

Submission No.			133		
Organisation Name or Name of Submitter			Irish Water (Uisce Eireann)		
Item No.	Section Ref.	Page No.	Observation Statement	TII Response	
Letter Re: Railway Order Application- Metro North: Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin					
1	Cover letter	2	<p>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.</p>	<p>TII commit to protecting existing IW infrastructure and to continuing to engage with Irish Water to ensure the detailed designs for MetroLink incorporate either the appropriate protection measures for existing Irish Water assets as detailed in the EIAR Chapter 22 (Infrastructure and Utilities) and EIAR Appendix A22.1 (Summary of Utilities Settlement Analysis Study) or as developed in the detailed design, and to include for agreed future proofing measures where required and as appropriate to ensure future planned Irish Water infrastructure can be delivered in proximity to the MetroLink scheme.</p> <p>The Preliminary design undertaken to date is appropriate for the RO application stage with detailed designs to be developed by the contractor(s) and agreed with Irish Water subsequently.</p>	
2	Irish Water Observations - Provision of Public Services	3	<p>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.</p> <p>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;</p>	<p>1. For existing infrastructure, TII will apply all requisite protection measures as outlined in the EIAR Chapter 22 or as developed and agreed with IW during the detailed design phase.</p> <p>2. For future infrastructure planned by UE and in respect of which details have been furnished to TII, TII will engage with UE's engineering team to agree solutions which protect both UE's future planned infrastructure and all elements of the MetroLink project.</p> <p>3. Clearly, while specific commitments cannot be given with respect to future infrastructure planned by UE but in respect of which no details have been furnished to TII or are publicly available, TII will continue to engage with UE to address any such works as it does on all of its other transport systems e.g. Luas.</p> <p>Though not required for the purpose of the Railway Order application TII have begun submitting detailed designs for consideration since July of 2023 for each of the specific asset between MetroLink and Irish Waters Assets and are seeking to engage collaboratively with Irish Water to agree solutions.</p>	
3	Irish Water Observations - Recommendations to An Bord Pleanála	4	<p>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.</p>	<p>While TII will continue to engage with UE throughout the detailed design and construction phase of the project, the EIAR identifies, describes and assesses potential significant impacts on UE assets and the required mitigation measures and protections which will be applied. Please refer to EIAR Chapters 5 and 22.</p>	

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4	Irish Water Observations - Recommendations to An Bord Pleanála	4	<p>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;</p> <p>o 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)</p> <p>o 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)</p> <p>o The GDD project is represented incorrectly on the drawings and does not appear to be referenced in the Planning Report</p> <p>o Constructability – greater detail is required on the likely interactions between GDD and MetroLink during construction (i.e., Programme Scenarios)</p>	<p>The MetroLink project has been developed based on the GDD project being constructed and operational before MetroLink construction commences. This is a reasonable and valid assumption although it is recognised there remains uncertainty around the precise delivery schedule for both projects given neither have planning approval at this time.</p> <p>TII have engaged with Irish Water in relation to the GDD pipeline and have reached agreement on how the issues raised shall be dealt with between the parties as follows:</p> <p>(i) TII and Irish Water/Uisce Eireann to discuss in further detail on the principles of the interface in relation to land take, CPO requirements, and programme and have agreed to collaboratively engage on the interface in a timely manner at an appropriate time to agree construction, operation and maintenance methodologies.</p> <p>(ii) TII do not agree that an overbridge will be required at this location. Any protection measures in relation to the embankmennt, if required, shall be agreed collaboratively between the parties at detailed design stage.</p> <p>(iii) The horizontal alignment of the GDD scheme is correctly shown however the number of manholes and their associated levels shall be rectified on the MetroLink drawings.</p> <p>(iv) The constructability interface principles have been agreed as well as what the responsibilities of each party shall be depending on the timing of the projects. Both parties intend to agree to a memorandum of understanding to reflect this.</p>	
5	Description of the Known and Future Likely Interactions A) Diversion of Irish Water's Assets	5	<p>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.</p>	<p>TII have based their assessment of diversions required based on asset record information provided by Irish Water and GPR surveys undertaken by TII to date. TII confirm that as they continue to develop the design, a list of required diversions will be maintained under review and updated as required. TII will continue to engage with and keep IW informed of any changes to the proposed list of IW diversions and agree the detail design of IW diversions with IW. See also Response (1) above.</p> <p>TII note IW request that all designs are agreed prior to the commencement of the development. Given the scale of the development, TII would ask that rather than condition all designs are agreed prior to the commencement of the development, that instead diversion designs must be agreed with IW before the diversion works concerned are commenced. The reason for this request is to prevent the overall construction schedule being unnecessarily constrained. UE and TII are currently working through an updated legal agreement to cover the works which sets out the framework for exchange and agreement of designs.</p>	
6	Description of the Known and Future Likely Interactions A) Diversion of Irish Water's Assets	5	<p>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.</p>	<p>TII confirm that they will take account of all known IW assets both below and above ground that could potentially be impacted by MetroLink and protect them both during the construction and operational phases. TII have reviewed asset record drawings provided by IW and have undertaken GPR surveys to validate the location of existing services. TII confirm that as they continue to develop the design a list of assets that could potentially be impacted by MetroLink will be maintained and kept under review and updated as required. TII will continue to engage with and keep IW informed of any changes to the proposed list of impacted IW assets identified by the RO drawings and schedules.</p> <p>EIAR Chapter 22 details the methodologies which will be followed in any diversions or changes required to existing Utilities and Infrastructure and the mitigation methods which wil be applied.</p>	

