A9 DUALLING
PERTH TO INVERNESS

Appendix 10.4

Groundwater Assessment

Transport Scotland

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1. Introduction

1.1.1. This report forms a technical appendix to the A9 Dualling Dalraddy – Slochd Stage 3 Environmental Statement, Chapter 10: Geology, Soils and Groundwater.

1.1.2. This assessment considers the impact of the Proposed Scheme on groundwater aquifers and groundwater dependent receptors, including private water supplies, Groundwater Dependent Terrestrial Ecosystems (GWDTEs) and surface waters.

1.1.3. The primary mechanism of impact is through the excavation of road cuttings. Road cuttings have the potential to affect both groundwater flow and groundwater levels while also increasing the vulnerability of localised aquifers to contaminants as overlying material is removed. Where road cuttings penetrate the groundwater table this results in permanent change to local groundwater levels and flow patterns, directly impacting the aquifer and indirectly affecting local groundwater dependent receptors. Groundwater levels can change seasonally and cuttings that penetrate close to the groundwater table may have seasonal impact i.e. during wet periods when the groundwater table rises above the base of the cutting.

1.1.4. The report provides details on/for each separate assessment for private water supplies and GWDTEs, which are considered as receptors within the main aquifer assessment.

2. Approach and Methods

2.1. Aquifer Assessment

2.1.1. An assessment has been undertaken on each cutting in the proposed route to assess the potential impacts. This includes cuttings along the mainline A9, tier three access routes, sustainable urban drainage systems (SuDS), pond access tracks and drainage features including ponds and basins.

2.1.2. The location of each road cutting along the route was identified and the maximum depth of each cutting was calculated using ArcGIS and information from 3D CAD models.

2.1.3. The geology was identified using the results of the most recent Dalraddy to Slochd ground investigation and the British Geological Survey (BGS) online geological data.

2.1.4. The depth to groundwater at each of the cuttings was calculated using a combination of available groundwater level readings and groundwater flow plots. Limitations to this technique will be discussed below.

2.1.5. Hydraulic permeability values have been derived for each superficial geology unit based on rising/ falling head test results from the ground investigation (GI) or from literature values (CIRIA C750).

2.1.6. To determine the likely impact of the road cuttings on groundwater flows and groundwater levels, the drawdown and the distance/area of influence has been calculated for each cutting.

2.1.7. The method for estimating the distance of influence of individual road cuttings has been based on the widely used empirical formula for calculating the radius of influence of point groundwater abstractions, as presented in CIRIA report C750 Groundwater Control: Design and Practice. This method is considered appropriate to this level of

assessment and the available data. Limitations to this technique will be discussed below.

2.1.8. The radius of influence for a given drawdown and hydraulic conductivity is given by the Sichardt equation:

$$R0 = Ch\sqrt{k}$$

2.1.9. where R0 = distance/radius of influence (m), k = hydraulic conductivity (m/sec), h = drawdown in groundwater level (m) i.e. penetration of the cutting beneath the water table and C = 2000 for linear flow, where C is a constant.

2.1.10. The method has inherent uncertainties as it does not account for the direction of the cutting relative to the groundwater flow direction. The calculations depend on an empirical constant (C = 2000 for linear flow) for which a conservative value has been used, which may result in an overestimation of the radius of influence.

2.1.11. Following the estimation of the radii of influence, a qualitative assessment has been undertaken of the impact on the aquifer(s) affected by each cutting, based on the criteria set out in Section 2.6 below.

2.2. Granish Junction Assessment

2.2.1. A watercourse, the Allt na Criche Burn has been observed to flow closely to the A9 junction with the A95, near the village of Granish (hereafter referred to as Granish Junction). This assessment reviews the current available data on the hydrogeology of the area surrounding the A9 junction and how this relates to the current civil engineering design for works at the junction.

2.2.2. The geology was identified using the results of the most recent Dalraddy to Slochd ground investigation and the British Geological Survey (BGS) online geological data.

2.2.3. Results from the ground investigation have been used to inform the hydrogeology of the Granish Junction area, notably groundwater dips. Additionally, flow monitoring of the Allt na Criche Burn has been conducted in the field by AMJV.

2.2.4. The assessment develops an initial conceptual model of the local hydrogeology to identify data gaps and help with the scoping of future data gathering, and to assess to what extent further detailed assessment and modelling will be required. Based on the findings of the conceptual model development further work may be required to better understand potential groundwater inflows and requirements for appropriate mitigation in the scheme design.

2.2.5. A qualitative assessment of the impact magnitude and significance of the junction development to the hydrogeological and hydrological receptors in the Granish area has been carried out for each affected feature.

2.3. Private and Public Water Supply Assessment

2.3.1. Groundwater dependant water supplies, operations and abstractions have been identified within the study area, as detailed below:

- known groundwater abstractions - boreholes and springs, within 850m of the Proposed Scheme as per SEPA WAT-RM-11 guidance;

- surface water abstractions - within 850m of the Proposed Scheme, as per SEPA guidance; and
- quarries - within 450m of the Proposed Scheme, as per SEPA guidance.

2.3.2. The locations of these features were then compared with the estimated radii/area of influence associated with each cutting. Any features which have been found to be within the calculated zone of influence are potentially at risk of being impacted by the cutting.

2.3.3. A qualitative assessment of the impact magnitude and significance has been carried out for each affected feature, based on the criteria presented in Section 2.6.

2.4. Surface Water Assessment

2.4.1. Surface water features within 250m of cuttings (as per SEPA Guidance Note 31) have been identified, including:

- Rivers;
- Streams (named or unnamed);
- Land drains;
- Dam features; and
- Ponds

2.4.2. The locations of these features were then compared with the estimated radii/area of influence associated with each cutting. Any features which have been found to be within the calculated zone of influence are potentially at risk of being impacted by the cutting.

2.4.3. A qualitative assessment of the impact magnitude and significance has been carried out for each affected feature, based on the criteria presented in Section 2.6.

2.5. GWDTE Assessment

2.5.1. SEPA LUPS Guidance Note 31 sets out the method for identification of GWDTEs, based on National Vegetation Classification (NVC) communities.

2.5.2. NVC surveys were carried out in April, May and July 2017, based on previous potential GWDTE areas identified from Phase 1 habitat surveys carried out in the DMRB Stage 1 assessment. This NVC survey information is presented in Chapter 12: Ecology and Nature Conservation, and its associated appendices and figures.

2.5.3. The SEPA guidance recommends that buffers of 100m from excavations less than 1m deep, and 250m from excavations greater than 1m deep are applied to identify GWDTEs which may be at risk from associated groundwater changes. As the depth of cuttings is greater than 1m depth for the majority of the Proposed Scheme, a 250m buffer was used for the entire route for NVC surveys.

2.5.4. A small number of NVC communities were screened out. Areas have been screened out where borehole or trial pit information indicates that groundwater is sufficiently deep not to influence vegetation. This information has been provided from ground investigation logs and groundwater monitoring from the Stage 2 Preliminary Ground Investigation works (March 2017). Other communities have been screened out where it can be demonstrated there is a lack of hydrogeological connectivity between the area and the scheme, such as may occur if an intervening watercourse or drainage associated with a railway line exists.

2.5.5. The groundwater dependency for each community screened was qualitatively assessed and revised where appropriate. This baseline assessment considered the likely contribution of rainfall, groundwater and surface water flows to each habitat, based on site walkover observations, NVC target notes, aerial imagery, LIDAR data, topographic survey data, floodplain mapping, geological and soils mapping and GI data including groundwater monitoring.

2.5.6. A confidence value was added to each GWDTE based on the available groundwater, geology, hydrogeology and site information data within the polygon. Confidence ranks between High confidence where full ground investigation works where carried out within the area, Medium confidence where groundwater levels are available within the same geological unit, to Low confidence where no groundwater information is available.

2.5.7. The assigned sensitivity for each GWDTE has been evaluated using the groundwater dependency for each NVC community, as detailed in the Appendix 4 of the SEPA guidance note as the starting point and then considering the dominant hydrological/pluvial regime likely to sustain each site plus any other existing and proximal artificial influence which may affect sensitivity (such as drainage).

2.5.8. A detailed quantitative risk assessment (listed as Option 4 within the SEPA guidance) has been carried out for the Proposed Scheme, detailing the local hydrology, ecology and hydrogeological regime. The following impacts on each GWDTE have been assessed:

- Direct loss of GWDTEs under the footprint of the Proposed Scheme;
- Indirect loss of GWDTEs where groundwater levels may change because of dewatering from cuttings; and
- GWDTEs located downslope of new infrastructure such as cuttings and embankments where subsurface flows may change. Impacts on these areas are discussed qualitatively.

2.5.9. Where significant impacts from indirect losses because of dewatering and changes to sub-surface flows are identified outline mitigation measures are provided. It should be recognised that there is no practical mitigation for direct loss under the footprint of the scheme. The residual effect on each GWDTE habitat is evaluated considering the proposed mitigation.

2.5.10. Finally, the individual impact assessment results are summarised and aggregated, with a qualitative assessment undertaken of the overall impact of the Proposed Scheme on GWDTEs within the study area as a whole. The overall impact on the affected GWDTEs has been assessed on the basis of the criteria presented in Section 2.6

2.6. Impact Assessment Criteria

2.6.1. The assessment of significance of impacts in relation to groundwater and groundwater dependent features has been based on the guidance provided in the DMRB, Volume 11, Section 3, Part 10, HD 45/09 Road Drainage and the Water Environment (The Highways Agency, Scottish Executive, Welsh Assembly Government and The Department of Regional Development Northern Ireland, 2009).

2.6.2. Application of the DMRB/EIA guidance has involved consideration of the importance/sensitivity of relevant attributes of the groundwater receptors and evaluation of the magnitude of the impact. Importance/sensitivity has been evaluated considering quality, rarity, scale and substitutability in keeping with the DMRB guidance and using the criteria shown in Table 2.1.

Table 2.1: Criteria for determination of Sensitivity for Groundwater receptors

Sensitivity	Description
Very High	Groundwater aquifer(s) with very high productivity or WFD good groundwater quality and quantity status. Exploitation of groundwater resource is extensive for public, private domestic and/ or agricultural use (i.e. feeding ten or more properties) and/ or industrial supply. Important sites of nature conservation dependent on groundwater as per importance criteria or groundwater is considered likely to support wetland vegetation which is highly groundwater dependent. Surface water features with hydrological importance to designated sensitive ecosystems of national/ international importance.
High	Groundwater aquifer(s) with moderate/ high productivity or WFD good groundwater quality and quantity status. Exploitation of groundwater resource is not extensive (i.e. private domestic and/ or agricultural supply feeding less than ten properties). Local areas of nature conservation dependent on groundwater as per importance criteria, or groundwater is considered likely to support wetland vegetation which is moderately groundwater dependent. Surface water features with hydrological importance to sensitive ecosystems of regional importance.
Medium	Groundwater aquifer(s) with low productivity or WFD variable groundwater quality and quantity status. No current known exploitation of groundwater as a resource and aquifer(s) properties make potential exploitation appear unlikely. Minor areas of nature conservation with a degree of groundwater dependency, as per importance criteria. Surface water features with some but limited hydrologic importance to sensitive or protected ecosystems of authority area importance.
Low	Groundwater aquifer(s) with very low productivity or WFD poor groundwater quality and quantity status. No known past or present exploitation of groundwater aquifer(s) as a resource. Areas of vegetation with no groundwater dependency. Surface water features with minimal/ insignificant hydrological importance to sensitive ecosystems of less than authority area importance.

2.6.3. Magnitude has been determined by considering the extent of loss and effects on integrity of an attribute in keeping with the DMRB guidance and using the criteria shown in Table 2.2.

Table 2.2: Criteria for determination of Magnitude for Groundwater receptors

Magnitude	Description
Major	Major or long-term change to groundwater aquifer(s) flow, water level, quality or available yield, i.e. a cutting drawdown radius of influence of greater than 100m Groundwater resource use is irreparably impacted upon, with a major or total loss of an existing supply or supplies. Changes to water table level or quality would result in a major or total change in or loss of a groundwater dependent area, where the value of a site would be severely affected. Changes to groundwater aquifer(s) flow, water level and quality would result in major changes to groundwater base flow contributions to surface water and/ or alterations in surface water quality, resulting in a major shift away from baseline conditions such as change to WFD status.

Magnitude	Description
	Dewatering effects create significant differential settlement effects on existing infrastructure and buildings.
Moderate	Moderate changes to groundwater aquifer(s) flow, water level, quality or available yield, i.e. a cutting drawdown radius of influence of between 50m and 100m. Groundwater resource use is impacted slightly, but existing supplies remain sustainable. Changes to water table level or quality would result in partial change in or loss of a groundwater dependent area, where the value of the site would be affected, but not to a major degree. Changes to groundwater aquifer(s) flow, water level and quality would result in moderate changes to groundwater base flow contributions to surface water and/ or alterations in surface water quality, resulting in a moderate shift from baseline conditions that may be long-term or temporary. Dewatering effects create moderate differential settlement effects on existing infrastructure and buildings.
Minor	Minor changes to groundwater aquifer(s) flow, water level, quality or available yield, i.e. a cutting drawdown radius of influence of between 50m and 100m. Changes to water table level, quality and yield result in little discernible change to existing resource use. Changes to water table level or quality would result in minor change to groundwater dependent areas, but where the value of the site would not be affected. Changes to groundwater aquifer(s) flow, water level and quality would result in minor changes to groundwater base flow contributions to surface water and/ or alterations in surface water quality, resulting in a minor shift from baseline conditions (equivalent to minor but measurable change within WFD status). Dewatering effects create minor differential settlement effects on existing infrastructure and buildings.
Negligible	Very slight change from groundwater baseline conditions, approximating to 'no change' conditions, i.e. a cutting drawdown radius of influence of less than 20m. Dewatering effects create no or no noticeable differential settlement effects on existing infrastructure and buildings. No measurable impact upon an aquifer and risk of pollution from spillages <0.5%.

2.6.4. The evaluation of significance has been derived by combining the sensitivity of the affected attributes and the magnitude of the impacts using the matrix recommended in the DMRB HD 45/09 guidance (The Highways Agency, Scottish Executive, Welsh Assembly Government and The Department of Regional Development Northern Ireland, 2009), which is replicated in Table 2.3. Where the significance is shown as being one of two alternatives, a single description is provided based on reasoned judgement.

Table 2.3: Criteria for determination of Significance for groundwater receptors

Significance		Magnitude			
		Major	Moderate	Minor	Negligible
Sensitivity	Very High	Very Large	Large / Very Large	Moderate / Large	Neutral
	High	Large / Very Large	Moderate / Large	Slight / Moderate	Neutral
	Medium	Large	Moderate	Slight	Neutral
	Low	Slight / Moderate	Slight	Neutral	Neutral

Table Source: DMRB, Volume 11, Section 3, Part 10, HD 45/09 Road Drainage and the Water Environment[iii].

3. Aquifer Assessment

3.1. Background

3.1.1. 396 cuttings have been identified on the mainline A9, tier three access roads, SuDS ponds, the SuDS pond access tracks and drainage network. Cuttings associated with the drainage ditches have not been assessed as these ditches have a maximum depth of 0.5m bgl.

3.1.2. An overview of the cutting locations that have been assessed has been presented on Figure A10.4.1 Individual IDs were assigned numerically to each cutting from south to north.

3.1.3. The minimum elevation for each cutting was extracted using GIS from 3D CAD models of the alignment and checked against 25m interval cross sections of the alignment.

3.2. Groundwater Levels

3.2.1. Groundwater levels have been determined from 2017 ground investigation data. In all cases where groundwater level information is available, the deepest penetration of the cutting into the groundwater has been taken to provide a worst-case estimate of impact.

3.2.2. For all cuttings groundwater data was taken from the closest borehole to the cutting if this borehole was within the same geological unit.

3.2.3. In the case that no ground water data was available from the cutting or near to the cutting, water levels have been estimated by interpolating or extrapolating the groundwater levels recorded at a relatively small number of groundwater monitoring boreholes (see Table 3.1). The extrapolation was carried out by creating triangular irregular networks (TIN). ArcGIS was then used to extract the maximum predicted groundwater level at each cutting.

3.2.4. After comparing groundwater monitoring data between April 2017 (the completion of the ground investigation) until June 2018 (the most recent round of data at the time of writing) the monitoring round with the highest groundwater levels was used (November 2017).

3.2.5. Table 3.1 shows groundwater monitoring data from November 2017.

3.2.6. There were a number of limitations to using the groundwater model. The model does not take into account the changes in geology which could be associated with changes in groundwater levels. There may not be hydraulic continuity between the monitoring locations and the cuttings assessed. The linear nature of the scheme and the limited number of monitoring locations are not ideal for the creation of this type of model.

3.2.7. Because of its limitations of the groundwater model, it has only been used in cases where there was no available groundwater data from nearby boreholes within the same geology.

3.2.8. In some instances, no groundwater data was available from the boreholes or from the groundwater model. This is due to a lack of suitable groundwater monitoring locations. In these cases, it has been assumed that the groundwater level is 0.5m below surface. The locations can be identified on figure A10.4.1.

3.2.9. It should be noted that at these locations further ground investigation has been recommended. Further groundwater monitoring data will be provided on completion of the Dalraddy to Slochd stage three ground investigation.

3.2.10. The lack of ground investigation at the tier three access routes and cuttings associated with drainage (including ponds and basins) at the time of writing means calculations at these cuttings may be less accurate than calculations for cuttings on the mainline A9 and at junctions.

Table 3.1: Groundwater levels recorded

Borehole ID	Eastings	Northings	GW levels (mAOD) November 2017	Maximum GW Level (mAOD)	Minimum GW Level (mAOD)	Range (m)
BHDS2001	285815	809692	DRY	N/A	N/A	N/A
BHDS2002	286304	809844	DRY	N/A	N/A	N/A
BHDS2003	286588	810105	231.01	230.4	231.31	0.91
BHDS2004	287035	810179	DRY	222.78	224.75	1.97
BHDS2005	287194	810288	226.39	221.65	226.90	5.25
BHDS2010	288371	810632	214.92	214.84	215.41	0.57
BHDS2011	289210	811678	DRY	208.33	208.99	0.66
BHDS2012	289173	812006	DRY	N/A	N/A	N/A
BHDS2013C	289235	813736	230.5	229.25	231.38	2.13
BHDS2014A	289420	814049	DRY	226.26	226.89	0.63
BHDS2016	289927	815390	DRY	233.73	234	0.27
BHDS2017	290096	815887	DRY	N/A	N/A	N/A
BHDS2019	290847	817355	DRY	N/A	N/A	N/A
BHDS2021A	291080	818525	247.69	246.51	249.87	3.36
BHDS2022A	291096	818784	DRY	N/A	N/A	N/A
BHDS2023	291053	819136	276.96	276.78	277.12	0.34
BHDS2024	290957	820120	DRY	N/A	N/A	N/A
BHDS2025	290823	820393	275.64	275.11	282.14	7.03
BHDS2027	290753	820888	256.89	256.56	256.89	0.33
BHDS2028	289694	822465	272.73	272.51	273.17	0.66
BHDS2029	289621	822544	265.35	264.88	265.5	0.62
BHDS2030	289654	822619	265.74	264.51	265.99	1.48
BHDS2032	289027	823200	300.01	298.72	302.05	3.33
BHDS2033	288181	824082	308.86	307.98	308.86	0.88
BHDS2034	287480	824016	330.56	329.31	331.69	2.38
BHDS2035	285380	823796	385.73	385.02	390.4	5.38
BHDS2036	284689	824153	N/A	N/A	N/A	N/A
BHDS2037	284408	824527	387.96	387.86	388.67	0.81
BHDS2039	284111	824883	DRY	366.49	367.42	0.93

Borehole ID	Eastings	Northings	GW levels (mAOD) November 2017	Maximum GW Level (mAOD)	Minimum GW Level (mAOD)	Range (m)
BHDS2040	284063	825047	DRY	362.39	362.55	0.16
BHDS2041	283817	825507	433.04	428.9	433.27	4.37
BHDS2042	283698	825553	416.56	398.09	418.14	20.05
BHDS2043	288058	824047	316.2	316.15	316.72	0.57
BHDS2044	287709	810251	DRY	N/A	N/A	N/A
BHDS2045	288372	810576	214.67	214.56	215.13	0.57
BHDS2046A	289100	813079	235.32	234.17	235.71	1.54
BHDS2047A	289384	813927	227.87	227.29	227.91	0.62
BHDS2049	289978	815265	DRY	N/A	N/A	N/A
BHDS2052	290124	822085	DRY	280.15	280.28	0.13
BHDS2053	289752	822494	272.14	271.94	272.71	0.77
BHDS2054	289148	823165	281.38	281.23	281.48	0.25
BHDS2055	285202	823918	369.72	358.62	369.72	11.1
BHDS2056	284856	823915	DRY	N/A	N/A	N/A
BHDS2057	289116	812648	217.44	217.28	218.17	0.89
BHDS2058	285350	823879	384	377.48	384	6.52
BHDS2059	285222	823857	360.89	357.47	360.91	3.44
BHDS2060	285155	823887	369.76	363.71	369.78	6.07
BHDS2061	285266	823890	364.49	361.87	365.28	3.41
BHDS2063	285180	823895	364.57	362.41	364.57	2.16
BHDS2064	285042	823916	386.96	383.6	386.96	3.36
BHDS2065	284926	823951	385.79	385.04	385.79	0.75
BHDS2066	284816	824002	DRY	N/A	N/A	N/A
BHDS2067A	284714	824118	DRY	388.27	390.51	2.24
BHDS2068	284585	824185	DRY	376.53	376.55	0.02
BHDS2069	286066	809864	DRY	N/A	N/A	N/A
BHDS2070A	289129	811448	218.54	216.87	218.65	1.78
BHDS2072	289159	811674	224.48	224.42	224.52	0.1
BHDS2073	289162	813312	231.76	231.46	234.41	2.95
BHDS2075	289345	813957	229.71	227.12	229.71	2.59
BHDS2076	290380	816647	DRY	N/A	N/A	N/A
BHDS2077	290779	817362	236.14	235.73	237.65	1.92
BHDS2078	290988	818429	250.27	249.72	250.77	1.05
BHDS2079	289979	822268	276.02	275.99	276.48	0.49
BHDS2080	289203	823125	280.49	280.31	280.72	0.41
BHDS2081	285327	823866	383.66	378.59	383.73	5.14

Borehole ID	Eastings	Northings	GW levels (mAOD) November 2017	Maximum GW Level (mAOD)	Minimum GW Level (mAOD)	Range (m)
BHDS2082	284992	823861	DRY	384.48	384.48	0
BHDS2083	284598	824229	387.22	386.48	387.7	1.22
BHDS2084	284522	824313	386.4	384.11	386.46	2.35
BHDS2085	284437	824420	368.85	368.76	378.9	10.14
BHDS2086	284274	824730	DRY	386.99	389.8	2.81
BHDS2087	284222	824874	DRY	399.82	399.86	0.04

*Water level was recorded as artesian; the pressure gauge now shows 0 bar.

Table Source: A9 Dualling: Dalraddy to Slochd Report on Stage 2 Preliminary Ground Investigation, Raeburn 2017.

3.2.11. A copy of all groundwater readings carried out from April to December 2017 on the stage two ground investigation boreholes for the A9 Dalraddy to Slochd can be found in the Raeburn factual report (Raeburn , 2017).

3.3. Drawdown

3.3.1. Estimations of drawdown have been produced by subtracting the elevation of the groundwater depth from the elevation of the maximum cutting depth. For cuttings where groundwater levels were estimated from the groundwater contour plot, the projected groundwater levels (mAOD) were subtracted from the cutting base elevations.

3.4. Permeability

3.4.1. The terms “permeability” and Hydraulic conductivity” for the purposes of this report are interchangeable. Hydraulic conductivity of the ground, defined by the nature of the geology in the area, could be highly variable. This observation has been confirmed by the variable results, in some cases over very small areas, from the in-situ permeability testing.

3.4.2. Where data is available aquifer permeability has been estimated from ground investigation rising/ falling head tests carried out during the Stage 2 (2017) ground investigation and on a site visit carried out by Atkins hydrogeologists to gather further permeability data (Table 3.2).

3.4.3. The in-situ tests carried out on the boreholes comprised rising and falling head tests. This involved either raising or lowering hydraulic head within a borehole by either adding/removing a volume of water or a slug (where a solid polyvinyl chloride (PVC) rod was added to displace a measured volume of water), and measuring the time taken for water level to re-equilibrate.

3.4.4. For the rest of the cutting locations generic and relatively conservative literature values have been used for permeability based on the nature of the ground (Table 3.3).

Table 3.2: In-situ permeability test results

Geology	Lithology	Permeability* (m/s)	Exploratory Hole Number
Falling Head Tests in Boreholes			

Geology	Lithology	Permeability* (m/s)	Exploratory Hole Number
River Terrace Deposits	Gravelly silty SAND	2.54 x 10^{-6} m/s 9.78 x 10^{-6} m/s	BHDS2005
Glaciofluvial Ice Contact Deposits	Gravelly silty SAND	7.31 x 10^{-8} m/s	BHDS2023
Dava Subgroup – Psammite, feldspathic – gneissose-migmatitic	Weak PSAMMITE	1.09 x 10^{-8} m/s	BHDS2025
Hummocky (Morainic) Glacial Deposits	Sandy silty Gravel	3.86 x 10^{-6} m/s	BHDS2028
Central Highland Migmatite Complex – Psammite	Very weak PSAMMITE	2.75 x 10^{-7} m/s	BHDS2029
Hummocky (Morainic) Glacial Deposits	Gravelly silty SAND/ SAND and GRAVEL	4.40 x 10^{-8} m/s	BHDS2032
TILL -Devensian – Diamicton	Sandy gravelly CLAY	8.39 x 10^{-7} m/s	BHDS2041
Beinn Bhreac Psammite Formation – Psammite, gneissose – micaceous	Weak and medium strong PSAMMITE	4.18 x 10^{-9} m/s	BHDS2042
Glaciofluvial Sheet Deposits	Medium strong GRANITE	2.51 x 10^{-7} m/s 2.43 x 10^{-7} m/s	BHDS2046A
Glaciofluvial Sheet Deposits	Sandy silty GRAVEL	1.20 x 10^{-7} m/s	BHDS2073
Hummocky (Morainic) Glacial Deposits	SAND and GRAVEL	1.07 x 10^{-6} m/s	BHDS2079
Hummocky (Morainic) Glacial Deposits	Gravelly silty SAND	4.66 x 10^{-7} m/s 5.66 x 10^{-6} m/s	BHDS2083
Hummocky (Morainic) Glacial Deposits	SAND and GRAVEL	2.54 x 10^{-6} m/s	BHDS2084
Slochd Psammite	Slochd psammite	2.21 x 10^{-5} m/s	BHDS2065
Slochd Psammite	Slochd psammite	7.50 x 10^{-6} m/s	BHDS2064
Soakaway Tests in Trial Pits			
River Terrace Deposits	Gravelly slightly silty SAND	1.07 x 10^{-4} 6.45 x 10^{-5} 6.31 x 10^{-5}	TPDS2006
River Terrace Deposits	Gravelly Silty SAND	Indeterminate	TPDS2008
Glaciofluvial Sheet Deposits	Gravelly slightly silty SAND	1.38 x 10^{-5} 2.08 x 10^{-5} 7.35 x 10^{-6}	TPDS2026
Hummocky (Morainic) Glacial Deposits	Clayey SAND	Indeterminate	TPDS2044
Hummocky (Morainic) Glacial Deposits	Slightly silty SAND	Indeterminate	TPDS2045
Hummocky (Morainic) Glacial Deposits	Gravelly clayey SAND	Indeterminate	TPDS2061
Glaciofluvial Sheet Deposits	PEAT/ gravelly silty SAND	3.56 x 10^{-4} 1.48 x 10^{-4}	TPDS2068

Geology	Lithology	Permeability* (m/s)	Exploratory Hole Number
		1.41 x 10^{-4}	
*Where more than one permeability reading is available these have been listed for each borehole or trial pit			

Table Source: A9 Dualling: Dalraddy to Slochd Report on Stage 2 Preliminary Ground Investigation, Raeburn 2017 and field data collected by Atkins hydrogeologists in August 2017.

Table 3.3: Permeability of typical soils

Indicative soil type	Degree of permeability	Permeability m/s
Clean Gravels	High	>1 × 10^{-3}
Sands and gravels mixtures	Medium	1 × 10^{-3} to 1 × 10^{-5}
Very fine sands, silty sands	Low	1 × 10^{-4} to 1 × 10^{-7}
Silt and interlaminated silt/ sand/ clay	Very Low	1 × 10^{-6} to 1 × 10^{-9}
Intact Clay	Practically impermeable	<1 × 10^{-9}

Table Source: Groundwater control: design and practice, second edition, CIRIA C750, 2016.

3.4.5. A total of 15 falling head tests were undertaken at boreholes which screened superficial silty sands and gravel deposits. Calculated results for the coefficient of permeability (k) ranged between 4.40 x 10^{-8} to 5.70 x 10^{-6} m/s, with an average of 1.80 x 10^{-6} m/s.

3.4.6. A total of seven tests were undertaken at boreholes BHDS2025, BHDS2042, BHDS2046A, BHDS2064, and BHDS2065, in which mostly psammite and pelite bedrock were screened. The calculated k for bedrock ranged from 4.18 x 10^{-9} - 2.21 x 10^{-5} m/s, with an average of 8.14 x 10^{-6} m/s. It is noted that results for most boreholes which screened bedrock indicate noticeably lower permeability than the superficial deposits. Unlike the other boreholes, BHDS2046A screened partially weathered granite. Results ranged from 2.44 to 2.51 x 10^{-7} m/s, which are as expected, on the lower end of the scale of permeability values calculated for the bedrock.

