

Uisce Éireann

Compulsory Purchase Order 2025

**Water Supply Project Eastern and
Midlands Region**

**Compulsory Purchase Order
Engineers Report**

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Acronyms and Abbreviations

Acronym	Meaning
AA	Appropriate Assessment
BPS	Booster Pumping Station
BPT	Break Pressure Tank
CC	Construction Compound
CPO	Compulsory Purchase Order
DYAA	Dry Year Annual Average
DYCP	Dry Year Critical Peak
EC	European Commission
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
ESBN	Electricity Supply Board Network
FCV	Flow Control Valve
FOAR	Final Options Appraisal Report
GDA	Greater Dublin Area
GDA WRZ	Greater Dublin Area Water Resource Zone
HLPS	High Lift Pumping Station
IEMA	Institute of Environmental Management and Assessment
kV	Kilovolt
LoS	Level of Service
Mld	Million litres per day
NIS	Natura Impact Statement
NWRP	National Water Resources Plan
NYAA	Normal Year Annual Average
OWP	Options Working Paper
POAR	Preliminary Options Appraisal Report
PNR	Project Need Report
PSD	Pipe Storage Depot
RWRP	Regional Water Resources Plan
RWI&PS	Raw Water Intake and Pumping Station
RWRMs	Raw Water Rising Mains
SDB	Supply Demand Balance
SEA	Strategic Environmental Assessment
TPR	Termination Point Reservoir
WAFU	Water Available for Use
WCP	Winter Critical Peak

Compulsory Purchase Order Engineers Report – Water Supply Project – Eastern and Midlands Region

Acronym	Meaning
WRZ	Water Resource Zone
WSSP	Water Services Strategic Plan
WTP	Water Treatment Plant

1. Introduction

1. The Proposed Project is a water supply pipeline involving the abstraction and pumping of raw water from the Lower River Shannon at Parteen Basin; treatment of the water nearby at Birdhill, County Tipperary; and pumping of the treated water to a high point near Cloughjordan, County Tipperary and on through the Midlands to a termination point at Peamount, in County Dublin (within the administrative area of South Dublin County Council), where it would connect into the existing Greater Dublin Area Water Resource Zone (GDA WRZ) network.
2. The Proposed Project has been developed to deliver a long-term, sustainable and resilient water supply for the Eastern and Midlands Region, to meet the water demand from residential, commercial and industrial development to the year 2050 and beyond. The Proposed Project infrastructure would have the capacity to deliver water to meet the projected peak deficit of 280 million litres per day (Mld) of treated water in 2050, as set out in the Regional Water Resources Plan – Eastern and Midlands (the Eastern and Midlands Plan) (Irish Water 2022). A raw water abstraction consent of 300Mld is being sought to cover the operational requirements of providing up to 280Mld of treated water in 2050, with a provision of a further 20Mld to allow for potential future sustainability reductions from existing supply volumes. Although the peak output would be 300Mld, under normal conditions the Proposed Project would provide a treated water supply of typically 154Mld.
3. In total the pipeline would be approximately 172km in length and would be supported by six permanent Infrastructure Sites, of varying sizes and purposes. The pipeline would traverse the administrative areas of Tipperary County Council, Offaly County Council, Kildare County Council and South Dublin County Council. In, addition, the works needed to provide power to two of the Infrastructure Sites (referred to as the 38 kilovolt (kV) Uprate Works) would cross Clare County Council, Limerick City and County Council (as well as Tipperary). Therefore, six Local Authorities are partly within the Planning Application Boundary.
4. The Proposed Project would be constructed and operated within predominantly open countryside and has been designed to, generally, avoid towns and villages. Farming is the primary land use along the route and the Proposed Project would cross over 400 agricultural landholdings.
5. The Proposed Project would consist of the following main features:
 - Abstraction of raw water from Parteen Basin on the Lower River Shannon downstream of Lough Derg and the towns of Ballina and Killaloe
 - A Raw Water Intake and Pumping Station (RWI&PS) on the eastern shore of Parteen Basin would facilitate a maximum abstraction of up to 300Mld, during peak demand periods from the Lower River Shannon, downstream of Lough Derg
 - Two steel pipelines, approximately 2km in length, and each 1,500mm in diameter, referred to as the Raw Water Rising Mains (RWRMs). These would transfer raw water from the RWI&PS to a Water Treatment Plant (WTP) near Birdhill, County Tipperary and each pipe would be capable of transferring raw water up to a maximum throughput of 300Mld
 - The WTP would provide the infrastructure needed to clean the water to drinking standards and the capacity to pump the water through the Treated Water Pipeline
 - Approximately 170km of 1,600mm diameter single steel pipeline, comprising:
 - A Treated Water Pipeline from the WTP to a Break Pressure Tank (BPT) near Cloughjordan, County Tipperary, approximately 37km long

- A Treated Water Pipeline from the BPT to the Termination Point Reservoir (TPR) at Peamount, County Dublin, approximately 133km in length.¹
 - The TPR would have a capacity of 75 megalitres (Ml) and would provide the location for the Proposed Project to connect into the existing drinking water network
 - Pipeline infrastructure including a BPT near Cloughjordan, County Tipperary; a Booster Pumping Station (BPS) east of Birr, County Offaly; and a Flow Control Valve (FCV) south of Newtown in County Kildare, approximately 5km west of the TPR
 - Operational ancillary infrastructure at frequent intervals along the length of the pipeline including Line Valves, Air Valves, water discharge points (referred to as 'Washouts'), access points (referred to as Manways), parking Lay-Bys for maintenance access and power connections to the Line Valves
 - Power connections to the Infrastructure Sites² and Line Valves, including uprating of the existing Ardnacrusha – Birdhill 38 kV overhead line to deliver adequate electrical power to the RWI&PS and WTP and providing a new connection from a substation at Birr to the BPS.
6. In addition to this infrastructure, provision has been made for take-off points at strategic locations between the WTP and TPR. These would facilitate future potential connections to supply communities in the Midlands within the Water Supply Area³ without disruption to the operation of the pipeline. The location of these future potential connections align with the Eastern and Midlands Plan (Irish Water 2022). The connecting pipelines and associated infrastructure would be delivered by Uisce Éireann through separate projects, yet to be designed, and would be subject to their own separate consenting processes.

¹ A combination of pumping and gravity would be used to transfer water through the pipeline. Water would be pumped from the RWI&PS to the WTP and from the WTP to the BPT which is the high point along the pipeline. From the BPT, the water would usually flow by gravity along the remaining 133km to the TPR. However, at times when the volume of water needed is higher than approximately 165Mld, the water would be pumped through the whole length of the pipeline. The BPS provides the capacity to do this additional pumping when it is required.

² 'Infrastructure Sites' is the collective term that has been used for the RWI&PS, WTP, BPT, BPS, FCV and TPR.

³ The Water Supply Area is an area defined by the infrastructure and transfer pipeline, where the proximity of treated water supplies from the Proposed Project offers opportunities for potential future consolidation of existing smaller and more vulnerable public water supply schemes, in a resilient, well-supported configuration. Potential future connecting infrastructure would be subject to separate consenting processes.

7. An overview of the Proposed Project is shown in Image 1.1

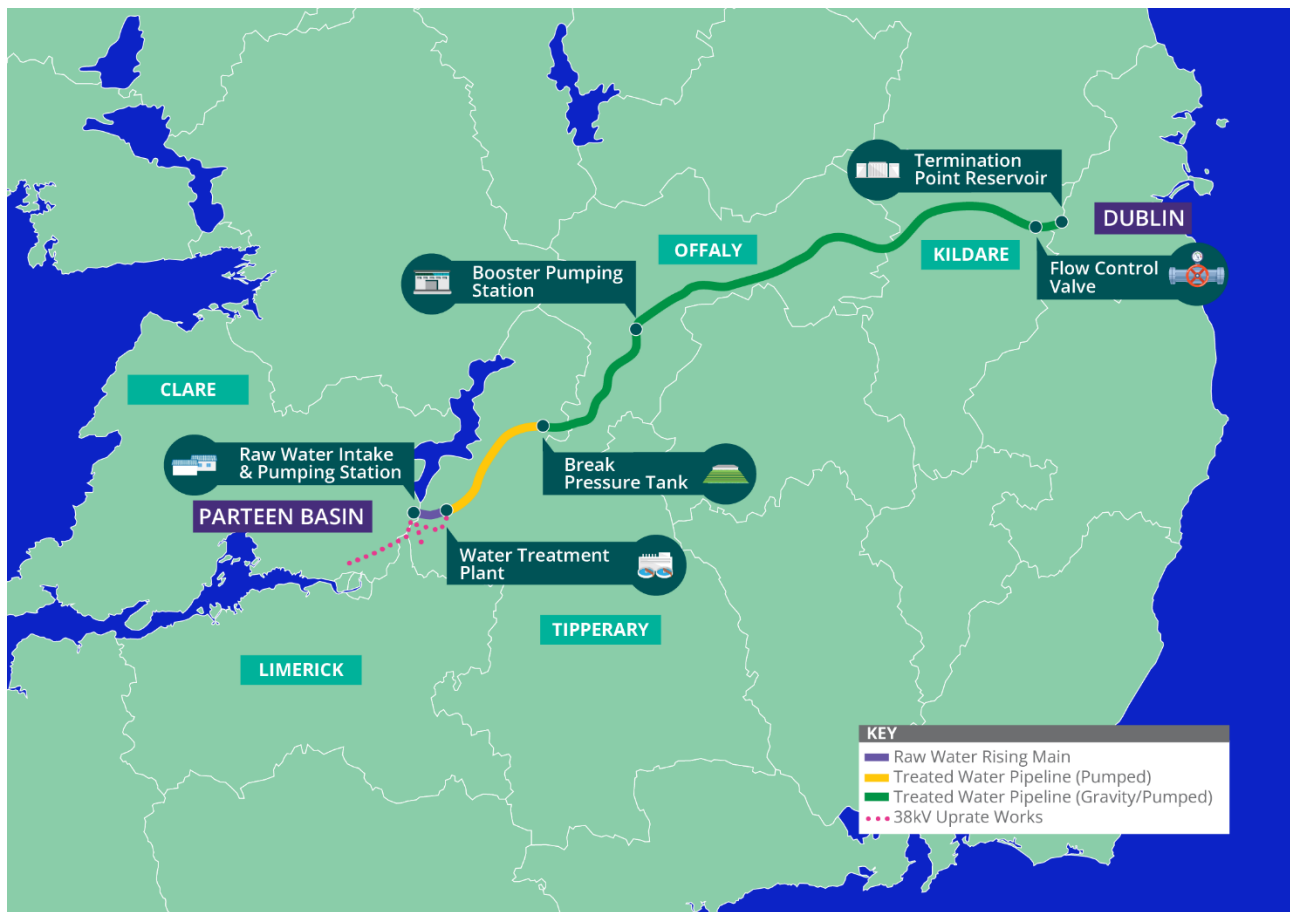


Image 1.1: Graphical Overview of the Proposed Project

8. The summary of the Proposed Project in this report includes the entirety of the works that are the subject of the Strategic Infrastructure Development planning application. However, it should be noted that powers for compulsory acquisition of land are not being sought for works associated with the provision of power connections including:
- 38 kV Uprate Works to supply power to two Infrastructure Sites (RWI&PS and the WTP)
 - The power connection for the BPS
 - The power connections to each of the Line Valves
 - Overhead line diversions and connections at Infrastructure Sites, Construction Compounds and Pipe Storage Depots.
9. It is intended that these works would be delivered by the Electricity Supply Board Network (ESBN) on behalf of Uisce Éireann. The lands associated with the 38 kV Uprate Works comprise of existing infrastructure and therefore will be subject to existing wayleaves. Where any additional lands are required to facilitate new connections, these will be delivered in accordance with ESBN's existing acquisition powers.
10. This report distinguishes between different stages of the development of the project by adopting the following terminology: 'Previous iterations of the project' refers to the In-Flight Water Supply Project developed prior to the adoption of the National Water Resources Plan (Irish Water 2021b and 2022) including the Eastern and Midlands Plan (Irish Water 2022). The 'Proposed Project' refers to the project that planning permission is being sought for and that has taken account of the conclusions of the National Water Resources Plan (Irish Water 2021b and 2022) including the Eastern and Midlands Plan (Irish Water

2022). The Proposed Project aligns with the Preferred Approach for the Eastern and Midlands Region, a New Shannon Source with transfers as set out in the Eastern and Midlands Plan (Irish Water 2022).

11. This report should be considered in conjunction with the following:

- Uisce Éireann Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Compulsory Purchase Order Drawings (IW/WSP/CPO/01 – IW/WSP/CPO/113)
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Compulsory Purchase Order Schedule
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Routing Report (JacobsTobin 2025a)
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Planning Report (Tom Phillips Associates 2025).
- Water Supply Project Eastern and Midlands Region – Environmental Impact Assessment Report (JacobsTobin 2025b)
- Water Supply Project Eastern and Midlands Region – Natura Impact Statement (JacobsTobin 2025c).

2. Purpose of this Report and Documents Enclosed

12. The purpose of this report is to recommend to the Managing Director the making of the proposed Uisce Éireann Compulsory Purchase (Water Supply Project Eastern and Midlands) Order 2025.
13. The report sets out how the development of the Proposed Project, through the National Water Resources Plan process, defines the infrastructure needed to deliver the Preferred Approach and its extent and consequently, explains the extent of the land needed for the Proposed Project. This complements the Compulsory Purchase Order Routing Report (JacobsTobin 2025a) which sets out why the proposed infrastructure is located where it is.
14. The Order is required for the purposes of Uisce Éireann advancing the Water Supply Project – Eastern and Midlands ('the Proposed Project') which is included in the Uisce Éireann Strategic Funding Plan 2025–2029.
15. The documents enclosed with this report are listed in the Schedule hereto. Save if indicated otherwise, this report relies on and adopts the content of the Compulsory Purchase Order Routing Report ('the CPO Routing Report') (JacobsTobin 2025a) and the Compulsory Purchase Order Planning Report ('the CPO Planning Report') (Tom Phillips Associates 2025), both dated December 2025.

3. The Functions of Uisce Éireann

16. On 1 January 2014 all functions conferred on water services authorities by the Water Services Act 2007 (other than excluded provisions as defined by section 2 of the Water Services (No. 2) Act 2013 and functions under section 22 of the Water Services Act 2007) were transferred to Irish Water by section 7(1) of the Water Services (No. 2) Act 2013. In 2024 Irish Water became Uisce Éireann.
17. Consequently, Uisce Éireann has powers, duties and functions to make proper provision for water services as defined in the Water Services Act 2007. In this regard, Uisce Éireann is responsible for the provision and development of water services, including the collection, treatment and discharge of urban wastewater. The transferred functions include all functions necessary to Uisce Éireann's adoption and carrying into effect of the Water Supply Project Eastern and Midlands Region and to the proposed Compulsory Purchase Order.
18. As a Water Services Authority, Uisce Éireann has under sections 31 and 32 of the Water Services Act 2007, powers and function to provide water services including but not limited to the provision, operation or maintenance of sewers and waste water collection and treatment facilities, the construction or maintenance, or arrangement for the construction and maintenance of, water works, or waste water works and the purchasing or obtaining premises or wayleaves that are necessary to fulfil its functions under the Water Services Act 2007. The Proposed Project is for the provision of water services within these sections.
19. Section 93 of the Water Services Act 2007 provides that Uisce Éireann, as a Water Services Authority, may acquire land for the purpose of performing any of its functions under the Water Services Act 2007, and that the Planning and Development Act 2000, section 182 (Laying of Cables, Wires and Pipelines) and Part XIV (Acquisition of Land) apply to a water services authority, thereby providing Uisce Éireann with powers of compulsory purchase. For the reasons set out in this report, it is necessary for Uisce Éireann to use its compulsory purchase powers under the Water Services Act 2007, for the purposes of Uisce Éireann's performing its functions under the Water Services Act 2007, as they relate to the Proposed Project.
20. Uisce Éireann is responsible for the implementation of the Proposed Project and has the power, under the Water Supplies (No. 2) Act 2013, section 11, to continue any water services project commenced by a local authority, including the Proposed Project.

4. The Existing Situation and the Need for the Project

21. The Eastern and Midlands Plan (Irish Water 2022) identified that a new source from the River Shannon is the Preferred Approach at Regional Level for supplying the GDA WRZ and a further 36 Water Resource Zones (WRZs) in the Midlands and East, with those 36 WRZs supplied through the Greater Dublin Area water network and through offtakes from the transfer pipeline from the River Shannon en route to the Greater Dublin Area.
22. Having examined the outcomes of the National Water Resources Plan (Irish Water 2021b and 2022) including the Eastern and Midlands Plan (Irish Water 2022), it was concluded that the In-Flight Water Supply Project consisting of a new water supply abstraction at Parteen Basin on the Lower River Shannon and a treated water pipeline to Dublin, with potential to supply a number of locations across the Midlands and East, was substantially consistent with the Preferred Approach identified in the Eastern and Midlands Plan (Irish Water 2022) consisting of the New Shannon Source with transfers.
23. This section presents the water supply requirement ('volume') which the Proposed Project infrastructure would be required to have the capacity to abstract and deliver.

4.1 Project Objectives

24. The objectives of the Proposed Project, taking account of the Eastern and Midlands Plan and the recommendations as set out in Section 5.6 of this report are to:
 - Provide a sustainable water supply from a New Shannon Source
 - Address critical supply issues in the Greater Dublin Area with provision for future supplies to multiple WRZs in the Region
 - Increase resilience of supplies and Levels of Service
 - Deliver a flexible, future-proofed solution that is responsive to change.
25. Once completed, the Proposed Project infrastructure will provide the capacity to meet the needs of 36 WRZs across the Eastern and Midlands Region in order to align with the Eastern and Midlands Plan (Irish Water 2022). It would do this by securing a new source of drinking water from the River Shannon at Parteen Basin. This would provide the capacity to supply up to 300Mld to the GDA WRZ and the Proposed Project's wider Water Supply Area. Overall, this volume of water would:
 - Immediately meet the identified need for water within the GDA WRZ to 2050 and beyond
 - Enable the future supply to 17 other WRZs by re-directing supplies within the GDA WRZ and expanding the GDA WRZ by incorporating these WRZs into the GDA Regional WRZ, when future projects are brought forward by Uisce Éireann
 - Enable the future supply to a further 18 WRZs across the Midlands from take-off points along the pipeline and facilitate the consolidation of those WRZs into four new WRZs, when future projects are brought forward by Uisce Éireann
 - Make provision for potential reductions in existing supply volumes due to sustainability requirements anticipated under the new abstraction licensing regime.

4.2 Water Supply Area

26. The Proposed Project must provide the infrastructure with the capacity to be able to supply sufficient water to meet a deficit in supply for 36 WRZs, which once connected to the new supply from the River Shannon, would be rationalised into five WRZs as follows:
 - GDA Regional WRZ

- Tullamore / Mountbolus WRZ
- Mullingar Regional WRZ
- Dunkerrin / Moneygall / Borrisokane WRZ
- Newport / Killaloe WRZ.

4.2.1 GDA WRZ

27. The GDA WRZ is the WRZ which includes the vast majority of County Dublin, including Dublin City, along with significant parts of the population in Counties Kildare, Meath and Wicklow. The GDA WRZ serves an estimated 1.7 million people⁴ with estimated growth to 2.1 million by 2050.
28. The GDA WRZ comprises a range of Infrastructure elements covering water abstraction, treatment, storage and distribution networks. The water treatment plants, reservoirs and the geographical extent of the GDA WRZ is illustrated in Image 4.1.

