed below (respectively), and we consider it imperative that these matters be resolved in advance of a decision on the Railway Order to enable both of these critical strategic projects to progress with clarity in the interest of orderly development.

In short, and stated at the outset of this submission, our specific concerns may be summarised as principally relating to the following points, which are detailed further in subsequent sections:

- The significant overlap of the MetroLink and GDD Planning (redline boundary)/ Compulsory Purchase Order (CPO) areas at the proposed Dardistown Main Compound and appropriate consideration of both projects and in particular Irish Water's confirmed CPO during what is noted as an extensive construction period (up to nine years)

- The proposed Embankment where MetroLink interfaces with GDD (during previous discussions with TII it had been agreed that an overbridge would be the optimal interface solution)

- The GDD project is represented incorrectly on the drawings and does not appear to be referenced in the Planning Report

- Constructability – lack of detail and assessment re. possible interactions between GDD and MetroLink during construction (i.e., Programme Scenarios).

Strategic Imperative of GDD

Progressing this critical piece of infrastructure has been a priority for Irish Water since it took responsibility for water and wastewater services in 2014. The delivery of the GDD project is an investment priority under Project Ireland 2040, and a key objective of the regional guidelines and statutory Development Plans[1].

GDD is one of the featured projects in the National Development Plan 2021-2030 under NSO 9 - Sustainable Management of Water and other Environmental Resources.

The proposed orbital sewer route (Appendix 4, Figure 1) which will run from Blanchardstown to Clonshagh, will transfer flows from the existing Blanchardstown drainage catchment, which includes Blanchardstown and its environs, and towns and villages in Meath, including Ashbourne, Ratoath, Kilbride, Dunboyne & Clonee, to the proposed Wastewater Treatment Plant (WwTP) at Clonshagh. The proposed orbital sewer route will commence in the grounds of Waterville Park, Blanchardstown, where it will intercept the existing Blanchardstown main sewer line, known as the 9C Sewer. From this point, it will be routed through the grounds of Connolly Hospital and the grounds of the National Sports Campus (NSC) to the proposed Abbotstown pumping station, located adjacent to the M50 Motorway. From the proposed Abbotstown pumping station, the proposed orbital sewer route will be routed north of, and generally parallel to, the M50 Motorway to Clonshagh, and will pass south of Dublin Airport complex. The total length of the proposed orbital sewer route will be approximately 13,700m. The section of the orbital sewer which interacts with the MetroLink is part of the gravity section of sewer. This section is approximately 7,450m in length and is a proposed 1800mm internal diameter sewer stretching from Dubber in the west to the proposed wastewater treatment plant at Clonshagh in the east.

Overview of Current Status of GDD

Following a detailed site and route selection process, detailed site investigations, extensive environmental assessments, and wide-ranging public and landowner consultations over a seven-year period, on 20th June 2018, Irish Water submitted an

[1] *Fingal County Development Plan 2017-2023* Objective WT03; *Dublin City Development Plan 2016-2022* Objective SI 1; *Draft Dublin City Development Plan* 2022-2028 Objective SI 1.

application for Strategic Infrastructure Development (SID) and associated Compulsory Purchase Order (CPO) to An Bord Pleanála (ABP) for the GDD project. ABP granted planning permission and confirmed the CPO for the GDD project in November 2019.

Judicial Review ("JR") proceedings were taken against the ABP planning permission decision with the High Court determining in November 2020 that the planning permission for the GDD project should be quashed on the basis of one ground only that related to the consultation process between ABP and the Environmental Protection Agency (EPA).

In 2021, the High Court remitted the planning application back to An Bord Pleanála for a fresh decision, to a point just prior to when the consultation process was due to take place between An Bord Pleanála and the EPA (known as a 'late-stage' remittal). That process is currently ongoing.

Following confirmation by ABP, the statutory notice of confirmation of the CPO in respect of the GDD project was published in January 2020, with Notices to Treat served on all affected parties in September 2021.

GDD and MetroLink Interaction – Details

The proposed MetroLink Project interfaces with the GDD project at one location (approx. ch 9+600m of the MetroLink route) in the section within the TII Railway Order application identified as *AZ3 Dardistown Section (Area 303)*, which is the location for the Dardistown Station and Main Compound Depot (Appendix 4, Figures 2, 3 & 4).

As noted above, the section of GDD at this location consists of the proposed 1800mm gravity section of the orbital sewer. At this point, the MetroLink is proposed to cross the orbital sewer forming part of GDD in an elevated section of track immediately north of the M50 motorway and east of Junction 4. Immediately south of this is the proposed MetroLink viaduct crossing the M50 motorway.

Chapter 5 of the MetroLink EIAR provides details of the construction methodology envisaged for the MetroLink project, project timelines, and construction compound locations. The estimated timeline for construction of the Dardistown station, depot, access works, M50 viaduct and approaches is shown as approximately nine years (EIAR Chapter 5, diagram 5.4). It is highly likely these construction works will coincide, at least for part of this period, with the construction of the GDD project, including construction of the strategically important orbital sewer. This is generally acknowledged in Chapter 30 Cumulative impacts of interaction between other projects and MetroLink, where the GDD project is widely referenced. Based on the extensive discussions that

have taken place between TII and Irish Water and the existence of Irish Water's CPO it assumed that provision has been made by TII to ensure that both projects can be constructed simultaneously.

Irish Water recognises the need for MetroLink and welcomes the submission of the planning application as development of MetroLink together with GDD will enable the sustainable growth and development of the Region. As State agencies, it is imperative that Irish Water and TII ensure that strategic infrastructure is planned in order to provide the greatest degree of delivery certainty possible, and to minimise risks to public investment. Further to the engagement that has already taken place between Irish Water and TII in this regard a number of observations are provided below which relate in particular to the MetroLink/ GDD project interface.