3.4.7. Calculated results for bedrock permeabilities include both the lowest and highest results, illustrating the variability in bedrock permeability. For example, results vary from 7.50 x 10^{-6} to 2.21 x 10^{-5} m/s between BHDS2064 and BHDS2065, respectively, although these boreholes are located within 200 m of one another. It is likely that bedrock permeability is heavily influenced by the extend of weathering and the spacing, openness and connectivity of fractures.

3.4.8. A total of seven soakaway infiltration tests were undertaken in TPDS2006, TPDS2008, TPODS2026, TPDS2044, TPDS2045, TPDS2061 and TPDS2068. Soakaway infiltration tests involve filling a hole of known dimensions with water to a known level, and measuring the length of time it takes to drain away. The geological strata tested were sandy gravelly TOP SOIL and slightly silty SAND and GRAVEL. The calculated soil infiltration rate ranged from 1.38 x 10^{-5} to 3.56 x10^{-4} m/s. This implies that the superficial deposits around Granish junction are particularly permeable relative to superficial deposits tested at other locations. It should be noted that the values calculated from in situ permeability testing are lower than which would be expected of the strata tested, based on available literature values and experience of similar deposits elsewhere. This suggests that these values should be treated with caution.

3.4.9. Infiltration tests measure how water drains into the shallow, unsaturated zone, and so represent the vertical and lateral migration of water in the shallow sub surface. This does not necessarily represent the permeability of deposits at depth, or accurately describe the ease with which groundwater can migrate laterally. Falling head tests utilize

only a small volume of water, and as such the radius of influence of these tests is small. Therefore, only the permeability of deposits located in the immediate vicinity of the borehole are being tested here. Results can also be highly influenced by the gravel pack which surrounds the standpipe. Both testing methodologies rely on empirical equations to calculate permeability and so a degree of error exists in the calculation of parameters. Any further extrapolation of the permeability values will lead to increased uncertainty in the data.

3.5. Results

3.5.1. Following completion of the assessment it was found that 184 of the 369 cuttings along the Proposed Scheme will intercept the groundwater table. The remaining 185 cuttings are considered to have no impact on groundwater flows and levels and have been screened out of the assessment.

3.5.2. It is anticipated that groundwater will be intercepted at the following locations, shown in Table 3.4, Table 3.5 and Table 3.6. Details are provided of the estimated drawdown and calculated radius of influence for each of the cutting locations. The impact of each cutting is also provided, with the sensitivity of the aquifer based on the BGS aquifer productivity classification of each geological deposit or formation, as discussed in the Baseline Section of Chapter 10. The magnitude and significance of each impact has been derived using the criteria set out in Table 2.1 and Table 2.2 in this document. Cuttings where the impact significance has been assessed as negligible have been omitted from this section, they have been listed in table B.1 at the end of this appendix.

Table 3.4: Cuttings Impact Assessment – Large Significance Impacts

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
1	NH8658810104		13	260	0.0001	GFSD	H	Major	Large	Large significance due to a high productivity aquifer beneath the cuttings and >100m radius of influences calculated. Due to ground conditions during the stage 2 GI investigation limited groundwater monitoring data is available for the southern section of the site. The lack of available data is likely to have led to an over conservative estimate of groundwater levels. Stage 3 GI data should help to reduce the significance of these impacts
2	NH8658810104		11	220	0.0001	GFSD	H	Major	Large	
3	NH8658810104		7	140	0.0001	GFSD	H	Major	Large	
5	NH8658810104		6	120	0.0001	GFSD	H	Major	Large	
6	NH8658810104		9	180	0.0001	GFSD	H	Major	Large	
10	NH8658810104		7	140	0.0001	GFSD	H	Major	Large	
11	NH8658810104		15	300	0.0001	AFD (90%) GFSD (10%)	M	Major	Large	
12	NH8658810104		15	300	0.0001	AFD (90%) GFSD (10%)	M	Major	Large	
15	NH8658810104		11	220	0.0001	GFSD	M	Major	Large	
18	NH8658810104		15	300	0.0001	GFSD	M	Major	Large	
19	NH8658810104		19	380	0.0001	AFD (30%) GFSD (70%)	M	Major	Large	
27	NH8658810104		9	180	0.0001	AFD (40%)	M	Major	Large	

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
						GFSD (60%)				
93	NH8915911673		6	120	0.0001	GFSD (80%) BHED (20%)	H	Major	Large	Cuttings are both small, however there is a borehole located 150m to the south the groundwater level which has been used to inform the assessment suggesting that groundwater data is more representative. Further investigation is recommended in this area.
95	NH8915911673		7	140	0.0001	GFSD	H	Major	Large	
100	NH8915911673		7	140	0.0001	GFSD	H	Major	Large	There is no groundwater data available for these cuttings. A water level of 0.5m bgl has been assumed for the purpose of this assessment. BH2012 is located 0 to 50m from these cuttings and was recorded as dry during all rounds of monitoring. The base of this borehole is below the proposed depth of the cuttings and therefore we can assume that these cuttings are unlikely to intercept the groundwater table however further monitoring is recommended.
101	NH8915911673		7	140	0.0001	GFSD	H	Major	Large	
102	NH8915911673		7	140	0.0001	GFSD	H	Major	Large	
104	NH8915911673		10	200	0.0001	GFSD	H	Major	Large	
105	NH8915911673		7	140	0.0001	GFSD	H	Major	Large	
154	NH8934513957		7	140	0.0001	GFICD	H	Major	Large	This is a very small cutting located on a side road where there is little available groundwater data. The size of the cutting suggests that it is unlikely to intercept the groundwater table, however further ground investigation is recommended to gather more groundwater information in this area.
167	NH8934513957		6	120	0.0001	GFICD	H	Major	Large	The impact significance is Large due to an underlying high productivity aquifer and the calculated size of the radius of influence. Further

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										groundwater monitoring data is likely to reduce the significance of the impact.
183	NH8934513957		6	120	0.0001	GFICD	H	Major	Large	Although there are boreholes within proximity to this cutting, they are not deep enough to provide groundwater level data. Further groundwater level data is needed at this location.
184	NH8934513957		6	120	0.0001	GFICD	H	Major	Large	The cuttings are located on the B1952 near Granish Junction. Boreholes (BHDS2049 and BHDS2016) did not encounter groundwater as they were not drilled to a sufficient depth due to difficult ground conditions. This suggests that further groundwater monitoring data is needed in this area.
186	NH8934513957		6	120	0.0001	GFICD	H	Major	Large	
332	NH8965322619		55	110	0.000001	HMGD (30%) RTD (70%)	M	Major	Large	Large significance due to the size of the estimated drawdown and the radius of influence. This cutting is relatively small and is located in an area with very little groundwater data. The size of this cutting suggests it is extremely unlikely that the drawdown will be as large as estimated. Therefore, it is likely that the availability of more groundwater data will reduce the significance of the risk.
373	NH8440824526		34	319	0.000001	GFSD	H	Major	Large	The cutting is located on the northbound side of the alignment. BHDS2029 lies to the north of the cutting, the data from which was used in the assessment of this cutting. Further groundwater monitoring is recommended in this area.
Superficial theme not mapped (SUPNM), Till (TiLLD), Alluvium (A), Peat (P), Glaciofluvial Sheet Deposit (GFSD), Glaciofluvial Ice Contact Deposit (GFICD), Ardverikie till (ARDT), Alluvial Fan Deposits (AFD) Slochd Psammite (SLCD), Pitylouish Formation (PITY), Blanket Head (BHED). Ponds, basins and swales have been identified with a P and numbered separately.										
Low (L), Medium (M), High (H)										

Table Source: Geology and sensitivity information has been summarised from British Geological Survey (BGS) data sets available on the BGS website in 2017 (http://www.bgs.ac.uk).

Table 3.5: Cuttings Impact Assessment - Moderate Significance Impacts

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
8	NH8658810104		4	80	0.0001	GFSD	H	Moderate	Moderate	Cuttings are underlain by a high productivity aquifer and have calculated radii of influence over 50m. Both cuttings are located at the southern extent of the scheme where there is little groundwater level data. Further groundwater data in this area is likely to reduce the significance of the impact.
9	NH8658810104		5	100	0.0001	GFSD	H	Moderate	Moderate	
17	NH8658810104		4	80	0.0001	AFD	H	Moderate	Moderate	Moderate significance due to the calculated size of radius of influence of >50m and underlying moderate/ high productivity aquifer. Closest borehole (BHDS2004) was not drilled to a sufficient depth to encounter groundwater. Further groundwater monitoring data from the stage three ground investigation is required to make a better assessment of the significance of the impact on groundwater from these cuttings.
20	NH8658810104		5	100	0.0001	AFD	M	Moderate	Moderate	
21	NH8658810104		4	80	0.0001	GFSD	M	Moderate	Moderate	
22	NH8658810104		3	60	0.0001	GFSD	M	Moderate	Moderate	
23	NH8658810104		3	60	0.0001	GFSD	M	Moderate	Moderate	
28	NH8658810104		3	60	0.0001	GFSD	M	Moderate	Moderate	
29	NH8658810104		5	100	0.0001	GFSD	M	Moderate	Moderate	
30	NH8658810104		5	100	0.0001	GFSD (95%) ALFD (5%)	M	Moderate	Moderate	
38	NH8658810104		5	100	0.0001	GFSD	M	Moderate	Moderate	Cuttings are located on a side road where there is limited groundwater data available. Moderate significance of impact given due to the calculated size of radius of influence and moderate productivity aquifer underlying the
39	NH8719310287		16	51	0.00000254	GFSD	M	Moderate	Moderate	

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										cuttings. Cuttings are relatively small and therefore it is likely that the size of the drawdown for these cuttings has been overestimated. Availability of the stage 3 GI data is likely to reduce the significance of the impact.
82	NH8719310287		3	60	0.00001	GFSD	M	Moderate	Moderate	Moderate significance given due to the calculated size of the radius of influence and moderate productivity aquifer underlying the cutting. The small size of the cutting suggests that lack of groundwater data has led to an overestimation of the drawdown. Groundwater data from the stage three GI should help to reduce the significance of the impact.
113	NH8837010632		5	100	0.0001	GFSD	H	Moderate	Moderate	Cuttings are underlain by a high productivity aquifer and the calculated radius of influence is >100m. BHDS2012 is located <50m from the cuttings, this borehole was not dug to a sufficient depth to encounter groundwater however the base of this borehole is below the base of these two cuttings and has been recorded as dry throughout the monitoring rounds. This suggests that the significance of the impact at these cuttings is likely to be reduced once further groundwater data is available.
114	NH8915911673		5	100	0.0001	GFSD	H	Moderate	Moderate	
136	NH8915911673		4	80	0.0001	GFICD	H	Moderate	Moderate	Significance of impact of moderate due to high productivity underlying aquifer

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										and calculated radius of influence >50m. Limited groundwater data available in area, therefore it is recommended that more data is collected in this area.
175	NH8923513736		6	120	0.0001	GFICD	L	Major	Moderate	Moderate significance due to a calculated radius of influence >50m (181) and of >100m (178 and 175). The cuttings are located on a side road near Granish junction. There is little groundwater data available for side roads at present. It is recommended that further groundwater data is collected in this area.
178	NH8934513957		5	100	0.0001	GFICD	H	Moderate	Moderate	
181	NH8934513957		3	60	0.0001	GFICD	H	Moderate	Moderate	
185	NH8934513957		3	60	0.0001	GFICD	H	Minor	Moderate	This cutting is located on the B1952 in close proximity to Granish Junction. Boreholes (BHDS2049 and BHDS2016) did not encounter groundwater as they were not drilled to a sufficient depth due to difficult ground conditions. This suggests that further groundwater monitoring data is needed in this area.
269	NH8934513957		5	100	0.0001	GFSD	H	Moderate	Moderate	Moderate significance due to underlying high productivity aquifer and calculated radius of influence >100m. Groundwater data is not available from boreholes within the same geological unit. However, based on groundwater levels in the nearby (70m west) alluvial fan deposits, groundwater levels are likely to be lower than estimated. It is

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										recommended that more groundwater monitoring data is collected in this area.
321	NH9107918525		5	100	0.0001	HMGD	H	Moderate	Moderate	Moderate significance due to the calculated radius of influence >100m. There is limited groundwater data available for this groundwater body. Further monitoring is recommended for this location.
322	NH9075220888		13	260	0.0001	HMGD	L	Major	Moderate	
323	NH9075220888		12	240	0.0001	HMGD (80%) PEAT (20%)	L	Major	Moderate	
364	NH9075220888		12	240	0.0001	TILLD (20%) (SLCD (80%)	L	Major	Moderate	Moderate significance due to the size of the radius of influence and drawdown. Both large cuttings are on the southbound side of the alignment at Slochd.
365	NH8440824526		39	367	0.0000221	TILLD (45%) SLCD (55%)	L	Major	Moderate	
369	NH8440824526		20	188	0.0000221	GFSD	L	Major	Moderate	There is a pond on the northbound side of the alignment. There is limited data available for the southbound side of the alignment at Slochd. Further data collection is recommended in this area.
372	NH8440824526		38	76	0.0000221	GFSD (80%) A (20%)	M	Moderate	Moderate	Cuttings are located on the northbound side of the alignment. BHDS2029 lies to the north of these cuttings, however the size of the drawdown suggests that the groundwater level has been overestimated. Further groundwater
374	NH8440824526		45	90	0.0000221	GFSD (90%) A (10%)	H	Moderate	Moderate	

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										monitoring should help to reduce the significance of the impact.
376	NH8452124313		4	80	0.0001	TILLD	H	Moderate	Moderate	This is a very small cutting on a side road. Moderate significance due to size of radius of influence and high productivity aquifer underlying the site. Due to the small size of the cutting it is likely that the drawdown has been overestimated. Further groundwater data collection should help to reduce the significance of the impact.
380	NH8381625506		57	104	0.000000839	TILLD (60%) SLCD (40%)	L	Major	Moderate	This is a very large cutting with groundwater data available. Moderate significance due to the size of drawdown and radius of influence.
383	NH8381625506		209	180	0.000000001	TILLD	L	Major	Moderate	Moderate significance due to the very large drawdown and radius of influence. Radius smaller than the drawdown due to very low permeability material at this location. The size of this cutting suggests that there has been a large overestimation of the drawdown at this location, and therefore further groundwater data is needed at this location. Further data is likely to reduce the significance of the impact at this cutting.
Superficial theme not mapped (SUPNM), Till (TiLLD), Alluvium (A), Peat (P), Glaciofluvial Sheet Deposit (GFSD), Glaciofluvial Ice Contact Deposit (GFICD), Ardverikie till (ARDT), Alluvial Fan Deposits (AFD) Slochd Psammite (SLCD)										
Low (L), Medium (M), High (H)										

Table 3.6: Cuttings Impact Assessment - Slight Significance Impacts

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
85	NH8837010632		9	85	0.0000221	PITY	L	Moderate	Slight	Slight significance due to the calculated radius of influence >50m. There is no groundwater data available, therefore groundwater level is assumed to be 0.5m bgl. Further ground investigation recommended.
106	NH8915911673		3	60	0.0001	GFSD	H	Minor	Slight	Slight significance due to the high productivity aquifer and radius of influence >50m. BHDS20212 is less than 50m from these cuttings, this borehole did not encounter groundwater, and has been recorded as dry during all monitoring rounds. The base of this borehole is below the proposed depth of these cuttings suggesting groundwater will not be intercepted at these cuttings. Further groundwater data collection is recommended at this location to confirm this.
110	NH8915911673		4	80	0.0001	GFSD	H	Minor	Slight	
111	NH8915911673		4	80	0.0001	GFSD	H	Minor	Slight	
112	NH8915911673		4	80	0.0001	GFSD	H	Minor	Slight	
180	NH8934513957		3	60	0.0001	GFICD	H	Minor	Slight	The cuttings are located near Granish Junction. Slight significance due to high productivity aquifer underlying the site and a calculated radius of influence >50m. Further groundwater monitoring is recommended at this location.
182	NH8934513957		3	60	0.0001	GFICD	H	Minor	Slight	
293	NH9105219136		6	56	0.0000221	DAVA	H	Minor	Slight	Slight significance due to the radius of influence >50m and underlying high productivity aquifer. Limited ground

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
										water data available for this location, further data collection recommended.
316	NH9075220888		8	75	0.0000221	CHMC (85%) PEAT (15%)	L	Moderate	Slight	Slight significance due to radius of influence >50m. There is limited groundwater data available in this area, further data collection recommended.
320	NH9075220888		3	60	0.0001	CHMC (20%) PEAT (80%)	L	Moderate	Slight	
334	NH8920323124		4	80	0.0001	HMGD	L	Moderate	Slight	Slight significance due to the calculated radius of influence >50m. Further groundwater monitoring is recommended in this area to aid assessment.
335	NH8920323124		4	80	0.0001	HMGD	L	Moderate	Slight	
343	NH8902623200		76	32	0.000000044	HMGD	L	Moderate	Slight	Slight significance due to the size of drawdown. The radius of influence is smaller than the drawdown due to the extremely low permeability recorded at BHDS3032.
349	NH8818124081		85	54	0.0000001	ATF (90%) HMGD (10%)	L	Moderate	Slight	Slight significance due to the size of drawdown and calculated radius of influence. Borehole BHDS2033 is <30m from the cutting and therefore groundwater data is available at this location. Further groundwater data collection is recommended to aid this assessment.

Cutting ID	NGR	Chainage	Drawdown (m)	Radius of Influence (m)	Permeability value (m/s)	Groundwater Body	Sensitivity	Magnitude	Significance	Discussion
362	NH8534923879		6	56	0.0000221	ARDT (20%), SLCD (80%)	L	Moderate	Slight	Slight significance due to the size of the calculated radius of influence.
375	NH8381625506		32	64	0.000001	TILLD (60% STNM (40%)	L	Moderate	Slight	Slight significance due to the size of the drawdown and the calculated radius of influence. Further groundwater data collection is recommended at this location to aid the assessment.
377	NH8381625506		31	62	0.000001	TILLD (60% STNM (40%)	L	Moderate	Slight	
378	NH8381625506		30	60	0.000001	TILLD (90%) STNM (10%)	L	Moderate	Slight	
Superficial theme not mapped (SUPNM), Till (TiLLD), Alluvium (A), Peat (P), Glaciofluvial Sheet Deposit (GFSD), Glaciofluvial Ice Contact Deposit (GFICD), Ardverikie till (ARDT), Alluvial Fan Deposits (AFD) Slochd Psammite (SLCD) Pityouish Formation (PITY) Dava Subgroup (DAVA) CENTRAL Highland MIigmatite Complex (CHMC)										
Low (L), Medium (M), High (H)										

3.5.3. At the time of writing the stage 2 groundwater monitoring data was available to carry out the assessment. The stage 2 ground investigation concentrated on the mainline, this has led to limited information on tier three access roads and SUDS access tracks. Difficult ground conditions during the stage 2 ground investigation led to difficulty reaching scheduled depths of boreholes, therefore groundwater was not encountered at a number of locations. This has led to limited availability of groundwater level data throughout the scheme. The lack of groundwater data has led to the overestimation of the drawdown at some of the cuttings.

3.5.4. Ground conditions on site suggest that sands and gravels encountered largely across the site are low permeability and therefore literature permeability values used in the absence of permeability data are likely to be conservative estimates.

4. Granish Junction Assessment

4.1. Background

4.1.1. Granish junction is located approximately 1.2km north of Aviemore along the A9 at grid reference NH 89960 15305, approximate chainage 8500 to 8800. The junction connects the A9 carriageway to the A95, located approximately 250m to the east.

4.1.2. The elevation of the carriageway at Granish junction is 242 m above ordnance datum (AOD). The land slopes gently to the east, with the A95 at an elevation of approximately 230 m AOD. Approximately 250 m west of the A9, the land begins to rise sharply at a steep gradient, from elevations of 270 m to over 400 m AOD over approximately 915m.

4.2. Baseline Assessment

4.2.1. Two boreholes and four trial pits were excavated as part of the Stage 2 Ground Investigation (GI) near Granish (Raeburn , 2017), bedrock geology was not encountered indicating a thickness of superficial deposits in excess of 10 m. The geology is discussed in detail in the Baseline Section of Chapter 10.

4.2.2. Bedrock was encountered in a limited number of boreholes across the stage 2 GI, the nearest borehole location that drilled to bedrock was 1.3km south of Granish (BHDS2075) with the next closest borehole located over 5km to the north (BHDS2025). Bedrock is reported as psammite and pelite/semi-pelite and is recorded at variable depths (0.4-11m bgl) displaying multiple often closely spaced fracture sets (Raeburn , 2017). The upper portion of the bedrock (<0.5 m) is commonly recovered as weathered or broken bedrock, in some instances weathered to sand.

4.2.3. Made ground associated with the construction of the A9 or the A95 was not identified near to Granish junction during the stage 2 GI, though it is possible it may exist closer to the road.

Hydrology

4.2.4. The Allt na Criche is the closest surface water body to the carriageway at Granish junction. It is located approximately 150m west of the junction and flows from south west to north east. At a distance of 350m north east of the junction, the Allt na Criche flows under the A9 and A95, draining into Loch nan Carraigean 800m north east of the junction.

4.2.5. AMJV have carried out a hydrological assessment of the area surrounding Granish junction. Cross sections of Allt na Criche indicate that the bed level on the section of burn flowing adjacent to the junction ranges from 246.43m – 243.13m AOD. Water levels in the Allt na Criche have been recorded as 246.65m - 243.27m AOD between 14-15 September 2016, which gives depths ranging from 0.12-0.31m.

4.2.6. Following a site walkover in October 2017, AMJV confirmed the presence of surface water channels which had split from the Allt na Criche Burn south of the junction. In order to gain a better understanding of the Allt na Criche and its relationship to groundwater, flow monitoring was undertaken by AMJV in August and October 2017.

4.2.7. Three hundred metres south west of the junction an unnamed tributary flows from the Allt na Criche, under the A9 and B9152 discharging into a collection of small (approximately 50 m diameter) water bodies marked on the map as Lochan Ban, located 400m south east of the junction. Some of these waterbodies are noted by the superficial geology map of Aviemore (BGS, 2013) to be located within kettle holes suggesting a possible glacial source for these ponds. From the OS maps (Ordnance Survey, 2017) it appears that the water bodies which Allt na Criche drains into have no outflows. It has not been possible to establish if these water bodies discharge to groundwater or are drained by small streams not currently marked on the maps. It has proved difficult to discern whether the water features discussed above are in continuity with groundwater, and if so, whether they are gaining or loosing water to groundwater. Waterbodies may sit perched on less permeable layers, for instance clays deposited in kettle holes, but this cannot be confirmed without further hydrogeological evidence.

4.2.8. The SEPA interactive waterbody classification map (SEPA, 2017c) confirms the River Spey (between the River Feshie and River Nethy) is the closest surface water body classified by SEPA, located 1.3km south east of the junction at its nearest point. This stretch of the River Spey was classified as being in moderate condition in 2014.

4.2.9. Information relating to the Spey is available on the National River Flow Archive (National River Flow Archive, 2017).Two gauging stations were reviewed at Kinrara (NH880082), south of Loch Alvie, and Boat of Garten (NH946192), further downstream. The catchment for the Boat of Garten gauging station ranges from 1291.9-199.1m AOD and has an area of 1267.8Km^2. Average flows increase from 22.865m^3/s to 29.445m^3/s between the two stations. The baseflow index also increases from 0.55 to 0.59, indicating the proportion of groundwater contributions to the Spey increases over this stretch. A baseflow index of 0.55-0.59 indicates that groundwater provides a considerable amount of the rivers flow and is important in maintaining the flow of the Spey.

4.2.10. A review of the SEPA online flood map (SEPA, 2017d) indicates that there were no areas at risk of river flooding within 500m of Granish junction.

4.2.11. To better understand the relationship between the Allt na Criche burn and groundwater at Granish Junction, two rounds of flow monitoring were conducted in August and September 2017.

Flow Monitoring

4.2.12. To gain a better understanding of the relationship between groundwater and the Allt na Criche at Granish junction, AMJV undertook two rounds of flow monitoring at several locations on the Allt na Criche close to the site of the junction. Monitoring was undertaken on 15 August 2017 and 4 October 2017.

4.2.13. On the 15 August 2017, the prevailing weather conditions were clear and dry. Preceding weather conditions were wet. On the 4 October 2017, the prevailing weather conditions were also clear and dry. Again, preceding weather conditions had been wet.

4.2.14. A Valeport Model 801 Electromagnetic Flow Meter was utilised to calculate an average stream velocity for each of the sections. Following this, total flow rate could be calculated by multiplying the cross-sectional area by the respective flow velocity.

4.2.15. Flow was monitored at seven locations along the Allt Na Criche. Where two streams join, both the main channel and a confluence was measured at a point upstream of where the channels meet. A third measurement was then taken further downstream. In theory, the third measurement should be roughly equal to the sum of the previous two, however deviations from this may indicate that the stream is either losing or gaining water from groundwater. Flow monitoring locations are presented below in Figure 4.1. During the first round, monitoring locations were selected based on visual identification of a suitable location proximate to the locations previously decided from the map, with an appropriate channel width, depth and flow to allow for monitoring. Health and safety considerations were also included when selecting locations. Grid references were recorded using a GPS, the co-ordinates obtained were subsequently used to verify the locations for the second round of monitoring. While the resulting flow data provides a general indication of flow behaviour, these results should be treated with caution as they were not taken from fixed monitoring points/installed flow gauges. Results from the two rounds of flow monitoring are presented below in Table 4.1 and Table 4.2.

Figure 4.1: Flow monitoring locations

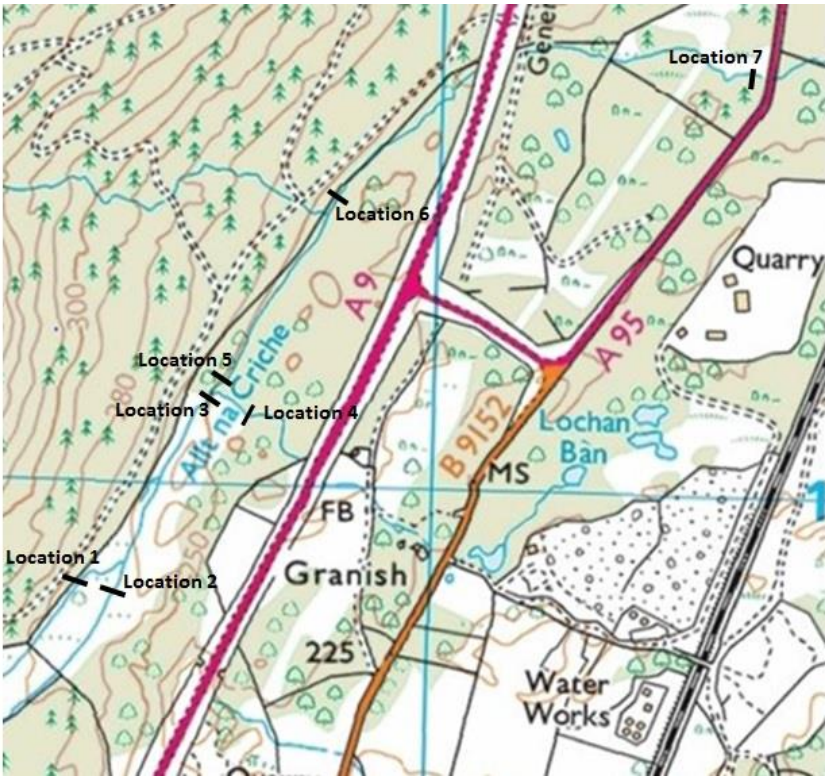

Table 4.1: Results from the flow monitoring

Monitoring location	Calculated average flow rate, l/s	
	August 2017	October 2017
Location 1	Dry	Dry

Monitoring location	Calculated average flow rate, l/s	
	August 2017	October 2017
Location 2	3.19 +/- 0.64	3.92 +/- 0.25
Location 3	2.60 +/- 0.25	12.32 +/- 0.46
Location 4	4.66 +/- 0.62	5.24 +/- 0.47
Location 5	0.97 +/- 0.41	6.31 +/- 0.88
Location 6	5.74 +/- 1.17	6.77 +/- 1.04
Location 7	2.65 +/- 0.23	/- 1.44

4.2.16. A YSI probe was used to record physio-chemical parameters at each monitoring location, to detect any fluctuations in water quality parameters such as temperature, pH and EC, as any abrupt changes in physio-chemical parameters may indicate a groundwater contribution to the stream. The results are presented in table 4.2

Table 4.2: Physio-chemical parameters of the Allt na Criche

Monitoring location	August 2017			October 2017		
	Temp °C	Electrical Conductivity µS/cm	pH	Temp °C	Electrical Conductivity µS/cm	pH
Location 1	Dry			Dry		
Location 2	14.1	79.6	8.50	10.1	57	-
Location 3	12.6	76.2	7.88	10.3	59	-
Location 4	12.4	75.6	7.72	10.8	64	-
Location 5	12.6	76.1	7.67	9.9	59	-
Location 6	12.7	73.8	7.49	10.0	71	-
Location 7	14.2	72.4	7.70	9.8	60	-
Mean	13.1	75.62	7.83	10.15	61.67	
Standard Deviation	0.82	2.45	0.35	0.36	5.13	

4.2.17. Throughout both monitoring rounds, results for physio-chemical parameters remained constant across the monitoring locations possibly indicating that sources of surface water have a similar chemical signature.