⁴ Population data for the GDA WRZ, Central Statistics Office, 2016. National Census of Ireland. [online] [Accessed 10 May 2021].

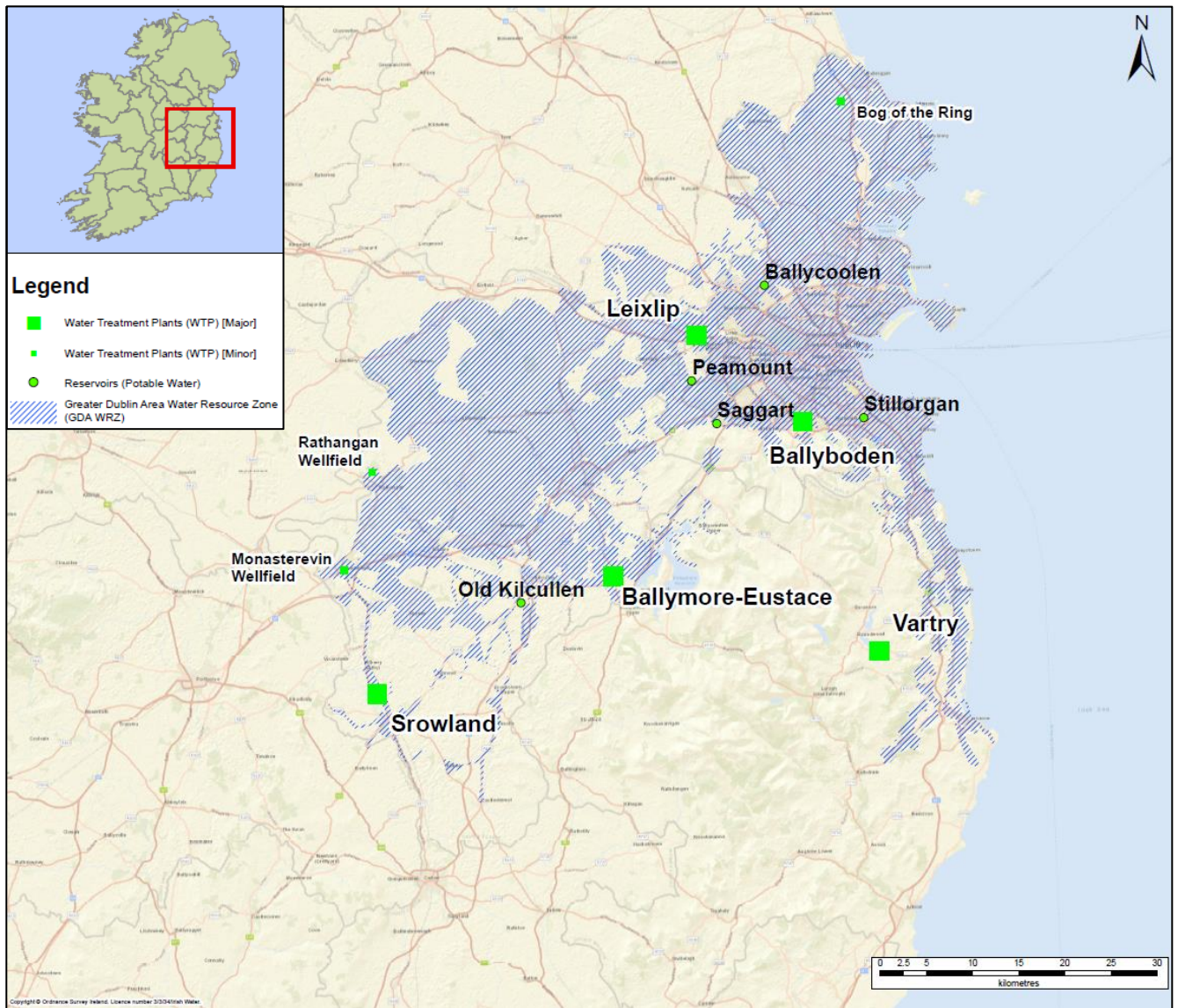


Image 4.1: GDA WRZ and Major WTPs

4.2.2 Overall Water Supply Area

29. The Water Supply Area is defined in Section 5.5.3 and 5.6. It consists of the 36 WRZs that are identified in the Eastern and Midlands Plan (Irish Water 2022) to be supplied from a New Shannon Source with transfers.⁵ Image 4.2 provides an overview of the pipeline and the proposed take-off points needed to facilitate transfers via future connections and future projects to deliver water within the Water Supply Area.

⁵ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalized and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

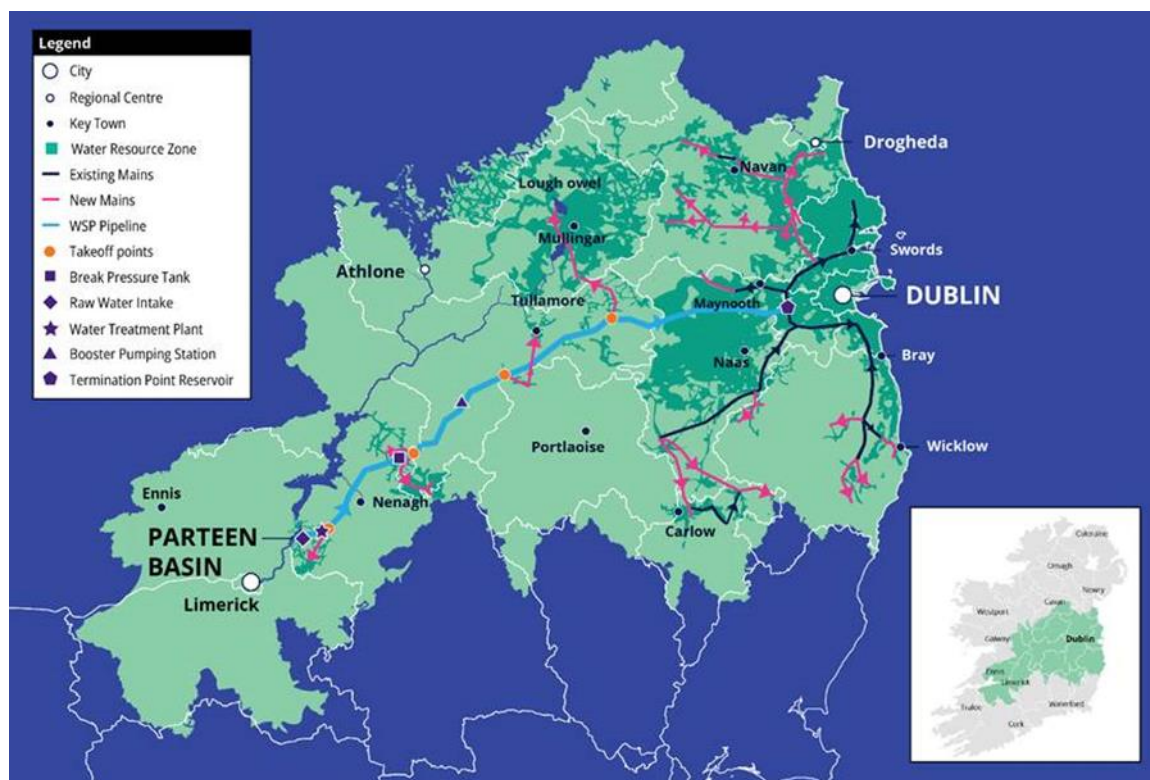


Image 4.2: Overview of the Water Supply Area

30. Regarding the composition of the Water Supply Area, Barndarrig WRZ and Redcross WRZ have subsequently been rationalised and combined. Therefore, there are 35 Water Resource Zones and the Greater Dublin Area, within the Water Supply Area that the Proposed Project is to meet the water supply requirement for, a combined total of 36 Water Resource Zones. This does not affect the volume of water to be supplied.

4.3 Target Level of Service

31. The Level of Service (LoS) refers to the reliability of the supply that Uisce Éireann's customers can expect to receive and is expressed as a frequency or return period of supply failure. Further details of LoS may be found in Appendix D of the National Water Resources Plan Framework Plan (Irish Water 2021b). For example, if the LoS is stated as 1 in 50, as a consumer, statistically, you would only ever expect to experience a water outage or severe limitations to your supply, on average, once every 50 years. This would be a 2% chance that in any given year that there would be a supply failure.
32. A failure in supply could result in increased 'outages' (where water is not available), 'do not drink' notices or 'boil' notices (where water must be boiled before it is drunk).
33. In the National Water Resources Plan Framework Plan (Irish Water 2021b), Supply Demand Balance (SDB) assessments have been developed for each WRZ based on a 1 in 50-year LoS. This means Uisce Éireann would aim to provide a uniform minimum of 1 in 50-year LoS across the entire public water supply over time.
34. The current LoS in Ireland varies according to location, ranging from lower than 1 in 10 to better than 1 in 50.

35. A target LoS had not previously been incorporated in SDB calculations for previous iterations of the project. However, a 1 in 50-year target is an input to the National Water Resources Plan (Irish Water 2021b and 2022) methodology and calculations and therefore has been adopted in the underlying assumption for the assessment of need to be addressed by the Proposed Project.
36. This is directly linked to the yield assessments for raw water sources, which calculate the estimated yields for a range of return periods based on analysis of historic records. The SDB is then developed using a given LoS from the yields calculated for the corresponding return period.

4.4 Resilience

37. The National Water Resources Plan (Irish Water 2021b and 2022) defined a resilient water resource as one with enough capacity to mitigate the impacts to water supply when operational issues occur, which includes:
 - Unplanned outages
 - Low flows exacerbated by climate change
 - Regulatory changes.
38. Uisce Éireann states that a key constituent of resilience is plant and network performance, wherein it emphasises that reliance on a single source or treatment plant renders a WRZ vulnerable to not maintaining service levels in the event of an outage.
39. The GDA WRZ is not currently resilient, as defined by the criteria in the National Water Resources Plan (Irish Water 2021b and 2022), as it is heavily reliant on a single source, the River Liffey, for its water supply. Approximately 85% of water to the GDA WRZ comes from this one source.
40. Being heavily dependent on one source of water supply means that there is very limited resilience within the existing system. An emergency event on the River Liffey or an extended outage at Leixlip or Ballymore Eustace Water Treatment Plants, would result in a shortage of water supply to the GDA WRZ, resulting in social, economic and public health issues.
41. The Proposed Project would introduce a significant increase in water supply to the GDA WRZ from a new source, the River Shannon, thereby increasing resilience within the Water Supply Area including the GDA WRZ.

4.5 Supply Demand Balance

42. The forecast increase in domestic and non-domestic water demand combined with operational requirements, illegal connections, leakage, required headroom allowances and peaking results in an increase in the Dry Year Critical Peak (DYCP) water demand for the GDA WRZ to 774Mld by 2050 as shown in Table 4.1.

Table 4.1: GDA WRZ Supply Demand Balance

	Supply Demand Balance Mld ⁶						
	2019	2025	2030	2035	2040	2044	2050
Demand:-							
Domestic	207	221	232	241	250	257	257
Non – Domestic	139	200	208	216	225	231	241
Water Taken Unbilled – Illegally	6	6	6	6	6	6	6
Operational Use	6	6	6	6	6	6	6
Leakage	215	165	122	122	122	122	122
Average Demand	572	598	574	591	609	623	633
Normal Year Annual Average (NYAA) Water Available for Use (WAFU)	571	599	595	594	593	593	592
NYAA Demand	618	645	620	639	658	673	683
NYAA Deficit	-48	-47	-25	-45	-65	-80	-92
Dry Year Annual Average (DYAA) WAFU	516	539	533	532	530	529	528
DYAA Demand	630	658	633	653	673	689	700
DYAA Deficit	-114	-120	-100	-122	-144	-160	-172
Dry Year Critical Peak (DYCP) WAFU	565	590	584	582	581	580	578
DYCP Demand	697	728	700	722	745	762	774
DYCP Deficit	-132	-139	-117	-141	-164	-183	-197
Winter Critical Peak (WCP) WAFU	595	629	629	629	629	629	629
WCP Demand	742	775	744	766	789	807	820
WCP Deficit	-147	-146	-115	-137	-160	-178	-191

43. There is a need for 34% more water to be available to meet the needs of the GDA WRZ by 2050 than there is forecast to be available⁷. The need is based on the maximum or critical supply demand deficit (i.e. the DYCP scenario) to ensure there is adequate water for all weather planning scenarios and to deliver a 1 in 50-year LoS.
44. The deficits in the GDA WRZ in the NYAA and DYCP scenarios are shown graphically in Image 4.3 and Image 4.4 respectively.

⁶ All numbers within the table are subject to rounding.

⁷ Based on DYCP WAFU in 2050 vs. DYCP demand in 2050.

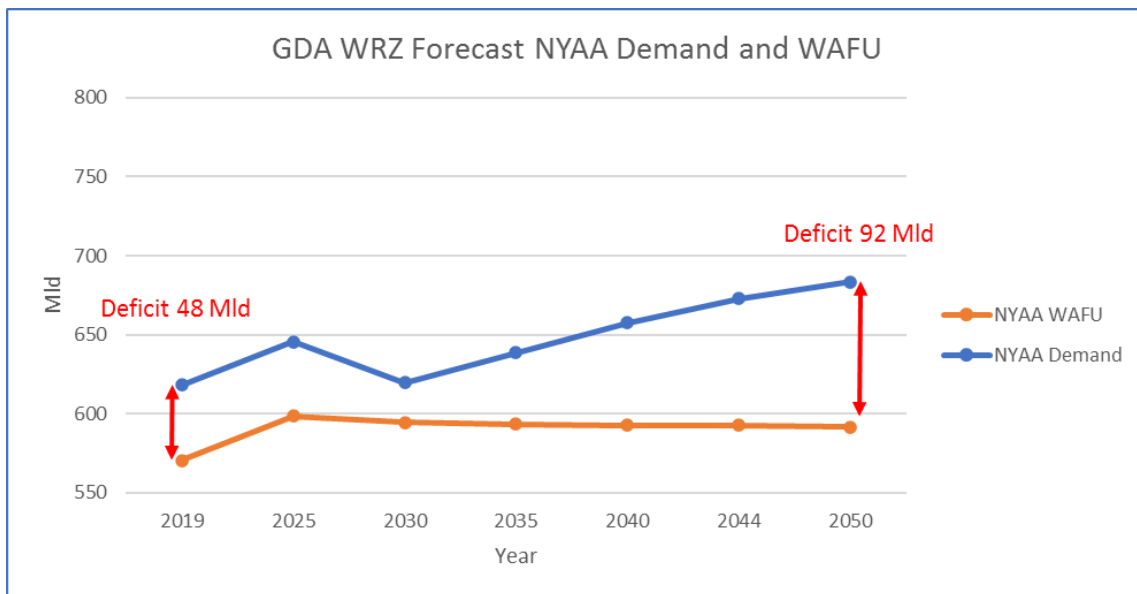


Image 4.3: GDA WRZ Forecast NYAA Demand and WAFU

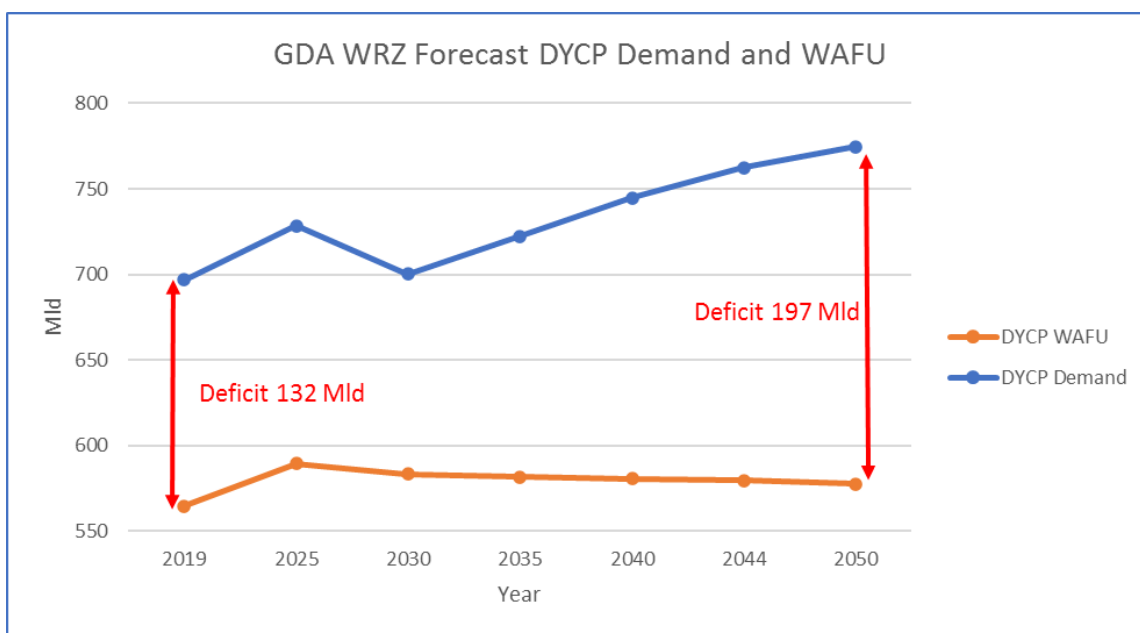


Image 4.4: GDA WRZ Forecast DYCP Demand and WAFU

45. With 578Mld of water available (DYCP) for the GDA WRZ projected for 2050, this results in a 197Mld water supply deficit in the GDA WRZ. There is also projected to be an 83Mld deficit (as calculated post-connection to the New Shannon Source) in the other 36 WRZs⁸ that would make up the Water Supply Area, in the same timeframe. By 2050, there would be a total DYCP deficit of 280Mld to be addressed as shown in Table 4.2.

⁸ 37 Water Resource Zones were identified in the Regional Water Resources Plan – Eastern and Midlands consisting of the GDA WRZ and 36 other WRZs. Subsequently Bardarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

Table 4.2: Treated Water Requirement in the GDA and 36⁹ Other WRZs by 2050¹⁰

Component – GDA	2020 (Mld*)		Component – GDA	2050 (Mld*)
Domestic Usage	209		Domestic Usage	257
Non-domestic Usage	142		Non-domestic Usage	241
Operational	6		Operational	6
Illegal Connections	6		Illegal Connections	6
Leakage	207		Leakage	122
Total Distribution Input	569		Total NYAA Demand	633
Headroom 8%				51
Peaking (DYCP)				91
Water Requirement for GDA (DYCP)				774
Water available for GDA (DYCP)				578
GDA Deficit (DYCP)				-197
Deficit in 36 ¹¹ other WRZs (DYCP)				-83
Total Deficit (DYCP)				-280
(*Note: Rounding may apply)				

⁹ 37 Water Resource Zones were identified in the Regional Water Resources Plan – Eastern and Midlands consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

¹⁰ Supply Demand Balance based on adopted Regional Water Resources Plan – Eastern and Midlands Region projected to 2050.

