



Barnesmore Gap Greenway

Appendix 10.1: Cuttings and Hydrogeological Receptors

Donegal County Council

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10.1 Proposed Cuttings (where Greater than 0.5m in Depth) and Groundwater Receptors (within 100m)

Table 10-1 - Proposed cuttings (where greater than 0.5m in depth) and groundwater receptors (within 100m)

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
Section 1						
1040-1170	6.1 (N56 underpass)	BH001	- Topsoil (0-0.3) - Silt (0.3-1.2) - Gravel (1.2-2.5) - Bedrock (refusal at 2.5)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC	Extremely High
		EGBH01	- Topsoil (0-0.2) - Clay (0.2-5.82) - Bedrock (refusal at 5.82)	Water strike at 5, rose to 4.8 after 20 mins		
1600-1620	0.8	TP004	- Topsoil (0-0.25)	No groundwater encountered	-	-
2590-2660	1.3		- Clay (0.25-1.4)		-	-
2730-2790	2.7		- Bedrock (refusal at 1.4)		-	-
Section 1 Spur						
015-035	1.4	TP004	- Topsoil (0-0.25)	No groundwater encountered	-	-
115-150	1.85		- Clay (0.25-1.4)		-	-
150-190	0.5		- Bedrock (refusal at 1.4)		-	-
220-265	0.6				-	-
510-630	1.2	TP006	- Topsoil (0-0.3)	Small seepage at 2.2	-	-
680-750	1.1		- Silt (0.3-2.2)		-	-
760-850	4.2 (N15 underpass (Clar))		- Bedrock (refusal at 2.2)		-	-
Section 2						
3650-3810	5.8	TP006	- Topsoil (0-0.3) - Silt (0.3-2.2) - Bedrock (refusal at 2.2)	Small seepage at 2.2	-	-

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
4410-4500	1.1	EGBH03	- Topsoil (0-0.1) - Silt (0.1-1.3) - Clay (1.3-2.7) - Bedrock (refusal at 2.7)	Water strike at 2, rose to 1.6 after 20 mins	Lough Eske and Ardnamona Wood SAC	Extremely High
Section 2 Spur 1 (Lough Eske Loop)						
235-530	3.4	EGBH06	- Topsoil (0-0.1) - Clay (0.1-2.75) - Bedrock (refusal at 2.75)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC	Extremely High
670-740	1.3				-	-
1280-1390	3.4				Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
1540-1585	0.5				Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
Section 2 Spur 2 (Lough Eske Loop)						
345-440	1.5	EGBH06	- Topsoil (0-0.1) - Clay (0.1-2.75) - Bedrock (refusal at 2.75)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
		TP009	- Topsoil (0-0.4) - Gravel (0.4-2.2) - Bedrock (refusal at 2.2)	No groundwater encountered		
480-530	1.05	EGBH06	- Topsoil (0-0.1) - Clay (0.1-2.75) - Bedrock (refusal at 2.75)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
		TP009	- Topsoil (0-0.4) - Gravel (0.4-2.2) - Bedrock (refusal at 2.2)	No groundwater encountered		
600-650	1.2	EGBH06	- Topsoil (0-0.1) - Clay (0.1-2.75) - Bedrock (refusal at 2.75)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
		TP009	- Topsoil (0-0.4)	No groundwater encountered		
750-800	0.7		- Gravel (0.4-2.2) - Bedrock (refusal at 2.2)		Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
1015-1035	0.5				Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
1370-1390	0.5				Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
1685-1725	0.8				Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
1930-2020	2.4	EGBH09	- Topsoil (0-0.2) - Clay (0.2-2.18) - Bedrock (refusal at 2.18)	Water strike at 1.2	Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
		BH003	- Topsoil (0-0.1) - Made ground/ clay (0.1-3.2) - Clay (3.2-4.21) - Bedrock (refusal at 4.21)	No groundwater encountered		
2195-2220	0.5	EGBH09	- Topsoil (0-0.2) - Clay (0.2-2.18) - Bedrock (refusal at 2.18)	Water strike at 1.2	Lough Eske and Ardnamona Wood SAC/ pNHA	Extremely High
		BH003	- Topsoil (0-0.1) - Made ground/ clay (0.1-3.2) - Clay (3.2-4.21) - Bedrock (refusal at 4.21)	No groundwater encountered		
Section 3						
5900-5925	0.6	EGBH07	- Topsoil (0-0.2) - Clay (0.2-1.4) - Silt (1.4-2) - Sand/ Gravel (2-2.5) - Gravel/ Weathered bedrock (2.5-3) - Bedrock (refusal at 3)	Water strike at 2, rose to 1 in 20 mins		