4.2.18. No measurements of flow could be gathered from location 1. In August 2017 the channel was recorded as dry. In October 2017, a small amount of stagnant water was recorded within the channel, there was no flow of water and too little to measure physio-chemical parameters. The ground surrounding locations 1 and 2 was damp and marshy during both rounds. Location 1 is situated within a flat, open area at the base of a slope. It is thought this is a small channel along which surface water running off from the slopes to the north west collects and flows during times of rainfall.

4.2.19. During the August 2017 monitoring round, flows were noted to reduce slightly between locations 2 and 3 which may indicate that the stream is losing water along this stretch. The combined flows at locations 4 and 5 were slightly greater than flows at location 3, which may indicate that the stream is being fed by groundwater at this location. Flows at locations 6 had increased in comparison to location 5. This increase is large and may

be related to the tributary marked on the map or a surface water run off contribution resulting from previously wet weather. Flows at location 7 are marginally lower than at location 6, which again may indicate that the stream is losing water along this stretch.

4.2.20. During October 2017, recorded flows were noted to be generally elevated in comparison to flows recorded during August, possibly the result of wetter preceding weather conditions. Flows between locations 2 and 3 increase which may indicate that the watercourse was being fed by groundwater along this section. As expected the combined flows at 4 and 5 are similar to location 3. Flows between locations 5 and 6 are similar, despite the presence of a tributary between these locations. Flows increase slightly between locations 6 and 7, which again may indicate that the watercourse may receive a proportion of baseflow from groundwater along this stretch.

4.2.21. By considering the observations of both monitoring rounds, it is considered that the Allt na Criche has a temporally variable relationship with groundwater. Flows were higher during the October 2017 monitoring round and it appears that the stream may be gaining from groundwater along stretches where flows were seen to decrease during August. It is possible the Allt na Criche is fed by shallow soil water from the surrounding water-logged ground, and the increases noted during the October 2017 monitoring round are a result of a period of wetter weather. The week prior to R2 was noted to be wetter than the week prior to R1.

4.2.22. The flow monitoring results along with the physio-chemical parameters measured at each location appear to indicate a lack of significant inflow of groundwater to the Allt na Criche.

4.2.23. This conclusion corroborates well with the groundwater level data presented in Table 4.3, which appears to indicate that the Allt na Criche is hydraulically isolated from the water table around Granish Junction. Further flow monitoring would be beneficial in increasing confidence in this conclusion and reducing uncertainty, as well as investigating seasonal variation in the Allt na Criche's relationship with groundwater.

Hydrogeology

4.2.24. According to the information provided by the BGS GeoIndex (BGS, 2017), the area surrounding Granish junction is underlain by the Grampian Group bedrock aquifer. The bedrock aquifer is associated with the psammitic metamorphic rocks of the Grampian group and Pityoulish formation, and extends significant distances north, south and east of the junction, and approximately 700 m west. The BGS aquifer productivity map (accessed through A9 web GIS (Atkins, 2018) classifies the bedrock aquifer as a low productivity aquifer, with a sustainable yield of <0.1 l/s. The productivity maps note that due to the crystalline nature of these rocks, flow will occur within fractures and weathered zones near the top of the unit. Bedrock was not encountered within the exploratory boreholes around Granish junction during the stage 2 GI, although it is considered likely that some degree of weathering and possible fracturing is present, given the occurrences of these features in bedrock encountered at other locations along the scheme.

4.2.25. To the west of the A9 there are no superficial deposits indicated, it is likely the bedrock aquifer directly underlies the soil. This unit will receive recharge from infiltrating rainwater in these areas if fracturing and weathering are present, although due to the steepness of the slopes this is likely to be low, with surface drainage of precipitation predominating.

4.2.26. Groundwater vulnerability is classified by the BGS on the groundwater vulnerability map (accessed through the A9 web GIS (Atkins, 2018) as 5 (on a scale of 1-5, where 5 is

most vulnerable) for these areas, which means vulnerable to most pollutants with a rapid impact. When underlying superficial deposits are present groundwater vulnerability is reduced to 3-4a. A vulnerability score of 3 is defined as vulnerable to some pollutants with many others significantly attenuated. A score of 4a is defined as vulnerable to those pollutants not readily adsorbed or transformed. 4a is considered higher vulnerability than 4b, as it is considered that superficial deposits with vulnerability of 4a are less likely to possess significant amounts of clay.

4.2.27. The BGS superficial aquifers map (accessed through the A9 web GIS (Atkins, 2018) indicates the presence of a superficial aquifer associated with the glaciofluvial sheet deposits underlying Granish junction and the lower lying land to the east of the A9. The SEPA online interactive viewer (Scottish Government, 2018) classifies this as the Upper Spey Valley Sand and Gravel superficial aquifer.

4.2.28. These sands and gravels are noted by the BGS to be highly productive capable of producing yields of >10 l/s. Within these unconsolidated deposits groundwater flow will be intergranular between sand and gravel grains. Coarse layers and lenses, such as the esker ridges or deltaic fans reported by the BGS, would provide effective pathways for such intergranular flow to occur. However, the sands and gravels are interbedded with lenses and pockets comprising silts and clayey sands (as noted during the Stage 2 GI) which have the potential to restrict vertical and lateral flow, potentially leading to locally confined conditions or perched groundwater.

4.2.29. Due to the granular, permeable nature of these deposits and the gentler slope of the lower lying ground, it is thought likely that the superficial aquifer receives considerably more direct recharge from infiltration of rainfall than the bedrock aquifer.

4.2.30. The Diamicton Till west of the junction is not classified as a significant superficial aquifer by the BGS (BGS, 2017). These deposits are reported to be more likely to contain clays and to be poorly sorted thus it is considered probable that the Till is less permeable than the glaciofluvial deposits. Where water exists within these deposits it is likely to be present within coarser layers and pockets. The presence of clay layers would potentially restrict flow and could lead to confining conditions.

4.2.31. It is likely that where there are fractured/weathered zones of bedrock directly in contact with the superficial aquifer, the two units will be in hydrogeological continuity when both bedrock and superficial deposits are behaving as aquifers. This may also provide another inflow to the superficial aquifer, as groundwater within the bedrock aquifer flows from higher to lower elevations. Based on the available BGS geological maps Diamicton Till deposits appear to lie between the bedrock and glaciofluvial sands and gravels. Where this is the case, these could be hydrogeologically separated, and clay rich areas of Till may lead to confined conditions within the bedrock aquifer.

Groundwater Levels

4.2.32. The two excavated boreholes (BHDS2016 and BHDS2049) were screened to allow for groundwater monitoring. The boreholes were monitored on a monthly basis from 05/03/2017 to 29/12/2017. BHDS2049 did not record any water over this time period therefore groundwater at this location is below the base depth of the borehole (<229.13m AOD), this could be within an area of little or no groundwater flow. The groundwater data from BHDS2016 is summarised in Table 4.3.

Table 4.3: Groundwater monitoring at BHDS2016

Date	GW level (m bgl)	GW level (m AOD)
08/03/2017	8.90	233.73

Date	GW level (m bgl)	GW level (m AOD)
09/03/2017	8.63	234.00
10/03/2017	8.69	233.94
13/03/2017	8.70	233.93
14/03/2017	8.67	233.96
19/03/2017	dry	< 232.43
26/03/2017	8.71	233.92
31/03/2017	dry	< 232.43
09/04/2017	dry	< 232.43
13/04/2017	dry	< 232.43
23/04/2017	dry	< 232.43
30/05/2017	dry	< 232.43
29/06/2017	dry	< 232.43
19/07/2017	dry	< 232.43
05/08/2017	dry	< 232.43
03/09/2017	dry	< 232.43
18/10/2017	8.74	233.99
21/11/2017	dry	< 232.43
29/12/2017	dry	< 232.43

4.2.33. The maximum water levels identified at BHDS2016 are 233.99 m AOD, recorded on 18/10/2017. BH2016 was recorded as dry between 31/03/2017 and 18/10/2017, indicating that water levels were below the level of the installation during this period, a level of <232.43 m AOD.

4.2.34. Historical rainfall records indicate that precipitation normally peaks in December, however the groundwater data shows that both BHDS2016 and BHDS2049 are recorded as dry in November and December 2017.

4.2.35. Water levels in BHDS2016 are roughly 10m below the levels recorded for the base of the Allt na Criche Burn, approximately 90m north west of the borehole. It has been difficult to discern whether the Allt na Criche is in continuity with groundwater, and if so whether it is a gaining stream or loosing stream at this stretch. Water levels recorded 10m below may suggest that the Allt na Criche is in hydrogeological isolation, and the physio-chemical parameter test results would also corroborate this however, as noted above, water levels show little fluctuation in response to changes in climatic conditions. BHDS2016 is 90m from the watercourse which is quite far, the hydraulic gradient may be significantly steeper where low permeability units exist.

4.2.36. Based on known ground conditions, it is thought that groundwater levels will broadly follow topography and slope to the south east toward the River Spey and low-lying areas. Groundwater in the area around Granish junction may flow toward and discharge into the small surface water bodies east of the junction, located at elevations of 220-230 m AOD. However, the possibility remains that these water bodies could rest on localised clay lenses at the base of kettle holes or the glaciofluvial deposits, and are not in hydrogeological continuity with local groundwater. As discussed above a transient relationship could also potentially exist between surface water and groundwater.

4.2.37. In situ permeability tests was undertaken on boreholes along the A9 Dalraddy to Slochd scheme; the results of which are listed in Table 3.1. None of the boreholes tested were within the vicinity of Granish junction, the nearest test locations BHDS2073 and BHDS2023 are located approximately 2069m to the south and 3966m north of Granish respectively.

4.2.38. The screened strata that was permeability tested would appear to be comparable to the geology recorded at Granish Junction. However, there are limitations with the permeability test methodologies which should be considered when assessing how representative of the hydrogeological conditions these results are at Granish junction. Whilst the materials that were permeability tested are thought to be broadly similar to expectations beneath the junction, actual values of permeability are likely to vary given the heterogeneity of the local superficial geology.

4.3. Impact Assessment

Table 4.4: Impact Assessment

Category	Receptor	Potential Impact	Discussion	Sensitivity*	Magnitude**	Significance***
Superficial Aquifer (unconsolidated glacial deposits)	Hummocky Glacial Deposits & Devensian Glacial Till	Lowered groundwater levels	If cuttings intercept groundwater there will be a subsequent lowering of water levels within an associated radius of influence. This could potentially alter the phreatic and piezometric surfaces resulting in permanent alteration to the direction and rate of local groundwater flow. However, given the lack of groundwater in the monitored boreholes the magnitude of this impact is minor.	L	Minor	Neutral
		Input of contamination	By reduction in overlying material, groundwater within the area of the cutting may also become more vulnerable to potential contamination events, as a direct pathway to groundwater may be created. However due to lack of groundwater, the magnitude of impact is minor.	L	Minor	Neutral
	Glaciofluvial Sheet Deposits	Lowered groundwater levels	Lowering of groundwater levels could potentially alter the phreatic and piezometric surfaces resulting in permanent alteration to the direction and rate of local groundwater flow. However, given the depth to groundwater in this area, the magnitude of impact is minor.	H	Minor	Slight/ Moderate
		Input of contamination	By reduction in overlying material, the groundwater within the area of the cutting may become more vulnerable to potential contamination events, as a direct pathway to groundwater may be created.	H	Minor	Slight/ Moderate
Bedrock Aquifer	fractured/weathered Psammite and Semi-Pelite of the Nethybridge Psammite	Lowered groundwater levels	If cuttings intercept groundwater there will be a subsequent lowering of water levels within an associated radius of influence. This could potentially alter the phreatic and piezometric surfaces resulting in permanent alteration to the direction and rate of local groundwater flow. However, given the depth to bedrock the magnitude of this impact is minor.	L	Minor	Neutral

Category	Receptor	Potential Impact	Discussion	Sensitivity*	Magnitude**	Significance***
	Formation and Pityoulish Formation	Input of contamination	By reduction in overlying material, the groundwater within the area of the cutting may also become more vulnerable to potential contamination events, as a direct pathway to groundwater may be created. However, given the depth to bedrock was not proven in this area the magnitude of this impact is minor.	L	Minor	Neutral
Surface Water Bodies	Allt na Criche Burn	Reduced flows of the burn/reduced baseflow	Reductions to water levels and alterations to groundwater flow in the area of the Allt na Criche may result in a decrease in any groundwater baseflow to the burn, and may cause the stream to become a permanently 'loosing stream', further reducing flows.	L	moderate	Slight
		Reduced water quality	Reduced flows may have a negative effect on water quality, as baseflow is important in regulating surface water hydro-chemistry and affects a waterbodies ability to attenuate any potential contamination. The Allt na Criche has been assessed as having low intrinsic ecological value, and so magnitude of this impact is minor.	L	Minor	Neutral
	River Spey	Reduced surface water flows	Reduction in water levels and flows in nearby surface water bodies may have a negative impact on private surface water supplies, such as that located at Granish Farm.	H	moderate	Moderate /large
		Reduced baseflow Reduced quality	Baseflow is important in regulating surface water chemistry and is therefore an important factor in a surface water body's ability to sustain ecosystems and attenuate any potential pollutants.	H	Minor	Slight/ Moderate
	Loch nan Carraigean & Lochan Ban	Reduced baseflow	Changes to GW flow, dewatering or permanent lowering of GW levels may reduce the flows of the Allt na Criche and its un named tributaries to the small lochans. However, it is difficult to ascertain if the Allt na Criche is in hydraulic continuity with groundwater.	L	Minor	Neutral
		Reduced inflow from tributaries	Flow to surface water is important in regulating surface water chemistry and is therefore an important factor in a surface water body's ability to sustain ecosystems and attenuate any potential pollutants.	L	Minor	Neutral

4.3.1. The cuttings assessment has screened the risk of impacts to groundwater and associated surface water receptors from cuttings at Granish junction based on November 2017 water levels at BHDS2016 and BHDS2049. The cutting with the lowest base elevation was recorded at 231 m AOD.

4.3.2. Groundwater levels fluctuate seasonally and with changes in climatic conditions, and so there may be a temporal change in water levels which results in the cutting intersecting the water table. Water levels at BHDS2016 were recorded at 234 m AOD on 9 March 2017, for instance. Furthermore, a change in design may require deeper cuttings, and so the risk to the groundwater dependant receptors listed above cannot be fully discounted.

4.3.3. If it is found later that a risk to any of these receptors has become apparent, appropriate drainage will be required to collect and discharge the groundwater seepage to prevent flooding on the road, and an assessment of the stability of the cutting will have to be made.

4.3.4. Additional boreholes which encounter groundwater are required to properly characterise the piezometric surface. This data should be augmented with long term groundwater monitoring, flow gauging of streams and investigation of local geology around surface water bodies. This will allow for better understanding of groundwater levels, flow directions and interactions with surface water.

5. Public/Private Water Supplies Assessment

5.1.1. Groundwater fed public and private water supplies within the study area have been identified, as discussed in detail in Chapter 10. These include 4 Scottish water boreholes (the location of which cannot be publicly identified) and 4 privately used water supplies (associated with groundwater), these are PWS Baddengorm, PWS Slochd 1, PWS Slochd 2 and PWS Slochd 3.

5.1.2. Following review of the estimated areas of influence associated with each of the cuttings Table 5.1 lists the private water supplies that fall within the calculated radius of influence of cuttings.

Table 5.1: Private Water Supplies within a zone of influence of Cuttings

Cutting no.	Private Water Supply	NGR	Sensitivity*	Magnitude	Significance
365	PWS Slochd 3	NH 847 245	H	Major	Large
*Sensitivity abbreviations: VH: Very High, H: High, M: Medium, L: Low					

5.1.3. The spring supply of PWS Slochd 3 likely results from confining conditions within the bedrock caused by the overlying clay rich Diamicton Till. It is located 130m north east and up hydraulic gradient of the Proposed Scheme. While this supply is within the large radius of influence for cutting 365, the geology of this cutting is the very low productivity Slochd Psammite Formation. The Proposed Scheme and cutting are down hydraulic gradient of the PWS Slochd 3 supply therefore no groundwater changes are predicted.

5.1.4. Cutting 365 has the potential to directly affect the aquifer by impacting groundwater flow and levels based on the large calculated radius of influence. Due to the limited number

of ground investigation locations, calculations of the radius of influence have used the highest permeability values available from a borehole in the same bedrock geology. The Slochd Psammite bedrock is a very low productivity fracture flow aquifer, which has shown a high degree of local variation in tested permeability values.

5.1.5. It should be noted that based on the equation used to calculate the radius of influence and the limited available data for both groundwater levels and the permeability values used, a conservative assessment is likely to have been carried out.

5.1.6. A quarry has been identified on the OS maps to the north of Ardarroch and Granish Farm, this quarry will be intercepted by cuttings 186 and 184 mainline ch.7600 – 7950. This Quarry appears to be associated with Granish Landfill site.

5.1.7. The aquifer assessment found that the Scottish Water public boreholes do not fall within the radius of influence of any of the cuttings in the Dalraddy to Slochd section.

6. Surface Water Assessment

6.1. Watercourses

6.1.1. Surface water features such as rivers and burns, which interact with groundwater via a baseflow component, may be impacted by changes in groundwater levels as a result of dewatering activities during the construction phase, and steady-state drawdown during operation. Of the 82 cuttings which are expected to have an impact on groundwater, 23 have been found to have watercourses within the associated zones of influence.

Table 6.1: Watercourses found to be within the zone of influence of cuttings

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
1	Allt an Fhearna	NH8541009209	H	Moderate	Moderate	Radius of influence of 5 cuttings at the southern extent of the scheme intercept this watercourse. Limited groundwater data is available in this area, the availability of further ground investigation data from the stage 3 ground investigation may reduce the significance of the impact on this watercourse.
2						
3						
5						
6						
6	Allt Chriochaidh	NH8567209532	H	Moderate	Moderate	The watercourse is intercepted by the radius of influence of 5 cuttings at the southern extent of the scheme. Limited groundwater information is available at this part of the site, availability of stage three ground investigation data may reduce the significance of the impact on this watercourse.
7						
8						
9						
10						
10	Ballinluig Drain	NH8641610016	L	Moderate	Slight	The watercourse is intercepted by 6 radii of influence. The watercourse is low sensitivity. The impacts from these radii of influence are unlikely to lead to a complete loss of this watercourse.
11						
12						
15						
18						
19						
11	Caochan Ruadh	NH8664710097	H	Moderate	Moderate	The watercourse is intercepted by the radius of influence of 5 cuttings. As previously mentioned little groundwater data is available for the southern section of the scheme, and therefore it is hoped that the data from the stage three GI will help to reduce the significance of the impact to this water course.
12						
15						
18						
19						
17	Balinluig Burn	NH8686310186	L	Moderate	Slight	

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
11						This water course is intercepted by the radius of influence from 14 cuttings. Given the low sensitivity of this watercourse this suggests an impact of slight significance. It is recommended that further ground investigation is carried out in in this area as part of the stage three ground investigation. Additional groundwater information should help to reduce the significance of impact on this burn.
12						
18						
19						
20						
21						
22						
23						
27						
28						
29						
30						
31						
10	Loch Alvie	NH8661009699	H	Minor	Moderate	Loch Alvie is intercepted by the radius of influence from 7 cuttings. As previously mentioned this area has limited groundwater data available. The stage three GI data should help to reduce the significance of impact at this location.
11						
12						
18						
19						
20						
29						
86	Kinakyle Drain	NH8873610861	L	Moderate	Slight	Kinakyle drain is intercepted by the radius of influence from three cuttings. However, the sensitivity of this drain is low and therefore the impact is of slight significance.
87						
89						
93	Craigellachie Pond	NH8912311977	L	Moderate	Slight	
95						

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
100						This pond is intercepted by the radius of influence from 12 cuttings, however it has a low sensitivity and therefore an impact of slight significance.
101						
102						
104						
105						
110						
111						
112						
113						
114						
100	Loch Puladdern	NH8910212145	H	Moderate	Moderate	Loch Puladdern will be intercepted by the radius of influence from 5 cuttings and has a sensitivity of high. This suggests an impact of moderate significance.
101						
102						
104						
115						
102	MacDonald Pond	NH8916012152	L	Minor	Slight	This pond will be intercepted by the radius of influence from two cuttings. The Impact significance will be slight due to the low sensitivity of the pond.
104						
131	Aviemore Drain 1	NH8908612814	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of one cutting.
131	Aviemore Drain 2	NH8908712906	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of one cutting.
131	Aviemore Drain 3	NH8908912958	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of one cutting.
136	Milton Drain 1	NH8931213792	L	Minor	Neutral	Low sensitivity drain intercepted by the radius of influence of two cuttings.
140						

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
140	Aviemore Burn	NH8932713865	L	Minor	Neutral	A low sensitivity burn intercepted by the radius of influence of one cutting.
167	AnCG bifurcation south	NH8967614730	M	Minor	Slight	A medium sensitivity watercourse intercepted by the radius of influence of one cutting.
167	Granish Drain 3	NH8971814841	L	Minor	Slight	A low sensitivity drain intercepted by the radius of influence of one cutting.
167	Granish Pond	NH8978414876	H	Minor	Moderate	A high sensitivity water feature intercepted by radius of influence of one cutting.
167	AnCG bifurcation north	NH8981615028	L	Minor	Neutral	Low sensitivity drains intercepted by the radius of influence of one cutting.
232	Allt na Criche (Granish)	SN9008089995	L	Minor	Neutral	A low sensitivity watercourse intercepted by the radius of influence of one cutting.
265	Loch Vaa Pond 2	NH9096117739	L	Minor	Neutral	A low sensitivity water feature intercepted by the radius of influence of one cutting.
269	Allt Cnapach	NH9101418530	M	Minor	Slight	A medium sensitivity watercourse intercepted by the radius of influence of one cutting.
285	Kinveachy Drain 2	NH9109491040	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of one cutting.
274	Carrbridge Drain 1	NH8989022350	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of one cutting.
316	Feith Mhor Drain 1	NH9077220651	L	Moderate	Slight	A low sensitivity drain intercepted by the radius of influence of four cuttings suggesting an impact of slight significance.
317						
318						
320						
321	Feith Mhor Drain 2	NH9072920750	L	Moderate	Slight	
322						

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
323						A low sensitivity drain intercepted by the radius of influence of three cuttings suggesting an impact of slight significance.
320	Feith Mhor	NH9076120750	H	Large	Large	The Watercourse is high sensitivity and is intercepted by the radius of influence of four cuttings. This suggests an impact of large significance.
321						
322						
323						
321	Feith Mhor Drain 5	NH9063521038	L	Moderate	Slight	A low sensitivity drain intercepted by a radius of influence of three cuttings suggesting an impact of slight significance.
322						
323						
321	Feith Mhor Drain 4	NH9067520912	L	Moderate	Slight	A low sensitivity drain intercepted by a radius of influence of one cutting.
322						
323						
321	Feith Mhor Drain 3	NH9070220839	L	Moderate	Slight	A low sensitivity drain intercepted by a radius of influence of three cuttings suggesting an impact of slight significance.
322						
323						
321	Feith Mhor Trib 1	NH9076020805	L	Moderate	Slight	A low sensitivity watercourse intercepted by the radius of influence of three cuttings suggesting an impact of slight significance.
322						
323						
321	Feith Mhor Trib 2	NH9070720886	L	Moderate	Slight	A low sensitivity watercourse intercepted by the radius of influence of three cuttings suggesting an impact of slight significance.
322						
323						
321	Feith Mhor Drain 6	NH9059621131	L	Minor	Neutral	A low sensitivity drain intercepted by the radius of influence of two cuttings suggesting an impact of neutral significance.
322						

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
343	Ceatharnach Drain	NH8909423169	L	Moderate	Slight	Low sensitivity drains intercepted by the radius of influence of one cutting
349	Bogbain Burn	NH8828224116	M	Minor	Slight	Moderate sensitivity watercourse intercepted by the radius of influence of one cutting suggesting an impact of slight significance.
363 365	Slochd Drain 1	NH8461824162	L	Moderate	Slight	A low sensitivity drain intercepted by the radius of influence of two cuttings suggesting an impact of slight significance
365 364 372 373	Slochd Drain 2	NH8438124432	L	Moderate	Slight	A low sensitivity drain intercepted by the radius of influence of four cuttings suggesting an impact of slight significance.
365 364 372 373 374	Slochd Drain 3	NH8427624573	L	Moderate	Slight	A drain intercepted by the radius of influence of 5 cuttings however the low sensitivity of the drain suggests an impact of slight significance.
365 364 372 373 374	Slochd Drain 4	NH8427424654	L	Moderate	Slight	A drain intercepted by the radius of influence of 5 cuttings, however the low sensitivity of the drain suggests an impact of slight significance.
364 372 373 374	Slochd Drain 5	NH8411724891	L	Moderate	Slight	A drain intercepted by the radius of influence of 4 cuttings, however the low sensitivity of the drain suggests an impact of slight significance.

Cutting ID	Watercourse	NGR	Sensitivity	Magnitide	Significance	Comments
376	Slochd Drain 6	NH8395225166	L	Moderate	Slight	A drain intercepted by the radius of influence of 3 cuttings, however the low sensitivity of the drain suggests an impact of slight significance.
377						
378						
364	Slochd Mhuic	NH8376425406	M	Major	Large	A moderate sensitivity watercourse intercepted by the radius of influence of ten cuttings. The watercourse is located at Slochd where there are a number of large rock cuttings. This suggests an impact of Large significance.
372						
373						
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383						
380	Slochd Mhuic Trib	NH8395225166	L	Minor	Slight	A low sensitivity watercourse intercepted by the radius of influence of one cutting.
*Sensitivity abbreviations: VH: Very High, H: High, M: Medium, L: Low						

6.1.2. Based on information from the Dalraddy to Slochd Stage 2 ground investigation groundwater has been generally identified at depth and not within the superficial materials. Glaciofluvial sands and gravels identified along most of the route appear to be very dense, dry and low permeability. This would suggest that in general there is limited hydraulic conductivity between the groundwater and the surface water bodies. Based on this information it has been assumed that where cuttings are excavated within these deposits the groundwater drawdown effect on the surface water bodies will have an indirect impact of Minor.

7. GWDTEs

7.1. Baseline Assessment

7.1.1. GWDTEs are types of wetland which are specifically protected under the WFD and can include: fens, springs, flushes, seepages, quaking bog, wet woodland, marshy grassland and some types of wet heath, reedbed and swamp.

7.1.2. NVC surveys were carried out in April, May and July 2017, with the resulting NVC map produced as a GIS layer and individual NVC communities defined by individual polygons. Further information on the survey method and general results are presented in Chapter 12: Ecology and Nature Conservation.

7.1.3. Baseline descriptions of the study area, including the descriptions of superficial and bedrock geology, soil typology, groundwater aquifers and surface watercourses are discussed in Section 10.3 of Chapter 10 Geology, Soils and Groundwater.

7.1.4. The NVC map was reviewed for GWDTEs using SEPA guidance which indicates which NVC habitats could be potentially groundwater dependent. Areas which were not likely to be groundwater fed based on the methodology described in Section 10.2 were screened out from the assessment. The resulting GWDTE map is presented in Figure 10.9, with NVC communities described in Table 7.1 and the baseline assessment is summarised in Table 7.2 and 7.3 below.