¹¹ 37 Water Resource Zones were identified in the Regional Water Resources Plan – Eastern and Midlands consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

4.6 Provision for Reductions in Existing Supplies

46. The National Water Resources Plan (Irish Water 2021b and 2022) baseline SDB projections could not take account of some anticipated reductions in the amount of water that the Environmental Protection Agency (EPA) would permit to be abstracted from some existing sources for sustainability reasons under the incoming abstraction licensing regime.
47. It has been acknowledged in the National Water Resources Plan (Irish Water 2021b and 2022), that a risk of reductions in volumes of water available from the current levels of abstraction from a number of existing sources is possible when they are licensed. It is known that this would occur, but it is uncertain as to the extent of these reductions and therefore, the reduction is currently unquantifiable. Nevertheless, it is considered prudent that Uisce Éireann should make an allowance for sustainability reductions to existing sources when determining its maximum abstraction required from the Lower Shannon for the purposes of progressing the design and statutory consents for the Proposed Project.
48. It is not possible to determine a precise figure (because the extent of any reductions in abstraction volumes as a result of the EPA licensing regime is not information that is currently known) and it is impossible to predict. Given that provision must be made for this eventuality, Uisce Éireann considered that an allowance of an additional 20Mld to the forecast deficit of 280Mld at 2050 is appropriate on a prudent provision basis. This allowance of 20Mld is Uisce Éireann's best current estimate of what would be required to address these potential reductions to existing supplies.

4.7 Summary of the Project Need

49. On the basis of a current forecast SDB deficit of 280Mld and an additional prudent provision of 20Mld the Proposed Project infrastructure shall be designed and developed on the basis of having the capacity to abstract and deliver 300Mld as set out in Table 4.3. This aligns with the Preferred Approach identified in the National Water Resources Plan (Irish Water 2021b and 2022) including the Eastern and Midlands Plan (Irish Water 2022).

Table 4.3: Total Volume of Water To Be Supplied by the Proposed Project

Demand	2050 Mld*
GDA	197
35 WRZs ¹²	83
Provision for potential sustainability reductions from existing supply volumes due to future abstraction licensing	20
Total Peak Volume of Water	300

50. Accordingly, I am satisfied that there is a **community need** to be met by the Proposed Project underlying the proposed Compulsory Purchase Order, that the Proposed Project will meet that community need and that, accordingly, the Proposed Project is in the public interest.

¹² 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

5. History of Scheme Development

5.1 Project History

51. The development of the Proposed Project has been the result of an iterative process, over an extended period. The reasonable options to deliver a long-term sustainable water supply source, for the Dublin Region and the wider Eastern and Midlands Region, were examined through the Eastern and Midlands Plan (Irish Water 2022) in order to meet long-term water demand from residential and commercial development. This demand is described in Section 4. Image 5.1 summarises the history of the project.

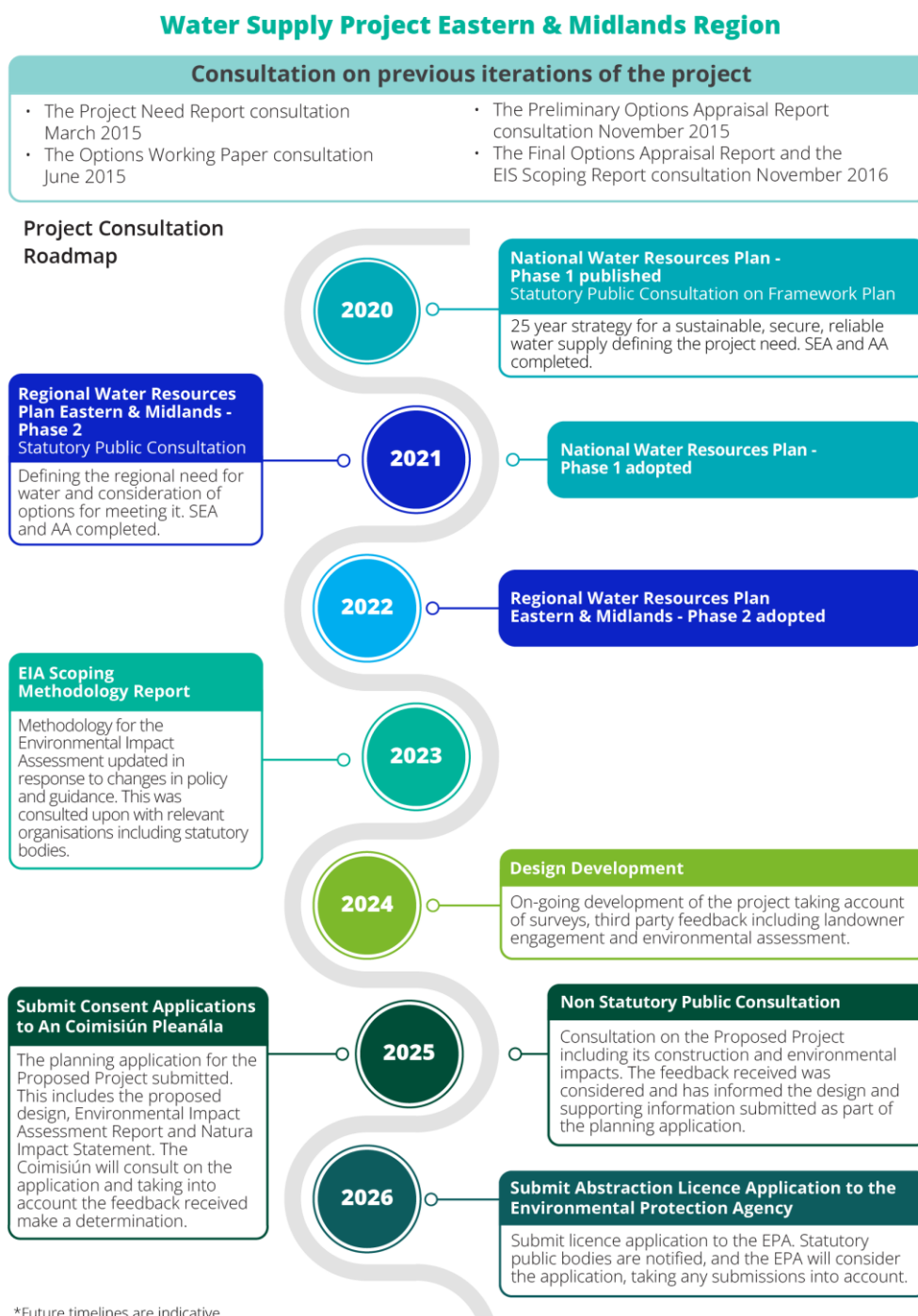


Image 5.1: Project Roadmap

5.2 Previous Iterations of the Project

52. The emergence of a long term solution to the water supply needs of Dublin and surrounding areas has been underway since the mid-1990s, originally under Dublin City Council acting on behalf of the four Dublin local authorities along with Kildare and Wicklow County Councils. The development of previous iterations of the project to deliver water to Dublin from the River Shannon were the result of a design process, over an extended period, which examined the options that existed at the time to deliver a long-

term sustainable water supply source, initially for the Dublin Region and latterly for the Dublin Region and an additional Benefiting Corridor.¹³

53. An initial Strategic Environmental Assessment (SEA) (Phase 1) was published in 2006, (Dublin City Council 2006) following a Feasibility Study of three water supply options which commenced in 2004, as part of 'The Plan – Water Supply Project Dublin Region' (Dublin City Council 2008). Feasibility Studies on 10 options were completed in 2007/08, in conjunction with the Plan ('The Plan – Water Supply Project Dublin Region') (Dublin City Council 2008) and SEA (Phase 2) process .
54. On taking responsibility for the previous iteration of the project, but prior to the development of the National Water Resources Plan (Irish Water 2021b and 2022), Uisce Éireann carried out four key stages of assessment and four non-statutory public consultation processes between 2015 and 2017. In addition to the consultations, the technical and environmental assessments, ground investigations and computer modelling simulations, were also used to identify a preferred scheme for a new water supply for the Eastern and Midlands Region.
55. The consultations were undertaken on the Project Need Report – February 2015 (PNR) (Irish Water 2015b), Options Working Paper – June 2015 (OWP) (Irish Water 2015c), Preliminary Options Appraisal Report – November 2015 (POAR) (Irish Water 2015c), and Final Options Appraisal Report – November 2016 (FOAR) / Environmental Impact Statement – Scoping Report¹⁴ (Irish Water 2016).
56. Table 5.1 summarises the timeline in the development of previous iterations of the project.
57. The final preferred option, prior to the Eastern and Midlands Plan (Irish Water 2022) was set out in the FOAR.

Table 5.1: Timeline for Previous Iterations of the Project

Stage	Date	Description
'The Plan – Water Supply Project Dublin Region' Draft (Dublin City Council 2006)	2006	An initial SEA (Phase 1) was published in 2006, following a Feasibility Study of three water supply options which commenced in 2004. The three options comprised: • Liffey / Barrow Conjunctive Use • Lough Ree on the River Shannon • Desalination in North County Dublin.
'The Plan – Water Supply Project Dublin Region' Final (Dublin City Council 2008)	2008	Feasibility Studies on the 10 options were completed in 2007/08, in conjunction with the Plan ('The Plan – Water Supply Project Dublin Region') and SEA (Phase 2) process which commenced in early 2008. The SEA (Phase 2) and Appropriate Assessment (AA) processes were carried out in respect of the Plan, thus ensuring that consultation and the environmental significance of the 10 options were considered and informed certain changes to the Plan.
Project Need Report (PNR) (Irish Water 2015b)	February 2015	The PNR confirmed the need for a new water supply source for the Dublin Water Supply Zone and a Benefiting Corridor, based on demographic projections, economic assessment of water supply in the regional and national economy, water demand projections and on considerations of resilience of supply.
Options Working Paper (OWP) (Irish Water 2015c)	June 2015	The 10 water supply options, initially considered in the Plan, and subject to SEA and AA, were subsequently reviewed in the OWP. It determined that four of the options identified in the Plan, were technically viable and therefore appropriate to be brought forward for further consideration.

¹³ The Benefiting Corridor was an area defined by the infrastructure and transfer pipeline, where the proximity of treated water supplies from the in-flight project offered opportunities for future consolidation of existing smaller and more vulnerable public water supply schemes, in a resilient, well-supported configuration. Future connecting infrastructure would be subject to separate consenting processes. This has subsequently been replaced by the Water Supply Area as set out in Section 4.2.

¹⁴ The FOAR and Environmental Impact Statement – Scoping Report were incorporated into a single public consultation.

Stage	Date	Description
Preliminary Options Appraisal Report (POAR) (Irish Water 2015d)	November 2015	The POAR set out the details of the assessment process for the four technically viable options and considered and evaluated them, taking into account preliminary results of investigative surveys and modelling at the time, which had been continuing over the interim period. This consultative assessment was done to identify an Emerging Preferred Option from the four water supply options determined as technically viable in the OWP. The consultative assessment incorporated: • A review of the submissions from the public consultation on the OWP • Investigative studies recommended by the SEA, including a water quality survey and model of Lough Derg and a full geophysical survey of the soil and bedrock conditions at the potential raw water storage site at Garryhinch, County Offaly • A multi-criteria analysis of each of the options, based on published criteria reviewed following consultation. The POAR determined that, following investigative surveys, options involving abstraction from the north-east quadrant of Lough Derg (Option B and F2) did not meet environmental and technical requirements.
Final Options Appraisal Report (FOAR) (Irish Water 2016)	November 2016	The FOAR examined the two remaining options, (abstraction from the River Shannon at the Parteen Basin, and desalination of seawater at the coast in Fingal), providing more detailed assessment of the distribution of impact on residence times under a range of scenarios, and Cost Benefit Analysis of both options.

5.3 The National Water Resources Plan

58. Since the FOAR Uisce Éireann has adopted Ireland's first National Water Resources Plan for public water supply. The National Water Resources Plan, composed of the Framework Plan (Irish Water 2021b) and the four Regional Water Resources Plans, is one of Uisce Éireann's Tier 2 Implementation Plans and its formulation and adoption is an objective outlined within Uisce Éireann's Tier 1 Water Services Strategic Plan 2050 (WSSP) (Uisce Éireann 2025). The National Water Resources Plan focusses on water supply, set out within the objectives of the WSSP 2050 (Uisce Éireann 2025).
59. These WSSP 2050 (Uisce Éireann 2025) objectives are:
- Safe and Reliable Drinking Water
 - Support our Customers, Communities & the Economy
 - Protect and Restore our Environment
 - Sustainable Services fit for the future.
60. The National Water Resources Plan (Irish Water 2021b and 2022), being Uisce Éireann's strategic framework for the delivery of water services will guide the company in the planning of projects and programmes to address water supply issues nationally in a manner consistent with relevant national policies. These projects and programmes will then be prioritised and brought forward through regulated five-year investment cycles.
61. The objective of the National Water Resources Plan (Irish Water 2021b and 2022) is to implement a strategic plan to meet Ireland's water requirements over the short, medium and long term by ensuring a safe, secure, sustainable and reliable water supply for all consumers.
62. The National Water Resources Plan was delivered in two phases.
- Phase 1, the National Water Resources Plan Framework Plan (the 'Framework Plan') (Irish Water 2021b) set out the approach to identifying water supply needs and quantifying those needs up to the year 2044. It also described the approach to identifying solutions to address the water supply needs across all of Uisce Éireann's water supplies. The Framework Plan, following public consultation, was finalised and adopted in spring 2021
 - Phase 2 comprised the development of four Regional Water Resources Plans to identify the optimal technical solutions (the 'Preferred Approaches') required to address the needs outlined in the Framework Plan. The Eastern and Midlands Region is shown in Image 5.2. The Regional Water Resources Plan – Eastern and Midlands Region (the 'Eastern and Midlands Plan') (Irish Water 2022), was adopted in autumn 2022, following public consultation.
63. The key outcome from the Framework Plan (Irish Water 2021b), and the Eastern and Midlands Plan (Irish Water 2022), relevant for consideration of the In-Flight Water Supply Project was that a New Shannon Source with transfers, comprising an abstraction from Parteen Basin and a transfer of treated water to a termination point reservoir in Dublin, is the Preferred Approach to address SDB deficits in 37¹⁵ WRZs in the Eastern and Midlands Region.

¹⁵ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

64. The 37 WRZs are proposed to be supplied by the following means:
- Direct supply from the New Shannon Source transfer pipeline connecting to the GDA WRZ at Peamount
 - Offtakes from the New Shannon Source transfer pipeline to WRZs in the Midlands
 - Supply from the GDA WRZ to other WRZs in the East facilitated by the additional supply available from the New Shannon Source to the GDA.
65. The Framework Plan (Irish Water 2021b) and the Eastern and Midlands Plan (Irish Water 2022) noted that understandably planning for many projects was underway and projects were initiated prior to the development of the Framework Plan. These projects are called ‘in-flight’ projects and the Water Supply Project was one such in-flight project (this is referred to as the ‘In-Flight Water Supply Project’).
66. Following the adoption of the Framework Plan (Irish Water 2021b) and the applicable Eastern and Midlands Plan (Irish Water 2022), Uisce Éireann undertook an exercise where all ‘in-flight’ projects were compared against the relevant Preferred Approaches identified in the Framework Plan (Irish Water 2021b). Uisce Éireann then considered to what extent an in-flight project could or should be adapted in light of the Preferred Approaches, on a ‘case by case’ basis. This exercise was undertaken in respect of the previous iteration of the project, the In-Flight Water Supply Project.
67. The examination of the In-Flight Water Supply Project in light of the Preferred Approaches contained within the Eastern and Midlands Plan (Irish Water 2022) is set out in Sections 5.4 to 5.6.
68. For the avoidance of doubt, all references below to the ‘In-Flight Water Supply Project’ refer to the previous iteration of the project, which preceded the adoption of the Framework Plan and the Eastern and Midlands Plan. Section 5.6 explains how the conclusions of the review that was undertaken relate to the current, Proposed Project which is the subject of the Strategic Infrastructure Development Planning Application and Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.

5.4 Examination of the In-Flight Water Supply Project in Light of the Eastern and Midlands Preferred Approach

5.4.1 Summary of the In-Flight Water Supply Project

69. The In-Flight Water Supply Project, as set out in the FOAR, published in 2016, was an abstraction of water from the Lower River Shannon at Parteen Basin in County Tipperary with water treatment nearby at Birdhill. Treated water would then be piped 170km to a termination point reservoir at Peamount in south County Dublin, with provision being made for supplies to communities along the route of the pipeline, and ultimately connecting into the Greater Dublin network at Peamount.

5.4.2 Summary of the Framework Plan and Eastern and Midlands Plan Outcomes

70. In the Eastern and Midlands Plan (Irish Water 2022) the options appraisal process was initially applied locally to each WRZ within an individual Study Area in the region. After that a wider assessment area was considered to determine whether there were larger scale options that might resolve deficits across multiple WRZs within the same Study Area. Consequently, the assessment area size was further increased, and the methodologies were applied at a regional level.

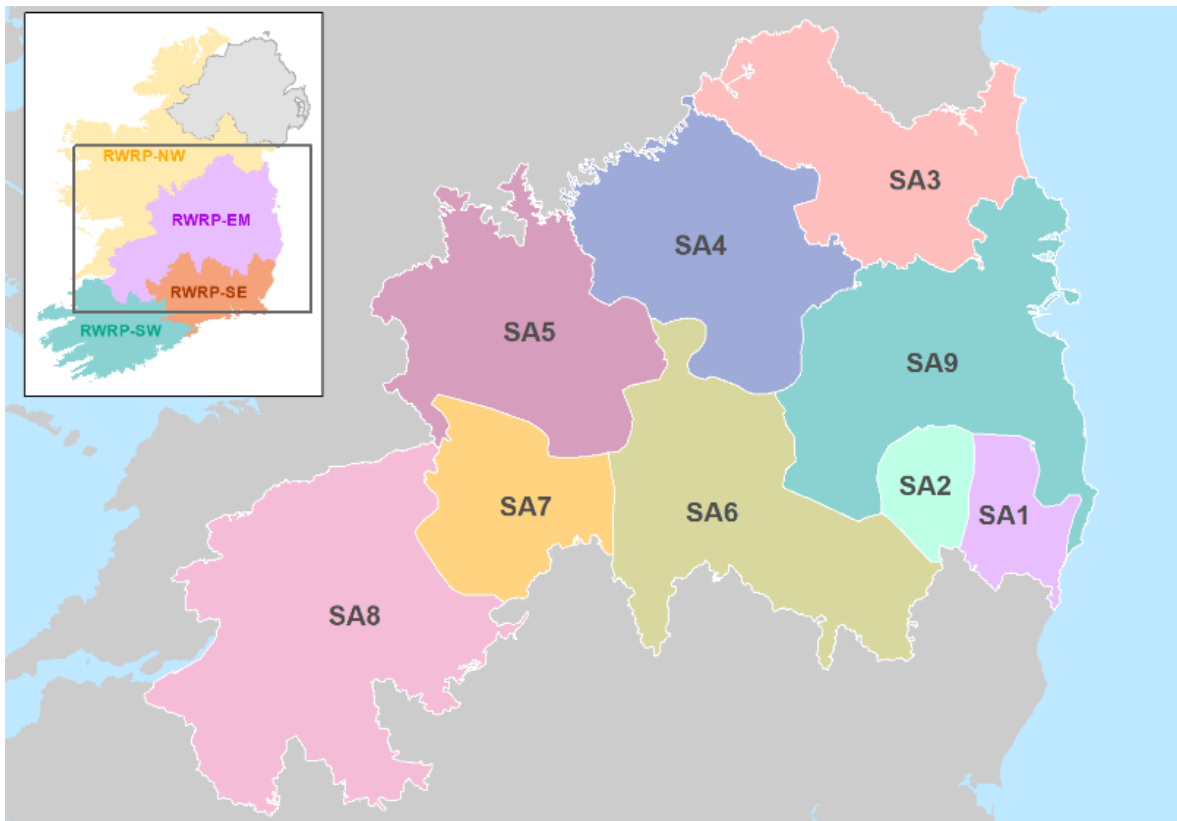


Image 5.2: Study Areas Within the Eastern and Midlands Plan

71. In the National Water Resources Plan (Irish Water 2021b and 2022), the GDA was defined as a single WRZ and a single Study Area (Study Area 9, 'SA9').
72. For the GDA WRZ the Preferred Approach identified in the Eastern and Midlands Plan was a new supply from the Lower Shannon. The plan stated that for Study Area 9 (the GDA): *'As a single WRZ, the Preferred Approach for SA9 is both the WRZ Level Approach and the SA Preferred Approach.'*
73. In addition, the Preferred Approach identified for the GDA (SA9) in the Eastern and Midlands Plan (Irish Water 2022) was a New Shannon Source which had the potential to supply multiple WRZs within the Region and was the only Regional Option outlined.
74. Therefore, the Eastern and Midlands Plan (Irish Water 2022) identified a new source from the River Shannon is the Preferred Approach at Regional Level for supplying the GDA WRZ and a further 36¹⁶ WRZs in the Midlands and East, with those 36 WRZs supplied through the GDA water network and through offtakes from the transfer pipeline from the River Shannon en route to the GDA.