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
6050-6075	0.5	EGBH08	- Topsoil (0-0.2) - Clay (0.2-1.4) - Silt (1.4-2) - Gravel (2-3.2) - Bedrock (refusal at 3.2)	No groundwater encountered		
6725-6760	0.5	EGBH09	- Topsoil (0-0.2) - Clay (0.2-2.18) - Bedrock (refusal at 2.18)	Water strike at 1.2	Lough Eske and Ardnamona Wood SAC	Extremely High
		BH003	- Topsoil (0-0.1) - Made ground/ Clay (0.1-3.2) - Clay (3.2-4.21) - Bedrock (refusal at 4.21)	No groundwater encountered		
		TP012	- Topsoil (0-0.2) - Sand (0.2-1) - Gravel (1-3)	Seepage at 2.8		
6950-6965	0.7	EGBH10	- Clay (0-0.5) - Silt (0.5-1.2) - Clay (1.2-3.94) - Bedrock (refusal at 3.94)	No groundwater encountered	-	-
		EGBH11	- Topsoil (0-0.1) - Clay (0.1-2) - Gravel (2-2.7) - Bedrock (refusal at 2.7)	No groundwater encountered		
7025-7045	0.7	EGBH10	- Clay (0-0.5) - Silt (0.5-1.2) - Clay (1.2-3.94) - Bedrock (refusal at 3.94)	No groundwater encountered	-	-
		EGBH11	- Topsoil (0-0.1) - Clay (0.1-2) - Gravel (2-2.7)	No groundwater encountered		

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
			- Bedrock (refusal at 2.7)			
7670-7725	1.1	EGBH12	- Topsoil (0-0.5) - Clay (0.5-6.3) - Bedrock (refusal at 6.3)	No groundwater encountered	-	-
8225-8465	5.9 (N15 underpass)	BH004	- Topsoil (0-0.2) - Clay (0.2-3.2) - Bedrock (refusal at 3.2)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC (including Annex I Priority Habitat Petrifying Spring)	Extremely High
9185-9230	0.6	TP013	- Clay (0-1.4) - Gravel (1.4-1.9) - Sand (1.9-2.2) - Bedrock (refusal at 2.2)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC	Extremely High
		EGBH14	- Topsoil (0-0.2) - Peat (0.2-1) - Sand/ Gravel (1-2.1) - Bedrock (refusal at 2.1)	No groundwater encountered		
9365-9440	1.3	TP013	- Clay (0-1.4) - Gravel (1.4-1.9) - Sand (1.9-2.2) - Bedrock (refusal at 2.2)	No groundwater encountered	-	-
9660-9725	0.6	TP014	- Topsoil (0-0.1) - Peat (0.1-3)	Water strike at 2.8	-	-
10020-10100	1.3	TP016	- Clay (0-0.6) - Gravel (0.6-1.8) - Bedrock (refusal at 1.8)	No groundwater encountered	Wet heath habitat	High
10385-10460	1.5	BH005	- Topsoil (0-0.2) - Clay (0.2-3) - Gravel (3-4.5) - Peat (4.5-6.5) - Sand/ Gravel (6.5-8) - Grave (8-9)	No groundwater encountered Water strike at 1.9, rose to 1.2 in 20 mins	-	-

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
			- Bedrock (refusal at 9)			
		EGBH15	- Topsoil (0-0.2) - Clay (0.2-1.1) - Gravel (1.1-1.9) - Bedrock (refusal at 1.9)			
Section 4						
10665-10715	0.9	BH005	- Topsoil (0-0.2) - Clay (0.2-3) - Gravel (3-4.5) - Peat (4.5-6.5) - Sand/ Gravel (6.5-8) - Grave (8-9) - Bedrock (refusal at 9)	No groundwater encountered	Lough Eske and Ardnamona Wood SAC	Extremely High
10760-10795	2.1	TP018	- Made ground/ Clay (0-0.7) - Peat (0.7-1.3) - Clay (1.3-1.9) - Gravel (1.9-2.8) - Bedrock (refusal at 2.8)	Seepage at 2.25	Lough Eske and Ardnamona Wood SAC	Extremely High
11820-11830	1.1	TP019	- Made ground/ Clay (0-0.2) - Made ground/ Cobbles (0.2-0.4) - Clay (0.4-1.4) - Bedrock (refusal at 2.8)	No groundwater encountered	Barnesmore Bog NHA Wet heath habitat	Extremely High High
Section 4 Spur						
0-20	1.2	BH006	- Clay (0-0.4) - Bedrock (refusal at 0.6)	No groundwater encountered	Barnesmore Bog NHA Wet heath habitat	Extremely High High
100-180	1.7				Barnesmore Bog NHA Wet Heath habitat	Extremely High High

