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# ENVIRONMENTAL IMPACT STATEMENT – METRO NORTH

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## BELINSTOWN TO ST. STEPHEN'S GREEN

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### ANNEXES

VOLUME 3 – BOOK 2 OF 2

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## ANNEX E

Belinstown  
Uxwell  
Crusilly  
Seaview  
Swords  
Fonsstown  
Alton  
Dardroona  
Northwood  
Ballynua  
Dublin City University  
Goffchavenus  
Drumcondra  
Moor  
Parnell Square  
O'Connell Bridge  
St. Stephen's Green

## **Annex E**

### **Metro North EIS**

#### **Information supporting the groundwater chapters**

- Estimated groundwater levels
- GSI well card data



# 1 Information supporting the groundwater chapters

## 1.1 Estimated groundwater levels

Table 1.1 Estimated groundwater levels

Location	Chainage	Static Water Level (m bgl*)	Ground Level (presume m OD**)	Estimated depth to groundwater (m OD) assuming lowest ground level
Source	Jacobs Babbie	IGSL	Drawings by Jacobs Babbie	
St. Stephen's Green to the Mater Hospital	18900 to 16500	3.5 to 5.5m	4.2m to 19.03	0.7m to -1.3m
Mater Hospital to DCU	16500 to 13300	1.26m to 14.69m	5.2 to 49.67	3.94m to -9.49m
DCU to Metropark	13300 to 9800	6.69m to 11.08m	49.67 to 66.21	42.98m to 55.13m
Metropark to north of Dublin Airport	9800 to 7000	2.64m to 11.05m	59.26 to 67.69	56.62m to 48.21m
North of Dublin Airport to Swords	7000 to 4400	1.58m to 7.56m	24.5 to 63.90	22.92m to 16.94m
Swords to Lissen-hall	4400 to 2000	2.18m to 5.92m	4 to 24.5	1.82m to -1.92m

\*bgl: below ground level

\*\* Ordnance Datum

## 1.2 GSI well card data

Relevant well card data from the GSI is shown in Table 1.2 to Table 1.5. All terms, annotations and abbreviations used in the following tables are explained in Section 1.3.

Table 1.2 5 km well search for GR 316800 243450, Dublin Airport

GIS holename	Usage	Easting	Northing	Townland	DTB	Depth	Yield	Yieldclass	Water-strike_1	Specap_abstraction
2923NEW023	U	31279	24377	St Margarets				L		
2923NEW024	U	31286	24396	St Margarets				L		
2923SEW042		31291	23897	Cardiffcastle						
2923NEW042		31769	24250	Toberbunny						
3223NWW007		32022	24459	Feltrim						
3223NWW006		32175	24540	Malahide Demesne						
2923NEW038		31791	24634	Forrestfields						
2923NEW039		31849	24578	Crowcastle						
3223SWW005		32024	23928	Brookville						
2923NEW044	B	31980	24727	Seatown East		15.2	218	G		
2923NEW045	B	31965	24715	Seatown East		33.5	381	G		
2923NEW025		31258	24138	Balseskin	0.6	0.6				
2923NEW026	O	31254	24136	Balseskin	0.4	0.4				
2923NEW027	O	31249	24137	Balseskin	0.4	0.4				
2923NEW028	O	31246	24133	Balseskin	0.2	0.2				
2923NEW029	O	31261	24130	Balseskin	0.8	0.8				
2923NEW030	O	31280	24126	Balseskin	1.4	1.4				
2923NEW031	O	31260	24140	Balseskin	0.5	42.7	83.8	M		4.29
3223NWW003	I	32145	24615	Yellow Walls	6.1	131	220	G		
2923NEW015	I	31630	24170	Santry		48.8	130	G		
2923NEW016	D	31656	24150	Ballymun		35.4	109	G		
2923NEW017		31280	24370	St Margarets	4	9.1	164	G		
3223SWW001	I	32173	24123	Balgriffin	10	52.7	196	G		
2923NEW018	I	31815	24670	Swords	1.5	46.9	110	G		

GIS holename	Usage	Easting	Northing	Townland	DTB	Depth	Yield	Yieldclass	Water-strike_1	Specap_abstraction
2923NEW019	U	31830	24657	Swords		33.5	385	G		
2923NEW020	U	31805	24655	Swords		27.4	220	G		
2923SEWO21	I	31360	23893	Finglas		61	174.6	G	12.2	
2923NEW061	I	31600	24180	Ballymun	20	91.4	87	M	60	
2923NEW062	I	31600	24180	Ballymun	23	122	200	G		31.75
2923NEW021	B	31805	24535	Nevinstown West		36.6	38.2	P		
2923NEW034	I	31761	24305	Corballis	11.6	13.7	300	G		
2923NEW035	U	31340	24170	Dubber	13.5	60	48.5	M		24
2923NEW036	I	31600	24180	Ballymun	20	91.4	87	M		
2923NEW037	I	31601	24179	Ballymun	22	122				
2923SEW032	I	31967	23928	Coolock		15				
2923SEW033	I	31967	23922	Coolock		16.5				
3223NWW012		32115	24215	Saintdoolaghs						
3223NWW011		32115	24213	Saintdoolaghs						
2923NEW061		31299	24027	Charlestown	5.5	15.5				
2923NEW062		31301	24032	Charlestown	4	9.5				
2923NEW063		31302	24029	Charlestown	3.3	3.5				
2923NEW064		31302	24025	Charlestown	2.6	2.8				