5.4.3 Conclusion

75. Having examined the outcomes of the Framework Plan (Irish Water 2021b) and Eastern and Midlands Plan (Irish Water 2022), it was concluded that the In-Flight Water Supply Project consisting of a new water supply abstraction at Parteen Basin on the Lower River Shannon and a treated water pipeline to Dublin, with potential to supply a number of locations across the Midlands and East, was substantially

¹⁶ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

consistent with the Preferred Approach identified in the Eastern and Midlands Plan (Irish Water 2022) consisting of the New Shannon Source with transfers.

5.5 Examination of Water Supply Area for the In-Flight Water Supply Project in Light of the Eastern and Midlands Preferred Approach

5.5.1 Summary of the Water Supply Area for the In Flight Water Supply Project

76. The FOAR identified a number of locations in the Eastern and Midlands region that, in addition to the GDA, would benefit from a new supply from a treated water pipeline from the River Shannon. These areas, where water supply deficits exist, were collectively referred to in the FOAR as the 'Benefiting Corridor'. The FOAR recognised that potential future connections from a transfer pipeline from the Shannon to these areas supported Uisce Éireann's objective of reducing the overall number of individual supplies in the State to a smaller number of interconnected supplies that would be more reliable and environmentally and economically sustainable.

5.5.2 Summary of the Framework Plan and Eastern and Midlands Plan Outcomes

77. The Framework Plan (Irish Water 2021b) provides a consistent methodology for establishing SDB deficits in every WRZ in the State and for identifying Preferred Approaches to address those deficits. This methodology has been applied in the Eastern and Midlands Plan (Irish Water 2022) and formed part of the assessment process for identifying appropriate solutions to address deficits where they arise in each WRZ in the Region. There were 134 WRZs in the nine Study Areas in the Eastern and Midlands Region.
78. One of the key benefits of preparing the National Water Resources Plan (Irish Water 2021b and 2022) was the ability to look holistically at existing and potential new supplies and within that context to consider the best options for particular areas. The Eastern and Midlands Plan (Irish Water 2022) was progressed first (out of four Regional Plans) given the Region's ageing infrastructure, dense population and criticality of need. The GDA was the first WRZ (and study area) in the Eastern and Midlands Plan to have its Preferred Approach identified because it had the highest population and the greatest SDB deficit.
79. The Preferred Approach identified for the GDA in the Eastern and Midlands Plan (Irish Water 2022) was a New Shannon Source and the Eastern and Midlands Plan (Irish Water 2022) identifies that the sustainable yield available from the Lower River Shannon at Parteen Basin has the potential to supply more water than is required to address the SDB deficit in the GDA. Consequently, when developing the Preferred Approach for other WRZs and Study Areas for the Eastern and Midlands Region, cross study area transfers were considered both from the GDA in the context of a New Shannon Source having been delivered, and also from any pipeline transferring the water from the Shannon as part of the proposed New Shannon Source.
80. Through the options development process in the Eastern and Midlands Plan (Irish Water 2022), transfers from the New Shannon Source were identified in seven Study Areas. In many of these study areas it was apparent that there would be an opportunity to decommission certain WTPs and discontinue certain unsustainable abstractions if the New Shannon Source and connections were delivered. Again, this was assessed through the options development process where the option to upgrade an existing plant was compared against the option to tap into an alternative supply, such as the pipeline for the New Shannon Source.

81. In total, the Eastern and Midlands Plan (Irish Water 2022) identifies the New Shannon Source being the Preferred Approach to supply water to 37¹⁷ WRZs as follows:
- The GDA and 1818 additional WRZs, which collectively would become the GDA Regional WRZ
 - 18 WRZs via four transfers from the pipeline connecting the New Shannon Source to the GDA.
82. The intention is that the 37 WRZs will ultimately form five new/consolidated WRZs: Tullamore/Mountbolus WRZ, Mullingar Regional WRZ, Dunkerrin/Moneygall/Borrisokane WRZ, Newport/Killaloe WRZ and a Regional GDA WRZ.
83. The proposed solution would enable Uisce Éireann to decommission 33 groundwater abstractions and 14 surface water abstractions resulting in a more efficient, interconnected and resilient supply system.
84. The 36 WRZs that were identified in the plan, in addition to the GDA, as benefiting from a New Shannon Source regional transfer are listed in Table 5.2. Barndarrig WRZ and Redcross WRZ have subsequently been rationalised and combined. Therefore, there are 35 WRZs and the GDA WRZ that the Proposed Project is to meet the water supply requirement for, a combined total of 36 WRZs. This does not affect the volume of water to be supplied.

Table 5.2: WRZs Outside the GDA WRZ, Potentially Benefiting from a Supply from the New Shannon Source

Study Area	Water Resource Zone Code	Water Resource Zone Name	Water Resource Zone Name Post-Rationalisation
SA1	3400SC0007	Avoca Ballinacash Public Supply	GDA Regional
SA1	3400SC0012	Redcross Conary Public Supply (subsequently combined with the Barndarrig)	GDA Regional
SA1	3400SC0017	Barndarrig (subsequently combined with the Redcross)	GDA Regional
SA1	3400SC0025	Ballintreskin Public Supply	GDA Regional
SA1	3400SC0027	Ballinapark Public Supply	GDA Regional
SA1	3400SC0046	Rathdrum Public Supply	GDA Regional
SA1	3400SC0047	Laragh Annamoe Public Supply	GDA Regional
SA2	0100SC0005	Hacketstown	GDA Regional
SA2	3400SC0004	Dunlavin Public Supply	GDA Regional
SA2	3400SC0005	Hollywood Donard Public Supply	GDA Regional
SA3	2300SC0055	Navan-Mid Meath	GDA Regional

¹⁷ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalized and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

¹⁸ 18 WRZ were to be incorporated into the GDA Regional WRZ. Subsequently Barndarrig WRZ and Redcross WRZ were combined and so for the proposed Project there are 17 WRZ to be incorporated into the Regional GDA WRZ. This does not affect the volume of water to be supplied.

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Study Area	Water Resource Zone Code	Water Resource Zone Name	Water Resource Zone Name Post-Rationalisation
SA3	2100SC0001	South Louth East Meath	GDA Regional
SA3	2300SC0005	Kells Oldcastle	GDA Regional
SA3	2300SC0014	Trim	GDA Regional
SA3	2300SC0006	Athboy	GDA Regional
SA3	2300SC0007	Ballivor	GDA Regional
SA3	2300SC0011	Kilmessan	GDA Regional
SA6	0100SC0001	Carlow North	GDA Regional
SA6	2500SC0002	Tullamore	Tullamore/Mountbolus
SA6	2500SC0013	Mountbolus PWS	Tullamore/Mountbolus
SA4	3200SC0003	Ballany	Mullingar Regional
SA4	3200SC0001	Mullingar Regional	Mullingar Regional
SA4	2300SC0012	Clonard/Abbeysfields Housing Estate	Mullingar Regional
SA4	2300SC0016	Longwood WS	Mullingar Regional
SA4	1400SC0004	Ardcarraig Clogherinkoe	Mullingar Regional
SA4	2500SC0005	Edenderry & Rhode	Mullingar Regional
SA4	2500SC0014	Daingean	Mullingar Regional
SA4	2500SC0006	Walsh Island	Mullingar Regional
SA4	2000SC0003	Ballymahon	Mullingar Regional
SA4	2300SC0018	Enfield	Mullingar Regional
SA4	2500SC0004	Geashill	Mullingar Regional
SA7	2500SC0010	Dunkerrin/Moneygall	Dunkerrin/Moneygall/Borrisokane
SA7	2900SC0045	Borrisokane (Greyford source to Crotta)	Dunkerrin/Moneygall/Borrisokane
SA7	2900SC0046	Cloughjordan	Dunkerrin/Moneygall/Borrisokane
SA8	2900SC0066	Newport	Newport/Killaloe
SA8	0300SC0024	Killaloe	Newport/Killaloe

5.5.3 Conclusion

85. For the In-Flight Water Supply Project, areas in the Eastern and Midlands Region outside of the GDA, where water supply needs exist, and that have the potential to have their needs addressed through future connections from a transfer pipeline from the Lower Shannon, were collectively referred to in the FOAR as the Benefiting Corridor. The FOAR recognised the potential future connections from a transfer pipeline from the Shannon to these areas. The Eastern and Midlands Plan (Irish Water 2022) provides a Preferred Approach to address each identified water supply need in the region. The Eastern and Midlands Plan (Irish Water 2022) provides the most up to date position on WRZs that could potentially be supplied from a New Shannon Source. All locations that were included in the Benefiting Corridor in the FOAR have been considered within the Eastern and Midlands Plan (Irish Water 2022) or within one of the other three Regional Water Resources Plans and solutions have been identified for these locations. It was therefore considered appropriate to amend the In-Flight Water Supply Project by substituting the Benefiting Corridor previously identified in the FOAR with the WRZs identified in the Eastern and Midlands Plan (Irish Water 2022), which are then, collectively to be referred to as the 'Water Supply Area' for the Proposed Project.

5.6 Summary of Comparison Conclusions

86. The In-Flight Water Supply Project has been compared against the relevant outcomes of the Framework Plan (Irish Water 2021b) and Eastern and Midlands Plan (Irish Water 2022) to see if any changes should be made to the In-Flight Water Supply Project in response to the recommendations set out in those Plans. This is summarised in Table 5.3.

Table 5.3: Comparison of the Eastern and Midlands Plan and the In-Flight Water Supply Project

Category	In-Flight Water Supply Project	Framework Plan and Eastern and Midlands Plan Outcomes	Comparison of the In-Flight Water Supply Project with the Framework Plan and Eastern and Midlands Plan Outcomes	Conclusion
Preferred Solution	A new abstraction from Parteen Basin and treated water transfer pipeline to the GDA, with offtake locations for potential future connecting pipelines.	A New Shannon Source consisting of an abstraction from Parteen Basin and treated water transfer pipeline to the GDA and with offtakes to other WRZs in the Region is identified as the Preferred Approach to address supply deficits in the GDA and 36 other WRZs ¹⁹ in the Region.	The In-Flight Water Supply Project is substantially consistent with the relevant outcomes of the Framework Plan and Eastern and Midlands Plan in its recommended solution to address Need in the GDA and other locations in the Eastern and Midlands Region.	The In-Flight Water Supply Project does not need to be modified.
Water Supply Area	The In-Flight Water Supply Project includes the GDA and a Benefiting Corridor based on an interim assessment of potential benefiting communities from a new supply from the River Shannon.	The Framework Plan and the Eastern and Midlands Plan, when looking at the region holistically, identified the potential for a New Shannon Source to address supply deficits in 36 WRZs ²⁰ in the Region, in addition to supplying the GDA WRZ.	The In-Flight Water Supply Project and the Plans both identify water supplies outside of the current GDA WRZ that have water supply needs that could be addressed by a new supply from the Lower River Shannon.	Recommend updating the Benefiting Corridor to align with the WRZs identified in the Eastern and Midlands Plan as listed in Table 5.2.

²⁰ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalized and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

²⁰ 37 Water Resource Zones were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalized and combined and so the total is now 36 Water Resource Zones consisting of the GDA WRZ and 35 other WRZs.

Category	In-Flight Water Supply Project	Framework Plan and Eastern and Midlands Plan Outcomes	Comparison of the In-Flight Water Supply Project with the Framework Plan and Eastern and Midlands Plan Outcomes	Conclusion
			There are some differences in the composition of the Benefiting Corridor of the In-Flight Water Supply Project compared with the list of benefiting WRZs identified in the Eastern and Midlands Plan.	

87. The In-Flight Water Supply Project was identified as an abstraction from Parteen Basin on the Lower River Shannon and a treated water distribution pipeline to the GDA with capability to supply communities in the Midlands. The Framework Plan and Eastern and Midlands Plan identify an abstraction from Parteen Basin (the New Shannon Source), treated water pipeline to the GDA and transfers to other WRZs in the region as the Preferred Approach. The In-Flight Water Supply Project was therefore substantially consistent with the relevant outcomes of the Framework Plan and Eastern and Midlands Plan other than in respect of the list of WRZs to be served by the pipeline from the New Shannon Source.
88. On this basis it was concluded that the Benefitting Corridor proposed for the In-Flight Water Supply Project should be replaced with a Water Supply Area for the Proposed Project which aligns with the 36 WRZs that are identified in the Eastern and Midlands Plan to be supplied from a New Shannon Source with transfers.
89. To achieve this outcome the Proposed Project infrastructure will therefore:
1. Have the capacity to deliver the volume of water needed to meet the peak demand in the Water Supply Area
 2. Include take-off points to allow for potential future connections into the Water Supply Area.
90. The SDB calculations, described in Section 4 have been updated to take account of this and the preliminary design of infrastructure for the Proposed Project is based on implementing these changes.

6. The Scope of the Proposed Project

91. To align with the Eastern and Midlands Plan and achieve the defined objectives and outcomes (as set out in Section 4.1 and 4.2) it has been identified that the Proposed Project would need the following:
- An abstraction point to take raw water from the River Shannon at the Parteen Basin
 - A termination point connecting into the existing drinking water distribution network at Dublin
 - A pipeline connecting the abstraction point and the termination point
 - Infrastructure to clean the raw water and move it through the pipe
 - Infrastructure to allow the pipeline to be operated and maintained.
92. These requirements are defined in the description of the Proposed Project in Section 7 and they drive the land take requirements for which powers are being sought under the CPO application.
93. The reason for the selection of the location of the infrastructure and the routing of the pipeline is described in the CPO Routing Report 2025 (JacobsTobin 2025a).

7. Description of the Proposed Project

94. Image 7.1 is a graphical representation of the Proposed Project, which shows the principal water infrastructure and sections of the pipeline.

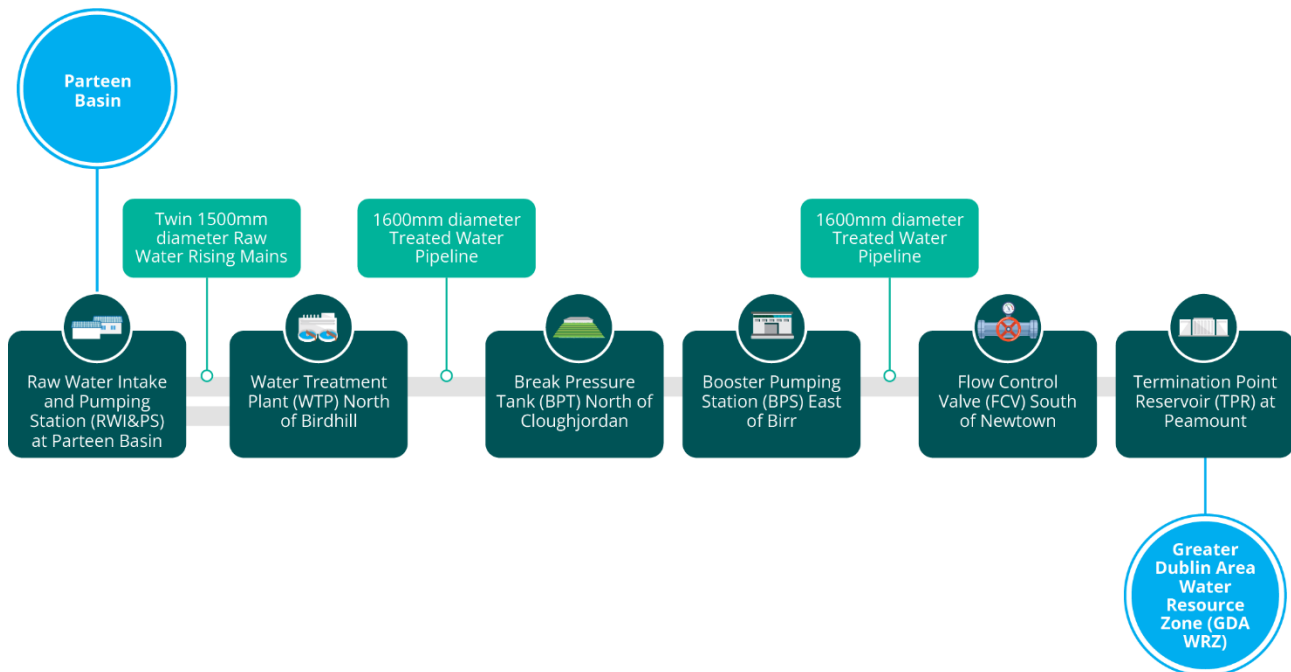


Image 7.1: Overview of the Proposed Project

95. A summary of the Proposed Project is provided in Table 7.1. Each of the required elements of the Proposed Project are then described further in this section.
96. This description of the Proposed Project provides the justification of the land to be acquired under the Compulsory Purchase Order 2025 (Water Supply Project Eastern and Midlands) and summarised in Section 9.
97. As set out in Section 1 although the works for power connections including specifically the 38 kV Uprate Works are described in this section, powers for the compulsory acquisition of land are not being sought for these works.