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7	Description of the Known and Future Likely Interactions B) Ground Movement and Locations Requiring protection Measures	5	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.	An Initial analysis for the purpose of preliminary design and to inform the EIAR has been carried out based on asset record information received from IW. This analysis will be further progressed through the detail design phase and shall incorporate ground investigation data gathered by TII during 2023. It would be expected that in many cases as a result of detail design and construction methodology refinement that the number of assets requiring protection measures will reduce. TII confirm that as they continue to develop the design the list of assets that could potentially be impacted by MetroLink will be maintained under review and updated as required. TII will continue to engage with and keep IW informed of any changes to the proposed list of impacted IW assets identified by the RO drawings and schedules. TII note IW request that all protection measures and designs are agreed prior to the commencement of the development. Given the scale of the development, TII would ask that rather than condition all protection measures and designs are agreed prior to the commencement of the development, that instead designs must be agreed with IW before any works are commenced that could impact IW infrastructure. The reason for this request is to prevent the overall construction schedule being unnecessarily constrained.	
8	Description of the Known and Future Likely Interactions C) New Pumping Station Seatown/Swords	6	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.	Please see Response (3) above.	
9	Description of the Known and Future Likely Interactions D) Railway Works & Related Provisions	6	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.	TII confirm that Irish Water will be consulted on any impact on existing and future planned Irish Water assets resulting from any alterations proposed to roads and pavements as part of the MetroLink works.	
10	Description of the Known and Future Likely Interactions D) Railway Works & Related Provisions	6	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.	TII confirm this is understood and that this obligation will be included in the Contract specification, including the requirement to consult with IW to plan both IW and TII works.	

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11	Description of the Known and Future Likely Interactions E) Wastewater Sewer, Water Mains, Culverts Requirements & Culvert Crossing(s) to Service Future Lands	7	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.	Please refer to Response (1) above regarding future proofing and planning.	
12	Description of the Known and Future Likely Interactions E) Wastewater Sewer, Water Mains, Culverts Requirements & Culvert Crossing(s) to Service Future Lands	7	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.	Please refer to Response (1) above regarding future proofing and planning. TII note IW request that 'wayleaves and/or rights of way and provision of necessary culverts for future crossing points' must be agreed prior to any construction works taking place. Given the scale of the development, TII would ask that rather than condition this must all be agreed ahead of any works taking place, that instead this must be agreed with IW before works are commenced that could impact access for future crossing points that it is agreed will be provided for by MetroLink. The reason for this request is to prevent the overall construction schedule being unnecessarily constrained.	
13	Description of the Known and Future Likely Interactions F) Easements & Wayleaves	7	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.	It is agreed sufficient access provision will be provided to enable IW to maintain their assets wherever TII are able to do so.	
14	Description of the Known and Future Likely Interactions F) Easements & Wayleaves	7	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.	TII confirm that they will continue to consult with Irish Water with regard to the registration of easements. All such land within closed off sites which is permanently acquired by TII under the Railway Order will be transferred to IW following completion of the relevant works subject to situations where MetroLink Operation and Maintenance requirements require otherwise. In these limited cases, TII will consult with UE to ensure that a workable solution is found so as to ensure all required access rights of both TII and UE are provided for.	
15	Description of the Known and Future Likely Interactions G) Discharge of Water	7	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.	TII confirm as part of the design that they will endeavour to reduce the volume of stormwater run-off and additional surface discharge to existing foul/combined sewer networks so far as is practicable, noting this will be limited to MetroLink infrastructure that TII is responsible for.	