Table 1.3 5km well search for GR 315700 238700, DCU

GSI holename	Easting	Northing	Townland	DTB	Depth	Yield	Yieldclass	Waterstrike_1	Specap_ Abstraction
2923NEW043	31093	24222	Kilshane						
2923SEW042	31291	23897	Cardiffcastle						
2923NEW042	31769	24250	Toberbunny						
2923SEW046	31931	23611	Clontarf						
3223SWW005	32024	23928	Brookville						
2923NEW025	31258	24138	Balseskin	0.6	0.6				
2923NEW026	31254	24136	Balseskin	0.4	0.4				
2923NEW027	31249	24137	Balseskin	0.4	0.4				
2923NEW028	31246	24133	Balseskin	0.2	0.2				
2923NEW029	31261	24130	Balseskin	0.8	0.8				
2923NEW030	31280	24126	Balseskin	1.4	1.4				
2923NEW031	31260	24140	Balseskin	0.5	42.7	83.8	M		4.29
2923NEW015	31630	24170	Santry		48.8	130	G		
2923NEW016	31656	24150	Ballymun		35.4	109	G		
2923SEW003	31320	23841	Finglas East		24.4	110	G		
2923SEW004	31130	23950	Cappoge		76.2	109.1	G		
2923NEW017	31280	24370	St Margarets	4	9.1	164	G		
2923SEW027	31510	23690	Glasnevin	15	90	300	G	15	
2923SEW012	31595	23505	Parnell Street	9.1	137	163.6	G		
2923SEW013	31540	23430	Ormond Quay	9.1	106.7	114.5	G		
2923SEW015	31475	23475	North Brunswick Street	2.5	30.4	393	G		
2923SEW021	31360	23893	Finglas		61	174.6	G	12.2	
2923NEW061	31600	24180	Ballymun	20	91.4	87	M	60	
2923NEW062	31600	24180	Ballymun	23	122	200	G		31.75
2923SEW024	31505	23778	Glasnevin	9.5	90	16.5	P	50	
2923NEW034	31761	24305	Corballis	11.6	13.7	300	G		
2923NEW035	31340	24170	Dubber	13.5	60	48.5	M		24
2923NEW036	31600	24180	Ballymun	20	91.4	87	M		
2923NEW037	31601	24179	Ballymun	22	122				
2923SEW032	31967	23928	Coolock		15				

GSI holename	Easting	Northing	Townland	DTB	Depth	Yield	Yieldclass	Waterstrike_1	Specap_
									Abstraction
2923SEW033	31967	23922	Coolock		16.5				
2923SEW036	31960	23510	Ringsend		6.2				
2923SEW028	31510	23685	Glasnevin	11.5	106	482	E	12	17.68
2923SEW029	31742	23470	Sherriff Street Upper		6.5				
2923SEW030	31750	23472	Sherriff Street Upper		7.8				
2923NEW061	31299	24027	Charlestown	5.5	15.5				
2923NEW062	31301	24032	Charlestown	4	9.5				
2923NEW063	31302	24029	Charlestown	3.3	3.5				
2923NEW064	31302	24025	Charlestown	2.6	2.8				



Table 1.4 5km well search for GR 316170 233250 (St. Stephen's Green area)