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
Section 5						
16710-16760	1.5	TP024	- Topsoil/ Peat (0-0.1) - Made ground/ Sand (0.1-0.6) - Made ground/ Sand/ Peat (0.6-1.9) - Sand (1.9-2.6) - Bedrock (refusal at 2.6)	No groundwater encountered	Cashelnaveam Bog NHA	Extremely High
17280-17290	4.3	BH007	- Peat (0-2.9) - Silt (2.9-3.8) - Gravel (3.8-4) - Bedrock (refusal at 4)	No groundwater encountered	Croaghonagh Bog SAC/ pNHA	Extremely High
17590-17610	0.5	TP025	- Made ground/ Peat (0-0.3) - Made ground/ Sand (0.3-0.95) - Sand (0.95-1.2) - Gravel (1.2-1.5) - Sand (1.5-2.8) - Bedrock (refusal at 2.8)	No groundwater encountered	Croaghonagh Bog SAC/ pNHA	Extremely High
18110-18420	0.6	TP026	- Made ground/ Clay (0-1.6) - Peat (1.6-2.8) - Sand (2.8-3)	No groundwater encountered	Croaghonagh Bog SAC/ pNHA Cashelnaveam Bog NHA	Extremely High Extremely High
19025-19045	4.6	TP027	- Topsoil (0-0.1) - Made ground/ Clay (0.1-0.3)	Seepage at 1.5	-	-
19140-19160	1.8		- Clay (0.3-0.7) - Gravel (0.7-2.4)		-	-
20150-20160	0.7		- Bedrock (refusal at 2.4)		-	-
20500-20515	0.5	-	-	-	-	-
Section 6						
21160-21240	0.6	TP028	- Made ground/ Clay (0-1.5) - Clay (1.5-2.5)	No groundwater encountered	-	-

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
- Bedrock (refusal at 2.5)						
24715-24750	4.8	TP030	- Made ground/ Clay (0-0.3) - Made ground/ Sand (0.3-1.5) - Sand (1.5-2.3) - Bedrock (refusal at 2.3)	No groundwater encountered	-	-
25400-25470	5.3	TP032	- Topsoil (0-0.1) - Sand (0.1-1.7)	No groundwater encountered	-	-
25830-25845	0.55		- Bedrock (refusal at 1.7)		-	-
26275-26340	1.3	TP033	- Made ground/ Sand (0-0.4) - Clay (0.4-0.9)	No groundwater encountered	-	-
26400-26410	1		- Gravel (0.9-1.2) - Bedrock (refusal at 1.2)		-	-
26485-26490	4.5				-	-
Section 6 TEN-T						
530-590	1.1	TP030	- Made ground/ Clay (0-0.3) - Made ground/ Sand (0.3-1.5) - Sand (1.5-2.3) - Bedrock (refusal at 2.3)	No groundwater encountered	-	-
Section 7						
26775-26790	0.5	TP033	- Made ground/ Sand (0-0.4) - Clay (0.4-0.9)	No groundwater encountered	-	-
26835-26850	0.5		- Gravel (0.9-1.2) - Bedrock (refusal at 1.2)		-	-
28690-28700	0.6	TP037	- Topsoil (0-0.1) - Clay (0.1-1.2)	No groundwater encountered	-	-
28710-28790	5.2		- Bedrock (refusal at 1.2)		-	-
28880-28910	1.5				-	-

Cutting chainage	Maximum Cutting Depth (m)	Closest GI borehole / trial pit	Lithology from GI (mbGL)	Groundwater encountered during GI (mbGL)	Groundwater Receptors within 100m	Importance
28975-29020	1.4				-	-
29070-29095	5.5	TP038	- Silt (0-2.5)	No groundwater encountered	-	-
29140-29205	2.3				-	-
Section 7 Spur 1						
195-205	2.6	TP035	- Topsoil (0-0.2) - Sand (0.2-1.4) - Bedrock (refusal at 1.4)	No groundwater encountered	-	-
Section 7 Spur 2						
130-140	1	TP036	- Made ground/ Clay (0-1.2) - Sand (1.2-1.95) - Bedrock (refusal at 1.95)	No groundwater encountered	-	-