(i) Constructability: Permanent Wayleaves, Temporary Working Areas and Construction Compounds

There is a significant overlap of the proposed MetroLink compound at Dardistown (EIAR Chapter 5 MetroLink Construction Phase, diagram 5.43 – figure 2) with the 20m wide permanent wayleave, permanent right of way and the temporary working areas for the proposed GDD project as indicated in Appendix 4, Figure 5. The proposed MetroLink compound also overlaps a temporary working area for the proposed GDD tunnelling works at the Ballymun junction/ R108 crossing. It can be anticipated from the timelines outlined by MetroLink that the construction of both projects is likely to coincide and should be considered by the Applicant and ABP in its assessment. Ongoing access will be required by Irish Water to the permanent wayleave and temporary working areas. In the event that the permanent right of way included in Irish Water's CPO is impacted by the Railway Order, a suitable alternative permanent Right of Way would need to be provided by TII through any lands permanently acquired. It is imperative that Irish Water's ability to construct the proposed pipeline is not impeded by any permanent TII infrastructure. In the event that the pipeline is constructed in advance of the TII works, appropriate measures would need to be put in place to protect the pipeline during TII works. MetroLink drawings should be updated to show the GDD CPO and planning boundaries and for these to be considered in any further assessments.

(ii) Status of GDD Orbital Sewer

The proposed GDD orbital sewer is shown on the Applicant's utility drawings as an existing sewer (drawing reference ML1-JAI-URD-SC01_XX-DR-Y-01050 – extract shown in Appendix 4, Figure 4). It is noted that this pipeline has yet to be constructed (as set out above the GDD project is currently the subject of a SID planning application). In addition, it is noted that details and levels as shown in the MetroLink application are

inconsistent with those provided by Irish Water in the GDD planning application (GDD planning drawing reference 32102902-2102 – figure 3). The MetroLink application should be updated to reflect the correct details for the GDD orbital sewer.

(iii) Proposed Embankment: Constructability & Operability Issues

It is assumed that the timing of construction activities at this location have been considered in combination with the construction of the GDD project. The MetroLink crosses over the GDD pipeline and, depending on timing, may be constructed before, during or after GDD. Consideration should be given by the Applicant to constructability, permanent wayleaves, temporary working areas etc. It should be noted that the GDD project team have engaged extensively with TII since 2013 (previously RPA). Through the course of these discussions, it was envisaged that the MetroLink would pass via a viaduct over the GDD pipeline. The current proposal included in the MetroLink Railway Order application is different and it is now proposed that the MetroLink will cross the GDD corridor via a raised embankment (see figure 4). The embankment solution is expected to result in greater difficulties for construction, operation and maintenance of GDD. The viaduct solution crossing GDD would result in less conflict and would provide greater construction certainty to both Irish Water and TII. It is recommended that this should be resolved in advance of a planning decision to reduce risks to both projects at construction stage.

(iiii) Planning Report

Irish Water submitted the SID application for the GDD project to An Bord Pleanála in June 2018. This application, as noted above, is a current application with ABP (planning reference PA06F.31213) but does not appear to be referenced as an existing application within the MetroLink Planning Report.

Summary Observations on Paragraph M

Given the critical nature of the provision of public water and wastewater facilities, Irish Water is of the opinion that Further Information is required to be provided by TII on certain aspects of the MetroLink proposal (detailed below), which may have the potential to impact Irish Water's delivery of the GDD critical strategic infrastructure Project.

Conclusion

This submission has been considered in the context of the provision of water services; Irish Water's Capital Investment Plan to deliver those services; the provision of existing public services and facilities to meet existing and future demand, and the protection of public infrastructure in the context of the significant existing and future likely interactions between Irish Water's public infrastructure and MetroLink. This submission also takes cogniscense of the relevant statutory plans interacting with the proposed MetroLink route, and the wider context, whereby there exists future potential to accommodate above average growth in the Region as reflected in the additional 20,000 persons identified in the Regional Spatial Economic Strategy (RSES) Transitional Population Targets.

Based on the information available, Irish Water is of the opinion that many of the interactions proposed could be facilitated subject to a Detailed Design being agreed with Irish Water, a comprehensive legal agreement between Irish Water and TII being executed in advance of any works, together with other valid agreements including easements for private lands and transfer of ownership, and continued engagement with Irish Water both on any approval of this Railway Order and on a continuous basis throughout the process of Detailed Design proposals, however;

Notwithstanding the above, given the critical nature of the provision of public water and wastewater facilities, Irish Water is of the opinion that Further Information is required to be provided by TII on certain aspects of the MetroLink proposal, which may have the potential to impact Irish Water's delivery of critical strategic infrastructure. In particular,

Irish Water respectfully requests that Further Information be sought in respect of MetroLink interactions with the GDD project, namely:

- Interactions / constructability of both projects – there is a need for certainty in the interest of orderly developments – particularly having regard to Irish Water's confirmed CPO for the GDD project.

- The provision of an overbridge (in place of currently proposed embankment) where both projects interact (as previously discussed with TII) in the interest of constructability and operability

- The correct detailing of GDD project on drawings and references to same in TIIs Planning Report is required

- Constructability – greater detail is required on the likely interactions between GDD and MetroLink during construction (i.e., Programme Scenarios)

To conclude, Irish Water respectfully requests that it be given the opportunity to comment on any Further Information submitted to ABP as part of this statutory process.