Table 7.1: Potential GWDTE NVC Communities within 250m study area

NVC Community	NVC Community Name	NVC Community Description (taken from JNCC Field Guide)	Presence Across Study Area	Area (ha)
Highly Groundwater Dependent				
M6	*Carex echinata - Sphagnum recurvum* mire	Mires typically located in peat and peaty gleys, occurring as small stands among other communities, particularly between 200-400mAOD in areas frequently grazed.	M6 is located throughout the study area, primarily adjacent to the existing A9 road associated with highways drainage and surface water features, for example, the Allt na Criche.	24.64
M9	*Carex rostrata - Calliergon cuspidatum/C.giganteum* mire	Mires characterised by soft spongey peats, common in wetter areas in hollows, raised mires and hollows.	Three areas identified in the study area in relatively low lying areas, located south-east of the existing Aviemore junction on the banks of the River Spey, and along the Bogbain Burn and downslope of the A983 at Baddengorm.	0.41
M10	*Carex dioica - Pinguicula vulgaris* mire	Mire communities located in shallow peat and mineral soils fed by base-rich waters, and often associated with springs and rill vegetations and located in cool, wet upland climates.	A small number of communities located upslope of the existing A9 road at Slochd on slopes with shallow soils and moderate slope angles, in areas where springs (M32) have also been identified. Area underlain by shallow Diamicton Till deposits and bedrock exposed in places.	0.67
M16	*Erica tetralix - Sphagnum compactum* wet heath	Wet heath community found on acid and oligotrophic mineral soils and shallow peats which are seasonally waterlogged, often found at higher altitude. Vegetation is maintained by land-use practices such as grazing, draining and burning.	A number of wet heath areas, located upslope of the existing A9 at Granish, west of the Allt nan Ceatharnach, along the Bogbain Burn within Baddengorm Woods, peatland south of Black Mount, and west of Baddengorm woods on shallow slopes north of the Highland Mainline Railway.	15.39
M23	*Juncus effusus/acutiflorus - Galium* palustre rush-pasture	Rush-pasture community occurs over a variety of moist, acid to neutral, peaty and mineral soils in cool and wet areas, commonly on gently sloping ground at the margin of flushes that are kept moist to wet most of the year. Maintained by grazing and drainage.	Widespread across the study area, located on shallow slopes on farmland around Ballinluig, small number of open areas within woodland north of Aviemore, adjacent to Avie Lochan, along a forest ride in Ellan Woods and across upland slopes around Slochd summit.	9.26
M32	*Philonotis fontana - Saxifraga stellaris* spring	Communities of springs and rills at moderate to high altitudes, common type of spring vegetation dependent on groundwater to form permanent	A number of target points (no area provided) were located upslope of the existing southbound A9 road,	0.03

NVC Community	NVC Community Name	NVC Community Description (taken from JNCC Field Guide)	Presence Across Study Area	Area (ha)
		springs, flushes, rills and small stream. Formed on waterlogged soils including flushed peats and gleys.	on steep slopes with shallow soils, where springs are occurring.	
W4	*Betula pubescens - Molinia caerulea* woodland	Community of moist, acidic and peaty soils, characteristic of both thin/drying peats and peaty gleys flushed by water.	Widespread throughout the study area, forming part of woodland areas including Ballinluig, Craigellachie NNR, Aviemore, Laggantygown, Kinveachy, Black Mount and Slochd.	37.95
CG10	*Festuca ovina – Agrostis capillaris – Thymus praecox* grassland	Calcicolous grassland community common in British uplands, associated with heavy grazing.	One area located on the banks of the Allt na Criche where it joins the River Spey, underlain by alluvial deposits.	0.14
U16	*Luzula sylvatica – Vaccinium myrtillus* tall herb community	Inland rock outcrop and scree habitat widespread in upland areas, featuring tall-herb vegetation and often restricted by heavy grazing. Influenced by underlying geology (JNCC, 2008).	Two areas identified within the study area, at Slochd Mhor adjacent to the existing A9 and at Slochd summit located at the base of the slope adjacent to the Highland Mainline railway.	0.82
Moderately Groundwater Dependent				
M15	*Scirpus cespitosus - Erica tetralix* wet heath	Wet heath community associated with moist and acid peats and peaty mineral soils in wetter north and western areas of Britain. Grazing and burn have important effects on community, with draining and peat-cutting extending its coverage to formerly deeper and wetter peats.	Widespread across the study area, primarily underlain by Diamicton till or bedrock. Located upslope of the existing A9 in Ballinluig, within woodland north of Craigellachie NNR and woodland at Avielochan, with most communities located on the hill slopes in the Slochd area.	7.29
M25	*Molinia caerulea - Potentilla erecta* mire	Mire community featuring well-aerated, moist peaty and peaty mineral soils in wet, cool western areas of Britain. Often occurs over gently sloping ground marking out seepage zones and flush margins. Influenced by burning, grazing and drainage activities.	Widespread across the study area, located in similar areas to M15 with most communities located in the Slochd areas.	6.70
M28	*Iris Pseudacorus - Filipendula ulmaria* mire	Mire community confined to moist nutrient rich soils, characteristic of the freshwater seepage zone forming in wetter hollows and flushes.	Three communities within the study area, two located in Kinveachy adjacent to A95, where the Allt Cnapach flows south-east and spreads according to OS mapping. The remaining area located in Granish along a small drain feeding Lochan Ban.	0.40

NVC Community	NVC Community Name	NVC Community Description (taken from JNCC Field Guide)	Presence Across Study Area	Area (ha)
MG9	*Holcus lanatus - Deschampsia cespitosa* grassland	Wet grassland community, featuring poorly drained permanent soils.	Widespread across the study area, located at Dalraddy, west of Kinakyle adjacent to the River Spey, upslope of the Aviemore burn, throughout the Granish area, Avielochan, woodland areas throughout Kinveachy, Carrbridge and at Slochd.	8.04
MG10 (Je)	*Holcus lanatus - Juncus effusus* rush-pasture	Rush-pasture grassland community featuring poorly drained soils.	Widespread throughout the study area, including Ballinluig, adjacent to Loch Alvie, Kinakyle, Aviemore, Milton, Granish, Laggantygown, Black Mount and Slochd.	7.73
W3	*Salix pentandra - Carex rostrata* woodland	Wet woodland community featuring peaty soils in open water transitions, common in northern Britain and feature peaty soils.	Located as part of a community along the banks of the River Spey south of Aviemore, and along the Slochd Mhuic.	7.42
U6	*Juncus squarrosus - Festuca ovina* grassland	Vegetation type of damp peaty soils or gleyed podsols on flat or gently sloping ground.	Small number of communities, located on steep slopes above the existing A9 at Slochd.	1.26

Table Source: JNCC National Vegetation Classification[v], JNCC British Upland Vegetation (Alison Averis, 2004)[vi].

7.1.5. It should be noted 'Je' refers to Juncus Effusus soft rush dominated pasture community. This is a common rush community that does not fit in any groundwater dependent NVC community, as it lacks the wetland element of M6 and M23 Juncus spp. mires and has a more acidophilous flora than MG10 Juncus Effusus rush-pasture. Although this community is not included within the SEPA guidance we consider it to be potentially moderately groundwater dependent and have therefore included it in the assessment.

7.1.6. There are 38 areas which were unable to be surveyed or classified from aerial imagery (NVC-NCAI). For the purposes of the assessment, these communities have been considered during the baseline assessment as having a Moderate groundwater dependency.

7.1.7. One area has been screened out as it is located more than 250m from the Proposed Scheme. Additionally, areas where there is a hydrological barrier between the habitat and the scheme (30 areas) and areas which are not groundwater dependant (40 areas) have been screened out, as indicated on the Ground Investigation results, or by other parameters based on the methodology described in Section 2.5, were also screened out from the assessment.

7.1.8. A total of 436 communities were screened in for baseline review of groundwater dependency. A qualitative baseline assessment of the groundwater dependency of each community is provided in Table 7.2 based on the methodology described in Section 2.4, with a summary in Table 7.3. The resulting GWDTE map, based on the revised groundwater dependencies, is presented in Figure 10.7.

Table 7.2: Baseline GWDTE assessment within 250m

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
A003	MG9/MG1	Moderately Dominant	Area of marshy grassland including MG9 (50%), located south-west of the A9, between an adjacent access track and the Highland Mainline Railway. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Semipelite (very low productivity) bedrock. The area sits on a relatively flat area at the base of the valley, downslope of the A9. A drain is channelled beneath the A9, within the area extents. Due to the proximity of the A9, access track and Highland Mainline Railway, a high groundwater level due to the proximity to the drain, low productivity bedrock aquifer, precipitation and surface generated run-off are considered to have more influence of the the communities present, rather than groundwater.	Low	Moderate	High
A006	U4a/U5a/M6c/H12b	Highly Sub-dominant	Mosaic of calcifugous grasslands and montane communities, mire, M6c (10%), and heaths located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off or water draining from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity of the railway drainage ditches and smaller drains through the area, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A007	U4a/U5a/M6c/H12b	Highly Sub-dominant	Mosaic of calcifugous grasslands and montanes communities, mire, M6c (10%), and heaths, located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by peat (not a significant aquifer) and overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity of the railway drainage ditches and smaller drains through the area, 2.1m of peat depth, not a significant superficial aquifer and low productivity bedrock aquifer, it is considered likely that the communities present in the area will be supplied primarily by precipitation and surface generated run-off.	Low	Moderate	High
A008	M6c/U4a/U5a/M19a/H12b	Highly Dominant	Mosaic of mires including M6c (85%), calcifugous grasslands and montanes communities, and heaths located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by peat (not a significant aquifer) and overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity of the railway drainage ditches and smaller drains through the area, 1.4m of peat depth recorded, lack of significant superficial aquifer and low productivity bedrock aquifer, it is considered likely that the communities present in the area will be supplied primarily by precipitation and surface generated run-off.	Low	Moderate	High
A010	M6c/M19b/U4a/M6b	Highly Dominant	Mosaic of mires including M6c (45%), M6b (5%), and calcifugous grassland and montane communities, surrounding a small watercourse and located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off or water draining from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Semipelite (very low productivity). Due to the watercourse and smaller drains running through the area, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A018	M15a/M6b/M19a/M6c	Highly Sub-dominant	Mosaic of mires including M15a (32%), M6b (32%) and M6c (5%) located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off or water draining from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) overlain on Semipelite (very low productivity). An unnamed watercourse runs through the area. Due to peat depth of 1m recorded and being underlain by a low productivity bedrock aquifer, it is considered that the area is likely to be fed predominantly by surface water flow and precipitation.	Low	Moderate	High
A021	M15a/M6b	Highly Dominant	Mosaic of mires including M15a (50%) and M6b (50%), located south-west and upslope of the A9 and the Highland Mainline Railway. Any run-off or water draining from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to peat depths of 1.8m recorded and being underlain by a low productivity bedrock aquifer, it is considered that the area is likely to be fed predominantly by surface water flow and precipitation.	Low	Moderate	High
A023	U4a/U5a/U6d/H12b	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, U6d (31%), and heaths, located south and upslope of the Proposed Scheme and the Highland Mainline Railway. The area is on a slight slope and forms the headwaters of an unnamed pond and drain before being intercepted by the drainage upslope of the railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). A combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
A025	H12b/M19b/U6d	Moderately Sub-dominant	Mosaic of heaths, mires and, calcifugous grassland and montane communities including U6d (5%), located south and upslope of the Proposed Scheme and the Highland Mainline Railway. The area is on a slight slope and drains into a pond, which the vegetation is associated with, and drain before being intercepted by the drainage upslope of the railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the topography and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A028	W17b/H21a/U16c	Highly Sub-dominant	Mosaic of woodland, heath and, calcifugous grassland and montane communities, U16c (5%), located south of the A9, adjacent to the Highland Mainline Railway. The area is on a steep slope towards the railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the topography, it is considered that groundwater will feed communities at the base of the slope, with communities at the top of the slope more reliant upon precipitation and surface generated run-off.	Low	Moderate	High
A029	H12b/U4a/U5a/MG9/ W17b/W17c/M6c/W11 c	Highly Sub-dominant	Mosaic of heath, calcifugous grasslands and montane communities with some areas of mesotrophic grassland MG9 (19%), woodland and, mire M6c (5%), located south of the A9, between the A9 and the Highland Mainline Railway. The area is on a steep slope towards the railway from the A9. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the topography and the proximity to the impermeable A9 carriageway immediately upslope of the area, it is considered that groundwater may be a contributor to communities at the base of the slope, with communities at the top of the slope reliant upon precipitation and surface generated run-off.	Low	Moderate	High
A031	M17a/Pt/M3/SW/M6b/ M6c	Highly Sub-dominant	Mosaic of mires including M6b (5%) and M6c (5%), surrounding a drain and a seasonal pond, located south-west of the A9 and upslope of the Highland Mainline Railway. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the watercourse running through the area, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A033	M17a/M6c/U6d	Highly Sub-dominant	Mosaic of mires including M6c (10%), and calcifugous grasslands and montane communities, U6d (10%), located south-west of the A9 and upslope of the Highland Mainline Railway. The area is underlain by a thin layer of till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the very shallow superficial deposits upon a low productivity aquifer and the topography (a small bowl); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A034	BG/U5a/MG9/U19/M6 c/MG10	Highly Sub-dominant	Bare ground, soil, rock, shingle, hardstanding with a mosaic of calcifugous grasslands and montane communities, mesotrophic grasslands including MG9 (10%) and MG10 (5%), and mire, M6c (5%), located to the south-west of the A9 and immediately adjacent to the Highland Mainline Railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the topography, it is considered that groundwater will be a contributor (in addition to surface generated run-off and precipitation) to communities at the base of the slope, with communities at the top of the slope reliant upon precipitation and surface generated run-off.	Low	Moderate	High
A035	MG9/H12b/MG10	Moderately Dominant	Mosaic of mesotrophic grassland including MG9 (94%) and MG10 (1%), and heath, located south of the A9, between the A9 and the Highland Mainline Railway. The area is located upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the limited superficial deposits and very low productivity aquifer, it is considered that groundwater will be a contributor (in addition to surface generated run-off and precipitation) to communities at the base of the slope, with communities at the top of the slope reliant upon precipitation and surface generated run-off.	Low	Low	Medium
A036	H12b/W11d/H21a/W1 7b/W17c/W4b	Highly Sub-dominant	Heath containing some woodland including W4b (5%) and scrub, located to the south of the A9 and immediately adjacent to the Highland Mainline Railway. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the topography, it is considered that groundwater will be a contributor (in addition to surface generated run-off and precipitation) to communities at the base of the slope, with communities at the top of the slope reliant upon precipitation and surface generated run-off.	Low	Moderate	High
A038	U4a/MG5/BG/H12b/M G10/W23	Moderately Sub-dominant	Mosaic of communities including MG10 (10%) and W23 (5%), located to the south-west of the A9, between the A9 and the Highland Mainline Railway. The area is located immediately adjacent to the Highland Mainline Railway. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the topography, it is considered that groundwater may feed this community in addition to precipitation and surface water run-off from the cutting above and from railway drainage.	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
A057	H12b/U16c/U4a	Highly Sub-dominant	Mosaic of heath and, calcifugous grassland and montane communities including U16c (45%), located to the south of the A9. The area is located immediately adjacent to the Highland Mainline Railway on a steep gradient. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity). GI works at borehole BHDS2059 within the area indicate the area is underlain by granite boulders and psammite beneath, with groundwater encountered at 3.60m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface water run-off from the railway drainage.	High	Not GW dependent	Low
A058	MG5/U16c/OV27/MG1/H10a	Highly Sub-dominant	Mosaic of mesotrophic grassland, calcifugous grassland and montane communities, U16c (25%), vegetation of open habitat and heath communities, located to the south of the A9 on a steep gradient. The area is located immediately adjacent to the Highland Mainline Railway. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity). As a result of the above, it is considered that the area is predominantly fed by precipitation and surface water run-off from the railway drainage.	Medium	Not GW dependent	Low
A065	U4a/M6c/MG9/MG10/H12b	Highly Sub-dominant	Mix of communities including M6c (10%), MG9 (2%) and MG10 (1%), located to the south-west of the A9 and immediately adjacent and upslope of the Highland Mainline Railway. The area is underlain by alluvium (clay, silt & sand) superficial deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located midway down a hillside, and downslope of forestry, forestry access tracks and an embankment for a bridge over the railway. As a result of the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off from upslope forestry and existing access tracks and embankments.	Low	Moderate	High
A085	U4a/MG10/M6c	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland MG10 (35%) and mire M6c (30%), located south and upslope of the A9 and, downslope of forestry and associated access tracks. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to small drains and seasonal watercourses running through the area, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A087	H12b/M15b/M6c	Highly Sub-dominant	Mosaic of heath and mire including M15b (45%) and M6c (5%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography and being located downslope of forestry, the lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A088	W18b/M15b/M6c	Highly Sub-dominant	Mosaic of woodland and mire including M15b (35%) and M6c (30%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, being located downslope of forestry and adjacent to the A9, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A089	M15b/M15a	Moderately Dominant	Mosaic of mire including M15b (95%) and M15a (5%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography and being located downslope of forestry, the presence of superficial peat, lack of a significant superficial aquifer, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Low	Medium
A091	U5a/M25a/M6a/M6c	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire including M25a (35%), M6a (15%) and M6c (15%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography and being located downslope of forestry, the depth of peat, lack of a significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A094	U5a/M25a/M6a/M6c	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire including M25a (35%), M6a (15%) and M6c (15%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks, and adjacent to the carriageway embankment. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Ground Investigation (GI) works at trial pit TPDS2063A within the area indicate the area is underlain by peat, with groundwater encountered at 3.70mbgl. Due to the GI results, the proximity to the A9 and being located downslope of forestry, the depth of peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	High	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
A096	M25a/M20/M6c	Highly Sub-dominant	Mosaic of mire including M25a (35%) and M6c (30%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to being located downslope of forestry, the presence of superficial peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A097	M17a/M3/M2/M6c	Highly Sub-dominant	Mosaic of mire including M6c (5%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to being located downslope of forestry, the presence of superficial peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A098	M6c/M15c	Highly Dominant	Mosaic of mire including M6c (50%) and M15c (50%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to being located downslope of forestry, the presence of superficial peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A099	M16d/M17a/M2	Highly Dominant	Mosaic of mire including M16d (89%), located south of the A9. The area is located on a moderate slope, downslope of a forestry plantation and associated access tracks. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to being located downslope of forestry, the presence of superficial peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Moderate	High
A101	M16d/BG/Pt/JE/M17a/M3	Highly Sub-dominant	Mix of communities including M16d (25%), located south of the A9. The area is immediately adjacent to the A9. The area sits on a relatively flat area, downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of superficial peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A103	M20/M6c	Highly Dominant	Mosaic of mire including M6c (50%), located south of the A9. The area is immediately adjacent to the A9. The area sits on a relatively flat area, downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of 1.3m deep peat, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A105	M16d/M17a/M3	Highly Sub-dominant	Mosaic of mires including M16d (49%), located south and downslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the A9, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A106	M16d/M2	Highly Dominant	Mosaic of mires including M16d (99%) located south and downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the presence of superficial peat, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A109	M17a/M16d	Highly Dominant	Mosaic of mires including M16d (50%), located south and downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the presence of superficial peat, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A110	M15a/M6c	Highly Dominant	Mosaic of mires including M15a (50%) and M6c (50%), located south and downslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to lack of significant superficial aquifer and low bedrock aquifer productivity, and some small drains and seasonal watercourses running through the area, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A111	M17a/M16d/M2	Highly Sub-dominant	Mosaic of mires including M16d (10%), located south and downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2047 within the area is underlain by peat, sand and gravel beneath, with no groundwater encountered to 4.50m depth. Due to the GI results, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Not GW dependent	Low

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A113	U5a/H12b/JE	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, heaths and Juncus Effusus (Je) (30%) located south and upslope of the A9, and adjacent to an access track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the presence of superficial peat, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A114	H12b/M16d	Highly Dominant	Mosaic of heath and mire including M16d (50%), located south and downslope of the A9. The area is underlain by peat (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2047 immediately to the east indicate the area is underlain by peat to 0.8m, then sand and gravel deposits beneath, with no groundwater encountered to 4.5m depth. Due to the GI results, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
A116	U4a/H12b/JE	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, heaths and Je (15%) located south and upslope of the A9, and adjacent to an access track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity, and some small drains in the area and the topography; precipitation and surface generated run-off are considered likely to have more influence on the vegetation than groundwater.	Low	Low	Medium
A117	M16d/H12b/M17a	Highly Dominant	Mosaic of mire, M16d (50%), and heath, located south and downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pits TPDS2045 and TPDS2046 indicate the area is underlain by peat to 1.3m, then sand and gravel deposits beneath, with the highest winter groundwater level recorded at 3.3m. Due to the GI results, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Not GW dependent	Low
A120	U4a/JE	Moderately Sub-dominant	Calcifugous grasslands and montane communities, and Je (15%) located south of the A9, downslope and adjacent to an access track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2045 and borehole BHDS2034, both within less than 80m from the area, indicate the area is underlain by superficial peat, with the highest winter groundwater level recorded at 4.2m. Due to the GI results, lack of significant superficial aquifer, low bedrock aquifer productivity, and some small drains in the area and the topography; the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
A145	MG10/U4b	Moderately Dominant	Mesotrophic grasslands, MG10 (95%), and calcifugous grasslands and montane communities, located west of the A9, upslope of a property and access tracks and at the base of a hill; adjacent to an access track. The area is underlain by till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to low bedrock aquifer productivity, a high groundwater level due to being located within a floodplain and the topography; precipitation and surface generated run-off are considered likely to have more influence on the vegetation than groundwater.	Low	Low	Medium
A154	U4a/U5a/H12c/JE	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, heath and Je (5%) located west and upslope of the A9, at the headwaters of a watercourse. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity, and some small drains in the area; precipitation, surface generated run-off are considered to have more influence on the vegetation than groundwater.	Low	Low	Medium
A155	H12b/M16d/U5a	Highly Sub-dominant	Mosaic of heath, mire including M16d (10%), and calcifugous grasslands and montane communities, located west of the A9, at the headwaters of a watercourse. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity, and some small drains in the area; precipitation, surface generated run-off are considered to have more influence on the vegetation than groundwater.	Low	Moderate	High
A157	U4a/MG10	Moderately Sub-dominant	Calcifugous grasslands and montane communities, and mesotrophic grasslands including MG10 (15%), located south-west of the A9, at the top of a steep bank to the Allt nan Ceatharnach watercourse. The area is underlain by thin till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity, a high groundwater table due to the proximity to the watercourse and being located within a floodplain, and topography; precipitation, surface generated run-off are considered to have more influence on the vegetation than groundwater.	Low	Low	Medium
A162	U5b/MG9	Moderately Dominant	Calcifugous grasslands and montane communities, and mesotrophic grasslands, MG9 (50%), located south-west of the A9, at the base of a steep bank of the Allt nan Ceatharnach watercourse. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of significant superficial aquifer, a moderate/high bedrock aquifer productivity, a high groundwater level due to the proximity to	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			a watercourse and being located within a floodplain, and steep topography towards the watercourse, precipitation, surface generated run-off are considered to have more influence on the vegetation than groundwater.			
A165	U5a/MG9/W23	Moderately Sub-dominant	Calcifugous grasslands and montane communities, mesotrophic grassland including MG9 (45%), and woodland W23 (10%) and scrub, located south-west of the A9, at the base of a steep bank of the Allt nan Ceatharnach watercourse. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to low bedrock aquifer productivity, a high groundwater level due to the proximity to the watercourse and being located within a floodplain, and topography, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A167	U5a/MG9	Moderately Sub-dominant	Calcifugous grasslands and montane communities, and mesotrophic grasslands MG9 (25%), located south-west of the A9, at the base of a steep bank of the Allt nan Ceatharnach watercourse. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to a moderate/high superficial aquifer productivity, low bedrock aquifer productivity, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, and topography; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A184	W11c/W4b	Highly Sub-dominant	Mosaic of woodland including W4b (5%), located south-west of the A9 and River Dulnain. The area is located at the base of a hill, between the existing A9 road verge and a track, located on a relatively flat area. A drain runs through the area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2037 shows the area is underlain by sand and gravel, with no groundwater encountered to 3.3m depth. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the GI results, the proximity to the A9 and the Drain, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by surface water, precipitation and surface water generated runoff.	High	Not GW dependent	Low
A194	H12b/M6c	Highly Dominant	Mosaic of heath and, mire M6c (50%), located west of the A9, at the base of a slight slope. The area is underlain by alluvium (clay, silt and sand) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, upslope forestry drains and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A196	W4b/W17b	Highly Dominant	Woodlands including W4b (55%), and scrub, located west of the A9, at the base of a slight slope. The area is underlain by alluvium (clay, silt and sand) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, upslope forestry drains and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A199	W4b	Highly Dominant	Woodland, W4b (100%), and scrub located west of the A9, at the base of a slight slope. The area is underlain by alluvium (clay, silt and sand) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, upslope forestry drains and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A219	M15b	Moderately Dominant	Mire, M15b (100%), located south-west of the A9 and River Dulnain. The area is located at the base of a hill, immediately adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the A9, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Not GW dependent	Low
A220	M15b/M19b/U5a	Moderately Dominant	Mosaic of mire including M15b (50%), and calcifugous grassland and montane communities, located south-west of the A9 and River Dulnain. The area is located at the base of a hill, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, presence of 1.2m deep superficial peat, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
A223	M6c/M19b/M20	Highly Dominant	Mosaic of mires including M6c (80%) located south-west of the A9. The area is located at the base of a hill, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, presence of superficial peat, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A224	M20/M6c	Highly Sub-dominant	Mosaic of mires including M6c (40%), located south-west of the A9. The area is located at the base of a hill, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, proximity to the A9, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A227	M25a/M20	Moderately Dominant	Mosaic of mires including M25a (85%), located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, presence of superficial peat, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Low	Medium
A228	M20/M25a/M2/M6c	Highly Sub-dominant	Mosaic of mires including M25a (10%) and M6c (1%), located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, presence of deep peat, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A229	M6c/M2	Highly Dominant	Mosaic of mires including M6c (95%), located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A231	M19a/M6c	Highly Sub-dominant	Mosaic of mires including M6c (5%), located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area immediately adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2074 immediately south shows the area is underlain by topsoil, with groundwater encountered to 3.3m depth. Due to the GI results, forestry drainage, topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Medium	Moderate	High
A233	S9a/M2/M6c	Highly Sub-dominant	Mosaic of swamp and tall-herb fen, and mires including M6c (5%), located west of the A9, close to the top of slightly sloping hill within an area of forestry drains. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A243	U4a/U5a/JE/M6c/H9	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, Je, mires including M6c (7%) and heath, located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A245	M6c/U5b	Highly Dominant	Mosaic of calcifugous grassland and montane communities, and mire M6c (75%), located south-west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area, between the A9 and a track. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, the topography, lack of a significant superficial aquifer, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A247	MG9/U4a	Moderately Dominant	Mosaic of mesotrophic grassland including MG9 (90%), and calcifugous grassland and montane communities, located west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area immediately adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			Due to the proximity to the A9, the presence of forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.			
A249	U4a/H9/M6c/M4/S9a	Highly Sub-dominant	Mix of calcifugous grassland and montane communities, heath, mire including M6c (15%) and Carex Rostrata swamp, located west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area immediately adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A250	W18d/MG9	Moderately Sub-dominant	Mosaic of woodland and mesotrophic grassland, MG9 (10%), located west of the A9. The area is located at the base of a hill within a plantation forestry, on a relatively flat area immediately adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the A9, the presence of forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Low	Medium
A254	U4a/MG9/H9	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG9 (45%) and heath, located west of the A9. The area is located on a relatively flat area. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Not GW dependent	Low
A298	W4b/W11d/W11c	Highly Dominant	Woodlands including W4b (60%) and scrub, located west of the A9, midway down a hillslope and downslope of an access track. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, upslope access tracks and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A301	M6c/U4a	Highly Dominant	Mosaic of mire, M6c (50%), and calcifugous grasslands and montane communities, located west of the A9, midway down a hillslope and downslope of an access track. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, upslope access tracks and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A309	U4a/U20a/M25a	Moderately Sub-dominant	Calcifugous grasslands and montane communities, and mire M25a (20%), located west of the A9, midway down a hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cnapach runs through the area. Due to the proximity to the watercourse, the lack of superficial aquifer, low bedrock aquifer productivity, upslope access tracks and topography; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A310	W11d/W4b	Highly Sub-dominant	Woodland including W4b (30%), located immediately west of an access track. The area is located midway down a hillslope and downslope of an access track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cnapach runs through the area. The area is partly located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the access track, A9 and the watercourse, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A312	MG9	Moderately Dominant	Mesotrophic grassland, MG9 (100%), located immediately west of an access track. The area is located down a hillslope and upslope of an access track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the access track and A9, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Low	Medium
A315	MG9/U4a/U20a/H12b	Moderately Dominant	Mosaic of mesotrophic grassland, MG9 (65%), calcifugous grassland and montane communities, and heath, located immediately downslope and east of an access track. The area is located down a hillslope and downslope of an access track and A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Low	Medium

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			Due to the proximity to the access track and the A9, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.			
A316	M6c/M4/M15b	Highly Dominant	Mosaic of mire including M6c (50%) and M15b (5%), located immediately west of an access track. The area is located down a hillslope and upslope of an access track and downslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cnapach runs through the area. Due to the proximity to the A9 and the track, the topography, lack of a significant superficial aquifer, low productivity bedrock aquifer and a high groundwater level due to the watercourse, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A326	M6c	Highly Dominant	Mire, M6c (100%), located west of the A9 and Kinveachy. The area is located midway down a moderate hillslope and downslope of a forestry access track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at borehole BHDS2078 shows the area is underlain by topsoil, sand and gravel beneath. No groundwater was observed due to the use of water flush. Due to the proximity to the A9 and the track, and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	High	Very High
A333a	W4b	Highly Dominant	Woodland, W4b (100%), and scrub, located west of the A9, midway down a moderate hillslope and upslope of a forestry access track and the A9. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A333b	W4b	Highly Dominant	Woodland, W4b (100%), and scrub, located west of the A9, midway down a moderate hillslope and downslope of a forestry access track. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A337	U20b/MG9/W19	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, mesotrophic grassland, MG9 (10%), and woodland and scrub, located west of the A9, on a moderate hillslope. The area is underlain by a thin layer of till (Diamicton) superficial deposits (not an aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and topography; precipitation and hill run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A351	U5b/MG13/MG9	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, and mesotrophic grassland including MG9 (5%), located west and upslope of the A9, on a flat area midway down a hillslope. The area is underlain by a thin layer of till (Diamicton) superficial deposits (not an aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area overlaps an unnamed pond. Due to the presence of the pond, the lack of superficial aquifer, low bedrock aquifer productivity and topography; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A355	SW/M6c	Highly Sub-dominant	Standing water and mire, M6c (10%), located west of the A9, on a flat area at the base of a small hill. The area is underlain by a thin layer of till (Diamicton) superficial deposits (not an aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A360	M23b	Highly Dominant	Mire, M23b (100%), located west of the A9, on a flat area at the base of a hillslope. The area is underlain by a thin layer of till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2030 (located 28m east) shows the area is underlain by topsoil, gravel and sand beneath, with no groundwater encountered to 3.7m depth. Due to the GI results, lack of superficial aquifer, low bedrock aquifer productivity and being located at the base of a hillslope; the area is likely to be fed predominantly by precipitation and surface generated runoff.	Medium	Moderate	High
A363	U4b/MG10/MG9	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland including MG10 (20%) and MG9 (2%), located west of the A9 and Kinveachy. The area is located on a moderate hillslope and immediately upslope of a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and the access track, and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High