Table 7.1: Summary of Principal Project Infrastructure

Proposed Project Infrastructure	Outline Description of Proposed Project Infrastructure*
Permanent Infrastructure	
Raw Water Intake and Pumping Station (RWI&PS) (Infrastructure Site) County Tipperary	- The RWI&PS would be located on a permanent site of approximately 4ha on the eastern shore of Parteen Basin in the townland of Garrynatineel, County Tipperary. In addition, approximately 1ha of land would be required on a temporary basis during construction. - The RWI&PS has been designed to abstract enough raw water from the River Shannon at Parteen Basin to provide up to 300Mld of treated water by 2050. - The RWI&PS site would include a bankside Inlet Chamber, the Raw Water Pumping Station Building, two Microfiltration Buildings, an Electricity Substation and Power Distribution Building, and Dewatering Settlement Basins. The tallest building on the RWI&PS site would be the Microfiltration Buildings which would be 10.9m above finished ground level. Additionally, there would be a telemetry mast, the top of which would be 14m above finished ground level. - Power for the RWI&PS would be supplied via an underground connection to the existing Birdhill 38 kV electricity substation. - A new permanent access road from the R494 would be constructed to access the proposed RWI&PS site. This access road would be 5m in width and 670m in length. - The RWI&PS site boundary would be fenced with a stock proof fence and a 2.4m high paladin security fence 5m inside the boundary. The site would be landscaped in line with the surrounding environment to reduce its visual impact.
Raw Water Rising Mains (RWRMs) (Pipeline) County Tipperary	- The RWRMs would consist of two 1,500mm underground pipelines made from steel that would carry the raw water approximately 2km from the RWI&PS to the Water Treatment Plant (WTP) at Incha Beg, County Tipperary. The water would be pumped from the pumping station at the RWI&PS to the WTP. - Twin RWRMs have been proposed so that one RWRM can be taken out of service for cleaning and maintenance while still providing an uninterrupted flow of raw water through the other RWRM. - The RWRMs would include Line Valves, a Lay-By, Air Valves and Cathodic Protection. - A 20m wide Permanent Wayleave would provide Uisce Éireann with operational access to the RWRMs.
Water Treatment Plant (WTP) (Infrastructure Site) County Tipperary	- The WTP would be located on a permanent site of approximately 31ha at Incha Beg, County Tipperary, 2.6km north-east of the village of Birdhill, and 2km east of the proposed RWI&PS. In addition, approximately 2.5ha of land would be required on a temporary basis during construction. - The WTP would treat the raw water received from the RWI&PS via the RWRMs. Once treated, the High Lift Pumping Station (HLPS) would deliver the treated water onwards from the WTP to the Break Pressure Tank (BPT) at Knockanacree, County Tipperary, via the Treated Water Pipeline. - The WTP would comprise of a series of tanks and buildings including the Raw Water Balancing Tanks, Water Treatment Module Buildings, Sludge Dewatering Buildings, Sludge Storage Buildings, Clear Water Storage Tanks and HLPS, an Electricity Substation and Power Distribution Building, and the Control Building. The tallest building on the WTP site would be the Water Treatment Module Buildings which would be up to 15.6m above finished ground level. Additionally, there would be a telemetry mast, the top of which would be 14m above finished ground level. - There would also be a potential future water supply connection point at the junction between the permanent access road and the R445. - Power for the WTP would be supplied via an underground connection to the existing Birdhill 38 kV electricity substation. Solar panels would be placed on the roofs of the Chemical Dosing Manifold Building, the Water Treatment Module Buildings, Clear Water Storage Tanks and Sludge Storage Buildings, and at a number of locations on the ground to supplement the mains power supply. - A new permanent access road from the R445 would be constructed and would be 6m in width and 640m in length. - The WTP site boundary would be fenced with a stock proof fence and a 2.4m high palisade security fence 5m inside the boundary. The site would be landscaped in line with the surrounding environment to reduce its visual impact.
Treated Water Pipeline from the WTP to the BPT (Pipeline) County Tipperary	- The Treated Water Pipeline from the WTP to the BPT would consist of a single 1,600mm underground steel pipeline which would be approximately 37km long. The water would be pumped through this section of the Treated Water Pipeline by the HLPS. - The Treated Water Pipeline would include Line Valves, Washout Valves, Air Valves, Manways, Cathodic Protection and Lay-Bys.

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Proposed Project Infrastructure	Outline Description of Proposed Project Infrastructure*
	A 20m wide Permanent Wayleave would provide Uisce Éireann with operational access to the pipeline (this Wayleave has been extended to approximately 30m at some Line Valves to provide access between the Lay-Bys and Line Valves). There would be an additional 10m wide Permanent Wayleave at certain locations for operational access to smaller pipes connecting Washout Valves with permanent discharge locations.
Break Pressure Tank (BPT) (Infrastructure Site) County Tipperary	- The BPT would be located on a permanent site of approximately 7ha in the townland of Knockanacree, County Tipperary. In addition, approximately 0.8ha of land would be required on a temporary basis during construction. - The BPT would be located at the highest point of the pipeline. It marks the end of the Treated Water Pipeline from the WTP to the BPT and the start of the Treated Water Pipeline from the BPT to the Termination Point Reservoir (TPR) in the townland of Loughtown Upper, at Peamount, County Dublin. It would act as a balancing tank and would be required to manage the water pressures in the entire Treated Water Pipeline during flow changes, particularly during start-up and shut-down. - The BPT site would include the BPT and a Control Building. The BPT would be a concrete tank divided into three cells covered with an earth embankment. The BPT tanks would be 5m in height and partially buried below finished ground levels. The Control Building would be 7.5m over finished ground level. Additionally, there would be a telemetry mast, the top of which would be 14m above finished ground level. - Access to the BPT site would be via a new permanent access road from the L1064 which would be 5m wide and 794m in length. - Power for the BPT would be supplied via an underground connection from the existing overhead power line. Solar panels would be placed on the south facing side of the control building roof, on the BPT and at ground level to the south of the site to supplement the mains power supply. - The BPT site boundary would be bounded by the existing hedgerow / tree line with a 2.4m high palisade security fence around the permanent infrastructure. The site would be landscaped in line with the surrounding environment to reduce its visual impact.
Treated Water Pipeline from the BPT to the TPR (Pipeline) Counties Tipperary, Offaly, Kildare and Dublin (within the administrative area of South Dublin County Council)	- The Treated Water Pipeline from the BPT to the TPR would consist of a single 1,600mm underground steel pipeline, approximately 133km long. - The water would normally travel through the Treated Water Pipeline by gravity; however, flows greater than approximately 165Mld would require additional pumping from the Booster Pumping Station (BPS) in the townland of Coagh Upper, County Offaly. - The Treated Water Pipeline would include Line Valves, Washout Valves, Air Valves, Manways, Cathodic Protection, Lay-Bys and potential future connection points. - A 20m wide Permanent Wayleave would provide Uisce Éireann with operational access to the pipeline (this Wayleave has been extended to approximately 30m at some Line Valves to provide access between the Lay-Bys and Line Valves). There would be an additional 10m wide Permanent Wayleave at certain locations for operational access to smaller pipes connecting Washout Valves with permanent discharge locations.
Booster Pumping Station (BPS) (Infrastructure Site) County Offaly	- The BPS would be located on a permanent site of approximately 2.6ha in the townland of Coagh Upper, County Offaly. It would be located approximately 30km downstream from the BPT. In addition, approximately 3ha of land would be required on a temporary basis during construction. - The BPS would be required when the demand for water causes the flow through the pipeline to exceed approximately 165Mld. - The BPS site would consist of a single-storey Control Building with a basement below. It would have a finished height of 7.6m above finished ground level. There would also be a separate Electricity Substation and Power Distribution Building. Additionally, there would be a telemetry mast, the top of which would be 14m above finished ground level. - Power to the BPS would be supplied from an existing 38 kV electricity substation at Birr, through cable ducting laid within the public road network. There would be ground mounted solar panels on the southern side of the BPS site to supplement the mains power supply. - The site would be accessed directly from the L3003. - The BPS site boundary would be fenced with a stock proof fence and a 2.4m high palisade security fence between 5m -12m inside the boundary. The site itself would be landscaped in line with the surrounding environment to reduce its visual impact.
Flow Control Valve (FCV) (Infrastructure Site) County Kildare	- The FCV controls the flows in the Treated Water Pipeline from the BPT to the TPR. It would be a small permanent site of approximately 0.5ha in the townland of Commons Upper in County Kildare. In addition, approximately 0.6ha of land would be required on a temporary basis during construction. - It would consist of three 700mm diameter FCVs and three flow meters installed in parallel with the Line Valve and housed within an underground chamber.

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Proposed Project Infrastructure	Outline Description of Proposed Project Infrastructure*
	- Access to the FCV site would be directly off the L1016 Commons Road Upper. - Power supply to the FCV site would be provided from the existing low voltage network via a combination of overhead lines and buried cables. There would be ground mounted solar panels on the north-eastern side of the site to supplement the mains power supply. - Kiosks at the FCV site would house the Programmable Logic Controller, telemetry and power supply for the Line Valve. There would also be a telemetry mast, the top of which would be 14m above finished ground level. - The site boundary would be fenced with a stock proof fence and a 2.4m high palisade security fence 5m inside the boundary.
Termination Point Reservoir (TPR) (Infrastructure Site) County Dublin (within the administrative area of South Dublin County Council)	- The TPR would be located on a permanent site of approximately 8.3ha adjacent to an existing treated water reservoir in the townland of Loughtown Upper, at Peamount, County Dublin (within the administrative area of South Dublin County Council) and would have capacity for 75ML of treated water supply. In addition, approximately 1.1ha of land would be required on a temporary basis during construction. - It would be located at the downstream end of the Treated Water Pipeline from the BPT to the TPR and would be the termination point for the Proposed Project. It would be at this location that the Proposed Project would connect to the existing water supply network of the Greater Dublin Area Water Resource Zone (GDA WRZ). - The TPR would consist of an above-ground storage structure, associated underground Scour Water and Overflow Water tanks and a Chlorine Dosing Control Building. The TPR would be a concrete tank divided into three cells and covered with an earth embankment. The top of the TPR would be 11.2m above finished ground level. The Chlorine Dosing Control Building would be 8.4m over finished ground level. Additionally, there would be a telemetry mast, the top of which would be 14m above finished ground level. - Power for the TPR would be supplied via an underground connection to the existing electricity substation at Peamount Reservoir. There would be solar panels on top of a portion of the northern cell of the TPR to supplement the mains power supply. - A new permanent access road from the R120 would be constructed and would be 5m wide and 342m in length. - The TPR site would be bounded by the existing hedgerow to the west and existing fence to the east with a 2.4m high palisade security fence around the permanent infrastructure. The site itself would be landscaped in line with the surrounding environment to reduce its visual impact.
Proposed 38 kV Uprate Works – Power Supply to RWI&PS and WTP	
Proposed 38 kV Uprate Works Ardnacrusha – Birdhill (Power Supply) Counties Clare, Limerick and Tipperary	- The proposed 38 kV Uprate Works would be necessary to deliver adequate electrical power to the RWI&PS and WTP. - The proposed works would include the uprating of the existing Ardnacrusha – Birdhill Line and the replacement of polesets/structures with an underground cable along a section of the Ardnacrusha – Birdhill – Nenagh Line. - There would also be works at the existing Birdhill 38 kV electricity substation including the provision of a new 38 kV modular Gas Insulated Switchgear Modular Building, new electrical equipment and lighting, together with new fencing and associated works.
Temporary Infrastructure – Required for Construction Phase Only	
Construction Working Width Counties Tipperary, Offaly, Kildare and Dublin (within the administrative area of South Dublin County Council)	- A Construction Working Width would be temporarily required for the construction of the RWRMs and the Treated Water Pipeline, and the subsequent reinstatement of the land. - The Construction Working Width would generally be 50m in width but would be locally wider near features such as crossings, access and egress points from the public road network, Construction Compounds and Pipe Storage Depots.
Construction Compounds Counties Tipperary, Offaly, Kildare and Dublin (within the administrative area of South Dublin County Council)	- Eight Construction Compounds would be temporarily required to facilitate the works to construct the Proposed Project. Five Construction Compounds would be located along the route of the Treated Water Pipeline at the following Infrastructure Sites: RWI&PS, WTP, BPT, BPS and TPR, with an additional three Construction Compounds located at Lisgarraff (County Tipperary), Killananny (County Offaly) and Drummond (County Kildare). Construction Compounds would act as a hub for managing the works including plant/material/worker movement, general storage, administration and logistical support. - The Principal Construction Compound at the WTP would require 30ha of land during construction. - The other three Principal Construction Compounds would require land temporarily during construction ranging between approximately 12ha and 16ha.

Proposed Project Infrastructure	Outline Description of Proposed Project Infrastructure*
	The four Satellite Construction Compounds at the other permanent Infrastructure Sites (excluding the FCV) would require land during construction ranging between approximately 3ha and 12ha.
Pipe Storage Depots Counties Tipperary, Offaly and Kildare	- Nine Pipe Storage Depots would be temporarily required to supplement the Construction Compounds and would serve the installation of pipe between the WTP and the TPR. - Pipe Storage Depots would take direct delivery of the pipe for storage before onward journey to the required location along the Construction Working Width. - The Pipe Storage Depots would vary in size and require land temporarily during construction generally ranging between approximately 2ha and 7ha but with one site being larger at 11ha.
* Note all land take numbers in this table are affected by rounding to one decimal place.	

7.1 RWI&PS

98. The RWI&PS is located at the Parteen Basin in order to:

- Abstract raw water from the Parteen Basin
- Pump raw water to the WTP.

99. Uisce Éireann is seeking the permanent acquisition of land for part of this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025. The remaining land required permanently at this site will not be subject to acquisition under the Compulsory Purchase Order (CPO) and will be part of a separate landowner agreement.

100. The main infrastructure elements of the RWI&PS are summarised in Table 7.2 and these combined with the permanent access road, open areas of hard standing including car park spaces, proposed drainage, and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.

101. In addition, there would be a permanent access road of 5m in width wide and 670m in length from the R494 to the RWI&PS. There would be drainage, services, fencing and planting alongside the access road.

102. A small area of land would be required temporarily to facilitate the construction of the site. Part of the land required temporarily will not be subject to acquisition under the CPO and will be part of a separate landowner agreement.

103. The same landowner agreement will include a right of access to allow for inspection and maintenance of the intake structure during the operation of the Proposed Project.

104. An access has been provided for a landowner to be able to cross the permanent access road.

Table 7.2: Main Infrastructure Elements – Raw Water Intake and Pumping Station Site

Infrastructure Element	No.	Length	Width	Height Over Finished Ground Level	Plan Area	
					Each	Overall
Raw Water Intake Chamber (with Passive Wedge-Wire Screens)	1 No.	39.9m (average)	10.4m (average)	7.2m (depth)	416m ²	416m ²
Inlet Chambers	3 No.	5.0m	11.8m	13.0m (depth)	59m ²	176m ²
Inlet Revetment	1 No.	55.0m	27.0m	6.2m (depth)	1,040m ²	1,040m ²
Raw Water Pumping Station Building	1 No.	Superstructure 30.9m	Superstructure 37.5m	Superstructure 9.8m	1,159m ²	1,159m ²

Infrastructure Element	No.	Length	Width	Height Over Finished Ground Level	Plan Area	
					Each	Overall
		Substructure 45.4m	Substructure 37.5m	Substructure 13.0m (depth)	1,714m ²	1,714m ²
Microfiltration Buildings	2 No.	21.2m	16.2m	Superstructure 10.9m	345m ²	690m ²
				Substructure 10.4m (depth) ²¹	104m ²	104m ²
Surge Vessel	4 No.	7.5m	3.8m	5.0m	30m ²	120m ²
Concrete Revetment Mats	n/a	73.0m	20.0m	5.0m (depth)	n/a	1,460m ²
Raw Water Rising Mains Scour Tank	1 No.	44.7m	20m	Substructure 10.4m (depth) ²²	4,109m ²	4,109m ²
20 kV Electricity Substation site	1 No.	40.2m	36.0m	4.7m for the Switchgear	1,447m ²	1,447m ²
Switchgear Building	1 No.	14.8m	9.3m	3.5m	138m ²	138m ²
Invasive Species Debris Retention Tank	1 No.	16.2m	13.8m	7.4m (depth)	224m ²	224m ²

7.2 RWRMs

105. The RWRMs would transfer raw water approximately 2km from the RWI&PS to the WTP up to a maximum flow of 300Mld during a DYCP period.
106. They would consist of two 1,500mm diameter steel pipes with a separation distance of 2-6m in between.
107. Twin pipelines have been chosen for the design of the RWRMs to enable cleaning of one main while the other is still in operation.
108. The RWRMs would require a permanent Lay-By adjacent to the R494 and this would be the only permanent acquisition of land being sought by Uisce Éireann for the RWRMs.
109. This Lay-By would be required to facilitate safe access to the Line Valves on the RWRMs.
110. The Permanent Wayleave, construction and operational matters for the RWRMs would be the same as set out for the Treated Water Pipeline in Section 7.8.
111. A section of the below ground pipeline for the RWRMs would be constructed using trenchless crossing techniques and the temporary Construction Working Width has been extended to facilitate this.
112. Uisce Éireann is seeking the acquisition of a Wayleave above the RWRMs and a permanent acquisition of land for the Lay-By under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.

²¹ The Microfiltration substructure would be 5.8m deep. The RWRM Scour Tanks would be below this, a further 4.6m deep. Therefore, the total depth of the Microfiltration Building and Scour Tank structure would be 10.4m.

²² The Microfiltration substructure would be 5.8m deep. The RWRM Scour Tanks would be below this, a further 4.6m deep. Therefore, the total depth of the Microfiltration Building and Scour Tank structure would be 10.4m.

7.3 WTP

113. The purpose of the WTP is to treat the raw water, pumped from the RWI&PS in order to achieve the drinking water standard set out in the European Union (Drinking Water) Regulations 2014 (as amended).
114. It has been located close to the RWI&PS to reduce the length of the RWRMs.
115. The WTP has been designed to be able to produce a peak output of 300Mld. The design of certain process units is based on 317Mld to account for the re-circulation of process washwater.
116. The HLPS at the site would then deliver the treated water to the BPT via the first section of the Treated Water Pipeline.
117. Uisce Éireann is seeking the permanent acquisition of land for this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.
118. A small area of land would be required temporarily to facilitate the construction of the site but this is not subject to acquisition under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025 as it would be for a power connection and diversion of an overhead line.
119. The main infrastructure elements of the WTP are summarised in Table 7.3 and these combined with the permanent access road, open areas of hard standing including car park spaces, proposed drainage, solar panels and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.
120. In addition, there would be a permanent access road to the WTP including sight lines for safe access to and from the R445. The access road would be 6m wide and 640m long. There would be drainage, services, fencing and planting alongside the access road. In addition, the construction of the permanent access would require a crossing of the Kilmastulla River which would need additional land temporarily during construction.
121. A number of additional access points have been included within the design in order to maintain landowner access to land / infrastructure. These are:
- A gate within the entrance from the R445 to the WTP to provide access to the land to the east of the permanent access road
 - A gate within the entrance from the R445 to the WTP to provide access to the land to the west of the permanent access road.
122. In addition, an agricultural crossing would be provided from one side of the permanent access to the other in order to allow the landowner to access to the land on either side of the embankment.