Queries relating to the observations above should be sent to planning@water.ie

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Appendix 1: Diversions

1a Watermain Diversions (non exhaustive)

Watermain diversions - new sections of pipes proposed					
ID	MetroLink Chainage	Station/Section	Type/Size (nominal internal diameter)	Material	Proposed Length
DW020	01+390	Estuary	80mm	uPVC	71.5
DW001	01+500	Estuary - Seatown	710mm	SDR17 PE	653.91
DW002	01+520	Estuary - Seatown	200mm	PE	10.5
DW003	01+600	Estuary - Seatown	200mm	PE	43.3
DW004	01+650	Estuary - Seatown	200mm	PE	N/A
DW005	01+780	Estuary - Seatown	200mm	PE	54.42

Watermain diversions - existing pipes to be decommissioned					
ID	MetroLink Chainage	Station/Section	Type/Size (nominal internal diameter)	Material	Existing Length
DW100	01+380	Estuary	150mm	CI	39
DW103	01+560	Estuary	300mm	DI	22
DW105	01+570	Estuary	150mm	Unknown	49
DW106	01+620	Estuary - Seatown	710mm	SDR17 PE	157
DW107	01+725	Estuary - Seatown	6"	unknown	78.26
DW109	01+780	R132	6in	uPVC	N/A

DW006	02+250	Estuary - Seatown	150mm	uPVC	36.7
DW007	02+250	Estuary - Seatown	150mm	uPVC	61
DW008	02+285	Estuary - Seatown	150mm	uPVC	65
DW009	02+630	Estuary - Seatown	150mm	uPVC	38.2
DW010	02+700	Estuary - Seatown	150mm	MOPVC	57.1
DW011	02+765	Seatown	160mm	MOPVC	140.5
DW012	03+020	Seatown - Swords	160mm	MOPVC	28
DW013	03+450	Seatown - Swords	100mm	PE	26
DW014	03+520	SWORDS	150mm	PE	66.1
DW015	03+520	SWORDS	300mm	DI	63.1
DW017	04+430	SWORDS	100mm	uPVC	122.5
DW018	04+800	Fosterstown	200mm	PE	19.8

DW111	02+250	R132	150mm	uPVC	30.62
DW364	02+285	R132	150mm	uPVC	30.26
DW114	02+640	R132	150mm	uPVC	31
DW115	02+735	R132	150mm	uPVC	136
DW116	02+780	R132	160mm	MOPVC	86.3
DW217	03+040	R132	160mm	uPVC	30
DW259	03+500	SWORDS	UNKNOWN	unknown	46
DW367	03+500	Seatown - Swords Central	300mm	N/A	116.3
DW346	03+520	SWORDS	300mm	AC	51.44
DW112	03+525	SWORDS	300mm	DI	208
DW368	03+600	Swords Central	UNKNOWN	N/A	35.3
DW119	04+430	R132	100mm	uPVC	79

DW019	05+010	Fosterstown - Dublin Airport	100mm	PE	137
DW021	05+010	Fosterstown - Dublin Airport	300mm	DI	16
DW022	05+100	Fosterstown - Dublin Airport	200mm	DI	73.8
DW023	05+100	Fosterstown - Dublin Airport	100mm	PE	20
DW024	05+210	Fosterstown - Dublin Airport	200mm	DI	33.4
DW025	05+325	Fosterstown - Dublin Airport	200mm	DI	10.9
DW026	09+365	Dardistown - Northwood	50mm	PE	281.4

DW118	04+500	R132	6"	AC	257.5
DW121	04+800	R132	200mm	MOPVC	91
DW122	04+890	Fosterstown	160mm	MOPVC	11
DW123	04+930	R132	160mm	MOPVC	19.5
DW127	05+020	R132	100mm	uPVC	160.18
DW369	05+025	Fosterstown - Dublin Airport	N/A	N/A	525
DW134	05+200	R132	225mm	HPPE	342.5

DW027	09+950	Dardistown - Northwood	75mm	PE	62
DW045	10+200	Northwood	800mm	DI	502
DW065	10+200	Northwood	400mm	DI	668
DW066	10+200	Northwood	150mm	PE	5
DW043	10+300	Northwood	800mm	DI	58
DW032	11+200	Ballymun	200mm	PE	26.6
DW046	11+205	Ballymun	200mm	PE	191.2
DW033	12+140	COLLINS AVENUE	300mm	DI	318
DW034	12+160	COLLINS AVENUE	800mm	DI	201
DW035	12+220	COLLINS AVENUE	1200mm	DI	89.6
DW044	14+940	Glasnevin	450mm	DI	174.3
DW037	15+580	Mater	150mm	DI	23.7
DW038	15+580	Mater	100mm	DI	27.4

DW372	05+200	R132	200mm	DI	N/A
DW131	05+210	Fosterstown - Dublin Airport	225mm	HPPE	33.4
DW396	09+365	Dardistown - Northwood	50mm	PE	281.4
DW139	09+465	DARDISTOWN	50mm	uPVC	N/A
DW290	09+935	Northwood	76mm	uPVC	142.6
DW292	09+970	Northwood	75mm	uPVC	44.2
DW101	1+400	ESTUARY	80mm	uPVC	83.12
DW108	1+800	ESTUARY	710mm	PE	291.65
DW067	10+200	Northwood	150mm	MDPE	31
DW327	10+360	Northwood	381mm	CL	132.7
DW326	10+380	Northwood	450mm	DI	83.2
DW328	10+400	Northwood	800mm	DI	232.6
DW153	11+200	Ballymun	8"	uPVC	195.5

DW036	15+620	Mater	406.4mm	DI	41.6
DW036	15+620	Mater	406.4mm	DI	41.6
DW039	17+360	TARA ST.	150mm	DI	31.5
DW041	18+450	St Stephen's Green	450mm	DI	161.42
DW042	18+480	St Stephen's Green	150mm	DI	16.3
DW074	19+425	Charlemont	100mm	PE	57

DW155	11+230	Ballymun	8"	AC	22
DW158	12+060	COLLINS AVENUE	800mm	DI	202.45
DW159	12+060	COLLINS AVENUE	300mm	CI	232.2
DW161	12+250	COLLINS AVENUE	300mm	uPVC	37.7
DW162	12+260	COLLINS AVENUE	150mm	uPVC	14
DW163	12+270	COLLINS AVENUE	300mm	AC	241.3
DW164	12+270	COLLINS AVENUE	800mm	DI	194.4
DW157	13+860	GRIFFITH PARK	100mm	CI	120
DW256	14+900	Glasnevin	50mm	DI	199
DW255	14+915	Glasnevin	406.4mm	DI	174.2
DW282	15+580	Mater	150mm	CI	17.7
DW280	15+595	Mater	100mm	CI	22.5
DW281	15+620	Mater	406.4mm	CI	41.6