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A368	W4c/W4b/M6b/M15a	Highly Dominant	Mix of woodland including W4c (85%), W4b (5%), mire including M6b (5%) and M15a (5%) located west of the A9, midway down a moderate hillslope and downslope of a forestry access track. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and steepness of slope; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A371	U4b/MG9/MG10	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland including MG9 (30%) and MG10 (5%), located west of the A9 and Kinveachy. The area is located on a moderate hillslope and downslope of a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit BHDS2078 immediately north shows the area is underlain by topsoil, sand and gravel beneath. No groundwater was observed due to the use of water flush. Due to the proximity to the A9 and the access track, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
A393	U5b/MG9/MG10/W19	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland including MG9 (15%) and MG10 (15%), and woodland, located west of the A9, towards the base of a moderate hillslope. The area is underlain by a thin layer of soils upon on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and at the base of a hillslope; groundwater along with precipitation and surface generated run-off are considered to contribute to the water supply for the vegetation in this area.	Low	Low	Medium
A399	U4a/U20a/U5a/MG9	Moderately Sub-dominant	Calcifugous grasslands and montane communities and, mesotrophic grassland, MG9 (10%), located west of the A9, towards the base of a moderate hillslope. The area is underlain by a thin layer of soils upon on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and being located at the base of a hillslope; groundwater along with precipitation and surface generated run-off are considered to contribute to the water supply for the vegetation in this area.	Low	Low	Medium
A402	W11d/W19/W4b/U20b/U5b	Highly Sub-dominant	Woodland, W4b (10%), and scrub mixed with calcifugous grasslands and montane communities, located west of the A9, towards the base of a moderate hillslope, upslope of the A9. The area is underlain by a thin layer of soils upon on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and being located at the base of a hillslope; groundwater along with precipitation and surface generated run-off are considered to contribute to the water supply for the vegetation in this area.	Low	Moderate	High
A405	U5b/MG9/MG10	Moderately Dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland including MG9 (45%) and MG10 (5%), located north-west of the A9. The area is located on a moderate hillslope, midway down a hillslope and downslope of a track within a plantation forestry. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Psammite and Semipelite (very low productivity) bedrock. Due to the forestry drainage, proximity to the track, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Not GW dependent	Low
A411	U4a/MG9/U5b/W19/MG10	Moderately Sub-dominant	Mosaic of calcifugous grasslands and montane communities, mesotrophic grassland including MG9 (44%) and MG10 (2%), and woodland located west of the A9, towards the base of a moderate hillslope. The area is underlain by a thin layer of soils upon on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, proximity to the track, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Low	Medium
A412	U5b/MG9	Moderately Dominant	Calcifugous grasslands and montane communities, and mesotrophic grassland, MG9 (50%), located west of the A9, towards the base of a moderate hillslope. The area is underlain by a thin layer of soils upon on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry drainage, proximity to the track, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Low	Medium
A435	MG10	Moderately Dominant	Mesotrophic grassland, MG10 (100%), located north-west of the A9, at the base of a moderate hillslope, downslope a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity to a track, low bedrock aquifer productivity and being located at the base of a hillslope; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A437	U4b/MG10	Moderately Dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10 (50%), located north-west of the A9, at the base of a moderate hillslope, downslope a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. GI works at trial pits TPDS2025 and TPDS2025A (located 9m south-east) show the area is underlain by topsoil, gravel beneath, with no groundwater encountered to 2m depth.	Medium	Low	Medium

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			Due to the GI results, the proximity to a track, low bedrock aquifer productivity and topography; the area is likely to be fed predominantly by precipitation and hill runoff.			
A438	SW/MG10	Moderately Sub-dominant	Standing water with mesotrophic grassland, MG10 (10%), located north-west of the A9, at the base of a moderate hillslope, downslope a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. GI works at trial pits TPDS2025 and TPDS2025A (located 32m south-east) show the area is underlain by topsoil, gravel beneath, with no groundwater encountered to 2m depth. Due to the GI results, the proximity to a track, low bedrock aquifer productivity and topography; the area is likely to be fed predominantly by precipitation and hill runoff.	Medium	Low	Medium
A439	MG9	Moderately Dominant	Mesotrophic grassland, MG9 (100%), located north-west of the A9, at the base of a moderate hillslope, downslope a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. GI works at trial pits TPDS2025 and TPDS2025A (located 31m south-east) show the area is underlain by topsoil, gravel beneath, with no groundwater encountered to 2m depth. Due to the GI results, the proximity to a track, low bedrock aquifer productivity and topography; the area is likely to be fed predominantly by precipitation and hill runoff.	Medium	Low	Medium
A444	MG10	Moderately Dominant	Mesotrophic grassland, MG10 (100%), located north-west of the A9, at the base of a moderate hillslope, downslope a track. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity to an access track, low bedrock aquifer productivity and being located at the base of a hillslope; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A448	U4b/MG10	Moderately Sub-dominant	Calcifugous grassland and montane communities, and mesotrophic grassland, MG10 (5%), located north-west of the A9, at the base of a moderate hillslope, upslope a track. The area is underlain by a thin layer of soils upon on Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity to an access track, lack of superficial aquifer, low bedrock aquifer productivity and being located at the base of a hillslope; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A462	W17b/W4b/W4c/W11d	Highly Dominant	Woodland including W4b (25%) and W4c (25%), located immediately west of the A9. The area is located at the base of a moderate hillslope. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) overlain on Psammite and Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the track, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill runoff.	Low	Not GW dependent	Low
A465	W11d/W4b	Highly Sub-dominant	Woodland and scrub, W4b (5%), located west of the A9, at the base of a slight hillslope and downslope of a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A466	U4b/MG9	Moderately Sub-dominant	Calcifugous grasslands and montane communities and mesotrophic grasslands, MG9 (5%), located west of the A9, at the base of a slight hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A468	M25a	Moderately Dominant	Mire, M25a (100%), located west of the A9, at the base of a slight hillslope and downslope of a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A469	M25a	Moderately Dominant	Mire, M25a (100%), located west of the A9, at the base of a slight hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium

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A470	W11d/W4b	Highly Sub-dominant	Woodland and scrub, W4b (5%), located west of the A9, at the base of a slight hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A472	W4b/M6d/M25a	Highly Dominant	Woodland, W4b (90%), and mires including M6d (5%) and M25a (5%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and being adjacent to a watercourse; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A473	M6c/M25a/U5b	Highly Dominant	Mires including M6c (90%), M25a (5%), and calcifugous grassland and montane communities, located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and being adjacent to a watercourse; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A480	M25a	Moderately Dominant	Mire, M25a (100%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer and low bedrock aquifer productivity; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A484	W11/W23/HI/MG10	Moderately Sub-dominant	Mosaic of woodland including W23 (28%), mesotrophic grassland, MG10 (15%), located immediately west of the A9 and Aviemore. The area is located at the base of a moderate hillslope, downslope of a housing development and on the margin of a balancing pond. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) overlain on Psammite and Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Not GW dependent	Low
A486	MG10/SW	Moderately Dominant	Balancing pond with mesotrophic grassland vegetation, MG10 (85%), located immediately west of the A9 and Aviemore. The area is located at the base of a moderate hillslope, downslope of a housing development. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) overlain on Psammite and Semipelite (very low productivity) bedrock. Given the nature of the area, a sustainable urban drainage system, the main source of water is the housing development surface water runoff. Moreover, due to the proximity to the A9, the lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Not GW dependent	Low
A490	U4b/MG10/HI	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10 (35%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Low	Medium
A492	MG1/MG10	Moderately Sub-dominant	Mesotrophic grassland communities, MG10 (30%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Low	Medium
A494	MG10	Moderately Dominant	Mesotrophic grassland, MG10 (100%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Low	Medium
A495	U4a/W11d/HI/MG10	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, woodland and mesotrophic grassland, MG10 (10%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Low	Medium
A496	W11/MG10	Moderately Sub-dominant	Mosaic of woodland and mesotrophic grassland communities, MG10 (5%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity)	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.			
A497	W11d/W4b/W17c/BG	Highly Sub-dominant	Woodland communities, W4b (32%), and bare ground located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and the area being modified by drainage from the housing development, the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Moderate	High
A498	M25a	Moderately Dominant	Mire, M25a (100%), located west of the A9, on a flat area of land within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and the area being modified by drainage from the housing development; the area is likely to be fed predominantly by precipitation and surface generated runoff.	Low	Low	Medium
A511	W17b/W11d/W4b	Highly Sub-dominant	Woodland and scrub, W4b (2%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. GI works at trial pit TPDS2067 immediately east of the area indicate the area is underlain by topsoil, embankment fill and sand beneath, with no groundwater encountered to 2.80m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Moderate	High
A512	M25a/M6c/SW	Highly Sub-dominant	Mire communities including M25a (95%) and M6c (3%), and standing water, located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A513	M25a	Moderately Dominant	Mire, M25a (100%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A515	M25a/U20b/W4b	Highly Sub-dominant	Mosaic of mire, M25a (88%), calcifugous grassland and montane communities, and woodland, W4b (2%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A518	M15b	Moderately Dominant	Mire, M15b (100%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A519	M6b/M6c/W4b/W4c	Highly Dominant	Mosaic of mire including M6b (45%) and M6c (40%), woodland including W4b (10%) and W4c (5%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A521	M15b/M25a/U20b	Moderately Dominant	Mosaic of mire including M15b (93%) and M25a (5%), and calcifugous grassland and montane communities, located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A522	M15b/M25a	Moderately Dominant	Mire communities including M15b (50%) and M25a (50%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A523	M15b/M25a	Moderately Dominant	Mire communities including M15b (50%) and M25a (50%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. GI works at trial pit TPDS2067 (located 31m north) shows the area is underlain by topsoil, and embankment fill beneath, with no groundwater encountered at 2.80m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Low	Medium

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A524	M25a/W4b	Highly Dominant	Mosaic of mire, M25a (50%), and woodland, W4b (50%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A527	W4b	Highly Dominant	Woodland communities, W4b (100%), located west of the A9, on a moderate hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Felsic Rock (low productivity) bedrock. GI works at borehole BHDS2013 (located 11m east) shows the area is underlain by topsoil, and sand beneath. No groundwater was encountered at 1.5m depth. Due to the GI results, lack of superficial aquifer, low bedrock aquifer productivity, topography and drainage from the forestry and upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Medium	Moderate	High
A536	U4b/MG10	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10 (5%), located west of the A9, on a slight hillslope. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, being adjacent to a watercourse and drainage from upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A539	HI/MG10	Moderately Sub-dominant	Mosaic of Holcus Lanatus and mesotrophic grassland, MG10 (5%), located west of the A9, downslope of a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and drainage from upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A544	U4b/MG10	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10 (10%), located west of the A9, within a housing development. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and drainage from upslope housing development; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A572a	MG10/U4b/W23/W24	Moderately Dominant	Mosaic of mesotrophic grassland, MG10 (60%), calcifugous grassland and montane communities, and woodland including W23 (5%) and W24 (2%), located to the east of the A9, in close proximity to the A9, access tracks, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. GI works at boreholes BHDS2047 and BHDS2047A show that the area is underlain by topsoil, with sand and gravel beneath. Groundwater was not encountered at 1.0m depth. Due to the GI results, the proximity to the A9, lack of superficial aquifer, low bedrock aquifer productivity and drainage from upslope developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	High	Moderate	High
A572b	MG10/U4b/W23/W24	Moderately Dominant	Mosaic of mesotrophic grassland, MG10 (60%), calcifugous grassland and montane communities, and woodland including W23 (5%) and W24 (2%), located to the east of the A9, in close proximity to the A9, access tracks, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (not significant aquifer) overlain on Psammite and Semipelite (low productivity) bedrock. GI works at boreholes BHDS2074, BHDS2074A and BHDS2074B show that the area is underlain by topsoil, with sand and gravel beneath, with groundwater encountered at 2.8m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
A575	U4b/MG10/W23	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG10 (45%), and woodland W23 (10%), located immediately east of the A9 and within Aviemore. The area sits on a flat area, downslope of a housing development and immediately adjacent to the A9. Aviemore Burn, tributary of the River Spey, is channelled below the A9 immediately north of the area. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Psammite and Semipelite (very low productivity) bedrock. GI works at boreholes BHDS2074, BHDS2074A and BHDS2074B (located 20m east) show that the area is underlain by topsoil, with sand and gravel beneath, with groundwater encountered at 2.8m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
A578	HI/W24/W7b	Highly Sub-dominant	Mosaic of Holcus Lanatus and woodland including W24 (15%) and W7b (5%), located to the east of the A9, in close proximity to the A9, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from upslope developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High

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A579	HI/PG/W24/W7	Highly Sub-dominant	Mosaic of Holcus Lanatus, private gardens and, woodland including W24 (33%) and W7 (1%), located to the east of the A9, in close proximity to the A9, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from upslope developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
A581	W11d/W4b/W23/W7b	Highly Sub-dominant	Woodland communities including W4b (5%), W23 (5%) and W7b (5%), located to the east of the A9, in close proximity to housing/commercial developments and is adjacent to a watercourse. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and drainage from upslope developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as the area is located at the base of slope and immediately adjacent to a watercourse it is considered that groundwater within the superficial layer may play a larger role than precipitation and surface generated run-off.	Low	High	Very High
A584	MG10a/W24/OV27/W3	Moderately Dominant	Mosaic of mesotrophic grassland, MG10a (45%), woodland including W24 (45%) and W3 (5%), and Epilobium Angustifolium communities, located to the east of the A9, in close proximity to the A9, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from upslope developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A585	W4b/M25a	Highly Dominant	Mosaic of woodland, W4b (90%), and mire, M25a (10%), located to the east of the A9, in close proximity to the A9, housing/commercial developments and a watercourse. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from upslope developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A586	W11c/W11d/W17b/W4b	Highly Sub-dominant	Woodland communities, W4b (1%), located to the east of the A9, adjacent to a watercourse. The area is underlain by till (Diamicton) and glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity and drainage from upslope developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as the area is located at the base of slope and immediately adjacent to a watercourse it is considered that groundwater within the superficial layer may play a larger role than precipitation and surface generated run-off.	Low	High	Very High
A591	M25a	Moderately Dominant	Mire, M25a (100%), located to the east of the A9. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to the proximity to a track, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A596	MG10a/W24/MG9a/W11/W4/U4b/H10c	Highly Sub-dominant	Mosaic of mesotrophic grassland including MG10a (71%) and MG9a (5%), woodland including W24 (15%) and W4 (2%), calcifugous grassland and montane communities, and heath, located to the east of the A9. The area is underlain by glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to the proximity to Aviemore Burn and track, low bedrock aquifer productivity and drainage from nearby developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A597	MG1/MG9a/MG10a	Moderately Dominant	Mesotrophic grassland communities including MG9a (33%) and MG10a (33%), located to the east of the A9. The area is underlain by glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to the proximity to Aviemore Burn and track, low bedrock aquifer productivity and drainage from nearby developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A606	MG9a/MG10a	Moderately Dominant	Mesotrophic grassland communities including MG9a (85%) and MG10a (15%), located to the east of the A9. The area is underlain by glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to the proximity to the Aviemore Burn, low bedrock aquifer productivity and drainage from upslope developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A608	MG9a/HI/U4b/W24	Moderately Sub-dominant	Mosaic of mesotrophic grassland, MG9a (45%), Holcus Lanatus, calcifugous grassland and montane communities, and woodland, W24 (1%), located to the east of the A9. The area is underlain by glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to the proximity to the watercourse, low bedrock aquifer productivity and drainage from nearby developments; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium

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A619	Mx/M23b/Hl	Highly Dominant	Mosaic of neutral sedge mire, M23b (35%), and Holcus Lanatus, located to the east of the A9. The area is underlain by till (Diamicton) and glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from nearby developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A622	W4b	Highly Dominant	Woodland, W4b (100%), located to the east of the A9. The area is underlain by till (Diamicton) superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and drainage from nearby developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A629	MG10a	Moderately Dominant	Mesotrophic grassland, MG10 (100%), located immediately east of the A9. The area sits on a flat area, downslope of a housing development and immediately adjacent to the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2012 immediately to the east indicate the area is underlain by topsoil, sand and gravel deposits, with groundwater encountered at 2.9mbgl. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Low	Medium
A670	U4b/MG10a/U20a/W24	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG10a (40%), and woodland, W24 (5%), located immediately east of the A9. The area sits on a relatively flat area, immediately adjacent to the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the A9 and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A711	W3	Moderately Dominant	Woodland and scrub, W3 (100%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A712	W11d/W7b	Highly Dominant	Woodland and scrub, W7b (50%), communities located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A716	W2/W3/W7b/W7c	Highly Dominant	Woodland and scrub communities including W2 (25%), W3 (25%), W7b (25%) and W7c (25%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A719	MG9a/MG10a	Moderately Dominant	Mesotrophic grassland communities including MG9a (50%) and MG10a (50%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by alluvium (clay, silt & sand) & glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A721	W3/W7b/W7c	Highly Dominant	Woodland communities including W3 (50%), W7b (25%) and W7c (25%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by alluvium (clay, silt & sand) & glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A722	MG9a	Moderately Dominant	Mesotrophic grassland, MG9a (100%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by alluvium (clay, silt & sand) & glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium

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A723	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the east of the A9, between the River Spey and the Highland Mainline Railway. The area is underlain by alluvium (clay, silt & sand) & glacial sand and gravel superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, drainage from the upslope railway line and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A737	W7c/W11d	Highly Dominant	Woodland communities, W7c (50%), located to the south-east of the A9, on the northern bank of the River Spey. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A746	U4b/MG10a	Moderately Dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10a (50%), located south-east of the Highland Mainline Railway, the B9152 and the A9. The area sits on a flat area, immediately south and adjacent to the Highland Mainline Railway and north of a path. The area is underlain by alluvium superficial deposits (clay, silt, sand and gravel) (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the area being modified by drainage from the railway and path, and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A761	U4a/MG10a/Hl/W24	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG10a (33%), Holcus Lanatus, and woodland, W24 (1%), located to the south-east of the A9, immediately south and adjacent to the Highland Mainline Railway. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the area being modified by drainage from the railway and path, lack of superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A762	W11d/U4b/MG10a	Moderately Sub-dominant	Mosaic of woodland, calcifugous grassland and montane communities, and mesotrophic grassland, MG10a (5%), located to the south-east of the A9, immediately south and adjacent to the Highland Mainline Railway. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the area being modified by drainage from the railway and path, lack of superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A764	U4b/MG10a/W4b/W11d	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG10a (40%), and woodland, W4b (10%), located to the south-east of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the area being modified by drainage from the railway and path, lack of superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A766a	W11d/W7b	Highly Dominant	Woodland communities, W7b (50%), located to the south-east of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A766b	W11d/W7b	Highly Dominant	Woodland communities, W7b (50%), located to the south-east of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A769	CG10a/H10d/W24/W11	Highly Sub-dominant	Mosaic of calcicolous grasslands, CG10a (40%), heath, and woodland, W24 (10%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A770	W2/W3/W7b/BG	Highly Sub-dominant	Mosaic of woodland including W2 (25%), W3 (25%) and W7b (25%) over gravel, located to the south-east of the A9, adjacent to the River Spey. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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A772	W7b/W7c/W11d	Highly Dominant	Woodland communities including W7b (35%) and W7c (35%), located to the south-east of the A9, adjacent to the River Spey. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A773	W7b/W11/W23	Highly Sub-dominant	Woodland communities including W7b (45%) and W23 (10%), located to the south-east of the A9, adjacent to the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A775	U4b/MG10a	Moderately Dominant	Calcifugous grassland and montane communities, and mesotrophic grassland, MG10a (50%), located to the south-east of the A9, adjacent to a watercourse and the Highland Railway Mainline. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A778	W4b	Highly Dominant	Woodland, W4b (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A779	W11d/W7c	Highly Sub-dominant	Woodland communities, W7c (5%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A780	M23b	Highly Dominant	Mire, M23b (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A781	M23b/MG10a	Highly Dominant	Mosaic of mire, M23b (95%), and mesotrophic grassland, MG10a (5%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A783	M9b	Highly Dominant	Mire, M9b (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A784	W3	Moderately Dominant	Woodland, W3 (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the railway, lack of superficial aquifer, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A785	MG10a/M23a	Highly Sub-dominant	Mosaic of mesotrophic grassland, MG10a (90%), and mire, M23a (10%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the railway, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a	Low	Moderate	High

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			combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
A786	W3	Moderately Dominant	Woodland, W3 (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by thin soils upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the railway, low bedrock aquifer productivity and a high water table (due to proximity to watercourse); precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
A788	W3/M9	Highly Dominant	Mosaic of woodland, W3 (50%), and mire M9 (50%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A791	M6c/MG10a/U5b	Highly Dominant	Mosaic of mire, M6c (85%), mesotrophic grassland, MG10a (10%), and calcifugous grassland and montane communities, located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A792	MG10a/U4a/U5b	Moderately Dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10a (50%), located south-east of the Highland Mainline Railway, the B9152 and the A9. The area sits on a flat area, immediately south and adjacent to the Highland Mainline Railway and a track. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) overlain on Psammite and Semipelite (very low productivity) bedrock. Due to the area being modified by drainage from the railway and track, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
A795	M25b	Moderately Dominant	Mire, M25b (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
A796	W4b	Highly Dominant	Woodland, W4b (100%), located to the south-east of the A9, between the Highland Railway Mainline and the River Spey. The area is underlain by glacial sand and gravel superficial deposits (moderate to high productivity) upon Psammite and Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A818	W24/MG10a/OV25/U4b	Moderately Sub-dominant	Mosaic of woodland, W24 (70%), mesotrophic grassland, MG10a (10%), Urtica dioica–Cirsium arvense and, calcifugous grassland and montane communities, located to the north of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
A819	MG6/MG10a	Moderately Dominant	Mesotrophic grassland communities, MG10a (50%), located to the north of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
A825	OV25/MG6/MG10a	Moderately Sub-dominant	Mosaic of Urtica dioica–Cirsium arvense and mesotrophic grassland communities, MG10a (25%), located to the north of the A9, adjacent to a watercourse. The area is underlain by thin soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and a high water table (due to proximity to watercourse); a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium

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A877	U4a/M6c	Highly Dominant	Mosaic of calcifugous grassland and montane communities, and mire communities, M6c (50%), located north-west of the A9, within a plantation forestry. The area is located on a moderate slope, midway down a steep hill, downslope of a track. The area is underlain by a thin layer of soils overlain on Psammite and Semipelite (very low productivity) bedrock. Due to the area being modified by drainage from the forestry plantation and track, lack of superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A880	CP/W18c/W4b	Highly Sub-dominant	Conifer plantation and woodland communities, W4b (5%), located north-west of the A9. The area is located on a moderate slope, midway down a steep hill, downslope of a track. The area is underlain by a thin layer of soils overlain on Psammite and Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the area being modified by drainage from the forestry plantation and track, lack of superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A882	MG9a/U4a	Moderately Dominant	Mosaic of mesotrophic grassland, MG9a (50%), and calcifugous grassland and montane communities, located south-west of the A9, at the base of a steep hill and upslope of an access track. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to moderate/high superficial aquifer productivity, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present to the same extent as groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A885	U4a/MG9a	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG9a (5%), located south-west of the A9, at the base of a steep hill and upslope of an access track. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to moderate/high superficial aquifer productivity, low bedrock aquifer productivity and topography; a combination of water sources are considered likely to be supplying the communities present to the same extent as groundwater; precipitation and surface generated run-off.	Low	Moderate	High
A895	M15b/M6c/M6b	Highly Sub-dominant	Mire communities including M15b (94%), M6c (5%) and M6b (1%), located immediately south of the A9. The area sits on a relatively flat area, downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A896	U4b/H12b/W23/W4b/ W17b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, heath and woodland communities including W23 (30%) and W4b (5%), located immediately south of the A9. The area sits on a relatively flat area, downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
A910	W4b/W4c/W7b	Highly Dominant	Woodland communities including W4b (90%), W4c (5%) and W7b (5%), located to the east of the A9. The area is underlain by glacial sand and gravel superficial deposits (high productivity) overlain on Psammite and Semipelite (low productivity) bedrock. Aviemore Burn runs parallel to the habitat. Due to the proximity to Aviemore Burn, low bedrock aquifer productivity and drainage from upslope developments; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B002	Je/U4/U6/H12/M6c	Highly Sub-dominant	Mosaic of Je (40%), calcifugous grassland and montane communities, U6 (20%), heath and mire, M6c (10%) communities, located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the superficial layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B005	M15b	Moderately Dominant	Mire, M15b (100%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B007	M6b	Highly Dominant	Mire, M6b (100%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be	Low	High	Very High

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			supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.			
B008	M15b/U5a	Moderately Dominant	Mosaic of mire, M15b (96%), and calcifugous and montane communities, located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B011	M15b/M10a	Highly Sub-dominant	Mire communities including M15b (99%) and M10a (1%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B017	M15a	Moderately Dominant	Mire, M15a (100%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B024	M10a/M32	Highly Dominant	Mire communities including M10a (85%) and M32 (15%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B025	U5a/M10a/M32	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire including M10a (4%) and M32 (2%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B028	M15a/M10a	Highly Sub-dominant	Mire communities including M15a (90%) and M10a (10%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (low to moderate productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B030	U5a/M15a/M10a	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire communities including M15a (34%) and M10a (1%), located to the north of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and lack of significant superficial aquifer; a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the bedrock layer may play a larger role than precipitation and surface generated run-off in this location.	Low	High	Very High
B034	M6c	Highly Dominant	Mire, M6c (100%), located to the north of the A9 and adjacent to the Sputan Dubha watercourse. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite & Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, lack of significant superficial aquifer, proximity to a watercourse, steepness of slope and very thin	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			soils; precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.			
B043	M6c/M6b	Highly Dominant	Mire communities including M6c (94%) and M6b (6%), located to the north of the A9 and adjacent to a small watercourse. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite (low productivity) bedrock. GI works at borehole BHDS2041 (located 22m south) indicates the area is underlain by clay, with groundwater encountered at 6.50m. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Moderate	High
B046	M20/M6c	Highly Sub-dominant	Mire communities, M6c (30%), located to the north of the A9 and adjacent to a small watercourse. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite (low productivity) bedrock. GI works at borehole BHDS2041 (located 32m south) indicates the area is underlain by clay, with groundwater encountered at 6.50m. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Moderate	High
B066	M15a	Moderately Dominant	Mire, M15a (100%), located immediately south of the A9. The area sits on a moderate slope, at the base of a hillside, upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at borehole BHDS2037 (located 18m south) indicates the area is underlain by peat, with sand and gravel beneath. Groundwater was not observed at 8m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Low	Medium
B084	M6c/Je/M15a/M20/M19	Highly Dominant	Mosaic of mire including M6c (90%) and M15a (3%), and Je (5%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pits TPDS2050 and TPDS2082 indicate the area is underlain by peat, topsoil, with sand and gravel deposits beneath. Groundwater was not encountered at 4.0m depth on TPDS2082 and it was encountered at 4.0mbgl on TPDS2050. Due to the GI results, the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Moderate	High
B087	W4c/W4b	Highly Dominant	Woodland communities including W4c (70%) and W4b (30%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B099	Je/U4	Moderately Dominant	Mosaic of Je (75%), and calcifugous grassland and montane communities, located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B101	M6c/Je	Highly Dominant	Mosaic of mire (M6c) (80%) and Je (20%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. A well is located within the area. GI works at trial pit TPDS2052, within the area, indicates the area is underlain by peat, sand and gravel deposits, with groundwater encountered at 1.8mbgl. Due to the GI results, the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Moderate	High
B106	Je	Moderately Dominant	Je (100%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B110	M16d/M3	Highly Dominant	Mire communities, M16d (99%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, the presence of drainage ditches, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B116	Je	Moderately Dominant	Area of Je (100%), located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Low	Medium