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16	Description of the Known and Future Likely Interactions G) Discharge of Water	8	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.	The MetroLink drainage design has been developed to incorporate SUDs components and techniques that are in line with CIRIA SuDS manual C753 (2015), Great Dublin Regional Code of Practice and associated GDSDS Technical Documents and Fingal CC Blue/Green infrastructure for Development Guidance Note.	
17	Description of the Known and Future Likely Interactions H) Wastewater Section 16 Temporary Discharge	8	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.	<p>As outlined in Section 18.3.5.4 of Chapter 18 of the EIAR, during the excavation of stations and/or cut sections there will be some temporary dewatering which will require collection, treatment and attenuation prior to off-site discharge. This discharge of “dewatering water” will be for a limited duration until such time that the base slab to the excavation has been cast, at which point groundwater ingress will be extremely limited. Measures to further reduce the discharge of groundwater will include the re-use of the water on-site for activities such as dust suppression, general cleaning and surface washdown.</p> <p>The key rationale for sending construction phase discharges to sewer is to minimise the potential environmental effects on local receiving waters, particularly along the surface sections of the alignment. The rivers and streams along the alignment are particularly sensitive for the following reasons:</p> <ul style="list-style-type: none">•They include a number of streams identified for salmonid populations such as Atlantic Salmon and Brown Trout. These include the Broadmeadow and Sluice rivers;•In addition, all streams that the MetroLink alignment crosses, discharge to the Irish Sea in close proximity to a number of European protect sites including the following: Malahide Estuary SAC, Malahide SPA, Baldoyle Bay SAC, Baldoyle SPA, North Bull Island SAC, North Bull Island SPA and Rockabill to Dalkey Island SAC. <p>The majority of these streams are already degraded, with sections designated as being of poor ecological status. Under the European Union Environmental Objectives (Surface waters) (Amendment) Regulations 2009, as amended it is required to implement measures “requiring the restoration of surface water bodies of less than good status (or good potential as the case may be) to not less than good status (or good potential)”. This is challenging to achieve in these catchments considering the significance of the already degraded water quality.</p> <p>Having regard to the value of the streams (salmonid potential) and the receiving environment (European sites), and the already degraded water status, these streams are considered very sensitive. For these reasons it is considered appropriate to discharge to sewer rather than risk further degradation of these sensitive waterbodies.</p> <p>Ahead of any proposals to discharge to the public network, TII will carry out the required assessment of the affected sewer and proposed discharge. It would be helpful if IW could make available its full assessment criteria so TII and its designers and contractors can ensure all the information IW require is provided.</p>	

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18	Description of the Known and Future Likely Interactions I) Drinking Water Protection Measures	8	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 noted by the observation, TII have assessed these abstraction points and can confirm that none of the MetroLink proposals will 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.	
19	Description of the Known and Future Likely Interactions J) Catchment Drainage Area Plan	9	<p>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.</p> <p>Irish Water is progressing planned assessments for the remaining North Fringe Sewer (NFS) and Main lift DAP areas and Irish Water will adopt the same approach with respect to inclusion of growth projections. Any densification in areas of the Main lift 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).</p>	<p>TII confirm that the discharges from MetroLink have been calculated and are applicable to the c100 year design life of MetroLink. The assessments have been issued to IW by way of Pre Connection enquiry forms (as requested by IW) and it is for IW to ascertain if their network is sufficient to receive the MetroLink discharges, combined with any other (non MetroLink) discharges that TII are not sighted on. As is normal with requests to discharge to IW network, the issue will be dealt with in the course of the preconnection process.</p> <p>Future development and impacts of same on the drainage network along the catchment is a matter for Local Authorities and their respective development plans. Any requirements to cater for future growth projections within the Irish Water Network should be confirmed by IW to TII in sufficient time so as to capture them in our designs (at detailed design stage) so as to prevent delays to the overall project programme.</p>	
20	Description of the Known and Future Likely Interactions K) Capital Infrastructure Projects	9	<p>The following Irish Water projects must be considered in the context of MetroLink.</p> <p>The Swords Wastewater Pumping Station discussed above,</p> <p>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.</p> <p>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.</p>	<p>This is understood and TII is committed to working with IW to ensure the interfaces between these IW projects and MetroLink are managed to enable both parties to achieve their required outcomes. Irish Water have forwarded details of the schemes referenced and TII would propose that a meeting is held with IW to discuss the Rosie Hackett siphon project to ensure that risks to the respective works are coordinated.</p> <p>TII is aware that carriageway to the Southeast has been ear-marked already for MetroLink and will provide a clear route for the pipe on the other side of the R132 road. TII will continue engagement with Irish Water to ensure there is no impact to the delivery of this public infrastructure.</p>	