DW160	17+360	TARA ST.	150mm	CI	27.6
DW342	17+360	TARA ST.	150mm	CI	N/A
DW241	18+380	St Stephen's Green	450mm	DI	167.4
DW242	18+380	St Stephen's Green	unknown	Unknown	185.57
DW374	19+425	Charlemont	100mm	N/A	N/A
DW389	3+450	SWORDS	100mm	uPVC	31.13

1b Wastewater Diversions (non exhaustive)

Wastewater diversions - new sections of pipes proposed					
ID	MetroLink Chainage	Station/Section	Type/Size (nominal internal diameter)	Material	Proposed Length
WW015	01+350	Estuary	350mm	Concrete	722
WW018	02+000	R132	350mm	Concrete	326.3
WW002	02+100	R132	1600mm	Concrete	332
WW010	02+250	COLLINS AVENUE	450mm	Concrete	249.81
WW004	02+260	R132	1000mm	Concrete	333.3
WW016	02+300	R132	1300mm	Concrete	36.88
WW110	02+535	Estuary - Seatown	355mm	Concrete	176.2
WW005	02+780	R132	375mm	Concrete	194
WW309	03+260	R132	225mm	Concrete	168.2
WW008	03+290	R132	375mm	Concrete	118.9
WW009	03+435	R132	750mm	Concrete	60

Wastewater diversions - existing pipes to be decommissioned					
ID	MetroLink Chainage	Station/Section	Type/Size (nominal internal diameter)	Material	Existing Length
WW251	02+010	Estuary - Seatown	600mm	Concrete	109.64
WW106	02+250	R132	750mm	Concrete	73.82
WW107	02+270	R132	600	Concrete	N/A
WW108	02+270	R132	300mm	Concrete	434.7
WW109	02+500	R132	225mm	Concrete	31.35
WW111	02+500	R132	375mm	Concrete	194.92
WW325	02+500	R132	375mm	Concrete	97.3
WW113	03+280	R132	225mm	Concrete	36.91
WW115	03+295	R132	225mm	Concrete	20
WW114	03+300	R132	225mm	Concrete	44.53
WW125	03+350	R132	750mm	Concrete	114

WW022	03+450	R132	300mm	Concrete	177.8
WW019	03+550	SWORDS	900mm	Concrete	161.3
WW122	04+010	Swords Central	450mm	concrete	69
WW026	09+630	Dardistown - Northwood	1800mm	Concrete	66.9
WW023	10+330	Northwood	900mm	Concrete	101.8
WW150	11+000	BALLYMUN	300mm	Concrete	373.3
WW011	12+140	COLLINS AVENUE	225mm	Concrete	122.57
WW028	14+810	Glasnevin	225mm	Concrete	141.5
WW012	14+845	Glasnevin	225mm	Concrete	29.7
WW020	15+560	Mater	600mm	Concrete	17.4
WW013	15+580	Mater	300mm	Concrete	32.7
WW330	19+270	Charlemont	225mm	Concrete	4.83
WW027	19+275	Charlemont	300mm	Concrete	186.35
WW117	03+490	R132	750mm	Concrete	163.33
WW118	03+490	R132	300mm	Concrete	165.2
WW003	03+500	SWORDS	225mm	Concrete	N/A
WW119	03+590	SWORDS	600mm	concrete	178
WW120	03+600	Swords Central	225mm	Concrete	197.8
WW121	03+600	Swords Central	300mm	Concrete	122.3
WW330	09+400	DARDISTOWN	6in	DI	85
WW227	10+330	Northwood	900mm	Concrete	13.9
WW229	10+330	Northwood	255mm	concrete	87
WW228	10+340	Northwood	600mm	Concrete	55
WW152	12+065	COLLINS AVENUE	300mm	Concrete	90
WW153	12+140	COLLINS AVENUE	225mm	Vitrified Clay	111
WW155	12+275	COLLINS AVENUE	450mm	Concrete	194.8

WW300	19+275	Charlemont	300mm	Concrete	186.35
WW326	19+410	Charlemont	225mm	Concrete	46.3

WW187	14+830	Glasnevin	225mm	Vitrified Clay	35.7
WW200	15+575	Mater	300mm	VC	27
WW302	17+280	TARA ST.	850mm	Concrete	159.2
WW306	17+350	TARA ST.	850mm	Concrete	380
WW327	19+300	Charlemont	450mm	Concrete	46.233
WW327	19+300	Charlemont	450mm	Concrete	46.233

Appendix 2: Ground Movements Protection Measure Locations (non exhaustive)

IW Wastewater Assets				
ITM Coordinates X	ITM Coordinates Y	Station/Section	IW Asset Diameter (mm) - assumed for TII assessment model	IW Asset Material - assumed for TII assessment model
716272.8	734274.4	Station Tara 1	2440	Brick Sewer
716058	732597	Station Charlemont 1	1760	Concrete
715188.4	735727	Station Mater 1	500	Concrete
716158.9	733394.7	Station St. Stephens Green 1	1710	Brick Sewer
716113.5	733299.3	Station St. Stephens Green 1	1800	Brick Sewer
716272.8	734270.7	Station Tara 1	1500	Brick Sewer
715380.9	737113.9	Station Griffith Park 1	500	Concrete
716167	733463.9	Station St. Stephens Green 1	1850	Brick Sewer
716029.9	732799.2	Station Charlemont 1	1500	Brick Sewer
715811.2	734692.5	Station O'Connel Street 1	1800	Brick Sewer
715834.9	734623.4	Station O'Connel Street 1	1510	Brick Sewer
715923.9	734553.3	Station O'Connel Street 1	1500	Brick Sewer
716226.9	734375.3	Station Tara 1	1000	Concrete
715487.1	735379.2	Station Mater 1	1820	Brick Sewer
715924.3	734549.7	Station O'Connel Street 1	1500	Brick Sewer
715781.8	734683.9	Station O'Connel Street 1	1860	Brick Sewer
715821.9	734672.2	Station O'Connel Street 1	1510	Brick Sewer
715603.8	735223.8	Station O'Connel Street 1	2160	Brick Sewer
715783	734684.2	Station O'Connel Street 1	1940	Brick Sewer
715396.7	738952.3	Station Collins Avenue 1	500	Concrete
715704.3	734976.1	Station O'Connel Street 1	1500	Brick Sewer
714980.2	736446.2	Station Glasnevin 1	500	Concrete
715262.7	736950.2	Station Griffith Park 1	500	Concrete
715830.8	734614.7	Station O'Connel Street 1	2250	Brick Sewer