Table 7.3: Main Infrastructure Elements – Water Treatment Plant

Infrastructure Element	No.	Length	Width	Height Over Finished Ground Level	Plan Area	
					Each	Overall
RWRM Swab Chambers	2 No.	26.0m	21.0m	1.2m	n/a	n/a
Raw Water Balancing Tanks	2 No.		n/a	Roof Slab 4.8m	3,318m ²	6,636m ²

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Infrastructure Element	No.	Length	Width	Height Over Finished Ground Level	Plan Area	
					Each	Overall
		65m Φ^{23}		Cascade 8.5m		
Chemical Dosing Manifold Building	1 No.	Superstructure 76.8m	Superstructure 35.0m	11.2m	2,310m ²	2,310m ²
		Substructure 76.4m	Substructure 42.4m	5.5m (depth)	2,184m ²	2,184m ²
Water Treatment Module Buildings	3 No.	141.3m	58.6m	15.6m	8,280m ²	24,841m ²
Used Washwater Equalisation and Settlement Tanks	8 No.	30.0m (internal)	20.0m (internal)	10.4m	600m ²	4,800m ²
Post Filtration Chemical Dosing Building	1 No.	Superstructure 70.0m	Superstructure 39.3m	7.6m	2,749m ²	2,749m ²
		Substructure 28.0m	Substructure 38.0m	5.6m (depth)	1,064m ²	1,064m ²
Backwash Water Tank and Pumping Station	1 No.	Superstructure 31.2m	Superstructure 14.8m	6.0m	462m ²	462m ²
		Substructure 43.4m	Substructure 30.9m	10.4m (depth)	1,341m ²	1,341m ²
Clear Water Storage Tank	2 No. with 4 No. Cells	40m (internal)	65.6m (internal)	1.3m	2,624m ²	10,496m ²
High Lift Pumping Station	1 No.	Superstructure 43.8m	Superstructure 24.8m	6.2m	1,083m ²	1,083m ²
		Substructure 43.8m	Substructure 24.8m	12.5m (depth)		
High Lift Surge Vessels	5 No.	8.8m	3.8m Φ (external)	5.0m	33m ²	165m ²
Sludge Balancing Tanks	4 No.	n/a	10.0m Φ (internal)	0.2m	79m ²	314m ²
Sludge Thickeners	4 No.	n/a	12.0m Φ (internal)	3.0m	113m ²	452m ²
Sludge Forward Pumping Station	2 No.	12.2m	7.4m	2.5m	90.5m ²	181m ²
Sludge Storage Tanks	6 No.	8.8m (internal)	8.8m (internal)	5.7m	77.5m ²	465m ²
Sludge Storage Silo	2 No.	n/a	4.0m Φ	13.9m	12.5m ²	25m ²
Sludge Dewatering Buildings	2 No.	38.8m	28.1m	13.1m	1,093m ²	2,185m ²
Washwater Settlement Building	1 No.	50.8m	29.7m	13.5m	1,511m ²	1,511m ²
Tank Draindown Lagoons	2 No.	77.6m	43m	7.0m (depth)	3,337m ²	6,674m ²
Lagoon Pumping Station	1 No.	12.0m (internal)	10.4m (internal)	0.2m	125m ²	125m ²
Control Building (2 storeys) (including Visitor Centre)	1 No	72.7m	30.0m	10.2m	2,181m ²	4,362m ² (Both parts)

²³ Φ symbolises diameter

Infrastructure Element	No.	Length	Width	Height Over Finished Ground Level	Plan Area	
					Each	Overall
	(internally separated)					
38 kV electricity substation site	1 No.	40.2m	36.0m	4.7m for the Switchgear	1,447m ²	1,447m ²
Switchgear Building	1 No.	14.8m	9.3m	3.5m	138m ²	138m ²
Power Distribution Building	1 No.	43.5m	11.0m	6.3m	483m ²	483m ²
Sludge Storage Buildings	2 No.	72.9m	40.0m	8.1m	2,916m ²	5,832m ²
Bat House	1 No.	3.3m	3.3m	3.8m	10.9m ²	10.9m ²

7.4 BPT

123. To deliver treated water from the WTP at Birdhill to the TPR at Peamount, the pipeline must traverse an undulating route across hills of varying elevation. To safely and efficiently operate a pipeline capable of transferring up to 300Ml/d, a BPT is proposed. Its purpose is to provide hydraulic stability and mitigate transient pressures within the system to allow for safe start-up and shut-down of the entire pipeline.
124. The BPT also provides the point where the pressure in the pipeline can be managed and would enable the transition to the use of gravity to maintain a flow of water in the pipeline under normal conditions. The water would be pumped from the WTP to the BPT but from the BPT the water would usually be moved through the pipe by gravity pressure.
125. In order to do this the BPT is at the highest point on the route of the Proposed Project and this largely determined the location of the BPT. This would allow the BPT to provide hydraulic stability for both elements of the Treated Water Pipeline (from the WTP to the BPT and from the BPT to the TPR) and as such it is an essential part of the control system for the pipeline ensuring that it will remain full at all times.
126. Uisce Éireann is seeking the permanent acquisition of land for this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.
127. A small area of land would be required temporarily to facilitate the construction of the site. Part of this land is not subject to acquisition under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025 as it would be for a power connection and diversion of an overhead line.
128. The main infrastructure elements of the BPT site are summarised in Table 7.4 and these combined with the permanent access road, open areas of hard standing including car park spaces, proposed drainage, solar panels and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.
129. Access to the site would be from the L1064 and land has been included within the Proposed Project to provide sight lines for safe access to and from the site. The access road would be 5m wide and in 794m long. There would be drainage, services, fencing and planting alongside the access road.
130. During construction, five temporary Passing Bays would be constructed along the L1064 to facilitate safe access to the site. These will be removed following the completion of the Construction Phase of the Proposed Project.

131. A number of access points have been included within the design in order to maintain access to land / infrastructure. These are:

- A replacement access (and power supply) to the existing radio mast at the northern end of the BPT site. This would be via shared use of the permanent access road to the L1064
- A landowner access point at the entrance from the L1064 to the BPT and an agricultural track to the east of the permanent access road from the L1064 to the BPT.

132. In addition, it is proposed to provide public access to the planting area to the east of the site. This would involve a circular walk within the planting proposals and linked to the existing trail within Knockanacree Wood.

Table 7.4: Infrastructure Elements – Break Pressure Tank

Infrastructure Element	No.	Length	Width	Operating Depth of Water	Height Over Finished Ground Level	Plan Area		Volumes	
						Each	Overall	Unit	Overall
Break Pressure Tank	1 No. (3 No. Cells)	23.0m each cell	41.7m each cell	4.15m	4.9m (depth)	959m ² (each cell)	2,877m ²	4,593m ³ (each cell)	13,776m ³
Control Building	1 No.	40m	20m	n/a	7.5m	800m ²	800m ²	n/a	n/a
Chlorine Dosing Kiosk	1 No.	4m	2.5m	n/a	3m	10m ²	10m ²	n/a	n/a

7.5 BPS

133. The purpose of the BPS is to facilitate the movement of the water along the Treated Water Pipeline from the BPT to the TPR at the higher flow rates. Flows up to approximately 165Mld can gravitate from the BPT to the TPR. However, when demand for water increases above 165Mld, pipeline losses increase to the point where there is insufficient elevation difference to deliver the water to the TPR. To provide the additional pressure required to deliver flows up to the peak demand of 300Mld, booster pumps are required.

134. Uisce Éireann is seeking the permanent acquisition of land for this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.

135. The main infrastructure elements of the BPS are summarised in Table 7.5 and these combined with open areas of hard standing including car park spaces, proposed drainage, solar panels and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.

136. Access to the site would be directly from the L3003 and land has been included within the Proposed Project to provide sight lines for safe access to and from the site.

137. A larger extent of land has been included within the Proposed Project at the BPS, for temporary purposes, in order to construct the permanent infrastructure, provide a drainage connection to the adjacent watercourse and avoid severance of part of the land affected temporarily.

138. A number of additional access points have been included within the design in order to maintain landowner access to land / infrastructure. These are:

- A gate within the entrance from the L3003 to the electricity substation to provide access to the land to the south of the BPS
- A gate within the entrance from the L3003 to the BPS to provide access to the land to the north of the BPS.

Table 7.5: Infrastructure Elements – Booster Pumping Station

Infrastructure Element	No.	Length	Width	Depth	Height Over Finished Ground Level	Plan Area Overall
Booster Pumping Station	1 No.	60m	36m	3.9m	7.6m	2,160m ²
38kV Electricity Substation and Power Distribution Building	1 No.	14.8m	9.3m	n/a	3.5m for the building 4.2m for the Transformer	148m ²
Surge Vessel	1 No.	10m	3m Φ^{24}	n/a	4.5m	30m ²

7.6 FCV

139. The FCV is a specific valve that would be the main control and safety device on the system. It would provide fine control of flows out of the BPT and safe emergency shut down while avoiding surge pressure issues within the pipeline. In this way it would also therefore, manage the volume of water arriving at the TPR. Therefore, it had to be located close to the TPR.
140. Uisce Éireann is seeking the permanent acquisition of land for this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.
141. The main infrastructure elements of the FCV are summarised in Table 7.6. There is no above ground building. Rather, the FCV consists of a below ground chamber with above ground kiosks. These combined with open areas of hard standing including car park spaces, proposed drainage, solar panels and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.
142. Access to the site would be directly from the L1016 and land has been included within the Proposed Project to provide sight lines for safe access to and from the site.
143. A small area of land would be required temporarily to facilitate the construction of the site.
144. Additional access points have been included within the design in order to maintain landowner access to land / infrastructure. These are:
- A new entrance, gate and sightlines to provide access to land to the north of the FCV.

Table 7.6: Infrastructure Elements – Flow Control Valve

Infrastructure Element	No.	Length	Width	Depth	Height Over Finished Ground Level	Plan Area Overall
Flow Control Valves	3 no.	N/A	N/A	N/A	N/A	N/A
Chamber	1 no.	23.5m	13m	4.5m	N/A	306m ²

²⁴ Φ symbolises diameter

7.7 TPR

145. The purpose of the TPR is to provide the link between the Treated Water Pipeline and the existing local distribution network in the GDA WRZ. There is an existing drinking water reservoir with a capacity of 40MI and control building operated by Uisce Éireann at this site. The need to connect to the existing distribution network and the location of the existing reservoir influenced the location of the TPR.
146. The TPR would have a capacity of 75Mld and would temporarily store treated water supplied through the pipeline so that it is ready to be used by consumers. In providing termination point storage capacity, the reservoir would allow the variations in the water demand of the distribution network to be served by a stable incoming pressure and flow through the pipeline.
147. Uisce Éireann is seeking the permanent acquisition of land for this site under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025.
148. The main infrastructure elements of the TPR are summarised in Table 7.7 and these combined with the permanent access road, open areas of hard standing including car park spaces, proposed drainage, solar panels and planting define the extent of the site as set out in Section 9. There would also be CCTV poles and a telemetry mast on site.
149. In addition, there would be a permanent access to the TPR from the R120. This would be 5m wide and 342m long.
150. A small area of land would be required temporarily to facilitate the construction of the site but this is not subject to acquisition under the Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025 as it would be for a power connection and diversion of an overhead line.
151. There is no additional third-party access required at the TPR.

Table 7.7: Infrastructure Elements – Termination Point Reservoir

Infrastructure Element	No.	Length	Width	Operating Depth	Free-board (m)	Height Over Finished Ground Level	Plan Area		Volume	
							Each	Overall	Each	Overall
Termination Point Reservoir	3 No. Cells	90m (Each cell)	40m (Each cell)	7m	0.5m	11.2m	3,600m ²	10,800 m ²	25,000 m ³	75,000 m ³
Emergency Overflow Storage Tank (underground)	1 No.	40m	40m	3.1m	0.3m	n/a	1,600m ²	1,600m ²	n/a	5,000m ³
Chlorine Dosing Control Building	1 No.	40m	40m	n/a	n/a	8.4m	1,600m ²	1,600m ²	n/a	n/a
Chlorine Dosing Kiosk	1 No.	4m	2.5m	n/a	n/a	3m	10m ²	10m ²	n/a	n/a

7.8 Treated Water Pipeline

152. The purpose of the Treated Water Pipeline is to transfer up to 300Mld of treated water from the WTP at Inchabeg, near Birdhill, in County Tipperary to the proposed TPR adjacent to, and immediately west of, Peamount Hospital in County Dublin.

153. There are two sections to the Treated Water Pipeline:

- The Treated Water Pipeline between the WTP and the BPT
- The Treated Water Pipeline between the BPT and the TPR.

154. The design of both sections is the same. It would be a 1,600mm diameter steel pipe with a 16 bar rating.

155. However, the method used to move the water through the two sections of pipe is slightly different. Between the WTP and the BPT the water would always be moved through the pipe via pumping. Between the BPT and the TPR flows up to approximately 165Mld can be transferred without supplementary pumping, with the water moved via gravity pressure. Above this flow rate, additional pressure would be required to move the higher flows through the pipe. This would be provided by supplementary pumping from the BPS.

7.8.1 Permanent Infrastructure

156. There would be permanent infrastructure along the route of the pipeline. These include:

- Line Valves to allow elements of the pipeline to be isolated for operation and maintenance purposes. Each Line Valve would be housed in an underground chamber and majority of the Line Valves would have a Lay-By to facilitate safe access to the Line Valves.
- Washout Valves to allow sections of the pipeline to be drained down, if required
- Air Valves to facilitate removing air from the pipeline
- Manways to provide access to the pipe once operational (albeit it would be necessary to excavate down to them)
- Potential future connection points to the pipeline within the Water Supply Area.

157. A summary of the number of valves along the pipeline is detailed in Table 7.8.

Table 7.8: Valve Types and Number

Valve Type	Treated Water Pipeline (WTP to TPR)	Raw Water Rising Mains	Total
Line Valves (including Washout, Air Valves and Manways)	49	2	51
Washout Valves:			
• Discharge to a watercourse with permanent outfall	39	-	39
• Discharge to a watercourse without a permanent outfall	57	-	57
• Localised discharge to ditch / land	91	-	91
• Incorporated within Line Valve installation (no discharge during operation).	49	-	49
Air Valves			
• Dedicated	287	2	289

Valve Type	Treated Water Pipeline (WTP to TPR)	Raw Water Rising Mains	Total
Incorporated within Line Valves installation.	30	2	32
Potential future connection points	3	1 (at the WTP)	4
Manways:			
Dedicated	64	4	68
Incorporated within Air Valves and Line Valves	389	-	389
Co-incident with Washouts.	110	-	110

7.8.2 Construction Compounds and Pipe Storage Depots

158. Eight Construction Compounds are proposed and these are necessary to provide administrative hubs, welfare facilities and materials/equipment storage. These are listed in Table 7.9. The compounds are separated into Principal Construction Compounds and Satellite Construction Compounds.
159. Principal Construction Compounds would be larger sites, which would act as the appointed Contractor's central strategic (operational) hub for plant/material/worker movement, general storage, administration, logistical support, technical (design) staff, etc. The Principal Construction Compounds would generally provide space for management and welfare facilities, plant storage, vehicle parking and traffic circulation.
160. The Satellite Construction Compounds would be smaller sites associated with delivery of the permanent Infrastructure Sites (excluding the WTP which is a Principal Construction Compound and the FCV which is too small to act as a Satellite Construction Compound).
161. As a result, five of the temporary Construction Compounds then become the permanent Infrastructure Sites and so only three of these compounds, CC2, CC5 and CC6, require additional, temporary acquisition of land.

Table 7.9: Proposed Construction Compounds

ID Reference and Compound Type	Description and Location
CC0 Satellite	CC0 is a Satellite Construction Compound located at the RWI&PS site at Garrynatineel, County Tipperary. This Compound and works would be supported from the Principal Construction Compound (CC1) which would be located at the WTP.
CC1 Principal	CC1 is a Principal Construction Compound within the proposed land acquisition at Incha Beg which is located north-east of Birdhill, County Tipperary for the WTP. The site is located immediately north of dense woodland but is itself made up of open fields.
CC2 Principal	CC2 is a Principal Construction Compound located on a greenfield site which is currently used for agriculture at Lisgarraff, County Tipperary, between the N52 National Secondary Road and the Construction Working Width.
CC3 Satellite	CC3 is a Satellite Construction Compound located at the BPT site at Knockanacree, County Tipperary. This Compound and works would be supported from Principal Construction Compound CC2.
CC4 Satellite	CC4 is a Satellite Construction Compound located at the BPS site. This Compound and works would be supported from Principal Construction Compound CC5.
CC5 Principal	CC5 is a Principal Construction Compound located in an area of farmland south-west of Killurin at Killananny, County Offaly, which is bisected by the R421 Regional Road.
CC6 Principal	CC6 is a Principal Construction Compound located at Drummond, County Kildare, in an area of farmland directly accessed from the R403 Regional Road between Allenwood and Derrinturn.

ID Reference and Compound Type	Description and Location
CC7 Satellite	CC7 is a Satellite Construction Compound located at the TPR site at Peamount, County Dublin. This Compound and works would be supported from Principal Construction Compound CC6.

162. The Pipe Storage Depots would take direct delivery of the pipe for storage before onward journey to the required location along the pipeline. Given the volume of pipe material to be delivered and the logistical scale of the Proposed Project, it is not considered feasible to deliver pipe material directly to the point of installation. The pipe would be transported from the Pipe Storage Depot to its point of installation via either the Haul Road network or directly along the Construction Working Width.

163. The Pipe Storage Depots are listed in Table 7.10. The land needed for these would be acquired temporarily by Uisce Éireann.

Table 7.10: Proposed Pipe Storage Depots

ID Reference	Associated Construction Compound	Description and Location
PSD1	Principal Construction Compound CC2, Lisgarraff, County Tipperary	Pipe Storage Depot (PSD1) at Carrigatogher, County Tipperary, would be located in an area of farmland accessed directly off the R445 Regional Road.
PSD2	Principal Construction Compound CC5, Killananny, County Offaly	Pipe Storage Depot (PSD2) at Toora, County Offaly, would be located in an area of farmland, which would be accessed directly off the L4022 Local Road.
PSD3		Pipe Storage Depot (PSD3) at Boveen, County Offaly, would be located in an area of farmland accessed directly off the N62 National Secondary Road.
PSD4		Pipe Storage Depot (PSD4) at Fortel, County Offaly, would be located in an area of farmland off L4004 Local Road between the R421 Regional Road and the R440 Regional Road.
PSD5		Pipe Storage Depot (PSD5) at Derrinboy, County Offaly, would be located on agricultural land adjoining the Construction Working Width.
PSD6		Pipe Storage Depot (PSD6) at Derryweelan, County Offaly, would be located in an area of forestry with relatively flat topography.
PSD8	Principal Construction Compound CC6, Drummond, County Kildare	Pipe Storage Depot (PSD8) at Rathlumber, County Offaly, would be located in an area of relatively flat agricultural land south-west of Edenderry.
PSD9		Pipe Storage Depot (PSD9) at Graiguepottle, County Kildare, would be located in an area of agricultural land south of Kilcock.
PSD10		Pipe Storage Depot (PSD10) at Barberstown Upper, County Kildare, would be located in an area of agricultural land north of Straffan.

164. Table 7.11 provides an overview of the typical facilities required at the Construction Compounds and Pipe Storage Depots and therefore, the land required.