GSI hole-name	Usage	Easting	Northing	Townland	DTB	Depth	Yield	Yield-class	Prod_Class	Water-strike_1	Mainaqui-fer_Mlith	Specap_Abstraction
2923sew046		31931	23611	Clontarf								
2923sew007	I	31120	23190	Drimnagh	1.2	31.7	261.8	G			Limestone	
2923sew027	U	31510	23690	Glasnevin	15	90	300	G		15	Shale	
2923sew008	I	31120	23190	Drimnagh	1.2	54.9	436	E	lii		Limestone	14.3
2923sew009	I	31120	23190	Drimnagh	1.2	42.7	381	G			Limestone	
2923sew010	D	31575	23205	Rathmines		39	109.1	G			Limestone	
2923sew012	U	31595	23505	Parnell Street	9.1	137	163.6	G			Limestone	
2923sew013	U	31540	23430	Ormond Quay	9.1	106.7	114.5	G			Limestone	
2923sew015	I	31475	23475	North Brunswick Street	2.5	30.4	393	G			Limestone	
2923sew014	I	31754	23368	Barrow Street		9.8	261.8	G			Clay	
2923sew017	O	31890	23070	Donnybrook	15.2	83.8	95.9	M	lv	73.1	Limestone	6.7
2923sew024	U	31505	23778	Glasnevin	9.5	90	16.5	P		50	Limestone	
2923sew034	U	31920	23120	Merrion	10.2	12.4					Limestone	
2923sew035	U	31170	23180	Drimnagh		3.3						
2923sew036	U	31960	23510	Ringsend		6.2						
2923sew037	U	31806	23313	Lansdowne		7.6	60	M			Gravel	
2923sew038	U	31810	23305	Lansdowne	7.5	45	22	P				
2923sew039	I	31365	23088	Kimmage	2	144.8	45	M	lii		Limestone	15.3
2923sew040	I	31362	23082	Kimmage	2	152	818	E	lii	66	Limestone	8.2
2921new007	U	31600	22950	Milltown	4	60	132	G	lii		Limestone	21.4
2921new009	U	31517	22872	Rathfarnham	20	76	207	G	lii		Limestone	11.2
2923sew028	U	31510	23685	Glasnevin	11.5	106	482	E	lii	12	Shale	17.68
2923sew029	O	31742	23470	Sherriff Street Upper		6.5					Gravel	
2923sew030	O	31750	23472	Sherriff Street Upper		7.8						
2923sew031	I	31200	23160	Crumlin	1.2	41.1	109	G	lv			2.8
2923sew050		31750	23352	Barrow Street		9.1				5.8		
2923sew051		31743	23360	Barrow Street		9.8				6.1		
2923sew052		31749	23357	Barrow Street		8.5				6.2		
2923sew053		31750	23360	Barrow Street		4.8				2.2		
2923sew054		31745	23356	Barrow Street		8.2				5.6		

Table 1.5 5 km well search for G.R. 318900 248300, Lissenhall Bridge

GSI holename	Easting	Northing	Townland	DTB	Depth	Yield	Yield Class	Water Strike_1
2923new063	31913	24886	Lissenhall Little					
3223nww007	32022	24459	Feltrim					
3223nww006	32175	24540	Malahide Demesne					
2923new038	31791	24634	Forrestfields					
2923new039	31849	24578	Crowcastle					
2925sew024	31615	25170	Baldurgan					
2925sew025	31800	25240	Gracedieu					
2925sew026	31822	25247	Gracedieu					
2925sew027	31997	25327	Corduff		32.3	218	G	
2923new044	31980	24727	Seatown East		15.2	218	G	
2923new045	31965	24715	Seatown East		33.5	381	G	
3225sww005	32023	25280	Corduff		32.3	218	G	
3223nww001	32254	24945	Donabate		41.1	130	G	
3223nww002	32314	24556	Malahide		6.4	196.4	G	
3223nww003	32145	24615	Yellow Walls	6.1	131	220	G	
2925sew021	31995	25163	Coldwinters	14	76.2	218	G	30.5
2923new018	31815	24670	Swords	1.5	46.9	110	G	
2923new019	31830	24657	Swords		33.5	385	G	
2923new020	31805	24655	Swords		27.4	220	G	
2923new021	31805	24535	Nevinstown West		36.6	38.2	P	
3225sww011	32090	25230	Lusk	7.9	30.5	54.5	M	
3225sww026	32169	25268	Balleally	23.7	23.7			

## 1.3

## Glossary of terms

Term	Definition
GSIHolename	1:25,000 sheet Number and number of the well on that sheet
EASTING (E) & NORTHING (N) Grid Acc or Acc	5 figure Grid Reference of the well Accuracy level: refers to the accuracy of the grid reference. 1 = 10m 2 = 20m 3 = 50m 4 = 100m 5 = 200m 6 = 500m 7 = 1km 8 = 2km 9 = 5km 10 = 10km
Scheme name	Name of the person or organisation who own the well
Town land Co	Name of the area where the well is located County i.e. DO = County Donegal
Six or Six"	1:10,560 sheet number (6" sheet number)
InvType	Well Type: WD = Dug Well WB = Bored Well WS = Spring WU = Unknown U = Usage A = Agricultural use only B = Agricultural & Domestic use D = Domestic use only G = Group Scheme I = Industrial use P = Public Supply O = Other U = Unknown
Y or Yield Class	Yield: F = Failure P = Poor (<40m <sup>3</sup> /d) M = Moderate (40 – 100m <sup>3</sup> /d) G = Good (100 – 400m <sup>3</sup> /d) E = Excellent (>400m <sup>3</sup> /d) U = Unknown
Depth	Total depth of the well in metres
DTB	Depth to bedrock in metres
Yield	Usually yield obtained during initial well testing in m <sup>3</sup> /day
SpeCap_Abstract	Discharge/ Drawdown m <sup>3</sup> /day/ m (from yield test or abstraction data)
MainAquifer Lith.	General description of the geological unit supplying water to the well.
AveDailyAbstract	m <sup>3</sup> /day
WaterStrike	Metres below dipping reference – ground level unless stated otherwise