IW Water Assets				
ITM Coordinates X	ITM Coordinates Y	Station/Section	IW Asset Diameter (mm) - assumed for TII assessment model	IW Asset Material - assumed for TII assessment model
715309.9	740674	Station Northwood 1	250	Cast Iron
715337.3	740666	Station Northwood 1	250	Cast Iron
715340.0	740665	Station Northwood 1	250	Cast Iron
715334.4	740664	Station Northwood 1	250	Cast Iron
715338.7	740663	Station Northwood 1	250	Cast Iron
715334.4	740660	Station Northwood 1	250	Cast Iron
715251.6	740400	Station Northwood 1	250	Cast Iron
715255.8	740396	Station Northwood 1	250	Cast Iron
715270.5	740388	Station Northwood 1	250	Cast Iron
715287.5	740291	Station Northwood 1	250	Cast Iron
715288.7	740291	Station Northwood 1	250	Cast Iron
715313.7	740245	Station Ballymun 1	250	Cast Iron
715366.1	740218	Station Ballymun 1	250	Cast Iron
715368.6	740217	Station Ballymun 1	250	Cast Iron
715365.8	740215	Station Ballymun 1	250	Cast Iron
715363.4	740214	Station Ballymun 1	250	Cast Iron
715361.7	740213	Station Ballymun 1	250	Cast Iron
715367.7	740180	Station Ballymun 1	250	Cast Iron
715430.9	740022	Station Ballymun 1	250	Cast Iron
715405.4	740002	Station Ballymun 1	250	Cast Iron
715429.2	739949	Station Ballymun 1	250	Cast Iron
715417.7	739929	Station Ballymun 1	250	Cast Iron
715405.6	739921	Station Ballymun 1	250	Cast Iron
715405.9	739911	Station Ballymun 1	250	Cast Iron

716142.9	734443.5	Station Tara 1	1500	Brick Sewer
716027.3	734521.4	Station Tara 1	1740	Brick Sewer
716162.8	733407.9	Station St. Stephens Green 1	1830	Brick Sewer
715397	739643.8	Station Ballymun 1	1000	Concrete
715404.6	738836.2	Station Collins Avenue 1	500	Concrete
715905.7	734551.3	Station O'Connel Street 1	1950	Brick Sewer
715222.4	736904.1	Station Griffith Park 1	500	Concrete
716027.5	734493.3	Station Tara 1	1500	Brick Sewer
715885.9	734600.3	Station O'Connel Street 1	1500	Brick Sewer
716087.9	732448.4	Station Charlemont 1	500	Concrete
716021.2	734526	Station Tara 1	1500	Brick Sewer
716371.2	734148.9	Station Tara 1	1500	Brick Sewer
715941.4	734559.6	Station O'Connel Street 1	1980	Brick Sewer
715793.2	734770.1	Station O'Connel Street 1	2200	Brick Sewer
716115.9	733304.5	Station St. Stephens Green 1	1830	Brick Sewer
716136.8	732126.8	Station Charlemont 1	1500	Brick Sewer
715407	737141.7	Station Griffith Park 1	500	Concrete
715145.3	736798.2	Station Glasnevin 1	500	Concrete
716336.7	734156	Station Tara 1	1500	Brick Sewer
716312.8	734269.3	Station Tara 1	1500	Brick Sewer
715193.1	735652.5	Station Mater 1	500	Concrete
716006.9	732923.4	Station Charlemont 1	1000	Concrete
715413.7	738961.5	Station Collins Avenue 1	500	Concrete
716027.4	734490	Station Tara 1	1500	Brick Sewer
716023.2	733199.2	Station St. Stephens Green 1	1500	Brick Sewer
715167.1	735698.1	Station Mater 1	500	Concrete
716027.7	733197.6	Station St. Stephens Green 1	1000	Concrete
715218.9	735612.6	Station Mater 1	1000	Concrete
715018.1	736645.8	Station Glasnevin 1	500	Concrete
715759	734750.2	Station O'Connel Street 1	1000	Concrete
715412.3	738961.5	Station Collins Avenue 1	500	Concrete
715473.7	735366.8	Station Mater 1	1500	Brick Sewer
715982.9	732933.6	Station Charlemont 1	1790	Brick Sewer
716175.8	733446	Station St. Stephens Green 1	1830	Brick Sewer