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			Due to the proximity to the A9 and track, the presence of drainage ditches, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
B117	M16d/H9-H12	Highly Dominant	Mosaic of mire, M16d (90%), and heath communities, located immediately north of the A9. The land upon which the communities are located is reasonably level. The area is underlain by peat superficial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and track, the presence of drainage ditches, lack of significant superficial aquifer, low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B125	M15b	Moderately Dominant	Mire, M15b (100%), located north and adjacent to the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the A9, lack of significant superficial aquifer, low bedrock aquifer productivity and the presence of drainage ditches, area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B130	M23b/M6c/Je	Highly Dominant	Mosaic of mire communities including M23b (80%) and M6c (15%), and Je (5%), located immediately north of the A9 and south of the B938. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2042 (located 35m north) shows the area is underlain by topsoil, with sand and gravel beneath, Groundwater was not encountered at 4.2m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Moderate	High
B133	U4/Je/U5	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and Je (20%), located immediately north of the A9 and south of the B938. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and B938, the presence of drainage ditches, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B165	Je	Moderately Dominant	Area of Je (100%) located north-east of the A9, on the floodplain of the Allt nan Ceatharnach watercourse. The area is underlain by alluvium superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. GI works at borehole BHDS2080 indicates the area is underlain by topsoil, with sand and gravel beneath. Groundwater was not encountered to 2.5m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	High	Low	Medium
B170	Je/U4	Moderately Dominant	Mosaic of Je (97%), and calcifugous grassland and montane communities, located immediately north-east of the A9. The area is underlain by hummocky (moundy) glacial superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. GI works at trial pit TPDS2064, immediately east, shows the area is underlain by topsoil, with silt beneath. Groundwater was encountered at 1.2m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	High	Low	Medium
B180	Je/U4	Moderately Dominant	Mosaic of Je (95%), and calcifugous grassland and montane communities, located north-east of the A9, on the floodplain of the Allt nan Ceatharnach watercourse. The area is underlain by thin till (Diamicton) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. GI works at borehole BHDS2031 within the area indicate the area is underlain by peat, sand and gravel beneath, with no groundwater encountered to 2.50m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	High	Low	Medium
B188	Je/U4	Moderately Dominant	Mosaic of Je (80%), and calcifugous grassland and montane communities, located north-east of the A9, between the A9 and the Highland Railway Mainline embankments. The area is underlain by alluvium (clay, silt and sand) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. GI works at trial pit TPDS2039 (located 25m north) indicates the area is underlain by topsoil, sand and gravel beneath. Groundwater was encountered at 4.1m depth. As a result of the above, it is considered that the area is predominantly fed by precipitation and surface generated run-off.	Medium	Low	Medium
B228	W7	Highly Dominant	Woodland, W7 (100%), located west of the A9, at the base of a slight slope. The area is underlain by alluvium (clay, silt and sand) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity, upslope forestry drains and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B229	M23b	Highly Dominant	Mire, M23b (100%), located west of the A9, within a forestry channel. The area is underlain by alluvium (clay, silt and sand) superficial deposits (not significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to lack of superficial aquifer, low bedrock aquifer productivity, within forestry drains and topography; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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B248	Je	Moderately Dominant	Area of Juncus Effusus (100%) located north-east of the A9, between the A9 and the Highland Railway Mainline embankments. The area is underlain by hummocky (moundy) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to lack of significant superficial aquifer, low bedrock aquifer productivity and being located in an area likely to consist of some made ground, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
B269	Je/H9-H12/U4	Moderately Dominant	Mosaic of Je (65%), heath and, calcifugous grassland and montane communities, located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9 and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B271	Je/W23/U4	Moderately Dominant	Mosaic of Je (65%), woodland, W23 (10%), and calcifugous grassland and montane communities, located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity to the A9 and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B276	H9-H12/Je/U4	Moderately Sub-dominant	Mosaic of heath, Je (48%), and calcifugous grassland and montane communities, located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2076 indicate the area is underlain by topsoil, sand and gravel deposits, with groundwater encountered at 2.6mbgl. Due to the GI results, the proximity to the A9 and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Not GW dependent	Low
B283	M25a	Moderately Dominant	Mire, M25a (100%), located immediately south-west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B286	M25a	Moderately Dominant	Mire, M25a (100%), located immediately south-west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B291	M19a/M6c/Je	Highly Sub-dominant	Mosaic of mire, M6c (15%), and Je (10%), located immediately west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B292	Je/U4a	Moderately Dominant	Mosaic of Je (70%), and calcifugous grassland and montane communities, located immediately west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B296	M4/S9/M6c	Highly Sub-dominant	Mosaic of mire, M6c (10%), and Carex Rostrata swamp, located immediately south-west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B302	M16	Highly Dominant	Mire, M16 (100%), located immediately south-west of the Highland Mainline Railway and north-east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer)	Low	Moderate	High

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			overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and access tracks, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
B305	Je	Moderately Dominant	Area of Je (100%), located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B307	H9-H12/Je/U4/W23	Moderately Sub-dominant	Mosaic of heath, Je (10%), calcifugous grassland and montane communities and, woodland W23 (5%), located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Badenoch Ancient Woodland. Due to the proximity to the A9, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B309	H9-H12/M6c	Highly Sub-dominant	Mosaic of heath and mire, M6c (5%), located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B311	M6c	Highly Dominant	Mire, M6c (100%), located immediately east of the A9. The land upon which the communities are located is reasonably level. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the A9, the presence of modified forestry drainage, lack of significant superficial aquifer and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B352	Je	Moderately Dominant	Area of Je (100%), located immediately east of the A9 and south of Allt Cnapach. The area sits on a relatively flat area between the A9 and the Highland Mainline Railway. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at borehole BHDS2021, immediately west, indicates the area is underlain by topsoil with sand and gravel beneath. Groundwater was not encountered to 1.2m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
B385	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located immediately west of the Highland Mainline Railway. The land upon which the communities are located is reasonably level. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. An unnamed pond lies 30m north-east of the area. GI works at trial pit TPDS2026 (located 55m west) indicates the area is underlain by topsoil, sand and gravel beneath. Groundwater was not encountered to 4.3m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
B434	Je	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located immediately west of the A95. The land upon which the communities are located is reasonably level. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cnapach runs through the area. Due to the proximity to the A95 and access tracks, a high groundwater level due to the proximity to the watercourse and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B435	S7	Moderately Dominant	Carex Acutiformis swamp, S7 (100%), located immediately west of the A95. The land upon which the communities are located is reasonably level. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cnapach lies immediately east of the area. Due to the proximity to the A95 and access tracks, a high groundwater level due to the proximity to the watercourse and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
B482	M23b	Highly Dominant	Mire, M23b (100%), located east of the A9, on the edge of a pond, to the west of the A95 and Avie Lochan. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. As the area is immediately next to a pond, rising surface water levels are considered to supplying the communities present, rather than groundwater.	Low	Moderate	High
B493	M6c/M4/S28	Highly Dominant	Basin mire, M6c (70%), with Phalaris Arundinacea tall-herb fen, S28 (2%), located adjacent to a track, between the A9 and the A95. The land upon which the communities are located is reasonably level. The area is underlain by glaciofluvial sheet deposits (gravel, sand and	Low	Moderate	High

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			silt) (high productivity) overlain on Psammite and Semipelite (very low productivity) bedrock. The area overlays a pond. Due to the proximity to the access tracks, modified drainage within forestry plantation, a high groundwater level due to the pond and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
B496	M23b/W7/M6c/S9a	Highly Dominant	Mosaic of mire including M23b (80%) and M6c (8%), woodland, W7 (10%), and Carex Rostrata swamp located east of the A9. The area sits on a relatively flat area, on the northern edge of a pond. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Psammite and Semipelite (very low productivity) bedrock. The area is located within the Granish Ancient Woodland. Due to the modified forestry drainage, a high groundwater level due to the pond and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
B525	MG9/U4	Moderately Dominant	Mosaic of mesotrophic grassland, MG9 (95%), and calcifugous grassland and montane communities, located east of the A9, between the A9 and B9152 and surrounding the Allt na Criche. The area is underlain by glacial sand and gravel superficial deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity, the topography and surrounding a watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B538	MG9	Moderately Dominant	Mesotrophic grassland, MG9 (100%), located east of the A9, between the A9 and B9152. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. GI works at trial pits TPDS2068 and TPDS2069, located 85m and 31m respectively, indicate the area is underlain by topsoil, sand and gravel beneath. Groundwater was not encountered at 3.3m and 3.8m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Low	Medium
B539	Je/M6c	Highly Sub-dominant	Je (90%) and mire, M6c (10%), located east of the A9, between the A9 and B9152. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. GI works at trial pits TPDS2068 and TPDS2069, located 48m and 67m respectively, indicate the area is underlain by topsoil, sand and gravel beneath. Groundwater was not encountered at 3.3m and 3.8m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
B547	M4/M6c/SW	Highly Sub-dominant	Mosaic of mire communities, M6c (20%), and standing water, located east of the A9, surrounding a seasonal pond. The area is underlain by till (Diamicton) superficial deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. As the area is immediately next to a pond, rising surface water levels are considered to supplying the communities present, rather than groundwater.	Low	Moderate	High
B605	Mx/U4b/M6b	Highly Dominant	Mosaic of neutral sedge mire, M6b (2%), and calcifugous grassland and montane communities, located east of the A9, between the A9 and B9152. An unnamed watercourse runs through the area. The area is largely flat and underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B620	M6c/M23b/S9a	Highly Dominant	Mosaic of mire, M6c (2%), and Carex Rostrata swamp, located downslope of the existing A9 road adjacent to Ardarroch and Achantoul properties. A small unnamed tributary of the River Spey is located 70m south of the area. The area slopes very gently south-east. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) and Psammite and Semipelite (very low productivity) bedrock. Due to the underlying low bedrock aquifer productivity, this area is likely to be fed by a combination of surface water and groundwater sources.	Low	Moderate	High
B628	Je	Moderately Dominant	Area of Je (100%) located 30m south-east and downslope of the existing A9 road. Area slopes gently south-east, with an area of hardstanding for a Mineral plant located immediately east. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. GI works at borehole BHDS2015, located 17m north, indicates the area is underlain by gravel. Groundwater was not encountered at 3.5m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Low	Medium
B642	M23b/S9a	Highly Dominant	Mosaic of mire, M23b (97%), and Carex Rostrata swamp, located immediately east of the A9 and south of an unnamed pond. The area is largely flat and underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. During a site walkover carried out within the area, it was noted that the pond is fed by a flush emerging on the northbound. As a result of all of the above, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	High	Moderate	High
B661	MG9	Moderately Dominant	Mesotrophic grassland, MG9 (100%), located immediately west of the B9152, within Aviemore. The area sits on a largely flat area. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Psammite and Semipelite (very low	Low	Low	Medium

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			productivity) bedrock. Due to the proximity of the B9152 and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
B664	Je/U4b/MG9	Moderately Dominant	Mosaic of Je (90%), calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (3%), located east of the A9, between the A9 and B9152. The area is largely flat and underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and the topography, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
B666	M23a/M6d	Highly Dominant	Mire communities including M23a (90%) and M6d (10%), located east of the A9, between the A9 and B9152. The area is within a localised depression and underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and being located in a localised low point, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B673	M6c/M2/M23b	Highly Dominant	Mire communities including M6c (90%) and M23b (3%), located east of the A9, between the A9 and B9152. The area is largely flat and underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Psammite and Semipelite (low productivity) bedrock. Due to low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B675	U4/MG9	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (12%), located immediately west of the B9152, within Aviemore. The area sits on a largely flat area. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the B9152 and low bedrock aquifer productivity, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
B677	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located south of the A9. This area is largely flat and is underlain by river terrace superficial deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. GI works at boreholes BH2006 and BHDS2044, located 40m west and 92m east respectively, indicate the area is underlain by topsoil, with sand and gravel beneath. Groundwater was not encountered to 5m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
B679	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located south of the B9152 Junction, east of Loch Alvie. This area is largely flat and is underlain by river terrace superficial deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the grassland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
B721	W7	Highly Dominant	Woodland, W7 (100%), located south and downslope of the existing A9, on the north-eastern shore of Loch Alvie. This area is largely flat and is underlain by a thin layer of soils (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The northern and southern extents of the area are located within Alvie SSSI. Due to the close proximity to Loch Alvie, the topography, a high groundwater level due to being located on a floodplain, lack of superficial aquifer and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B722	W3	Moderately Dominant	Woodland, W3 (100%), located south and downslope of the existing A9, on the north-eastern shore of Loch Alvie. A small unnamed tributary of Loch Alvie is located 30m south of the area. This area is largely flat and is underlain by a thin layer of superficial deposits upon Psammite and Semipelite (very low productivity) bedrock. The area is located within the Alvie Ancient SSSI. Due to the close proximity to Loch Alvie and the unnamed watercourse, the topography, the lack of superficial aquifer, low productivity bedrock aquifer and a high groundwater level due to being located on a floodplain, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B728	W4/W11	Highly Dominant	Woodland, W4 (85%), located south and downslope of the A9, on the northern shore of Loch Alvie. Caochan Ruadh, tributary of Loch Alvie, is located 30m west of the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. The area is located within the Alvie SSSI. Due to the close proximity to Loch Alvie and Caochan Ruadh, the topography, low productivity bedrock aquifer and a high groundwater level due to being located on a floodplain, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High

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B729	W7c	Highly Dominant	Woodland, W7c (100%), located south and downslope of the existing A9, on the northern shore of Loch Alvie. Caochan Ruadh, tributary of Loch Alvie, is located 15m west of the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within the Alvie SSSI. Due to the close proximity to Loch Alvie and Caochan Ruadh, the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B730	M25b/U5a	Moderately Dominant	Mosaic of mire, M25b (75%), and calcifugous grasslands and montane communities, located south and downslope of the existing A9, on the northern shore of Loch Alvie. Caochan Ruadh, tributary of Loch Alvie, is located 45m east of the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Loch Alvie SSSI. Due to the close proximity to Loch Alvie and Caochan Ruadh, the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B731	W7/W11	Highly Dominant	Woodland, W7 (75%), located south and downslope of the existing A9, on the northern shore of Loch Alvie. Caochan Ruadh, tributary of Loch Alvie, is located 55m east of the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within the Alvie SSSI. Due to the close proximity to Loch Alvie and Caochan Ruadh, the topography, a high groundwater level due to being located on a floodplain and low productive bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B741	W11/W7b	Highly Sub-dominant	Woodland communities, W7b (25%), located south of the A9, between an adjacent unnamed track and Loch Alvie. Caochan Ruadh, tributary of Loch Alvie, runs through the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within the Alvie Ancient SSSI. Due to the close proximity to the track, the proximity to Loch Alvie and Caochan Ruadh (resulting in a high water table), the topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B756	W7/W11	Highly Dominant	Woodland, W7 (80%), located south-east and downslope of the existing A9, between Loch Alvie, Allt Chriochaidh and adjacent to Allt an Fhearna. Allt an Fhearna, tributary of Loch Alvie, runs adjacent to the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Loch Alvie SSSI. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B763	W4b/W7/W11	Highly Dominant	Mosaic of wet woodland including W4b (80%) and W7 (15%), located south-east and downslope of the A9, between Loch Alvie, Allt Chriochaidh and adjacent to Allt an Fhearna. Allt an Fhearna, tributary of Loch Alvie, runs adjacent to the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located partially within Loch Alvie SSSI. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B765	M6c	Highly Dominant	Small mire, M6c (100%), located south-east and downslope of the existing A9, between Loch Alvie and Allt Chriochaidh. Allt Chriochaidh, tributary of Loch Alvie, runs through the area. This area is largely flat and is underlain by alluvial fan (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, low productivity bedrock aquifer and a high groundwater level due to being located on a floodplain, a combination of water sources are considered likely to be supplying the communities present in this flush in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
B766	W7/W11/W4b	Highly Dominant	Mosaic of wet woodland communities including W7 (88%) and W4b (2%), located south-east and downslope of the existing A9, on the western shore of the Loch Alvie, between the Loch Alvie, Allt Chriochaidh and Allt an Fhearna. Allt an Fhearna, tributary of Loch Alvie, runs through the area. This area is largely flat and is underlain by alluvial fan (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Loch Alvie SSSI.	Low	High	Very High

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			Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.			
B768	W4b	Highly Dominant	Wet woodland, W4b (100%), located south-east and downslope of the existing A9, on the western shore of the Loch Alvie, between Loch Alvie, Allt Chriochaidh and Allt an Fhearna. Allt an Fhearna and Allt Chriochaidh, tributaries of Loch Alvie, run through the area. This area is largely flat and is underlain by alluvial fan (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located partially within Loch Alvie SSSI. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B771	W2/S4/S9a	Moderately Dominant	Mosaic of woodland, W2 (60%), and swamp located south-east and downslope of the A9, on the western shore of the Loch Alvie, between Loch Alvie, Allt Chriochaidh and Allt an Fhearna. Allt an Fhearna and Allt Chriochaidh, tributaries of Loch Alvie, run through the area. This area is largely flat and is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Loch Alvie SSSI. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B775	M25a	Moderately Dominant	Mire, M25a (100%), located south-east of the A9, between Loch Alvie and the A9. Allt an Fhearna and Allt Chriochaidh, tributary of Loch Alvie, lie in close proximity to the area. This area is largely flat and is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Loch Alvie SSSI. Due to the close proximity to Loch Alvie, Allt Chriochaidh and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	High	Very High
B818	Je	Moderately Dominant	Area of Je (100%) located south and downslope of both the A9 and the Highland Mainland Railway, on the floodplain of the Slochd Mhuich watercourse. The area sits on a relatively flat area at the base of the valley. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Slochd Mhuich, A9 and railway line, and a high groundwater level due to being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
B842	W4b	Highly Dominant	Woodland, W4b (100%), west of Aviemore and the A9. The area is located on a moderate hillslope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to a lack of superficial aquifer, a very low bedrock aquifer productivity, topography and drainage from the forestry; a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
B845	M25a/M6c	Highly Sub-dominant	Mosaic of mires including M25a (95%) and M6c (5%), west of Aviemore and the A9. The area is located on a moderate hillslope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Craigellachie SSSI. Due to a lack of superficial aquifer, a very low bedrock aquifer productivity, topography and drainage from the forestry; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
B848	W4c	Highly Dominant	Woodland, W4c (100%), situated west of Aviemore and the A9. The area is located on a moderate hillslope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area lies within Craigellachie National Nature Reserve and SSSI. Due to a lack of superficial aquifer, a very low bedrock aquifer productivity, topography and drainage from the forestry; a combination of water sources are considered likely to be supplying the woodland present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
B849	M25a	Moderately Dominant	Mire, M25a (100%), located west of Aviemore and the A9. The area is located on a moderate hillslope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area lies within Craigellachie SSSI. Due to a lack of superficial aquifer, a very low bedrock aquifer productivity, topography and drainage from the forestry; a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High

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B853	M6c	Highly Dominant	Mire, M6c (100%), located south-west of the A9, between the Highland Mainland Railway and Slochd access track. Slochd Mhuic, tributary of River Dulnain, lies 70m south-west of the area. The area is located on a moderate slope downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) superficial deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2053, located 56m east, indicates the area is underlain by topsoil, sand and gravel beneath. Groundwater was not encountered to 3.2m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
J002	M23b/M6c	Highly Dominant	Mire communities including M23b (95%) and M6c (5%), located south-west and upslope of the A9 and the Highland Main Line Railway. Slochd Mhuic, tributary of River Dulnain, lies 50m east of the area. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Semipelite (very low productivity) bedrock. Due to the proximity to the Slochd Mhuich, A9 and railway line, and a high groundwater level due to being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J004	M6c	Highly Dominant	Mire, M6c (100%), located south-west and upslope of the A9 and the Highland Main Line Railway. The area is on a slight slope towards the railway. Slochd Mhuic, tributary of River Dulnain, lies 90m east of the area. The area is underlain by a thin layer of soils upon Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, the topography and the proximity to the Slochd Mhuich, A9 and railway line, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J008	M6c/U5	Highly Dominant	Mosaic of mire, M6c (75%), and calcifugous grasslands and montane communities, located south-west and upslope of the A9 and the Highland Main Line Railway. The area is on a gentle slope and drains towards the railway. The area is underlain by Diamicton (till, Devensian) superficial deposits (not a significant aquifer) upon Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, the topography and the proximity to the A9 and railway line, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J020	M23b/U5/W19b	Highly Dominant	Mosaic of mire, M23b (80%), calcifugous grassland and montane communities, and woodland, located between the Highland Main Line Railway and Slochd Mhuic. Slochd Mhuic, tributary of the River Dulnain, runs through the area. The area is downslope of the railway and the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the railway line, Slochd Mhuic, the lack of superficial aquifer, the topography and a high groundwater level due to being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J025	H16b/BG/U4b/U16/U20/W19	Highly Sub-dominant	Mosaic of heath, bare ground, calcifugous grassland and montane communities, U16 (1%), and woodland, located to the south-west of the A9, between the Highland Main Line Railway and the National Route 7 Cycle path. Slochd Mhuic, tributary of the River Dulnain, runs through the area northern extents. The area is located upslope of the railway and the existing A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the railway line and the cycle path, the lack of superficial aquifer, low bedrock aquifer productivity and the topography, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J026a	H12a/H16b/U4b/M25/W19a	Moderately Sub-dominant	Mosaic of heath, calcifugous grasslands and montane communities, mire, M25 (10%), and woodland, located to the south-west of the A9, between the Highland Main Line Railway and the National Route 7 Cycle path. Slochd Mhuic, tributary of the River Dulnain, is channelled below the A9 65m north of the area. The area is located downslope of the railway and upslope of the existing A9. Therefore, any run-off or water draining from the area is likely to be intercepted by the drainage upslope of the railway. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the railway line and the cycle path, the lack of superficial aquifer and the topography, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J026b	H12a/H16b/U4b/M25/W19a	Moderately Sub-dominant	Mosaic of heath, calcifugous grasslands and montane communities, mire, M25 (10%), and woodland located to the south-west of the A9, between the Highland Main Line Railway and the National Route 7 Cycle path. Slochd Mhuic, tributary of the River Dulnain, lies 50m east from its closest point from the area. The area is located downslope of the railway and upslope of the existing A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the railway line and the cycle path, the lack of superficial aquifer and the topography, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J032	MG9/U4b	Moderately Dominant	Mosaic of mesotrophic grassland, MG9 (70%), and calcifugous grassland and montane communities, located to the south-west of the A9, immediately adjacent to the U2400. The area is downslope of the railway and a track. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2053 within the area indicate	Medium	Not GW dependent	Low

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			the area is underlain by topsoil, sand and gravel beneath, with no groundwater encountered to 3.20m depth. Due to the GI results, the proximity of the U2400 and access tracks, the topography, the lack of superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
J033	MG9/U4b	Moderately Dominant	Mosaic of mesotrophic grassland, MG9 (95%), and calcifugous grassland and montane communities, located to the south-west of the A9, immediately adjacent to the U2400. The area is downslope of the railway and a track. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the U2400, access tracks, the topography, the lack of superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
J038	W17/H12b/W23/MG9/U4b	Moderately Sub-dominant	Mosaic of woodland, W23 (10%), heath, mesotrophic grassland, MG9 (5%), and calcifugous grassland and montane communities, located to the south-west of the A9, between the A9 and the U2400. The area is downslope of the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. GI works at trial pits TPDS2054 and TPDS2055, located 10m west and 17m north respectively, indicate the area is underlain by topsoil, made ground and sand beneath, with groundwater encountered at 2.8m on TPDS2055. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
J039	W7c/MG9	Highly Dominant	Mosaic of woodland, W7c (85%), and mesotrophic grassland, MG9 (15%), located to the south-west of the A9, between the A9 and the U2400. The area is downslope of the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is partly located within the Duthil and Rothiemurchus Ancient Woodland. GI works at trial pit TPDS2055, located 30m north of the area, indicates the area is underlain by topsoil, made ground and sand beneath, with groundwater encountered at 2.8m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
J058	U4b/BG/MG9/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, bare ground, mesotrophic grassland, MG9 (15%), and mire, M23b (10%), located to the west of the A9, between the A9 and the National Route 7 Cycle path. The area is downslope of the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at borehole BHDS2039, located 42m south of the area, indicates the area is underlain by topsoil, with sand and gravel beneath. Groundwater was not encountered to 5m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
J085	W7c/U4b/W3/M23b	Highly Dominant	Mosaic of woodland, including W7 (55%) and (W3) (10%), calcifugous grasslands and montane communities and mire, M23b (5%), located to the west of the A9. Slochd Mhuic, tributary of the River Dulnain, runs through the area. The area is downslope of the existing A9 and the railway. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the topography and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J086	U4/W7c/M23b/M6c	Highly Dominant	Mosaic of calcifugous grasslands and montane communities, woodland, W7c (35%), and mire including M23b (25%) and M6c (3%), located to the west of the A9. Slochd Mhuic, tributary of the River Dulnain, runs through the area. The area is located downslope of the existing A9 and railway. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The southern extent is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the topography and a high groundwater level due to the proximity of a watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J088	W7c/M19a/M23b/U4/M6c	Highly Dominant	Mosaic of woodland, W7c (35%), mire including M23b (20%) and M6c (5%), and calcifugous grassland and montane communities, located to the west of the A9. Slochd Mhuic, tributary of the River Dulnain, runs through the area. Allt Ruighe an t-Sabhail, discharges to Slochd Mhuic, within the area extents. The area is downslope of the existing A9 and the railway. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is partly located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the access tracks, the topography and a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J092	M23b/U4b	Highly Dominant	Mosaic of mire, M23b (70%), and calcifugous grassland and montane communities, located to the south-west of the A9, between the Highland Main Line Railway and a track. Slochd Mhuic, tributary of the River Dulnain, runs through the area. The area is downslope of the existing A9 and the railway. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Moderate	High

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			Due to the proximity of the access tracks, the topography and a high groundwater level due to the proximity of a watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
J097	W11/W7/W3	Highly Sub-dominant	Woodland communities including W7 (33%) and W3 (2%), located to the south-west of the A9, between the Highland Main Line Railway and an access track. Slochd Mhuic, tributary of the River Dulnain, runs through the area. A drain discharges to the Slochd Mhuic, within the area extents. The area is located downslope of the existing A9 and the railway. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) superficial deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is partly located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the railway line and access tracks, the topography and a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J104	H9a/U4b/W23/M23b	Highly Sub-dominant	Mosaic of heath, calcifugous grassland and montane communities, woodland, W23 (7%), and mire, M23b (3%), located immediately south of the A9, between the A9 and a track. The area is downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2044 immediately south, indicates the area is underlain by topsoil, sand and gravel beneath. Groundwater seepage was encountered at depths of 1.2m and 2.8m. Due to the GI results, the proximity of the A9 and track, the topography, the lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
J117	H12b/W17b/W4c	Highly Sub-dominant	Mosaic of heath and woodland, W4c (15%), located immediately south of a track. The area is downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2041, located 51m north, indicates the area is underlain by topsoil, with sand and gravel beneath. Groundwater was encountered at a depth of 3.3m. Due to the GI results, proximity of the A9 and track, topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
J119	W7c	Highly Dominant	Woodland, W7c (100%), located to the south-west of the A9, between the Highland Main Line Railway and an access track. Slochd Mhuic, tributary of the River Dulnain, is located 5m west from its closest point to the area. The area is located downslope of the railway and the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the access track, the topography and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J123	BG/MG1a/MG9	Moderately Sub-dominant	Mosaic of bare ground and mesotrophic grassland, MG9 (15%), located on the south-west A9 embankment. The area is downslope of the A9. The area is underlain by river terrace (gravel, sand, silt and clay) deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. River Dulnain, tributary of the River Spey, lies 40m south of the area. GI works at trial pit TPDS2038, located 21m south-west, indicates the area is underlain by topsoil, with gravel beneath. Groundwater was encountered at 2.9m depth. Due to the GI results, proximity of the A9, topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Low	Medium
J125	MG1a/MG9	Moderately Sub-dominant	Mesotrophic grassland communities, MG9 (35%), located to the south-west of the A9, on the River Dulnain northern bank. River Dulnain, tributary of the River Spey, is located adjacent to the area. The area sits on a relatively flat area, downslope of the A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at borehole BHDS2029, located 7m north, indicates the area is underlain by topsoil, sand and gravel beneath. Groundwater was not encountered at 1.3m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Low	Medium
J132	MG9/U5/M23b/H9a/W18	Highly Sub-dominant	Mosaic of mesotrophic grassland, MG9 (65%), heath, calcifugous grassland and montane communities, mire, M23b (6%), and woodland located to the south-west of the A9. Allt nan Ceatharnach, tributary of the River Dulnain, runs parallel to the area. The area sits on a relatively flat area, downslope of the A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the topography, a high groundwater level due to the proximity of the Allt nan Ceatharnach and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J141	U5/H9a/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, heath and, mire, M23b (10%), located west of the A9 within a National Grid overhead line corridor. The area is on a moderate slope down a hillside. The A9 is downslope of the area. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity)	Low	Moderate	High

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			bedrock. Due to the forestry artificial drainage, the topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.			
J154	H12b/M19a/U5d/M6c	Highly Sub-dominant	Mosaic of heath, mire, M6c (2%), and calcifugous grassland and montane communities, located south-west of the A9 within a forestry plantation. The area sits on a relatively flat area surrounded by access tracks, at the base of a hillside. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Feith Mhor lies immediately south of the area. Due to the forestry artificial drainage, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer and a high groundwater level due to the proximity to a watercourse, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Moderate	High
J157	M23b/U4e	Highly Dominant	Mosaic of mire, M23b (75%), and calcifugous grassland and montane communities, located south-west of the A9, adjacent to a track within a forestry plantation. The area sits on a relatively flat area, at the base of a hillside. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Feith Mhor lies 7m south of the area. Due to the forestry artificial drainage, the topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Moderate	High
J174	W11b/W4c/U4	Highly Sub-dominant	Mosaic of woodland, W4c (30%), and calcifugous grassland and montane communities, located to the west of the A9, between the General Wade's Military Road and the A9. Allt nan Ceatharnach, tributary of the River Dulnain, runs parallel to the area. The area sits on a moderate slope, upslope of the existing A9. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9 and the General Wade's Military Road, the topography and a high groundwater level due to the proximity of a watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J193	W11b/W18/U20/W7c	Highly Sub-dominant	Mosaic of woodland, W7c (3%), and calcifugous grassland and montane communities, located to the west of the A9, between a track and the A9. The area is on a steep slope down a hillside, upslope of the existing A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, track, steepness of the slope, lack of significant superficial aquifer and low productivity bedrock aquifer, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
J215	M6b	Highly Dominant	Mire, M6b (100%), located west of the A9 within a forestry plantation. The area sits on a moderate slope midway down a hillside. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the forestry artificial drainage, topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Moderate	High
J219	H12/H12b/M6b/U20	Highly Sub-dominant	Mosaic of heath, mire, M6b (14%), and calcifugous grassland and montane communities, located west of the A9 within a forestry plantation. The area sits on a steep slope midway down a hillside. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the forestry artificial drainage, steepness of slope, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Moderate	High
J240	W7c/W17b	Highly Dominant	Woodland communities, W7c (90%), located to the west of the A9, between a track and the A9. The area is on a slight slope down a hillside, upslope of the existing A9. Allt na Criche, tributary of Loch nan Carraigean, runs through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiermurchus Ancient Woodland. GI works at trial pit TPDS2019, located 54m east, indicates the area is underlain by topsoil with sand and gravel beneath. Slight ground-water seepage was encountered at a depth of 0.8m. As a result of all of the above, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Medium	Moderate	High
J241	U4/MG9	Moderately Sub-dominant	Calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (15%), located to the west of the A9, between a track and the A9. The area is on a slight slope down a hillside, upslope of the existing A9. Allt na Criche, tributary of Loch nan Carraigean, runs through the area. The area is underlain by till (Devensian) superficial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9 and access track, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
J245	M6c/M23b	Highly Dominant	Mire communities including M6c (70%) and M23b (30%), located to the west of the A9, between a track and the A9. The area is on a slight slope down a hillside, upslope of the existing A9. Allt na Criche, tributary of Loch nan Carraigean, runs through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity)	Low	Moderate	High