Table 7.11: Overview of Facilities at Construction Compounds and Pipe Storage Depots

Facilities	Principal Construction Compound		Satellite Construction Compound		Pipe Storage Depots	
		Notes		Notes		Notes
Offices	✓	Significant multi-storey prefab offices including space for the appointed Contractors, design teams, administration staff, etc.	✓	Small number of single-storey prefab offices to accommodate the appointed Contractors, design teams, administration staff, etc.	✓	Single-storey prefab building to accommodate site and delivery staff.
Canteen	✓	Prefab buildings to accommodate site staff, visitors, construction staff and delivery staff.	✓	Single-storey prefab building to accommodate site and delivery staff.	✓	Single-storey prefab building to accommodate site and delivery staff.
Welfare facilities	✓	Prefab buildings to accommodate site staff, visitors, construction staff and delivery staff.	✓	Single-storey prefab buildings to accommodate site staff, visitors and delivery staff.	✓	Single-storey prefab building to accommodate site and delivery staff.
Security hut	✓	Controlled access at all times. Full-time security provided at common site entrance/exit. Closed-Circuit Television (CCTV) would also be in place. Gates closed when not in use.	✓	Controlled access at all times. Full-time security provided at common site entrance/exit. CCTV would also be in place. Gates closed when not in use.		Controlled access during working hours. Access gate locked outside of working hours. No full-time security provided. CCTV would be in place. Gates closed when not in use.
Access and internal roads/ vehicle turning areas/ coach pick-up and drop-off point	✓	Internal roads to allow circulation where possible. Road layout enabling vehicle turning. Includes coach pick-up and drop-off areas.	✓	Internal roads to allow circulation where possible. Road layout enabling vehicle turning.	✓	Internal circulation roads provided to maintain one-way traffic flow, wherever possible.
Material storage areas	✓	Multiple storage areas provided.	✓	General storage areas provided.	✓	General storage areas provided.
Pipe storage areas	✓	Capacity varies according to site extents. Multiple defined areas allocated within each site. Site layouts accommodate loading/unloading pipe within individual sites.		There is no specific provision for pipe storage. Capacity for storage of materials, generally, on-site has been provided. This is suitable for storing pipes and fittings which are to be incorporated into the works at this location only.	✓	Capacity varies according to site extents. Multiple defined areas allocated within each site. Site layouts accommodate loading/unloading pipe within individual sites.
Segregated waste management areas	✓	Defined areas within each site. Segregated waste skips provided.	✓	Defined areas within each site. Segregated waste skips provided.	✓	Defined areas within each site. Segregated waste skips provided.
Parking spaces staff	✓	Typically allow for 250 car parking spaces.	✓	Staff parking allocated for typically up to 60 parking spaces.	✓	Staff parking allocated for typically up to 25 parking spaces.
Parking spaces visitors	✓	Typically allow for 50 car parking spaces.	✓	Included within staff parking.		No visitor spaces. Parking provided for off road delivery vehicles.
Septic tank	✓	Storage tank provided with no drain outlet. Contents emptied by suction tanker.	✓	Storage tank provided with no drain outlet. Contents emptied by suction tanker.	✓	Storage tank provided with no drain outlet. Contents emptied by suction tanker.
Bunded refuelling areas	✓	Two provided in each site.	✓	Provided	✓	Provided adjacent to designated parking areas
Plant cleaning area	✓	Two provided in each site.		Not applicable		Not applicable
Plant service area	✓	Two provided in each site.		Not applicable		Not applicable
Wheel wash area	✓	Provided adjacent to the common site entrance/exit	✓	Provided adjacent to the common site entrance/exit	✓	Provided adjacent to the common site entrance/exit

Facilities	Principal Construction Compound		Satellite Construction Compound		Pipe Storage Depots	
		Notes		Notes		Notes
Topsoil and subsoil stockpile area	✓	Separate stockpile areas provided – limited to maximum 2m high	✓	Separate stockpile areas provided – limited to maximum 2m high	✓	Separate stockpile areas provided – limited to maximum 2m high

7.8.3 Temporary Use of Land

165. Although the overall construction programme would be five years the construction of the pipeline would be over a total period of the three years. This would exclude commissioning at the end of the construction programme.
166. Therefore, approximately 60km of pipe would be constructed during each dry working period (assumed to be spring through to autumn). The pipeline would be built in three sections and therefore, very approximately within each section of the pipeline 12km -25km of pipe would need to be built each year.
167. Not all land would be required for the whole three-year period and further sub-division of the sections or phases into smaller, more manageable lengths (works packages) would allow this to be achieved.
168. As a result the works would be planned to reduce the period of time that land is out of agricultural use so that each landowner would not be affected for a period of more than 18–24 months (excluding returning to the land during the commissioning phase of the works).

7.8.4 Reinstatement of the Construction Working Width

169. Following completion of the construction works the general principle is that the land within the Construction Working Width would be reinstated to the conditions which existed on site prior to the construction of the Proposed Project. This would be based on the material, habitat, on-site features and surface water management measures that were on site before the works commenced. This would include the reinstatement of the soils, drainage, fencing and vegetation. However, this would be subject to:
- Variations agreed with the relevant landowner regarding matters such as the location or type of gates, fencing or drainage
 - Restrictions on structures that can be placed above the pipeline
 - Restrictions on the type of planting that can be put over the top of the pipeline including, specifically not planting trees that would grow to more than 4m in height. A mosaic habitat would be reinstated in place of, for example, woodland / forestry plantations that would include such tree species.

7.8.5 Operational Maintenance Access

170. Operational access for Uisce Éireann would be provided by the 20m Permanent Wayleave described in Section 9.

8. Statutory Processes

8.1 Environmental Impact Assessment

171. The Proposed Project requires an Environmental Impact Assessment (EIA), as required by Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 (the 'EIA Directive'). The Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended), transpose the EIA Directive. The EIA Directive requires that the process of EIA be applied to public and private projects that are likely to have significant effects on the environment, prior to an application for development consent being determined.
172. The assessment of likely significant environmental effects has been completed in accordance with, but not limited to, the following legislation and guidance, and any amendments thereto:
- The EIA Directive (as amended)
 - Planning and Development Act 2000 (as amended)
 - Planning and Development Regulations 2001 (as amended)
 - Planning and Development Act 2024
 - Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA 2022)
 - Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission (EC) 1999)
 - Environmental Impact Assessment of Projects – Guidance on Scoping (EC 2017a)
 - Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report (EC 2017b)
 - Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (EC 2013)
 - Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Local Government and Heritage 2018)
 - Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (English Planning Inspectorate 2024)
 - Institute of Environmental Management and Assessment (IEMA) Environmental Impact Assessment Guide to Shaping Quality Development (IEMA 2025).
173. In addition to the applicable EIA legislation and guidance, the Environmental Impact Assessment Report (EIAR) process has been conducted in accordance with all EU Directives and national legislation relating to the environmental topics considered. This process is described in the EIAR, which has been submitted as part of this application (JacobsTobin 2025b).

8.2 Appropriate Assessment

174. The Birds Directive (2009/147/EC)²⁵ and the Habitats Directive (92/43/EEC)²⁶ set out various procedures and obligations in relation to nature conservation management, and in particular the conservation of European sites as defined in section 177(R) Part XAB of the Planning and Development Act 2000 (as amended).
175. A key protection mechanism is the requirement to consider the possible nature conservation implications of any plan or project on European sites. Appropriate Assessment (AA) comprises an assessment of the implications of a plan or project, alone and in combination with other plans and projects, on the integrity of European sites in view of their conservation objectives.
176. An AA involves the submission of a Natura Impact Statement (NIS) by the developer to An Coimisiún Pleanála, the publication of the NIS so that the public can offer submissions and observations, and a determination by An Coimisiún Pleanála as to whether or not the Proposed Project would adversely affect the integrity of any European sites either alone or in combination with other plans or projects in view of best scientific knowledge and in view of the conservation objectives of the sites. In accordance with these requirements, the Proposed Project has been screened to assess whether it is likely either alone or in combination with other plans or projects to have likely significant effects on European sites. This process has been described in the Water Supply Project Eastern and Midlands Region AA Screening Report and NIS, which have been submitted as part of this application (JacobsTobin 2025c).

²⁵ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).

²⁶ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

9. The Need for These Lands and the Need to Acquire Them Compulsorily

177. The development of the Proposed Project and its previous iterations has followed a five-step approach, which is detailed in the attached CPO Routing Report (JacobsTobin 2025a). This is summarised in Image 9.1, which illustrates a five step approach which sought to progressively refine the pipeline route corridor from an initial, unconstrained broad search area between the abstraction point at Parteen Basin and the termination point at Peamount (Step 1), through the identification of route based on 2km wide corridors which were the least constrained (Steps 2 and 3), selection of a 200m wide preferred corridor (Step 4) to a highly refined 50m pipeline corridor (Step 5).

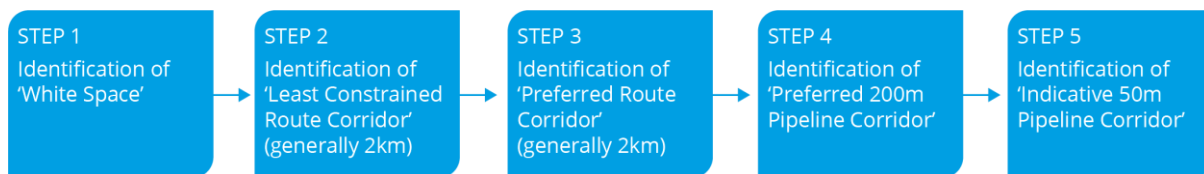


Image 9.1: Pipeline Route Selection Methodology

178. The selection of a '50m Pipeline Corridor' is an iterative process and involved extensive consultation with landowners directly and indirectly affected by the proposed development. Since the completion of stage 5 further route refinement has continued to be undertaken through direct engagement with landowners and as part of the design development. This is referred to as Post Step 5 Route Development.

179. All requested adjustments to the pipeline corridor were subjected to the same robust approach to pipeline route evaluation, where the various specialists used technical and environmental MCA to reach a consensus on the merits of a proposed change. In addition, any decision-making process took account of the potential impact on neighbouring land holdings, i.e. an adjacent land could not be unduly disadvantaged by reaching an accommodation elsewhere.

180. A decision on the reroute requests were categorised as 'Not Facilitated', 'Partially Facilitated', or 'Facilitated' defined as follows:

- Not Facilitated – unable to alter the 'Indicative 50m Pipeline Corridor' as requested for a technical, environmental or landowner reason
- Partially Facilitated – able to alter the 'Indicative 50m Pipeline Corridor' to some extent but unable to comply fully with the request due to a technical, environmental or other landowner reason
- Facilitated – able to alter the 'Indicative 50m Pipeline Corridor' as requested.

181. Decisions along with the reasoning were communicated to the landowner(s) who made the request. A total of 140 requests were made with respect to an adjustment to the pipeline corridor; summarised as follows:

- Not Facilitated – 44 No.
- Partially Facilitated – 43 No.
- Facilitated – 50 No.
- No re-route required – 3 No.

182. In addition to these, 36 route refinements had been made for technical reasons such as revising the geometry of the pipeline.

183. These requests are set out in Appendix E (Re-route Request Mapbook) of the CPO Routing Report (JacobsTobin 2025a).
184. Uisce Éireann must acquire permanent land, permanent right of way, permanent wayleave and temporary working areas to construct and operate the Proposed Project. The route and site selection processes, which underpin the land acquisition by voluntary agreement and / or CPO, took the following criteria into account:
- That there is a community need that is to be met by the acquisition of the lands in question
 - That the Proposed Project and the associated acquisition of lands is suitable to meet the community need
 - That the works to be carried out accord with, or at least are not in material contravention of, the policy and objectives contained in the statutory development plan relating to the area
 - That alternative sites have been considered to meet the community need but are not demonstrably preferable
 - That the extent of each land-take both permanent and temporary has in every case been sought to be minimised having due regard to the issue of proportionality in the context of the safety of the public and all those involved in the construction and also the deliverability of the scheme.
185. Uisce Éireann has undertaken due process and procedures that are fair and **reasonable** to demonstrate the **need** for the lands and that all lands being acquired are both necessary and suitable to facilitate the Proposed Project. Uisce Éireann has at all times had the utmost regard for the protection afforded to property rights and all proposed permanent acquisitions, permanent rights of way, temporary working areas and permanent wayleaves sought to facilitate the Proposed Project are both **proportionate** and rationally connected to a legitimate objective in the public interest.
186. The effects of the CPO on the rights on each individual landowner are proportionate to the objective being pursued.
187. **Each of the CPO plots** have been **identified**, based on ensuring a balance between an interference with property rights on the one hand, and the safe construction / operation of the Proposed Project on the other hand. This has been done whilst giving all landowners and occupiers the confidence that the lands are adequate to prevent construction / maintenance activities from ‘spilling over’ into adjoining lands outside the CPO and ensuring that property rights of the individual landowner are impaired as little as possible and only to the extent that is necessary. The **extent** of each individual temporary and permanent plot is **adequate** to facilitate the proposed works and the acquisition / wayleaves sought is **proportionate** to achieve the desired outcomes.
188. It is necessary to acquire interests in respect of each landowner. A number of processes and procedures were followed over a number of years, to identify each individual permanent and temporary requirements and the resulting land required for the Proposed Project is described in the following sections and is summarised in Table 9.1, Table 9.2, Table 9.3, Table 9.4 and Table 9.5.

9.1 Infrastructure Sites

189. The process followed for selection of locations for the infrastructure sites is described in the attached Routing Report. The proposed infrastructure sites would require permanent land-take to allow for the construction and subsequent operation of these facilities. Temporary land take would also be required to facilitate construction. Temporary lands would be restored to pre-construction condition and returned to the landowner on or before completion of construction activities. Landowner access arrangements would

be accommodated where permanent acquisitions would otherwise prevent a landowner from accessing an area of their retained lands,

190. The land required for the infrastructure sites is summarised in Table 9.1.

Table 9.1: Summary of Land Required for the Infrastructure Sites (*All Numbers Are Subject to Rounding)

Proposed Project Element	Permanent Acquisition (ha)	Temporary Acquisition (ha)	Total Acquisition Subject to CPO (ha)	Rationale for Acquisition
Raw Water Intake & Pumping Station (RWI&PS) Site and Access Road	4 (0.7ha not subject to CPO)	1 (0.4ha not subject to CPO)	3.9ha	<u>Permanent</u> The main components of the site are the Intake Structure and the Pumping Hall. The extent of the Intake Structure is 39.9m long by 10.4m wide. There will be ground anchors required beyond the extent of the building. The extent of the Pumping Station Building is 30.9m long by 37.5m wide. There will also be Microfiltration Buildings of 21.2m length and 16.2m width and an Electricity Substation required. In addition to these elements the twin pipeline for the RWRMs will run through the site from the pumping hall below ground and supplementary infrastructure including internal roads, utility connections, electricity substation, surge vessels and drainage will be needed. Space has also been allowed for a permanent access road, landscaping, fencing and planting within the site. Earthworks, drainage, planting and fencing will be needed alongside the access road within the land required. There is a small piece of land included within the site to avoid severance. Part of the permanent site will not be subject to acquisition under the CPO and will be part of a separate landowner agreement. <u>Temporary</u> Land is required temporarily within the Parteen Basin to facilitate construction of the intake and on the northern side of the site to facilitate construction of the RWI&PS infrastructure. Part of the land required temporarily will not be subject to acquisition under the CPO and will be part of a separate landowner agreement.
Water Treatment Plant (WTP) Site and Access Road	31	2.5 (0.9ha for power connection is not subject to CPO)	32.6	<u>Permanent</u> The main components of the site are the Water Treatment Module Buildings. The extent of these buildings is (3 No.) 141.3m long by 58.6m wide. There are multiple other buildings and storage tanks required including but not limited to: the Raw Water Balancing Tanks (2 No.) with a 65m diameter; Clear Water Storage Tanks (2 No. tanks, 4 No. cells), 40m by 65.6m; Visitors Centre and Control Building within a single structure 72.7m long and 30.0m wide; Chemical Dosing Manifold Building of 76.8m by 35.0m; Sludge Storage Buildings (2 No.), 72.9m long by 40.0m wide; Sludge

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Proposed Project Element	Permanent Acquisition (ha)	Temporary Acquisition (ha)	Total Acquisition Subject to CPO (ha)	Rationale for Acquisition
				Dewatering Buildings (2 No.), 38.8m long and 28.1m wide; Post Filtration Chemical Dosing Building, 70.0m long by 39.3m wide; and High Lift Pumping Station, 43.8m by 24.8m. In addition to these elements, supplementary infrastructure including internal roads, surge vessels, utility connections, electricity substation and drainage ponds will be needed. Space has also been allowed for a permanent access road from the R445 (including a permanent open span crossing of a tributary of the Kilmastulla River), diverting utilities, ground mounted solar panels, landscaping, fencing and planting within the site. Earthworks, drainage, planting and fencing will be needed alongside the access road within the land required. There is a small piece of land included within the site to avoid severance. <u>Temporary</u> Land is needed for the diversion of an overhead electricity power line and for a temporary connection to the same electricity overhead line for construction purposes. This will not be subject to the CPO as described in Section 1. In addition a further area of land is needed temporarily to support the construction of the crossing of the tributary of the Kilmastulla River.
Break Pressure Tank (BPT) Site and Access Road	7	0.8 (0.3ha for power connection is not subject to CPO)	7.5	<u>Permanent</u> The main component of the site is the BPT. The BPT will consist of 1 tank containing 3 No. Cells. Each of the cells will be 23.0m long and 41.7m wide. There will also be a Control Building 40m long and 20m wide. In addition to these elements supplementary infrastructure including internal roads, chemical dosing facilities, utility connections, and drainage pond will be needed. Space has also been allowed for a permanent access road from the L1064, diverting utilities, ground mounted solar panels, landscaping, fencing and extensive planting within the site. Earthworks, drainage, planting and fencing will be needed alongside the access road within the land required. There are two small pieces of land included within the site to avoid severance. <u>Temporary</u> Land is needed temporarily for the diversion of an overhead electricity power line and for a temporary connection to the same electricity overhead line for construction purposes. This will not be subject to the CPO as described in Section 1.

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Proposed Project Element	Permanent Acquisition (ha)	Temporary Acquisition (ha)	Total Acquisition Subject to CPO (ha)	Rationale for Acquisition
				In addition, a further area of land is needed temporarily to support the construction of the access road and to provide access to the landowner of land adjacent to the access road
Booster Pumping Station (BPS) Site	2.6	3	5.6	<u>Permanent</u> The main components of the BPS consist of an underground pumping hall and control building. This building will be 60m in length and 36m in width. In addition to these elements supplementary infrastructure including a surge vessel, electricity substation, internal roads, utility connections, and a drainage pond will be needed. Access to the BPS site would be directly off the L3003. A separate access would be provided to the electricity substation. Space has also been allowed for diverting utilities, ground mounted solar panels, landscaping, fencing and planting within the site. <u>Temporary</u> Land is needed for temporary working areas to support the construction of the BPS, for surface water management and to avoid temporary severance.
Flow Control Valve (FCV) Site	0.5	0.6 (Part of this is temporary acquisition is associated with the Permanent Wayleave)	1.3	<u>Permanent</u> The main component of the site is the underground chamber containing the control valves. The chamber will be 23.5m long and 13m wide. In addition to these elements supplementary infrastructure including internal roads, utilities connections, and a drainage pond will be needed. Space has also been allowed for ground mounted solar panels, landscaping, fencing and planting within the site. Access to the FCV site would be directly off the L1016. <u>Temporary</u> Land is needed for temporary working areas to support the construction of the FCV. In addition, a further area of land is needed to support the construction of the access from the L1016 into the site. (Due to landownership this is shown in the Wayleave Plan).
Termination Point Reservoir (TPR) Site and Access Road	8.3	1.1 (1.1ha for power connection is not subject to CPO)	8.3	<u>Permanent</u> The main components of site are the three reservoir cells. Each of the cells will be 90m long and 40m wide. There will also be a Chlorine Dosing Control Building will be 40m long and 40m wide and an Emergency Overflow Storage Tank of 40m in length by 40m width. In addition to these elements supplementary infrastructure including chemical dosing facilities, internal roads,

Proposed Project Element	Permanent Acquisition (ha)	Temporary Acquisition (ha)	Total Acquisition Subject to CPO (ha)	Rationale for Acquisition
				utility connections, and drainage ponds will be needed. Space has also been allowed for a permanent access road from the R120, landscaping, fencing, diversion of utilities and planting within the site. <u>Temporary</u> Land is needed temporarily for the diversion of an overhead electricity power line. This will not be subject to the CPO as described in Section 1.