715428.8	739898	Station Ballymun 1	250	Cast Iron
715428.7	739825	Station Ballymun 1	250	Cast Iron
715428.9	739767	Station Ballymun 1	250	Cast Iron
715410.3	739651	Station Ballymun 1	250	Cast Iron
715409.9	739648	Station Ballymun 1	800	Cast Iron
715424.9	739640	Station Ballymun 1	250	Cast Iron
715423.1	739640	Station Ballymun 1	250	Cast Iron
715389.1	739592	Station Ballymun 1	250	Cast Iron
715424.9	739525	Station Ballymun 1	250	Cast Iron
715394.7	739513	Station Ballymun 1	250	Cast Iron
715409.2	739511	Station Ballymun 1	250	Cast Iron
715408.8	739510	Station Ballymun 1	250	Cast Iron
715395.9	739084	Station Collins Avenue 1	250	Cast Iron
715391.3	739069	Station Collins Avenue 1	250	Cast Iron
715392.8	739069	Station Collins Avenue 1	250	Cast Iron
715414.8	739060	Station Collins Avenue 1	250	Cast Iron
715404.2	739056	Station Collins Avenue 1	250	Cast Iron
715421.6	739055	Station Collins Avenue 1	800	Cast Iron
715399.7	738971	Station Collins Avenue 1	800	Cast Iron
715395.4	738960	Station Collins Avenue 1	250	Cast Iron
715397.0	738956	Station Collins Avenue 1	250	Cast Iron
715398.2	738951	Station Collins Avenue 1	800	Cast Iron
715406.5	738854	Station Collins Avenue 1	250	Cast Iron
715399.9	738837	Station Collins Avenue 1	250	Cast Iron
715416.1	738820	Station Collins Avenue 1	800	Cast Iron
715423.6	738754	Station Collins Avenue 1	250	Cast Iron
715421.5	738754	Station Collins Avenue 1	250	Cast Iron
715418.7	738754	Station Collins Avenue 1	250	Cast Iron
715401.9	738704	Station Collins Avenue 1	250	Cast Iron
715403.1	738704	Station Collins Avenue 1	250	Cast Iron
715382.8	738280	Station Albert College Park Intervention Shaft 1	800	Cast Iron
715404.6	738238	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715388.3	738167	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715369.9	738134	Station Albert College Park Intervention Shaft 1	250	Cast Iron

716159.3	733400.2	Station St. Stephens Green 1	1820	Brick Sewer
716292.6	733840	Station Tara 1	1500	Brick Sewer
715422.7	739159.8	Station Collins Avenue 1	1000	Concrete
715021.1	736650.8	Station Glasnevin 1	500	Concrete
716036.9	732798.6	Station Charlemont 1	1500	Brick Sewer
715393	737907.7	Station Albert College Park Intervention	1500	Brick Sewer
715324.8	740660.1	Station Northwood 1	500	Concrete
714992.3	736238	Station Glasnevin 1	500	Concrete
716038.6	732623.2	Station Charlemont 1	500	Concrete
715997.7	732982	Station St. Stephens Green 1	1900	Brick Sewer
715551.2	735262.5	Station O'Connel Street 1	1500	Brick Sewer
715391.3	739070.2	Station Collins Avenue 1	500	Concrete
715424.7	738973.8	Station Collins Avenue 1	500	Concrete
715755.5	734906.8	Station O'Connel Street 1	1690	Brick Sewer
716289.3	733840.9	Station Tara 1	1500	Brick Sewer
716186.1	734398.3	Station Tara 1	1000	Concrete
714961.7	736171.1	Station Glasnevin 1	500	Concrete
715947.9	734561.3	Station O'Connel Street 1	2000	Brick Sewer
714974.1	736136.9	Station Glasnevin 1	500	Concrete
715422.1	739269.5	Station Collins Avenue 1	500	Concrete
715062	735904.2	Station Mater 1	1500	Brick Sewer
715847.7	734589	Station O'Connel Street 1	1500	Brick Sewer

715400.9	738129	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715399.8	738119	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715366.0	738048	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715370.4	738035	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715388.1	738004	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715413.6	737909	Station Albert College Park Intervention Shaft 1	250	Cast Iron
715473.1	737618	Station Griffith Park 1	600	Cast Iron
715462.3	737593	Station Griffith Park 1	250	Cast Iron
715450.1	737540	Station Griffith Park 1	250	Cast Iron
715436.7	737534	Station Griffith Park 1	250	Cast Iron
715400.9	737269	Station Griffith Park 1	250	Cast Iron
715409.9	737266	Station Griffith Park 1	250	Cast Iron
715388.7	737113	Station Griffith Park 1	250	Cast Iron
715384.1	737105	Station Griffith Park 1	250	Cast Iron
715252.2	736954	Station Griffith Park 1	250	Cast Iron
715188.7	736884	Station Griffith Park 1	250	Cast Iron
715190.8	736881	Station Griffith Park 1	250	Cast Iron
715176.7	736877	Station Griffith Park 1	250	Cast Iron
715194.0	736869	Station Griffith Park 1	250	Cast Iron
715172.9	736832	Station Glasnevin 1	250	Cast Iron
715168.1	736829	Station Glasnevin 1	250	Cast Iron
715166.0	736823	Station Glasnevin 1	250	Cast Iron
715120.4	736810	Station Glasnevin 1	250	Cast Iron
715126.1	736808	Station Glasnevin 1	250	Cast Iron
715086.5	736774	Station Glasnevin 1	250	Cast Iron
715026.6	736680	Station Glasnevin 1	250	Cast Iron
715028.1	736680	Station Glasnevin 1	250	Cast Iron
715040.6	736664	Station Glasnevin 1	250	Cast Iron
715032.0	736644	Station Glasnevin 1	250	Cast Iron
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715037.7	736641	Station Glasnevin 1	250	Cast Iron
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715058.2	735885	Station Mater 1	250	Cast Iron
715108.3	735884	Station Mater 1	250	Cast Iron
715109.6	735883	Station Mater 1	250	Cast Iron
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715166.7	735746	Station Mater 1	250	Cast Iron
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715188.5	735727	Station Mater 1	250	Cast Iron
715163.4	735717	Station Mater 1	250	Cast Iron