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			bedrock. Due to the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
J262	M23b/MG9/M6c	Highly Dominant	Mosaic of mire including M23b (77%) and M6c (3%), and mesotrophic grassland, MG9 (20%), located to the north-west of the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. One unnamed watercourse, is located 15m north of the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to lack of significant superficial aquifer, low productivity bedrock aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J263	MG9/M23b/U4b/U20	Highly Sub-dominant	Mosaic of mesotrophic grassland, MG9 (60%), mire, M23b (22%), and calcifugous grassland and montane communities located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. One unnamed watercourse runs through the area. Allt na Criche lies 37m north of the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J269	MG9/U4/M23b	Highly Sub-dominant	Mosaic of mesotrophic grassland, MG9 (60%), calcifugous grassland and montane communities, and mire, M23b (12%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. Allt na Criche and an unnamed watercourse, tributaries of Loch nan Carraigean, run parallel to the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity of the track, the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J272	M23b	Highly Dominant	Mire, M23b (100%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. Allt na Criche and an unnamed watercourse, tributaries of Loch nan Carraigean, run through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity of the track, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J275	U4/MG10a/M6c	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG10a (15%), and mire, M6c (5%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. Allt na Criche and an unnamed watercourse, tributaries of Loch nan Carraigean, run through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the track, the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J277	M23b/M6c	Highly Dominant	Mire communities including M23b (70%) and M6c (30%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the A9. Allt na Criche and an Issues, tributaries of Loch nan Carraigean, run through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the access track, the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J281	MG10a/M23b/MG9/M6c	Highly Sub-dominant	Mosaic of mesotrophic grassland including MG10a (60%) and MG9 (10%), and mire communities including M23b (25%) and M6c (5%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the A9. An unnamed watercourse, tributary of Loch nan Carraigean, runs adjacent to the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the access track, the topography, the lack of significant superficial aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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J289	W18/MG9/U4/U20	Moderately Sub-dominant	Mosaic of woodland, mesotrophic grassland, MG9 (10%), and calcifugous grassland and montane communities, located west of the A9 within a forestry plantation. The area sits on a moderate slope midway down a hillside, in proximity to a track. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiermuchus Ancient Woodland. Due to the forestry artificial drainage, the topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Not GW dependent	Low
J292	W11/W7c/W4b	Highly Sub-dominant	Woodland communities including W7c (23%) and W4b (12%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside. Allt na Criche and an unnamed watercourse, tributaries of Loch nan Carraigean, run through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the access track, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J293	W7	Highly Dominant	Woodland, W7 (100%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the A9. Allt na Criche, tributary of Loch nan Carraigean, runs through the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The area is partly located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the access track, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J294	U4b/MG10a	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG10a (5%), located to the north-west of the A9, between a track and the A9. The area is on a gentle slope down a hillside, upslope of the existing A9. Allt na Criche, tributary of Loch nan Carraigean, is located 5m west from the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the track, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J302	MG10a/U4b	Moderately Dominant	Mosaic of mesotrophic grassland, MG10a (90%), and calcifugous grassland and montane communities, located to the west of the A9, between a track and the A9. The area sits on a relatively flat area, upslope of the existing A9. An unnamed watercourse runs through the southern extents of the area. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2017, located 28m south, indicates the area is underlain by topsoil, with gravel beneath. Groundwater was not encountered at 4.5m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
J305	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the west of the A9, between a track and the A9. The area sits on a relatively flat area, downslope of the A9. An unnamed watercourse is located 17m north of the area. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2017, immediately east, indicates the area is underlain by topsoil, with gravel beneath. Groundwater was not encountered at 4.5m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Not GW dependent	Low
J311	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the west of the A9, between a track and the A9. The area sits on a relatively flat area, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J312	M6c	Highly Dominant	Mire, M6c (100%), located to the west of the A9, between a track and the A9. The area sits on a slight slope, upslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J313	W7c/W4b	Highly Dominant	Woodland communities including W7c (80%) and W4b (20%), located to the west of the A9, between an access track and the A9. The area sits on a gentle slope, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. The area is partly located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the A9, low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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J314	M6c	Highly Dominant	Mire, M6c (100%), located to the west of the A9, between a track and the A9. The area sits on a gentle slope, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, low bedrock aquifer productivity and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J315	M6c/M19a	Highly Dominant	Mire, M6c (65%), located to the west of the A9, between a track and the A9. The area sits on a gentle slope, upslope of the A9. An issue, tributary of the River Spey, is located 33m east of the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J319	W11/W7/W17	Highly Sub-dominant	Woodland communities, W7 (15%), located to the west of the A9, between a track and the A9. The area sits on a gentle slope, upslope of the A9. Two issues, one tributary of the River Spey and one of the Allt na Criche, are located less than 5m the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the A9, the topography, the lack of a significant aquifer and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J321	U20/M16d/U5	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire, M16d (30%), located to the west of the A9, between an access track and the A9. The area sits on a gentle slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the topography, the lack of significant aquifer and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J323	H12b/U20/U5/MG9	Moderately Sub-dominant	Mosaic of heath, calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (5%), located to the west of the A9, between an access track and the A9. The area sits on a moderate slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the topography, the lack of significant aquifer and low productivity bedrock aquifer, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J347	U5/MG9	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (15%), located to the west of the A9, on the northern shore of Loch Puladdern. The area sits on a relatively flat area, downslope the existing A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. An unnamed watercourse, which discharges into Loch Puladdern, is located 3m north of the area. The area is located within Craigellachie SSSI. Due to the proximity of the A9 and paths surrounding Loch Puladdern, the topography and, a high groundwater level due to the proximity of the loch and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	High	Very High
J353	U4/M23b/W23	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mire, M23b (13%), and woodland, W23 (2%), located to the west of the A9, on the southern shore of Loch Puladdern. The area sits on a relatively flat area, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. The area is located within Craigellachie SSSI. Due to the proximity of the A9 and Craigellachie Nature Trails, the topography and a high groundwater level due to the proximity of the loch and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
J387	W11/W17/W4	Highly Sub-dominant	Woodland communities, W4 (30%), located to the west of the A9 and Aviemore, between a track and Craigellachie Nature Trail. The area is on a gentle slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. An unnamed pond and watercourse are located within the area, and merge with Loch Puladdern. The area is located within Craigellachie SSSI. Due to the proximity of the A9, access tracks and Craigellachie Nature Trails, the topography, the lack of significant superficial aquifer and a high groundwater level due to the proximity of the pond and watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
J458	U4a/MG9/W11	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland, MG9 (25%), and woodland, located to the west of the A9, south of Lagnacallich (Aviemore). The area sits on a gentle slope, upslope of the A9. The area is underlain by a thin layer of soils upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. An Issues is located 10m south of the area. A well is located 15m north of the area. The area is located partially within Craigellachie SSSI. Due to the proximity of the A9, impervious area on the residential development, the topography and the lack of superficial aquifer, a	Low	High	Very High

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			combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
J493	MG10a/U4b	Moderately Dominant	Mosaic of mesotrophic grassland, MG10a (75%), calcifugous grassland and montane communities located to the north-west of the A9, between Lynwilg Road, Allt na Criche and the A9. The area sits on a relatively flat area, upslope of the A9. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. Allt na Criche, tributary of the River Spey, is located 6m south-west of the area. Due to the proximity of the A9 and Lynwilg Road, a high groundwater level due to the proximity to Allt na Criche and being located on a floodplain, and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J494	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the north-west of the A9, between Lynwilg Road, Allt na Criche and the A9. The area sits adjacent to Allt na Criche northern bank, on a relatively flat area upslope of the A9. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. Allt na Criche, tributary of the River Spey, is located 5m south-west of the area. Due to the proximity of the A9 and Lynwilg Road, a high groundwater level due to the proximity to Allt na Criche and being located on a floodplain, and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J540	M23b/U4b	Highly Dominant	Mosaic of mire, M23b (75%), and calcifugous grassland and montane communities, located immediately east of the A9. The area is downslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the A9, the topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Low	Moderate	High
J562	U4b/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire, M23b (8%), located immediately north-west of the B9152. The area is downslope of the B9152 and the A9. The area is underlain by river terrace (gravel, sand, silt and clay) deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the proximity to the B9152, access tracks and A9, the topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
J582	MG9/MG10a	Moderately Dominant	Mesotrophic grassland communities including MG9 (75%) and MG10a (25%), located to the south-east of the A9, between the B9152 and the A9. The area sits on a relatively flat area, downslope of the surrounding carriageways. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (low productivity) bedrock. GI works at trial pit TPDS2008 within the area indicate the area is underlain by topsoil, gravel and sand beneath, with groundwater encountered at 4.20m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Not GW dependent	Low
J584	U4b/MG1/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grassland and mire, M23b (30%), located immediately adjacent to the A9 and B9152 (within B9152 Junction). The area is downslope of the B9152 and the A9. The area is underlain by river terrace (gravel, sand, silt and clay) deposits (moderate to high productivity) upon Psammite and Semipelite (low productivity) bedrock. GI works at trial pit TPDS2009 immediately to the south indicate the area is underlain by topsoil, then sand and gravel deposits beneath, with no groundwater encountered to 4m depth. Due to the GI results, the proximity to the A9 and B9152, the topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and hill run-off.	Medium	Moderate	High
J610	M23b/U4b/W11	Highly Dominant	Mosaic of mire, M23b (75%), calcifugous grassland and montane communities, and woodland located to the east of the A9, between the B970, the B9152 and the Highland Mainline Railway. The area sits on a slight slope, downslope of the nearby roads and the railway line. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. A Drain is located 10m south of the area. Due to the proximity of the A9, B970, B9152 and Highland Mainline Railway, a high groundwater level due to the proximity to the drain and being located on a floodplain, and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J611	U4b/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire, M23b (20%), located to the east of the A9, between the B970, the B9152 and the Highland Mainline Railway. The area sits on a slight slope, downslope of the nearby roads and the railway line. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. A Drain is located 38m south of the area. Due to the proximity of the A9, B970, B9152 and Highland Mainline Railway, a high groundwater level due to the proximity to the drain and being located on a floodplain and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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J617	U4b/M23b	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, and mire, M23b (35%), located to the south-east of the A9, between the B9152 and the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the A9, B9152 and the railway. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. Allt na Criche, tributary of the River Spey, is located 10m north of the area. Due to the proximity of the A9, B9152 and Highland Mainline Railway, a high groundwater level due to the proximity to the watercourse and being located on a floodplain, and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J622	MG9/W11/M23b	Highly Sub-dominant	Mosaic of mesotrophic grassland, MG9 (45%), woodland and mire, M23b (25%), located to the south-east of the A9, between the B9152 and the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the A9 and B9152. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (low productivity) bedrock. Due to the proximity of the A9, B9152 and Highland Mainline Railway, a high groundwater level due to being located on a floodplain, and the topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J627	MG6/MG9/U4b	Moderately Sub-dominant	Mosaic of mesotrophic grassland, MG9 (30%), and calcifugous grassland and montane communities, located between the B9152 and the Highland Mainline Railway. The area is downslope of the B9152 and the railway line. The area is underlain by river terrace (gravel, sand, silt and clay) deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity to the B9152 and railway line, the topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
J652	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the south of the A9, between the B9152 and Loch Alvie. The area sits on a relatively flat area, downslope of the surrounding carriageways. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J653	Je	Moderately Dominant	Area of Je (100%) located to the south of the A9, between the B9152 and Loch Alvie. The land upon which the communities are located is reasonably level. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J654	Je/OV27/OV24a	Moderately Dominant	Mosaic of Je (80%) and tall-herbs weed communities located to the south of the A9, between the B9152 and Loch Alvie. The land upon which the communities are located is reasonably level. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J655	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the south of the A9, between the B9152 and Loch Alvie. The area sits on a relatively flat area, downslope of the track and B9152. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J657	Je/MG10a/S9a	Moderately Dominant	Mosaic of Je (50%), tall-herbs weed and mesotrophic grassland communities, MG10a (42%), located to the south of the A9, between the B9152 and Loch Alvie, and adjacent to a track. The area sits on a relatively flat area, surrounding a standing water/marshy area, downslope of the existing A9. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the proximity of the track, the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J659	Je	Moderately Dominant	Area of Je (100%) located to the south of the A9, between the B9152 and Loch Alvie. The area sits on a relatively flat area, within a standing water/marshy grassland, downslope of the existing A9. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the proximity to the track, the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J663	U4b/MG10a/OV24a	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, mesotrophic grasslands, MG10a (8%), and tall-herbs weed communities located to the south of the A9, between the B9152 and Loch Alvie. The area sits on a relatively flat area, upslope and downslope of the B9152. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. The area is located within Torr Alvie Ancient Woodland.	Low	Moderate	High

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			Due to the proximity of the B9152, the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
J666	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located to the south of the A9, between the B9152 and Loch Alvie. The area sits on a relatively flat area, downslope of the B9152. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon psammite and semipelite (very low productivity) bedrock. Due to the proximity of the A9, B9152, Highland Mainline Railway, the topography and low bedrock aquifer productivity, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
J679	W6	Moderately Dominant	Woodland, W6 (100%), located to the west of the A9, on the northern bank of Allt an Fhearna. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies 10m south of the area. Due to the proximity of the A9, the topography, low bedrock aquifer productivity, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J680	MG9a/U4d	Moderately Dominant	Mosaic of mesotrophic grassland, MG9a (65%), and calcifugous grassland and montane communities located to the west of the A9, on the northern bank of Allt an Fhearna. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies adjacent to the area. Due to the proximity of the A9, the topography, low bedrock aquifer productivity, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J681	W7/MG9a/W11	Highly Dominant	Mosaic of woodland, W7 (55%), and mesotrophic grassland, MG9a (25%), located to the west of the A9, on the northern bank of Allt an Fhearna. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies adjacent to the area. The area is partly located within Badenoch Ancient Woodland. Due to the proximity of the A9, the topography, low bedrock aquifer productivity, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
J682	MG9a	Moderately Dominant	Mesotrophic grassland, MG9a (100%), located to the west of the A9, on the northern bank of Allt an Fhearna. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie (designated as SSSI), lies 5m south to the area. Due to the proximity of the A9, the topography, low bedrock aquifer productivity, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J707	W4c	Highly Dominant	Woodland, W4c (100%), located to the west of the A9 and north of the General Wade's Military Road, within a forestry plantation. The area sits on a gentle slope midway down a hillside, upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Badenoch Ancient Woodland. Due to the proximity of the General Wade's Military Road, the topography, lack of significant superficial aquifer and drainage modified due to being located within a forestry plantation, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
J710	H9a/U4d/U20/M6c	Highly Sub-dominant	Mosaic of heath, calcifugous grassland and montane communities, and mire, M6c (2%), located west of the A9, immediately adjacent to a track within a forestry plantation. The area sits on a moderate slope midway down a hillside. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the forestry artificial drainage, the proximity to a track, the topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
J716	U4b/M23b/W23/OV27	Highly Sub-dominant	Mosaic of calcifugous grassland and montane communities, mire, M23b (35%), woodland, W23 (10%) and Epilobium angustifolium community, located immediately east of the A9. The area sits on a relatively flat area, downslope of the A9. The area is underlain by glaciofluvial sheet (gravel sand and silt) deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. GI works at borehole BHDS2012, immediately north of the area, indicates the area is underlain by topsoil, with sand and gravel beneath. Groundwater was not encountered at 3m depth. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
J721	U5/H12a/M25	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, heath and mire, M25 (5%), located to the west of the A9 and north of the General Wade's Military Road, within a forestry plantation. The area sits on a gentle slope, upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the General Wade's Military Road and access tracks, the topography, lack of significant superficial aquifer and drainage modified due to being located within a forestry plantation, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J722	W4c/M25b	Highly Dominant	Mosaic of woodland, W4c (70%), and mire, M25b (30%), located to the west of the A9 and north of the General Wade's Military Road, within a forestry plantation. The area sits on a gentle slope, upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Badenoch Ancient Woodland. Due to the proximity of the General Wade's Military Road and access tracks, the topography, lack of significant superficial aquifer and drainage modified due to being located within a forestry plantation, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
J730	M25/U4	Moderately Dominant	Mosaic of mire, M25 (70%), and calcifugous grassland and montane communities, located to the south-west of the A9, on the eastern bank of Allt nan Ceatharnach. The area is located downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of River Dulnain, lies adjacent to the area. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
J732	M25/U4	Moderately Dominant	Mosaic of mire, M25 (80%), and calcifugous grassland and montane communities, located to the south-west of the A9, on the eastern bank of Allt nan Ceatharnach. The area sits on a slight slope, downslope of the existing A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of River Dulnain, lies 5m south of the area. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Low	Medium
J738	H9a/W18/U5/MG9	Moderately Sub-dominant	Mosaic of heath, woodland, calcifugous grassland and montane communities, and mesotrophic grassland, MG9 (2%), located to the south-west of the A9, on the eastern bank of Allt nan Ceatharnach. The area sits on a slight slope towards the watercourse, downslope of the A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of River Dulnain, lies adjacent to the area. Due to the proximity of the A9, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
J739	M6c/S9a/M19a	Highly Dominant	Mire, M6c (60%), mixed with Carex Rostrata swamp, located to the south-west of the A9 and east of Allt nan Ceatharnach. The area sits on a slight slope towards the watercourse, downslope of the A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of River Dulnain, is located 17m east of the area. Due to the proximity of the A9, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity to a watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Moderate	High
NVC-NCAI1	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the north-west of the A9. The area sits on a steep slope, midway down a hillside, upslope of the existing A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. Due to the topography, lack of superficial aquifer and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and hill run-off.	Low	Moderate	High
NVC-NCAI10	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the north-east of the A9 and A938, along the Allt nan Ceatharnach western bank. The area sits on a moderate slope towards the watercourse, and is located downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity to the A938, the topography, the low productivity bedrock aquifer, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI12	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the west of the A9, adjacent to a track. The area sits on a slight slope midway down a hillside, towards the railway, and is located upslope of the existing A9. The area is underlain by glaciofluvial deltaic (and/or subaqueous fan) deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			Due to the proximity to the railway line and access tracks, the topography, the low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
NVC-NCAI13	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the east of the A9, and west of the B9152 and the Highland Mainline Railway. The area sits on a gentle slope towards the B9152, and downslope of the existing A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity to the B9152, railway line and access tracks, the topography, the low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI14	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the north-west of the A9, immediately west of the Highland Mainline Railway. The area sits on a moderate slope towards the railway line, upslope of the existing A9. The area is underlain by a glaciofluvial deltaic (and/or subaqueous fan) superficial deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the railway line, topography, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
NVC-NCAI15	NVC-NCAI	Moderately Dominant	Mosaic of communities located south-west of the A9, on a relatively flat area, along the Allt nan Ceatharnach eastern bank. The area is located downslope of the A9. Allt nan Ceatharnach, tributary of the River Dulnain, runs parallel to the area. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to a low productivity bedrock aquifer, a high groundwater level due to the proximity to the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI16	NVC-NCAI	Moderately Dominant	Woodland, along the River Spey banks and located east and downslope of the A9 and the Highland Mainline Railway. The area is underlain by river terrace deposits (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) overlain on Psammite and Semipelite (very low productivity). Due to the proximity of the railway, low productivity bedrock aquifer, a high groundwater level due to the proximity to the River Spey and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI17	NVC-NCAI	Moderately Dominant	Woodland, along the River Spey banks and located east and downslope of the A9 and the Highland Mainline Railway. The area is underlain by alluvium superficial deposits (moderate to high productivity) overlain on Psammite and Semipelite (very low productivity). Due to the proximity of the railway, low productivity bedrock aquifer, a high groundwater level due to the proximity to the River Spey and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI18	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the south-west of the A9 and the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity of the railway, low productivity bedrock aquifer, topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI19	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the south of the A9 and the Highland Mainline Railway. The area on a largely flat area, downslope of the existing A9. The area lies south of an unnamed pond. It is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) overlain on Gneissose Psammite and Semipelite (very low productivity). Due to the proximity to the pond, low productivity bedrock aquifer and topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI2	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the north of the A9 and Loch Alvie. The area is on a gentle slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the path, the topography, low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI20	NVC-NCAI	Moderately Dominant	Mosaic of communities located immediately north of the A9. The area at the base of a hillside, on a moderate slope towards the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the A9, lack of superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High

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NVC-NCAI21	NVC-NCAI	Moderately Dominant	Mosaic of communities located south of the A9. The area sits on a relatively flat area, downslope of the A9. The area is largely underlain by peat (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI22	NVC-NCAI	Moderately Dominant	Mosaic of communities immediately north of the National Cycle Route 7, south of the A9. The area sits on a flat area, downslope of the existing A9. The area is underlain by till (diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the cycle track, lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI23	NVC-NCAI	Moderately Dominant	Mosaic of communities north of the National Cycle Route 7, south of the A9. The area sits on a flat area, downslope of the existing A9. The area is underlain by till (diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the cycle track, lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI24	NVC-NCAI	Moderately Dominant	Mosaic of communities north of the National Cycle Route 7, immediately south of the A9. The area sits on a gentle slope, downslope of the existing A9. The area is underlain by till (diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the cycle track, lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI25	NVC-NCAI	Moderately Dominant	Mosaic of communities immediately south of the National Cycle Route 7, and south of the A9. The area sits on a gentle slope, downslope of the existing A9. The area is underlain by peat (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Allt Cosach runs parallel to the habitat. Due to the proximity to the watercourse and cycle track, lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI26	NVC-NCAI	Moderately Dominant	Small area south of the A9 and the Highland Mainline Railway. The area sits on a gentle slope, downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). An unnamed pond lies 8m south-east of the area. Due to the proximity to the pond and access track, low productivity bedrock aquifer and topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI27	NVC-NCAI	Moderately Dominant	Mosaic of communities on the River Dulnain banks, south-west of the existing A9. The area lies at a largely flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the River Dulnain and been located within a floodplain, low productivity bedrock aquifer and topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI28	NVC-NCAI	Moderately Dominant	Mosaic of communities on the River Dulnain banks, south-west of the existing A9. The area lies at a largely flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the River Dulnain and been located within a floodplain, low productivity bedrock aquifer and topography, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI29	NVC-NCAI	Moderately Dominant	Mosaic of communities located immediately east and upslope of the A938. The area sits on a largely flat area, upslope of the existing A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the proximity to the A938, lack of significant superficial aquifer, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI3	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the south-east of the A9 and Loch Alvie. The area sits on a relatively flat area, upslope of the B9152 and the railway line. The area is underlain by river terrace (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Due to the proximity of the B9152 and the railway line, the topography, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High

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NVC-NCAI30	NVC-NCAI	Moderately Dominant	Large area located south-west of the Highland Mainline Railway and the A9. The area sits on a moderate slope towards the railway line, upslope of the existing A9. The area is underlain by a range of superficial deposits from peat to glaciofluvial sheet deposits, with productivities ranging from low to high. The bedrock geology within the area is Gneissose Psammite and Gneissose Semipelite and Semipelite, both very low productivity. Two watercourses run through the area. As a result of all of the above, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI31	NVC-NCAI	Moderately Dominant	Mosaic of communities located north of the existing A9. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). Bogbain Burn runs through the area. Due to the proximity to Bogbain Burn, topography, lack of significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI32	NVC-NCAI	Moderately Dominant	Mosaic of communities located north-east of the existing A9. The area sits on a relatively flat area, at the base of a hillside, upslope of the A9. The area is underlain by river terrace deposits (gravel, sand, silt and clay) (moderate to high productivity) upon Felsic rock (very low productivity). A Drain, tributary of Loch Alvie, runs through the area. Due to the proximity to the Drain, topography, low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI33	NVC-NCAI	Moderately Dominant	Mosaic of communities located north of the existing A9, next to a track. The area sits on a relatively flat area, at the base of a hillside, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Felsic rock (very low productivity). Due to the topography, lack of significant superficial aquifer and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI34	NVC-NCAI	Moderately Dominant	Mosaic of communities located north of the existing A9, next to a track. The area sits on a relatively flat area, at the base of a hillside, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Felsic rock (very low productivity). A Drain, tributary of Loch Alvie, runs parallel to the area. Due to the proximity to the Drain, topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI35	NVC-NCAI	Moderately Dominant	Mosaic of communities located south-east of the existing A9, immediately north of the B9152. The area sits on a relatively flat area, downslope of the B9152. The area is underlain by river terrace deposits (moderate to high productivity) upon Felsic rock (very low productivity). Loch Alvie is located 30m north-west of the area. Due to the proximity to Loch Alvie, topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI36	NVC-NCAI	Moderately Dominant	Mosaic of communities located east of the A9, within the MacDonald Aviemore Resort. The area is located on a largely flat area, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Psammite and Semipelite (very low productivity). Due to the proximity to urban drainage, topography and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI37	NVC-NCAI	Moderately Dominant	Mosaic of communities located north-east of the Highland Mainline Railway and the A9. The area is located on a largely flat area, upslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). River Dulnain lies 50m north of the area. Due to the proximity to the River Dulnain, topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI38	NVC-NCAI	Moderately Dominant	Mosaic of communities located north-east of the Highland Mainline Railway and the A9. The area is located on a largely flat area, upslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). River Dulnain runs parallel to the area. Due to the proximity to the River Dulnain and been located within the floodplain, topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI39	NVC-NCAI	Moderately Dominant	Mosaic of communities located north-east of the Highland Mainline Railway and the A9. The area is located on a largely flat area, upslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity). River Dulnain runs parallel to the area. Due to the proximity to the River Dulnain and been located within the floodplain, topography and low productivity bedrock aquifer, a	Low	Moderate	High

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			combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
NVC-NCAI4	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the west of the A9, along the southern bank of Allt an Fhearna. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies adjacent to the area. Due to the proximity of the A9 and access tracks, the topography, low bedrock aquifer productivity, a high groundwater level due to the proximity to a watercourse and being located partially within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI40	NVC-NCAI	Moderately Dominant	Small area immediately east of a path, and east of the A9. The area is on a largely flat area, downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Psammite and Semipelite (very low productivity). Due to the proximity to the path and B9152, low productivity bedrock aquifer and topography, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
NVC-NCAI41	NVC-NCAI	Moderately Dominant	Small area east of the A9 and the Highland Mainline Railway. The area is located on an island within the Rothiemurchus Fisheries, on a flat area, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) (moderate to high productivity) upon Psammite and Semipelite (very low productivity). The area is surrounded by an artificial loch. Due to its location, topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI5	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the west of the A9 and Loch Alvie. The area sits on a slight slope, downslope of the A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies immediately north of the area. A Drain runs through the southern extents of the area. Due to the proximity of the A9 and track, the presence of artificial drainage, the topography, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI6	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the east of the A9 and west of the Loch Alvie. The area sits on a slight slope, downslope of the existing A9. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Psammite and Semipelite (very low productivity) bedrock. Allt an Fhearna, tributary of Loch Alvie, lies immediately north of the area. A Drain runs through the area. Due to the proximity of the A9 and track, the presence of artificial drainage, the topography, low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI7	NVC-NCAI	Moderately Dominant	Mosaic of communities located west of the A9, on a slight slope at the base of a hillside. The area is located upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to the forestry drainage, the topography, lack of a significant superficial aquifer and low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Not GW dependent	Low
NVC-NCAI8	NVC-NCAI	Moderately Dominant	Mosaic of communities located south-west of the A9, on a slight slope towards the River Dulnain. The area is located downslope of the A9. Two Drains, tributaries of the River Dulnain, run through the area. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) overlain on Gneissose Psammite and Gneissose Semipelite (very low productivity). Due to a low productivity bedrock aquifer, a high groundwater level due to the proximity to the watercourses and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
NVC-NCAI9	NVC-NCAI	Moderately Dominant	Mosaic of communities located to the north-east of the A9 and A938, along the Allt nan Ceatharnach eastern bank. The area sits on a relatively flat area, downslope of the existing A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity to the A938, the topography, the lack of significant superficial aquifer and low productivity bedrock aquifer, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
R002	W11/W17/W4b	Highly Sub-dominant	Woodland, W4b (5%), located to the west of the A9 and Aviemore, north of a track. The area is on a gentle slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose psammite and Gneissose semipelite (low productivity) bedrock. The area is located within Craigellachie SSSI. Due to the proximity of the A9, access tracks and Craigellachie Nature Trails, the topography, the lack of significant superficial aquifer and	Low	High	Very High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
R004	W4/W11	Highly Dominant	Woodland, W4 (80%), located to the west of the A9 and Aviemore, north of a track. The area is on a moderate slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. A Drain runs through the area. The area is located within Craigellachie National SSSI. Due to the proximity of the A9, access tracks and Craigellachie Nature Trails, the topography, the lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
R007	W4/W17	Highly Dominant	Woodland, W4 (70%), located to the west of the A9 and Aviemore, north of a track. The area is on a moderate slope, upslope of the A9. The area is underlain by glaciofluvial (gravel, sand and silt) sheet deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. A Drain lies 30m east of the area. The area is located within Craigellachie National Nature Reserve. Due to the proximity of the A9, access tracks and Craigellachie Nature Trails, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
R011	W4b/W17	Highly Dominant	Woodland, W4b (80%), located to the west of the A9 and Aviemore, north of a track. The area is on a moderate slope, midway down a hillside, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. The area is located within Craigellachie SSSI. Due to the proximity of the A9, the topography, lack of a significant superficial aquifer and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
R016	W17/W11/W4	Highly Sub-dominant	Woodland, W4 (5%), located to the west of the A9 and Aviemore, north of a track. The area is on a moderate slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. A Drain runs through the area. The area is located within the Craigellachie Ancient Woodland and the Craigellachie SSSI. Due to the proximity of the A9, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
R017	W17/W4	Highly Sub-dominant	Woodland, W4 (40%), located to the west of the A9 and Aviemore, north of a track. The area is on a gentle slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (low productivity) bedrock. A Drain runs through the area. The area is located within the Craigellachie Ancient Woodland and entirely located within Craigellachie SSSI. Due to the proximity of the A9, the track, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	High	Very High
R034	W11/W4	Highly Sub-dominant	Woodland, W4 (34%), located to the north of the A9 and Loch Alvie, east of an Issues and path. The area is on a gentle slope, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. An Issues, tributary of Loch Alvie, lies 15m west of the area. The area is located within the Alvie Ancient Woodland. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
R043	W11d/W7b/W4b	Highly Sub-dominant	Woodland communities including W7b (5%) and W4b (5%), located to the north of the A9 and Loch Alvie, between the A9 and Kinchauns Farm track. The area is on a slight slope, upslope of the A9. The area is underlain by river terrace (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. An Issues, tributary of Loch Alvie, runs through the area. The area is located within the Alvie Ancient Woodland. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
R069a	M15	Moderately Dominant	Wet heath, M15 (100%), located to the north of the A9 and Loch Alvie, adjacent to Ballinluig access track. The area is on a slight slope, upslope of the A9. The area is underlain by river terrace (gravel, sand, silt and clay) superficial deposits (moderate to high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. An unnamed watercourse, tributary of Loch Alvie (designated as SSSI), runs through the area. Six unnamed ponds lie less than 150m in proximity to the area. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer and a high groundwater level due	Low	Low	Medium

