

North Lowther Energy Initiative: Appendix 7.6: Private Water Supplies

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Background

This appendix should be read in conjunction with **Chapter 7: Hydrology, Hydrogeology, Geology and Soils** of the ES.

The information within this appendix is for properties considered to be hydrologically connected to the Development prior to detailed assessment, with local properties that were considered not to be connected identified in **Chapter 7**.

These supply locations were evaluated based on their location relative to the Development and for potential Development effect on supply (taking account of source type and location, distance from site infrastructure, water pathways and intervening topography and water features) to determine if there were potential pollutant source-pathway-receptor relationships. Note that the data supplied does not specify whether each supply represents a small domestic supply (known as Type A) or a supply to a larger population / for commercial purposes (known as Type B). Given the local characteristics and generally individual or small clusters of properties served, these supplies are most likely to represent Type A.

Further information was also gathered for some locations in close proximity to the site where source linkages were not anticipated, to ensure sufficiently robust data was available for assessment.

Results

The outcome after assessment is given in the 'Potential for Development Impact on Supply' column of Table 1, following review all areas were considered to have low groundwater dependency.

Table 1. Private Water Supply Assessment

Supply Name (Figure 8.6 ID)	Source	Grid Reference and location description	Number of Properties Served - Supply Name	Location relative to infrastructure and comments	Potential for Development Impact on Supply
Nether Cog (referred to as Cogs Foot) (2)	Spring	NS 805 150 Within Development Area, approximately 155m south of Cogs Foot on steep north-west facing slope.	1 Cogs Foot	Spring collector is located approximately 20m upslope of the existing track (to be upgraded), at its nearest point, and 120m downstream of new access track.	Yes – infrastructure within 100m of source and may be lost as a result of land take from upgrade of access track. This falls under SEPA LUPS Guidance Note 31 Option 3 Planning Condition B for groundwater monitoring; as the excavations are likely to be less than 1m and between 100-250m away from GWDTE area. Monitoring should include water quality testing. Consideration of alternative supply.

Supply Name (Figure 8.6 ID)	Source	Grid Reference and location description	Number of Properties Served - Supply Name	Location relative to infrastructure and comments	Potential for Development Impact on Supply
	Borehole (currently unused)	NS 806 152 Within Development Area, immediately in front of Cogs Foot on valley base.	1 Cogs Foot	Source is located approximately 90m downstream of existing track (to be upgraded), at its nearest point.	Yes – infrastructure within 100m of source. No records showing groundwater flow for area. This falls under SEPA LUPS Guidance Note 31 Option 3 Planning Condition B for groundwater monitoring; as the excavations are likely to be less than 1m and between 100-250m away from GWDTE area. Monitoring should include water quality testing. Consideration of temporary alternative supply, if planned to be used in future.
Auchengruith (5)	Spring	NS 828 103 Within Development Area, approximately 200m north-west of Muirhead Cottage.	2 Auchengruith, Muirhead	Source is approximately 1.2km downslope of infrastructure associated with array T10 to T14. This source provides water supply to Muirhead and Auchengruith properties	No – in excess of 1km from infrastructure.
Clackleith (10)	Spring	NS 829 169 Within Development Area, approximately 120m south-west of Clackleith.	1 Clackleith	Source is located approximately 10m downstream of existing track (to be upgraded), at nearest point.	Yes – infrastructure within 100m of source and may be lost as a result of land take from upgrade of access track. This property has been confirmed as uninhabited and will not become occupied if the Development proceeds, thus no monitoring necessary.

Supply Name (Figure 8.6 ID)	Source	Grid Reference and location description	Number of Properties Served - Supply Name	Location relative to infrastructure and comments	Potential for Development Impact on Supply
Clenries (11)	Spring	NS 806 127 Within Development Area, approximately 45m north of Howarts Burnfoot on west facing slope.	1 Clenries	Source is located approximately 1km downslope of infrastructure associated with T1 to T5.	Yes – in excess of 250m from infrastructure, but potential pathway between source and receptor. Although >250m distant this location should be monitored as per SEPA LUPS Guidance Note 31 Option 3 Planning Condition B for groundwater monitoring. Monitoring should include water quality testing.
Glenim Cottage (16)	Spring	NS 840 097 Outwith southern Development Area boundary, approximately 250m east of Glenim Cottage.	1	Outwith Development Area, approximately 1.3km south of infrastructure associated with array T10 to T14.	No – upslope and considered to be within a separate catchment to the Development.
Howarts-Burnfoot (17)	Borehole	NS 828 096 Within Development Area, approximately 45m north of Howarts Burnfoot on west facing slope.	1 Howarts Burnfoot	Source is located approximately 1.72km downslope of infrastructure associated with array T10 to T14.	No – greater than 1.7km from nearest infrastructure.

Supply Name (Figure 8.6 ID)	Source	Grid Reference and location description	Number of Properties Served - Supply Name	Location relative to infrastructure and comments	Potential for Development Impact on Supply
Mennock Pass Cottage (21)	Spring	NS 821 087 Outwith southern Development Area boundary, approximately 90m south-east of Mennock Pass Cottage.	1 Mennock Pass Cottage	Source is located approximately 3km from infrastructure associated with array T10 to T14, at its nearest point.	No – upslope and considered to be within a separate catchment to the Development.
Spango Bank, Spango Farm and Spango View (23)	Spring	NS 829 189 Outwith northern boundary of Development Area, approximately 100m west and upslope from Spango Farm.	3 Spango Farm, Spango Bank, Spango View	Source is located approximately 800m upslope of the existing track (to be upgraded), at its nearest point.	No – upslope and considered to be within a separate sub-surface catchment to the Development.