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715241.4	735574	Station Mater 1	250	Cast Iron
715486.6	735372	Station Mater 1	250	Cast Iron
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715478.8	735366	Station Mater 1	250	Cast Iron
715476.7	735364	Station Mater 1	800	Cast Iron
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715487.3	735362	Station Mater 1	250	Cast Iron
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715608.5	735219	Station O'Connel Street 1	250	Cast Iron
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715596.4	735205	Station O'Connel Street 1	250	Cast Iron
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715646.8	735150	Station O'Connel Street 1	250	Cast Iron
715644.4	735149	Station O'Connel Street 1	250	Cast Iron
715641.7	735147	Station O'Connel Street 1	250	Cast Iron
715675.0	735133	Station O'Connel Street 1	250	Cast Iron
715694.2	735078	Station O'Connel Street 1	250	Cast Iron
715711.0	734977	Station O'Connel Street 1	250	Cast Iron
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715703.0	734969	Station O'Connel Street 1	250	Cast Iron
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715800.7	734692	Station O'Connel Street 1	250	Cast Iron
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715796.5	734690	Station O'Connel Street 1	250	Cast Iron
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715783.9	734682	Station O'Connel Street 1	250	Cast Iron
715843.9	734644	Station O'Connel Street 1	250	Cast Iron
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715831.2	734616	Station O'Connel Street 1	250	Cast Iron
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716013.3	734496	Station Tara 1	250	Cast Iron
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716176.0	734431	Station Tara 1	250	Cast Iron
716179.4	734428	Station Tara 1	610	Cast Iron
716177.3	734428	Station Tara 1	610	Cast Iron
716176.8	734389	Station Tara 1	610	Cast Iron
716176.7	734387	Station Tara 1	610	Cast Iron
716227.2	734372	Station Tara 1	250	Cast Iron
716190.6	734372	Station Tara 1	250	Cast Iron
716251.1	734300	Station Tara 1	250	Cast Iron
716273.4	734274	Station Tara 1	250	Cast Iron
716310.7	734272	Station Tara 1	250	Cast Iron
716312.1	734272	Station Tara 1	250	Cast Iron
716273.9	734270	Station Tara 1	610	Cast Iron
716350.8	734163	Station Tara 1	250	Cast Iron
716355.6	734147	Station Tara 1	686	Cast Iron
716354.7	734144	Station Tara 1	250	Cast Iron
716359.8	733981	Station Tara 1	250	Cast Iron
716374.7	733972	Station Tara 1	250	Cast Iron
716338.2	733909	Station Tara 1	250	Cast Iron
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716336.4	733829	Station Tara 1	250	Cast Iron
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716193.7	733576	Station St. Stephens Green 1	250	Cast Iron
716197.0	733574	Station St. Stephens Green 1	250	Cast Iron
716194.0	733569	Station St. Stephens Green 1	250	Cast Iron
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716155.5	733476	Station St. Stephens Green 1	250	Cast Iron

716157.5	733475	Station St. Stephens Green 1	250	Cast Iron
716153.6	733472	Station St. Stephens Green 1	250	Cast Iron
716184.2	733463	Station St. Stephens Green 1	250	Cast Iron
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716053.6	733202	Station St. Stephens Green 1	250	Cast Iron
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716049.1	733188	Station St. Stephens Green 1	686	Cast Iron
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715990.4	732923	Station Charlemont 1	250	Cast Iron
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716029.5	732798	Station Charlemont 1	250	Cast Iron
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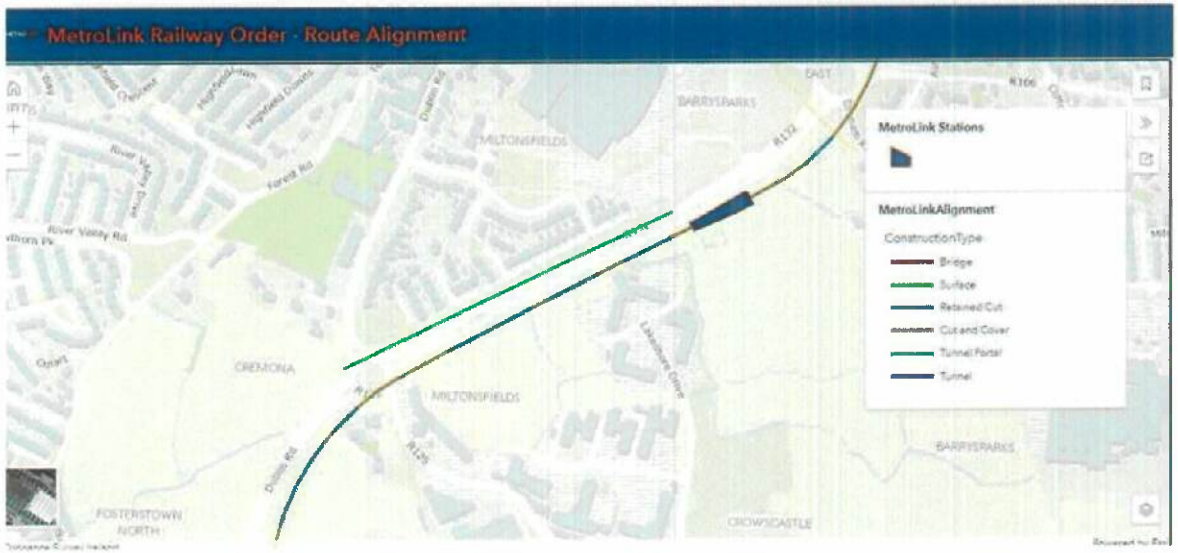
716105.0	732339	Station Charlemont 1	250	Cast Iron

716076.9	732328	Station Charlemont 1	250	Cast Iron
716074.0	732326	Station Charlemont 1	250	Cast Iron
716134.1	732319	Station Charlemont 1	250	Cast Iron

Appendix 3

Figure 5: Irish Water proposals adjacent to the MetroLink route on R132 bypassing Swords.

The green line indicates Irish Water's proposed sewer (draft only).