9.2 Pipeline

191. The process followed for selection of the pipeline route is described in the CPO Routing Report (JacobsTobin 2025a). The following requirements have been considered as part of the route selection and land take requirements:

- A temporary working area would be required for the construction of the pipeline.
- A permanent wayleave would be required for access to the pipeline for the future operation and maintenance of the asset.

192. A 50m 'typical' working width (construction corridor) would be required, consisting of 20m permanent wayleave and 30m temporary working area. This 50m working width would provide sufficient space for:

- Excavating the trench for the pipeline
- Storing material that has been excavated including the separation of topsoil and subsoil
- Managing surface water including drainage channels
- A Temporary Construction Road to allow construction vehicles to move up and down the construction corridor.

193. The 20m wide permanent wayleave would be required to:

- Accommodate the construction, operation and maintenance of 2 x 1500mm diameter raw water pipelines and 1 x 1600mm treated water pipeline.
- Provide sufficient clear distances (10m either side of the centre line of the pipe) between the pipe and future building / construction works, that will allow such works to be carried out safely and without impacting the structural integrity of the pipeline.
- Allow access to the pipeline for inspections and maintenance work.
- Provide sufficient room for repair work to be carried out on the pipe should this be necessary. The 20m width allows access for machinery to carry out excavations safely and for stockpiling of excavated material within the wayleave adjacent to the trench. It also allows working room to bring in replacement sections of pipe should this be necessary.

194. In addition to the 20m Permanent Wayleave above the pipeline there would be a second Wayleave needed for connections from Washout Valves to Washout Outfalls. This Permanent Wayleave would be 10m wide and has been centred on the pipeline between these two points. This Wayleave has been widened around the outfalls themselves to enable the siting of the outfall headwall.

195. At the Line Valves the Permanent Wayleave would be slightly widened to up to approximately 30m (it varies at each Line Valve) to provide the space needed to take account of additional permanent features including the kiosks and to provide operational access.
196. The lands required for the 30m wide temporary working area would be required for a period of 18-24 months, which would be inclusive of time required to undertake site clearance, construction activities and subsequent reinstatement. Temporary lands would be restored to pre-construction condition in agreement with the landowner and would be returned to the landowner on or before completion of the local construction activities.
197. At some locations there would be localised variations to the 'typical' 50m working width. The variations would be where it has been narrowed in a localised area to avoid areas such as watercourses or archaeological features, or in areas where it has been widened due to a greater land extent being required to facilitate certain construction activities.
198. Activities and areas which require widening of the Construction Working Width include:
- Access and egress to the public road network which have been based on an area of land approximately 50m by 50m, in addition to the typical Construction Working Width, to allow for turning areas, waiting areas and space for deliveries. In addition some access points need sightlines to allow for safe access.
 - Construction of trenchless crossings for high voltage power lines, railway, road and watercourse crossings which require an area of land approximately 80m by 80m for the construction working area to support the launch and reception shafts at either end of a trenchless crossing.
 - Areas required for surface water management. The area of land for this has been based on the likely rate of runoff and the area of land needed to be drained.
 - Temporary abstraction and discharge points. The area of land for this has been based on provision of the temporary working area needed to manage the water within these processes
 - Additional working width for ground conditions such as topography and soft ground, such as peat.
199. The land required for the pipeline is summarised in Table 9.2.

Table 9.2: Summary of Land and Wayleaves Required for the Pipeline (*All Numbers Are Subject to Rounding to One Decimal Place)

Proposed Project Element	Permanent Acquisition (ha) ²⁷	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
Raw Water Rising Mains (RWRMs)	0.0	3.8	12.3	16.1	<u>Permanent Acquisition</u> A lay-by is required to facilitate line valve access. See section 9.3 for details. <u>Permanent Wayleave</u> A Permanent Wayleave of generally 20m will be required along the length of the pipeline. <u>Temporary</u> A Construction Working Width of, typically 50m wide, is required for the construction of the RWRMs. This has been extended for additional temporary working area either end of proposed

²⁷ The permanent acquisition reported in Table 9.2 is the acquisition required for Lay-bys and Line Valves at ground level above the pipeline and so has been included in Table 9.2 as well as Table 9.3. The permanent acquisition in Table 9.2 is therefore, a duplication of the permanent acquisition set out in Table 9.3. The total area is affected by rounding to one decimal place.

Proposed Project Element	Permanent Acquisition (ha) ²⁷	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
					trenchless crossings and in certain instances to field boundaries to avoid severance of land.
Treated Water Pipeline from the WTP to the BPT	0.2	73.9	132.6	206.5 ²⁸	<u>Permanent Acquisition</u> A total of 41 lay-bys and 4 areas of adjacent land raising are required to facilitate line valve access. See section 9.3 for details. <u>Permanent Wayleave</u> A Permanent Wayleave of generally 20m will be required along the length of the pipeline. This has been widened at Line Valves to accommodate additional pipeline features including the chambers around the valves. Additional Permanent Wayleaves have been included for permanent discharges to outfalls. Part of the land required for the Permanent Wayleave will not be subject to acquisition under the CPO and will be part of a separate landowner agreement. <u>Temporary</u> A Construction Working Width of, typically 50m wide, is required for the construction of the Treated Water Pipeline. This has been extended for: - Access and egress to the public road network - Construction of trenchless crossings for high voltage power lines, railway, road and watercourse crossings - Areas required for surface water management - Temporary abstraction and discharge points - Additional working width for ground conditions such as topography and soft ground, such as peat. Part of the land required temporarily will not be subject to acquisition under the CPO and will be part of a separate landowner agreement.
Treated Water Pipeline from the BPT to the TPR	1.4	266 (0.1ha not subject to CPO)	502.7 (0.5ha not subject to CPO)	768.1 ²⁹	

9.3 Layby and Line Valve Acquisitions

200. Uisce Éireann is not generally seeking powers to acquire land along the route of the pipeline (outside of the permanent Infrastructure Sites and the access roads to them). However, there would be permanent acquisition of land for Lay-Bys and for land raising at four Line Valve locations.
201. Line valves are required at intervals along the pipeline to allow elements of the pipeline to be isolated for operation and maintenance purposes. Each Line Valve would be housed in an underground chamber. Where possible, the line valves have been positioned at roadside locations to provide ease of access and to minimise disruption to the landowner. At Line Valve locations adjacent to roads, Lay-Bys would be constructed to facilitate safe working during planned periodic maintenance of the Line Valves and associated kiosks (or combined kiosk). The land for the laybys would be permanently acquired so that the laybys can be maintained by Uisce Éireann.

²⁸ This excludes the permanent acquisition as this is accounted for in Table 9.3.

²⁹ This excludes the permanent acquisition as this is accounted for in Table 9.3.

- 202. Lay-Bys would allow sufficient space for a delivery vehicle to park beside the installation and place/remove the temporary pumps required to facilitate the bypass required during a draindown.
- 203. There is no fixed length or size of the Lay-Bys. They need to be sufficiently large to be able to pull on and off the road safely and therefore, the layout of each Lay-By depends on the site conditions.
- 204. At four line valve locations, land would be raised locally due to the topography of the site in order to facilitate operational access. At these locations, land would be permanently acquired and fenced off. The areas of acquisition would vary according to local conditions, but are designed to allow access around the valve chamber to facilitate safe working during operation and maintenance activities. The land required for laybys and land-raising is summarised in Table 9.3.

Table 9.3: Summary of Land Required for the Laybys and Line Valves (*All Numbers Are Subject to Rounding)

Proposed Project Element	Permanent Acquisition (ha) ³⁰	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
Lay-Bys	0.8	0	0	0.8	<u>Permanent</u> Land required permanently at 38 locations to provide safe access to the Line Valves for maintenance and inspection.
Layby with Land Raising	0.7	0	0	0.7	<u>Permanent</u> Land required permanently at 4 locations to provide safe access to the Line Valves for maintenance and inspection and enable ground levels between Line Valves and Lay-Bys to be altered.

9.4 Rights of Way

205. The majority of the Lay-Bys would be adjacent to public roads; however, four of the Lay-Bys would be accessed from private roads and a Right of Way would be acquired as part of the Proposed Project in order to allow Uisce Éireann to access these locations.

206. The land required for Rights of Way is summarised in Table 9.4.

Table 9.4: Summary of Land Required for Rights of Way to the layby locations (*All Numbers Are Subject to Rounding)

Proposed Project Element	Permanent Acquisition (ha)	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
Right of Way at RWI	0	0	0	0	Right of Way Right of Way for access to underwater infrastructure for maintenance and inspection. 0.2 ha This Right of Way will not be subject to acquisition under the CPO and will be part of a separate landowner agreement.
Rights of Way at Lay-Bys	0	0	0	0	Right of Way Land required to provide Right of Way for access to the below listed Lay-Bys for maintenance and inspection. LB146: 0.3 ha LB213: 0.7 ha LB248: 0.2 ha LB341: 0.3 ha

9.5 Temporary Construction Compounds and Pipe Storage Depots

207. In addition to the Construction Working Width there would be land required for Construction Compounds and Pipe Storage Depots. These form larger temporary working areas. The process followed for selection of locations for the Construction Compound and Pipe Storage Depot sites is described in the CPO Routing Report.

³⁰ The land required for the Lay-bys and Line Valves is associated with the pipeline and so has been included in Table 9.2 as well as Table 9.3. The permanent acquisition in Table 9.3 is therefore, a duplication of the permanent acquisition set out in Table 9.2. The total area is affected by rounding to one decimal place.

208. Eight Construction Compounds are proposed and these would generally provide space for management and welfare facilities, plant storage, vehicle parking and traffic circulation. Five of the Construction Compounds are also permanent Infrastructure Sites and so only three of these compounds, CC2, CC5 and CC6, require additional temporary acquisition of land. These need to be at least 12ha in size.
209. The Pipe Storage Depots would take direct delivery of the pipe for storage before onward journey to the required location along the pipeline. Pipe Storage Depots would typically be 2ha in size to provide sufficient storage and supporting facilities.
210. Temporary lands would be restored to pre-construction condition and returned to the landowner on or before completion of construction activities. Landowner access arrangements would be accommodated where temporary acquisitions would otherwise prevent a landowner from accessing an area of their retained lands.
211. The land required for temporary Construction Compounds and Pipe Storage Depots is summarised in Table 9.5. Note that these areas exclude the adjacent 50m working width.

Table 9.5: Summary of Land Required for the Construction Compounds and Pipe Storage Depots (*All Numbers Are Subject to Rounding)

Proposed Project Element	Permanent Acquisition (ha)	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
Construction Compound 2 (Lisgarraff)	0	0	12.2	12.2	<u>Temporary</u> Land required to provide facilities for up to 250 staff and 50 visitors including offices, canteen, welfare facilities, security hut, internal roads, material storage areas, pipe storage areas, segregated waste management areas, staff parking spaces, visitor parking spaces, septic tank, bunded refuelling areas, plant cleaning areas, plant service areas, wheel wash area, topsoil and subsoil stockpile areas.
Construction Compound 5 (Killananny)	0	0	13.4	13.4	
Construction Compound 6 (Drummond)	0	0	10.5	10.5	
Pipe Storage Depot 1 (Carrigatogher)	0	0	2.1	2.31	<u>Temporary</u> Land required to provide facilities for up to 25 staff including offices, canteen, welfare facilities, internal roads, material storage areas, pipe storage areas, segregated waste management areas, staff parking spaces, septic tank, bunded refuelling areas, wheel wash area, topsoil and subsoil stockpile areas.
Pipe Storage Depot 2 (Toora)	0	0	1.9	1.9	
Pipe Storage Depot 3 (Boveen)	0	0	3.7	3.7	
Pipe Storage Depot 4 (Fortel)	0	0	2.6	2.6	
Pipe Storage Depot 5 (Derrinboy)	0	0	4.2	4.2	
Pipe Storage Depot 6 (Derrywheelan)	0	0	6.2	6.2	
Pipe Storage Depot 8 (Rathlumber)	0	0	2.9	2.9	
Pipe Storage Depot 9 (Graiguepottle)	0	0	2.2	2.2	
Pipe Storage Depot 10	0	0	9	9	

Proposed Project Element	Permanent Acquisition (ha)	Permanent Wayleave (ha)	Temporary Working Area (ha)	Total Acquisition (ha)	Rationale for Acquisition
(Barberstown Upper)					

212. To achieve its objectives for the Proposed Project, Uisce Éireann needs to acquire land, rights of way, wayleaves and temporary working areas to facilitate the construction of the various elements of the project.

213. Uisce Éireann has demonstrated that:

- i. the interference with property rights is justified by the exigencies of the common good, having regard to the principles of social justice;
- ii. the acquisition is rationally connected to a legitimate public objective and not arbitrary or unfair;
- iii. the measures impair property rights as little as possible, being the least intrusive means necessary to achieve the legitimate aim; and
- iv. there has been a proper evaluation of alternatives and an overall balance between the impact on the individual and the benefit to the community.

214. The lands, rights of way, wayleaves and temporary working areas required for the Proposed Project (and to be included in the proposed Compulsory Purchase Order) are described in the schedules to the enclosed draft 'Uisce Éireann Compulsory Purchase Order (Water Supply Project – Eastern and Midlands) 2025' and are depicted in the following proposed Compulsory Purchase Order Drawings:

- Uisce Éireann Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025 – Compulsory Purchase Order Drawings.

215. I consider that **those lands, rights of way, wayleaves and temporary working areas are necessary and suitable for the Proposed Project**. In this regard I refer to the attached Routing Report.

216. Attempts have been made, from 2017 to date, to acquire the required lands, wayleaves, rights of way and temporary working areas by agreement. Following consultation with landowners, amendments were made to the design and routing of the pipelines where possible to facilitate landowner requirements. However, it has not been possible to secure agreement from all landowners affected.

217. For the purpose of carrying out Uisce Éireann's functions in accordance with the European Union (Drinking Water) Regulations 2014 and under the Water Services Act 2007 and for the carrying into effect of the Proposed Project, which is required to meet a community need and to ensure that the Project is commenced and completed in a timely fashion, I consider it necessary to acquire the lands, rights of way, wayleaves and temporary working areas for the Project by Compulsory Purchase, under Part 7 of the Water Services Act 2007.

218. Accordingly, I consider it necessary, to acquire these wayleaves and temporary working areas and, to do so reliably and in a timely fashion, that Compulsory Purchase powers be invoked.

10. Resources and Alternatives Considered

219. I am satisfied that sufficient resources will be available in a timely fashion to finance the proposed acquisition of these lands, rights of way, wayleaves and temporary working areas and the implementation of the Water Supply Project Eastern and Midlands.
220. I am satisfied that all reasonable alternatives as outlined above, in the CPO Routing Report (JacobsTobin, 2025a), dated December 2025 have been fully considered and are not demonstrably preferable, and that the lands, rights of way, wayleaves and temporary working areas now proposed for Compulsory Acquisition are suitable and necessary for the purposes of the Water Supply Project Eastern and Midlands for which they are required.

11. Regulatory and Public Policy Compliance

221. As part of the design and Compulsory Purchase Order application process for the Proposed Project, Uisce Éireann has taken account of its legislative powers, function and obligations, including those specified in the Water Services Act 2007 and sections 31 and 32 thereof in particular. Having consulted with the relevant departments within Uisce Éireann and taking into account the Routing Report and the Planning Report, I am satisfied that, in developing the Proposed Project and in proposing this Compulsory Purchase Order, full account has been taken of:

- The Uisce Éireann WSSP 2050 (Uisce Éireann 2025). The Proposed Project advances and/or is consistent with the following objectives of the WSSP:
 - Safe and Reliable Drinking Water
 - Support our Customers, Communities & the Economy
 - Protect and Restore our Environment
 - Sustainable Services fit for the future.
- National Water Resources Plan Framework Plan (Irish Water, 2021b)
- Regional Water Resources Plan – Eastern and Midlands Region, (the Eastern and Midlands Plan) (Irish Water, 2022)
- Uisce Éireann Business Plan – Transforming Water Services in Ireland to 2021 (Irish Water 2021a)
- Proper Planning and Sustainable Development as per the relevant County Development Plans:
 - Clare County Development Plan, 2023-2029 (Clare County Council 2023)
 - Limerick Development Plan, 2022-2028 (Limerick County Council 2022)
 - Tipperary County Development Plan, 2022-2028 (Tipperary County Council 2022)
 - Offaly County Development Plan, 2021-2027 (Offaly County Council 2021)
 - Kildare County Development Plan, 2023-2029 (Kildare County Council 2023)
 - South Dublin County Development Plan 2022-2028 (South Dublin County Council 2022).
- Revised National Planning Framework 2025 (Department of Housing, Local Government and Heritage 2025)
- National Development Plan 2021-2030 (Government of Ireland 2021)
- National Development Plan Review 2025 (Government of Ireland 2025)
- Regional Spatial and Economic Strategy for the Eastern and Midland Region, 2019-2031 (Eastern & Midland Regional Assembly 2019)
- Regional Spatial and Economic Strategy for the Southern Region, 2020-2032 (Southern Regional Assembly 2020)
- European Union (Drinking Water) Regulations 2014
- Water Services Acts 2007-2013. These Acts set out the legislative context in which Uisce Éireann operates. Uisce Éireann's powers and objectives are set out under these Acts and the Proposed Project has been designed and will be implemented in line with these powers and objectives

- Water Action Plan 2024: A River Basin Management Plan for Ireland (Department of Housing, Local Government and Heritage 2024)
- The EIAR (JacobsTobin 2025b) and NIS (JacobsTobin 2025c) for the Proposed Project.

222. I am therefore satisfied that Uisce Éireann has complied with its obligation under section 31(2) of the Water Services Act 2007 to take full account of the aspects of public policy listed therein.

12. Conclusion

223. Accordingly, I, as **Uisce Éireann Projects Manager**, recommend that Uisce Éireann make the Uisce Éireann Compulsory Purchase (Water Supply Project Eastern and Midlands) Order 2025.

Dated December 2025



SIGNED:

Mike Healy
Projects Manager, Uisce Éireann

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Schedule 1 Documents Enclosed with This Report

- Uisce Éireann Compulsory Purchase (Water Supply Project Eastern and Midlands Region) Order, 2025
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Compulsory Purchase Order Drawings (IW/WSP/CPO/01 – IW/WSP/CPO/113)
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Schedule
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Routing Report dated December 2025
- Uisce Éireann Compulsory Purchase Order 2025 – Water Supply Project Eastern and Midlands Region – Planning Report dated December 2025.
- Water Supply Project Eastern and Midlands Region – Environmental Impact Assessment Report dated December 2025
- Water Supply Project Eastern and Midlands Region – Natura Impact Statement dated December 2025