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21	Description of the Known and Future Likely Interactions L) New Connections	10	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.	This is understood and agreed. These obligations will also be included within the relevant TII contract specifications.	
22	Description of the Known and Future Likely Interactions Summary Observations on Paragraphs A-L	10	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.	Please see Responses (3) and (14) above.	
23	Description of the Known and Future Likely Interactions Summary Observations on Paragraphs A-L	10	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.	It is agreed that detail design proposals for IW infrastructure will be in accordance with IW Technical Standards, Codes of Practice, and Standard Details and other associated Irish Water requirements. However, there will be some locations where due to the congested nature of the environment, IW standards cannot be met. Where this occurs, TII will follow IW’s derogation procedures. It would be helpful if IW could provide a list of all relevant documents to be taken account of, and access to said documents, so that these can be provided to TII designers and contractors. Regarding provision of duplicate infrastructure, TII understand the requirement for this. TII propose that for each location where access to a watermain or wastewater sewer could be restricted that this is reviewed on a case by case basis to determine how access can be best managed. However, TII believe that there are alternatives to simple duplication, including oversized sleeving, or additional valve installation for example. TII are available to consider such alternatives in advance of construction.	
24	Description of the Known and Future Likely Interactions Summary Observations on Paragraphs A-L	10	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.	Easement/Wayleaves will be provided as appropriate and where TII are able to do so. Please also refer to Responses (12), (13) and (14).	

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25	Description of the Known and Future Likely Interactions Summary Observations on Paragraphs A-L	10	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).	TII will facilitate reasonable IW access to MetroLink works (subject to standard condiitons with regard to health and safety etc) that could have a potential impact on IW infrastructure and or are associated with the provision of IW infrastructure.	
26	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project	11	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).	Please see Response (4) above.	
27	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project GDD and MetroLink Interaction – Details	13	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.	Please also refer to Response (4) above. Whether the construction of both projects coincides remains to be seen, given neither project yet has planning approval. Therefore, as set out by our Response (4) above it is important IW and TII work together, with each party equally sharing joint responsibility such that both projects can proceed unconstrained, including ensuring the necessary access required by each party is provided and maintained. Regarding EIAR Chapter 30 and cumulative impacts, whilst as noted above there remains some uncertainty around the respective construction programmes for GDD and MetroLink and hence the interaction of these programmes, it was nonetheless important and necessary to assess the cumulative environmental impact of these projects given coincident construction is a possible scenario.	

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28	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project GDD and MetroLink Interaction – Details (i) Constructability: Permanent Wayleaves, Temporary Working Areas and Construction Compounds	14	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.	Please refer to Response (4) and (27) above. In the event that the pipeline is constructed in advance of MetroLink both parties agree to provide for interface collaboration between design teams and provide any details of any construction restrictions that may apply in a timely manner for incorporation into both projects. TII will be responsible for the reasonably and properly incurred cost of the provision and installation etc of such necessary protection measures.	
29	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project GDD and MetroLink Interaction – Details (ii) Status of GDD Orbital Sewer	14	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.	Please refer to (4) above, the horizontal alignment is correctly shown, the drawing shall be updated to reflect the correct number of manholes and invert levels and an erratum to the Railway Order Submitted. The details and levels shown for the GDD were previously provided by IW and used in the RO submission. However, subsequent to the submission of the Railway Order application, TII updated the drawings and information to reflect the GDD planning drawings. It will be important that the horizontal and vertical alignment is precisely defined where it crosses the MetroLink alignment for the purpose of design and construction coordination (and these will be provided to ABP at the oral hearing). TII note that the updated correct alignment has been assessed, and whilst it is not considered that an updated GDD alignment has a material impact on the MetroLink Railway Order application, it will be required and used for the detailed design phase. Subsequent detailed discussions with IW have been based on the correct information	

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30	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project GDD and MetroLink Interaction – Details (iii) Proposed Embankment: Constructability & Operability Issues	15	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.	Please refer to Response (4) above.	
31	Description of the Known and Future Likely Interactions M) Greater Dublin Drainage (GDD) Project GDD and MetroLink Interaction – Details (iiii) Planning Report	15	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.	This is an omission. TII confirm that the GDD planning application has been considered in all of the consideration of alternatives, cumulative impacts and other work in relation to the Dardistown lands. This will be addressed in an erratum to the Railway Order application at the oral hearing.	
32	Conclusion	16	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,;	TII agree. Please also refer to Response (3) above.	

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33	Conclusion	16	<p>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:</p> <p>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.</p> <p>o 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</p> <p>o The correct detailing of GDD project on drawings and references to same in TIIs Planning Report is required</p> <p>o Constructability – greater detail is required on the likely interactions between GDD and MetroLink during construction (i.e., Programme Scenarios)</p>	Please refer to Response (4) above.	