Appendix 4

Figure 1: Overview of Greater Dublin Drainage Project & Proposed Orbital Sewer Route

Figure 2: Extract from MetroLink EIAR Chapter 5 – Diagram 5.43: AZ3 Site Offices and Construction Compounds

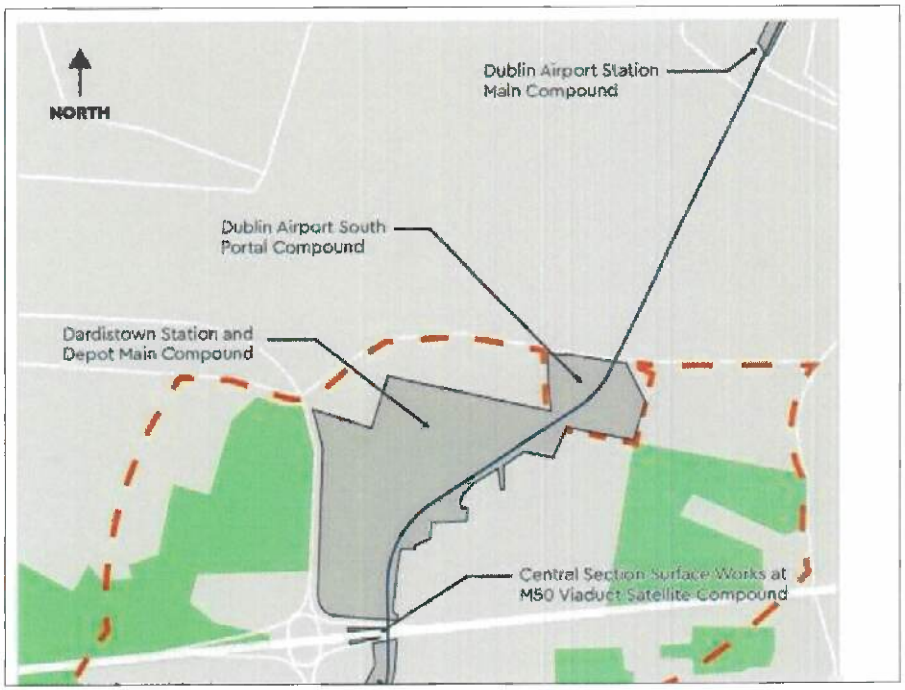


Figure 3: Extract from GDD Planning drawing reference 32102902-2102

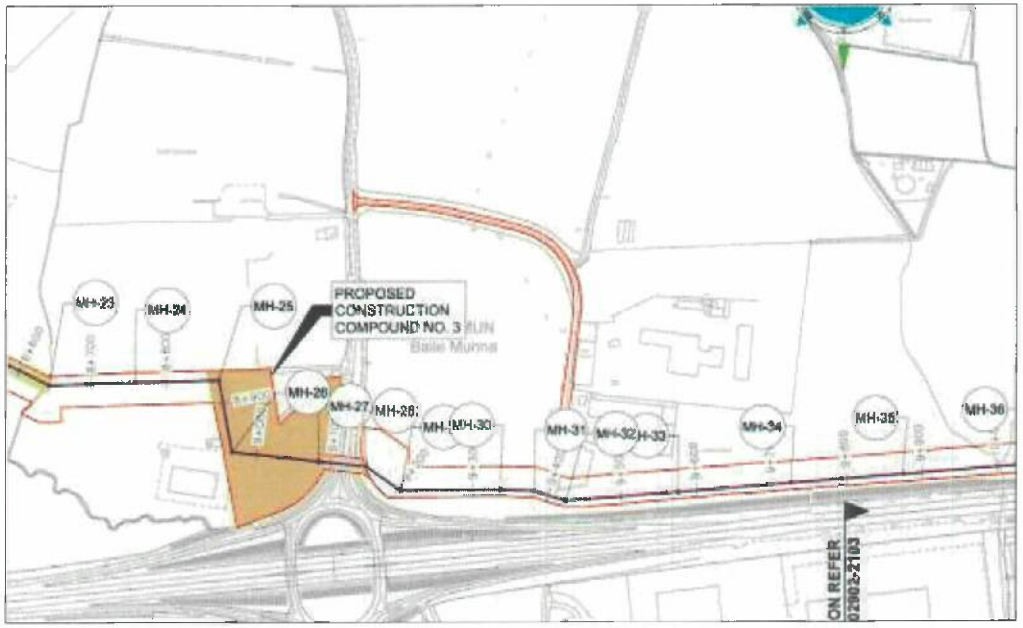


Figure 4: Extract from MetroLink drawing reference ML1-JAI-URD-SC01_XX-DR-Y-01050

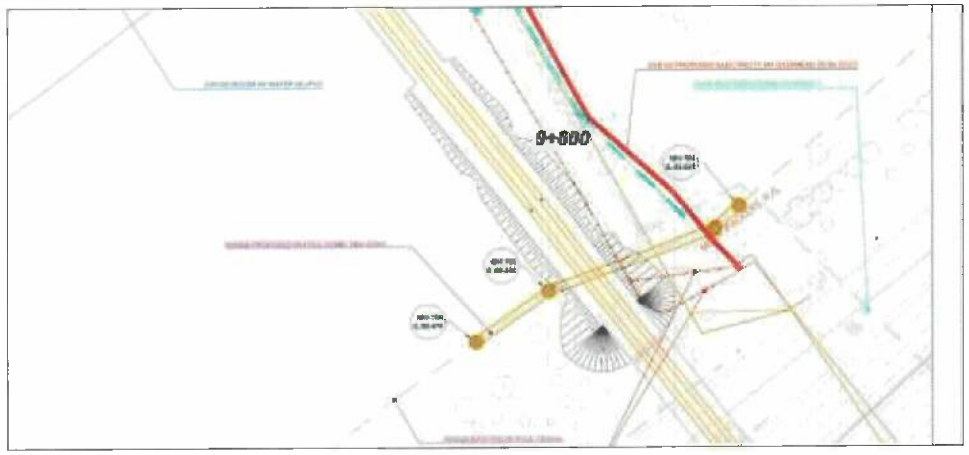


Figure 5: Extract from Irish W GDD CPO Map as it affects the location in general (showing Permanent Wayleaves, Permanent Right of Way & Temporary Working Areas)


UISCE
EIREANN - IRISH
WATER