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			to the proximity of the watercourse and ponds, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.			
R069b	M15	Moderately Dominant	Wet heath, M15 (100%), located to the north of the A9 and Loch Alvie, adjacent to Ballinluig access track. The area is on a slight slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Caochan Ruadh, Issues and an unnamed watercourse, tributaries of Loch Alvie (designated as SSSI), run through the area. Six unnamed ponds lie less than 150m in proximity to the area. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer and a high groundwater level due to the proximity of the watercourses and ponds, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
R070	M15/M3	Moderately Dominant	Wet heath, M15 (90%), with bog pool community located to the north of the A9 and Loch Alvie, adjacent to Ballinluig access track. The area is on a slight slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Caochan Ruadh, Issues and an unnamed watercourse, tributaries of Loch Alvie (designated as SSSI), lie 200m of the area. Two unnamed ponds are located within the area, and four unnamed ponds lie less than 100m in proximity to the area. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourses and ponds, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
R071	SW/S9/JE	Moderately Sub-dominant	Pond with Je (25%) and *Carex Rostrata* located to the north of the A9 and Loch Alvie, adjacent to Ballinluig access track. The area is on a slight slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) superficial deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. The area overlays an unnamed pond. Caochan Ruadh, Issues and an unnamed watercourse, tributaries of Loch Alvie (designated as SSSI), merge with the pond at the eastern scheme extents. Five unnamed ponds are located within the area, and four unnamed ponds lie less than 50m in proximity to the area. Due to the proximity of the surrounding access tracks, the topography, low productivity bedrock aquifer, a high groundwater level due to the proximity of the watercourses and being located within a pond, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
R082	SW/M23b/JE/U4	Highly Sub-dominant	Pond with mire communities, M23b (25%), and Je (15%), located to the north of the A9 and Loch Alvie, adjacent to a track. The area is on a slight slope, upslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. The area overlays an unnamed pond. Due to the proximity of the surrounding access tracks and paths, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the being located within a pond, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
R100a	M23b	Highly Dominant	Mire, M23b (100%), around an unnamed pond located to the north of the A9 and Loch Alvie, adjacent to Ballinluig Farm track. The area is on a slight slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. A small proportion of the area overlays an unnamed pond. Due to the proximity of the surrounding access tracks and paths, the topography, low productivity bedrock aquifer and a high groundwater level due to the proximity to a pond, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
R100b	M23b	Highly Dominant	Mire, M23b (100%), around an unnamed pond located to the north of the A9 and Loch Alvie, north-west of Ballinluig Farm track. The area is on a slight slope, upslope of the A9. The area is underlain by glaciofluvial sheet (gravel, sand and silt) deposits (high productivity) upon felsic rock (unnamed igneous intrusion) (very low productivity) bedrock. Due to the proximity of the surrounding access tracks and paths, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity to a pond, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W002	H12b/M6c	Highly Sub-dominant	Mosaic of heath and mire, M6c (20%), north-east of the A9. The area is on a slight slope towards the A9. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (unnamed igneous intrusion) (very low productivity) bedrock. GI works at trial pit TPDS2060 immediately to the south indicate the area is underlain by peat to 2.15m, then sand and gravel deposits, with clay pockets, beneath, with groundwater encountered to 3.0mbgl. Due to the GI results, the proximity to the A9, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
W004	M6c	Highly Dominant	Mire, M6c (100%), community located to the north-east of the A9, east of the U2856. The area is on a slight slope, upslope of the A9. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cosach, tributary of the River Findhorn, is channelled below the A9 180m west of the area. Due to the proximity of the A9, General Wade's Military Road and access tracks, the topography, lack of significant superficial aquifer and	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
W005	U5d/M6c	Highly Dominant	Mosaic of calcifugous grassland and montane communities, and mire, M6c (50%), located to the north-east of the A9, east of the U2856. The area is on a slight slope, upslope of the A9. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt Cosach, tributary of the River Findhorn, is channelled below the A9 135m west of the area. Due to the proximity of the A9, General Wade's Military Road and access tracks, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W012	H12b/U4d/M6c	Highly Sub-dominant	Mosaic of heath, calcifugous grassland and montane communities, and mire, M6c (10%), north-east of the A9. The area is at the base of a hillside. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Semipelite (very low productivity) bedrock. GI works at trial pits TPDS2058 and TPDS2059, indicate the area is underlain by peat to 0.3m, then sand and gravel deposits, with clay beneath, with groundwater not encountered to 4.5m depth. Due to the GI results, the proximity to the A9, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	High	Moderate	High
W014	H12b/M6c	Highly Sub-dominant	Mosaic of heath and mire, M6c (30%), north-east of the A9. The area is at the base of a hillside. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2060 immediately north indicate the area is underlain by peat to 2.15m, then sand and gravel deposits, with clay beneath, with groundwater encountered to 3mbgl. Due to the GI results, the proximity to the A9, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
W015	M16d/M6c/M19	Highly Dominant	Mire communities including M16d (50%) and M6c (45%), north-east of the A9. The area is at the base of a hillside. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. GI works at trial pit TPDS2060 immediately south indicate the area is underlain by peat to 2.15m, then sand and gravel deposits, with clay beneath, with groundwater encountered to 3mbgl. Due to the GI results, the proximity to the A9, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Medium	Moderate	High
W032	M16d/M15a	Highly Dominant	Mire communities including M16d (98%) and M15a (2%), located to the east of the A9, north of Slochd. The area is on a moderate slope, upslope of the A9. The area is underlain by till (Diamicton) superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off. However, as a number of springs are noted on the hillside it is considered that groundwater within the superficial layer may play a larger role than precipitation and surface water generated run-off in this location.	Low	High	Very High
W045	Je	Moderately Dominant	Area of Je (100%) located to the north of the A9 and Slochd, adjacent to a track. The area is on a steep slope, upslope of the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the A9 and access tracks, steepness of the slope, lack of superficial aquifer and a low productivity bedrock aquifer, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
W052	U16	Highly Dominant	Calcifugous grassland and montane communities, U16 (100%), north of the A9 and the U2400, and east of the Highland Mainline Railway. The area is on a relatively flat area within a forestry plantation. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the Highland Mainline Railway and the U2400, modified forestry drainage, topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W057a	M23b	Highly Dominant	Mire, M23b (100%), north of the A9 and the U2400, and east of the Highland Mainline Railway. The area is on a relatively flat area within a forestry plantation. A forest track crosses the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the proximity to the Highland Mainline Railway, U2400 and track, modified forestry drainage, topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity to a watercourse, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W057b	M23b	Highly Dominant	Mire, M23b (100%), north of the A9 and the U2400, and east of the Highland Mainline Railway. The area is on a relatively flat area within a forestry plantation. A forest track is adjacent to the area. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan			

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			Ceatharnach, runs through the area. Due to the proximity to the Highland Mainline Railway, U2400 and track, modified forestry drainage, topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity to a watercourse, the area is likely to be fed predominantly by precipitation and surface generated run-off.			
W061	M16d	Highly Dominant	Mire, M16d (100%), north of the A9 and the U2400. The area is on a moderate slope within a forestry plantation. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the modified forestry drainage, topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W064	M19/M16d	Highly Sub-dominant	Mire, M16d (20%), north of the A9 and immediately adjacent to the U2400. The area is on a relatively flat area within a forestry plantation. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W082	W17c/W7a	Highly Dominant	Woodland, W7a (50%), located to the north of the A9 and adjacent to the Highland Mainline Railway. The area is located downslope of the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the proximity of the Highland Mainline Railway and access tracks, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer and a high groundwater level due to the proximity of the burn and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W084	W7/W17/W4/W18/W11	Highly Dominant	Woodland communities including W7 (35%) and W4 (15%), north of the A9 and immediately adjacent to the Highland Mainline Railway. The area is on a relatively flat area, downslope of the A938 and the railway line. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. As a result of all of the above, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W089	M6c	Highly Dominant	Mire, M6c (100%), located to the north of the A9, A938 and the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the railway and the A9. The area is underlain by peat (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, is located 47m south of the area. Due to the proximity of the Highland Mainline Railway, A938 and access tracks, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W090	W4b	Highly Dominant	Woodland, W4b (100%), located to the north of the A9, adjacent to the A938 and the Highland Mainline Railway. The area is located downslope of the existing A9 and A938. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the proximity of the Highland Mainline Railway, A938 and access tracks, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W095	U4d/M6c	Highly Dominant	Mosaic of calcifugous grassland and montane communities, and mire, M6c (50%), immediately north of the Highland Mainline Railway. The area is on a relatively flat area, downslope of the railway line. The area is underlain by peat superficial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the proximity to the railway line, topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W097	M19a/M6c	Highly Sub-dominant	Mire, M6c (7%), located to the north of the A9 and the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the railway line and the A9. The area is underlain by peat (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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W111	M16d	Highly Dominant	Mire, M16d (100%), located immediately north of a track. The area sits on a relatively flat area, upslope of the railway line and parallel/downslope to the A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity of the track, the topography, lack of significant superficial aquifer and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W120	M9	Highly Dominant	Mire, M9 (100%), located immediately north of the Highland Mainline Railway. The area sits on a relatively flat area, downslope of the railway, A938 and A9. The area is underlain by hummocky (moundy) glacial deposits (Diamicton, sand and gravel) (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the presence of artificial drains, proximity to the railway line, topography, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W121	M16d	Highly Dominant	Mire, M16d (100%), located north of the Highland Mainline Railway. The area is on a relatively flat area, downslope of the railway line and the A938. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, lies 16m south of the area. Due to the presence of artificial drains, proximity to the railway line, topography, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W123	M6c	Highly Dominant	Mire, M6c (100%), located north of the Highland Mainline Railway. The area is on a relatively flat area, downslope of the railway line. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, runs through the area. Due to the presence of artificial drains, proximity to the railway line, topography, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W125	M16d	Highly Dominant	Mire, M16d (100%), located north of the Highland Mainline Railway. The area is on a relatively flat area, downslope of the railway line. The area is underlain by hummocky (moundy) glacial deposits (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, lies 23m south of the area. Due to the presence of artificial drains, proximity to the railway line, topography, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Moderate	High
W126	M5	Highly Dominant	Mire, M5 (100%), located north of the Highland Mainline Railway. The area is on a relatively flat area, downslope of the railway line. The area is underlain by alluvium superficial (clay, silt, sand and gravel) deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Bogbain Burn, tributary of Allt nan Ceatharnach, lies immediately south of the area. Due to the presence of artificial drains, proximity to the railway line, topography, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, lack of significant superficial aquifer and a low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface generated run-off.	Low	Not GW dependent	Low
W140	M20/M6c	Highly Sub-dominant	Mire, M6c (5%), located to the north-east of the A9, between the Highland Mainline Railway and the A938. The area sits on a relatively flat area, downslope of the railway, the A9 and the A938. The area is underlain by alluvium superficial deposits (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity of the Highland Mainline Railway and A938, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W144	M16d/M6c	Highly Dominant	Mire communities including M16d (65%) and M6c (35%), located to the north-east of the A9, between the Highland Mainline Railway and the A938. The area sits on a relatively flat area, adjacent to Allt nan Ceatharnach eastern bank, downslope of the railway and the A9. The area is underlain by alluvium superficial deposits (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity of the Highland Mainline Railway and A938, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High

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W145	M16d/M6c	Highly Dominant	Mire communities including M16d (65%) and M6c (35%), located to the north-east of the A9, between the Highland Mainline Railway and the A938. The area sits on a relatively flat area, adjacent to Allt nan Ceatharnach western bank, downslope of the A9. The area is underlain by alluvium superficial deposits (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity of the Highland Mainline Railway and A938, the topography, low productivity bedrock aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W146	M16d/W18b	Highly Dominant	Mosaic of mire, M16d (85%), and woodland communities, located to the north-east of the A9, between the Highland Mainline Railway and the A938. The area sits on a relatively flat area, adjacent to Allt nan Ceatharnach western bank, downslope of the A9. The area is underlain by alluvium superficial deposits (clay, silt, sand and gravel) (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Allt nan Ceatharnach, tributary of the River Dulnain, is located adjacent to the area. Due to the proximity of the Highland Mainline Railway and A938, the topography, low productivity bedrock aquifer and, a high groundwater level due to the proximity of the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W170	W4c	Highly Dominant	Woodland, W4c (100%), located east and downslope of the existing A9, immediately east of the Highland Mainline Railway. This area is largely flat and downslope of the railway and the A9. Feith Mhor, tributary of River Dulnain, lies immediately east of the area. The area is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Badenoch Ancient Woodland. Due to the proximity to the railway line, the topography and, a high groundwater level due to the proximity to the watercourse and being located partially on a floodplain, low productive bedrock aquifer, the area is likely to be predominantly fed by precipitation and surface generated run-off.	Low	Moderate	High
W174	M9	Highly Dominant	Mire, M9 (100%), located east and downslope of the A9 and the Highland Mainline Railway. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The community is located on a slight/moderate gradient within an area of forestry and as a result is considered to be modified by this feature. Due to the topography and the proximity to the Highland Mainline Railway, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W176	W4c	Highly Dominant	Woodland, W4b (100%), located east of the A9 and the Highland Mainline Railway, at the base of its embankment. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The community is located on a slight/moderate gradient within an area of forestry and as a result is considered to be modified by this feature. Due to the topography and the proximity to the Highland Mainline Railway, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W185	W4c	Highly Dominant	Woodland, W4c (100%), located east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located upon the lower western slopes of Docharn Craig, on a slight gradient, within an area of woodland. As the area is within woodland, it is likely to contain artificial drainage, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W186	W3	Moderately Dominant	Woodland, W3 (100%), located east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located upon the lower western slopes of Docharn Craig, on a slight gradient, within an area of woodland. As the area is within woodland, it is likely to contain artificial drainage, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W190	W4b	Highly Dominant	Woodland, W4b (100%), located east of the A9, the Highland Mainline Railway and, east and upslope of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located upon the lower western slopes of Docharn Craig, on a slight gradient, within an area of woodland. As the area is within woodland, it is likely to contain artificial drainage, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W193	M6c	Highly Dominant	Mire, M6c (100%), located east of the A9, the Highland Mainline Railway, and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a roadside drainage ditch and as a result is considered to be modified by this feature.	Low	Moderate	High

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			Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.			
W196	M4/M6c	Highly Sub-dominant	Mire communities including M4 (80%) and M6c (20%), located east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a forestry clearing upslope of the B9153. Due to the relatively flat topography of the area and that groundwater levels already potentially lowered/altered due to the downslope B1953 and associated drainage, the area is likely to be fed by a combination of groundwater, precipitation and surface water generated runoff.	Low	Moderate	High
W197	S9a/W3	Moderately Sub-dominant	Woodland, W4c (100%), located east of the A9 and the Highland Mainline Railway, and immediately east of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within and upslope of roadside drainage ditch on a slight/moderate slope, and as a result it is considered to be modified by the drainage ditch. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W199	W4c	Highly Dominant	Swamp, S9a (80%), and woodland, W3 (20%), located east of the A9 and the Highland Mainline Railway, and immediately east of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within and upslope of a roadside drainage ditch on a slight/moderate slope, and as a result groundwater levels are considered to be modified by the drainage ditch. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W200	M27a	Moderately Dominant	Mire, M27a (100%), located east of the A9 and the Highland Mainline Railway, and immediately east of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a roadside drainage ditch on a slight slope, and as a result groundwater levels are considered to be modified by the drainage ditch. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Low	Medium
W202	W4c/W18b/W17d	Highly Dominant	Woodland communities including W4c (70%), W18b (20%) and W17d (10%), located east of the A9 and the Highland Mainline Railway, and upslope and east of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within forestry containing forestry drainage ditches on a slight/moderate slope, and as a result groundwater levels are considered to be modified. Due to the slight/moderate gradient in the area and low productivity bedrock, the area is likely to be fed by a combination of groundwater, precipitation and surface water generated runoff.	Low	Moderate	High
W206	W4c	Highly Dominant	Woodland, W4c (100%), located to the north-east of the A9 and the Highland Mainline Railway. The area lies immediately east of the B9153, downslope of the A9. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the B9153, the topography and a low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W208	W4b	Highly Dominant	Woodland, W4b (100%), located east of the A9, the Highland Mainline Railway, and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a roadside drainage ditch and as a result it is considered to be modified by this feature. It also located within the Duthil and Rothiemurchus Ancient Woodland. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.	Low	Moderate	High
W209	W4c	Highly Dominant	Woodland, W4c (100%), located to the north-east of the A9 and the Highland Mainline Railway. The area lies immediately east and upslope of the B9153, on a slight slope, downslope of the A9. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within Duthil and Rothiemurchus Ancient Woodland. Due to the proximity of the B9153, the topography and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W210	W4b	Highly Dominant	Woodland, W4b (100%), located east of the A9, the Highland Mainline Railway, and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a roadside drainage ditch and as a result it is considered to be modified by this feature. It also located	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			within the Duthil and Rothiemurchus Ancient Woodland. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the community.			
W211	M6c/S9a	Highly Dominant	Mire, M6c (60%), and swamp, S9a (40%), located east of the A9, the Highland Mainline Railway, and immediately east of the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a roadside drainage ditch and as a result is considered to be modified by this feature. Due to the topography, the proximity to the B9153 and the area being located within a drainage ditch, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High
W216	M25a/S9a	Moderately Dominant	Mire, M25a (80%), and swamp, S9a (20%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a man-made clearing beneath overhead lines. As the area was plantation forestry a number of forestry drains, artificially altering the groundwater levels in the area are evident. Due to the area's topography and the area being located within an area containing a number of drainage ditches, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Low	Medium
W217	M25a	Moderately Dominant	Mire, M25a (100%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within a man-made clearing beneath overhead lines. As the area was plantation forestry a number of forestry drains, artificially altering the groundwater levels in the area are evident. Due to the area's topography and the area being located within an area containing a number of drainage ditches, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Low	Medium
W218	W4c	Highly Dominant	Woodland, W4c (100%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. As the area is plantation forestry a number of forestry drains, artificially altering the groundwater levels in the area are present. Due to the area's topography and the area being located within an area containing a number of drainage ditches, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High
W219	W4c/W18b	Highly Dominant	Woodland communities including W4c (50%) and W18b (50%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. As the area is plantation forestry a number of forestry drains, artificially altering the groundwater levels in the area are present. Due to the area's topography and the area being located within an area containing a number of drainage ditches, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High
W220	W4c/W18c	Highly Dominant	Woodland communities including W4c (80%) and W18b (20%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. The area is located within the Duthil and Rothiemurchus Ancient Woodland. As the area is plantation forestry a number of forestry drains, artificially altering the groundwater levels in the area are present. Due to the area's topography and the area being located within an area containing a number of drainage ditches, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High
W225	CG10a	Highly Dominant	Calcicolous grassland, CG10a (100%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. As the area is within forestry, and is immediately upslope of the B9153, upon a steep gradient, the groundwater in this area is considered to be drawn down artificially altering the groundwater levels. Due to the area's topography, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High
W226	U4b/CG10a	Highly Sub-dominant	Calcifugous grasslands and montane communities, U4b (95%), and calcicolous grassland, CG10a (5%), located upslope and east of the A9, the Highland Mainline Railway and the B9153. The area is underlain by glaciofluvial ice contact deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. As the area is within forestry, and is immediately upslope of the B9153, upon a steep gradient, the groundwater in this area is considered to be drawn down artificially altering the groundwater levels. Due to the area's topography, surface generated run-off and precipitation are considered to be the main sources of water for the communities.	Low	Moderate	High

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W240	M25a/M17a	Moderately Dominant	Mire communities including M25a (70%), located downslope and to the east of the A9, between the Highland Mainline Railway and the B9153. The area is located on a relatively flat area, downslope of the A9, railway and B9153. The area is underlain by peat (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. An Issues runs through the area. Due to the proximity of the Highland Mainline Railway, B9153 and access tracks, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity to the watercourse and being located within a floodplain, precipitation and surface generated run-off are considered to have more influence of the communities present, rather than groundwater.	Low	Low	Medium
W242	M6c	Highly Dominant	Mire, M6c (100%), located to the east of the A9, between the Highland Mainline Railway and the B9153. The area is located downslope of the A9. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. An Issues is located 63m east of the area. Due to the proximity of the Highland Mainline Railway, B9153 and access tracks, the topography, low productivity bedrock aquifer, and a high groundwater level due to the proximity to the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W243	W4	Highly Dominant	Woodland, W4 (100%), located to the east of the A9, between the Highland Mainline Railway and the B9153. The area is located downslope of the A9. The area is underlain by peat (not a significant aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. An Issues is located 30m east of the area. Due to the proximity of the Highland Mainline Railway, B9153 and access tracks, the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, and a high groundwater level due to the proximity to the watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W291	M28a	Moderately Dominant	Mire, M28a (100%), located downslope of the A9, the Highland Railway Mainline and the A95. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Felsic Rock (low productivity) bedrock. The community is located partially within a small pond. A combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off, as the community is within a small waterbody the groundwater level is considered to be high, however the groundwater pathways may already be potentially altered due to the community being downslope of the A95 and A9.	Low	Moderate	High
W294	M28a	Moderately Dominant	Mire, M28a (100%), located downslope of the A9, the Highland Railway Mainline and the A95. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Felsic Rock (low productivity) bedrock. The community is also adjacent to Allt Cnapach. A combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off, as the community is adjacent to a watercourse the groundwater level is considered to be moderate/high, however the groundwater pathways may already be potentially altered due to the community being downslope of the A95 and A9.	Low	Moderate	High
W311	M23b	Highly Dominant	Mire, M23b (100%), located on the shore north of Avie Lochan, downslope of the A95 and the existing A9. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. A combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off, as the communities are on the shoreline of Avie Lochan the groundwater levels are considered to be high, however the groundwater pathways may already be potentially altered due to the communities being downslope of the A95, A9 and housing/farms.	Low	Moderate	High
W321	M23b	Highly Dominant	Mire, M23b (100%), located north west of Avie Lochan, adjacent and downslope of the A95 and downslope of the existing A9. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. A combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off, as the communities are located in a depression and in close proximity to a small waterbody the groundwater levels are considered to be high and the groundwater pathways in the vicinity already potentially altered due to the communities being downslope of the A95, A9 and housing/farms.	Low	Moderate	High
W327	MG9/W24	Moderately Dominant	Mesotrophic grassland, MG9 (80%), and woodland/scrub, W24 (20%), communities located north west of Avie Lochan, downslope of the A95 and the existing A9. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. A combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off, as the communities are located on raised terrain and in close proximity to a small waterbody the groundwater levels are considered to be moderate/high and the groundwater pathways in the vicinity already potentially altered due to the communities being downslope of the A95 and A9.	Low	Moderate	High
W351	S9a/M6c	Highly Sub-dominant	Swamp and mire, M6c (10%), located east and downslope of the B9152. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. The communities surround a small pond.	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			Due to the surrounding topography, the proximity to a small waterbody indicating high water levels and groundwater pathways from upslope of the B9152 already potentially altered due to the road and associated drainage, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
W357	M28a/S9a/SW/W7b	Highly Sub-dominant	Mire, M28a (40%), swamp, and woodland communities, W7b (5%), located south-east and immediately downslope of the B9152. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. The communities surround a small pond. Due to the surrounding topography, the proximity to a small waterbody indicating high water levels and groundwater pathways from upslope of the B9152 already potentially severed/altered due to the road and associated drainage, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
W369	S9a/M6c	Highly Dominant	Swamp, and mire, M6c (50%), communities located east and downslope of the B9152. The area is underlain by glaciofluvial ice contact deposits (high productivity) upon Psammite and Semipelite (low productivity) bedrock. The communities are located in a depression, with potential surface run-off from a small hill and the B9152 and its associated drains. They are also 20m upslope of an unnamed watercourse/ditch, which is characterised by having steep sided banks, and is considered to draw down the groundwater levels in the surrounding land. Due to the topography of the area, groundwater pathways from upslope of the B9152 already potentially severed/altered due to the road and associated drainage, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Moderate	High
X053	W11/W7	Highly Sub-dominant	Mosaic of wet woodland including W7 (30%), located south-east and downslope of the existing A9. Allt an Fhearna, tributary of Loch Alvie, runs adjacent to the area. This area is largely flat and is underlain by alluvium (clay, silt, sand and gravel) superficial deposits (moderate to high productivity) upon Felsic Rock (unnamed igneous intrusion) (very low productivity) bedrock. The area lies within Alvie SSSI. Due to the close proximity to Loch Alvie and Allt an Fhearna (resulting in a high water table), the topography, a high groundwater level due to being located on a floodplain, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the woodland present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z003-	Je	Moderately Dominant	Area of Je (100%) located south of the A9 and the Highland Mainline Railway. The area is on a gentle slope towards the railway line, downslope of the A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the lack of superficial aquifer, low productivity bedrock aquifer, topography, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
Z005-	M23b/U4a/M6c/H12a/ W19	Highly Dominant	Mosaic of mire including M23b (50%) and M6c (3%), calcifugous grassland and montane communities, heath and woodland communities, located to the south-west of the A9. Allt Cosach, tributary of the River Findhorn, runs through the area. The area is on a gentle slope towards the railway line, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the access tracks, low productivity bedrock aquifer, a high groundwater level due to the proximity to a watercourse and being located within a floodplain, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z007-	Je/U4/U5/W19	Moderately Dominant	Mosaic of Je (95%), calcifugous grassland and montane communities, and woodland, located to the south-west of the A9. An unnamed watercourse, tributary of the Allt Cosach, runs through the area. The area is on a gentle slope towards the railway line, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the track and the watercourse, the topography, a low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z011-	U4a/Je/U5	Moderately Sub-dominant	Mosaic of calcifugous grassland and montane communities, and Je (15%), located to the south-west of the A9. Allt Cosach, tributary of River Findhorn, runs through the area. The area is on a gentle slope towards the railway line, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the track and the watercourse, the topography, a low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z014-a	Je/U4a/U5a	Moderately Dominant	Mosaic of Je (75%), and calcifugous grassland and montane communities, located immediately south-west of the Highland Mainline Railway and the A9. Allt Cosach, tributary of the River Findhorn, runs through the area. The area sits on a gentle slope towards the railway line, and downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the railway line, a high groundwater level due to the proximity to a watercourse, the topography, a combination of	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.			
Z014-b	Je/U4a/U5a	Moderately Dominant	Mosaic of Je (75%), and calcifugous grassland and montane communities, located immediately south-west of the Highland Mainline Railway and the A9. Allt Cosach, tributary of the River Findhorn, lies 80m west of the area. The area sits on a gentle slope towards the railway line, and downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the railway line, a high groundwater level due to the proximity to a watercourse, the topography, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z021-	M6c/Je	Highly Dominant	Mire, M6c (90%), with Je (10%), located south-west of the A9. Allt Cosach, tributary of the River Findhorn, runs through the area. The area sits on a largely flat area, upslope of the Highland Mainline Railway and the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the watercourse, the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z025-	H12c/U4/U6d/W19/U5	Moderately Sub-dominant	Mosaic of heath, calcifugous grassland and montane communities including U6d (10%), and woodland, located south-west of the A9. Allt Cosach, tributary of River Findhorn, runs immediately east of the area. The area sits on a largely flat area, upslope of the Highland Mainline Railway and the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the watercourse, the topography, low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z029-	U6d	Moderately Dominant	Calcifugous grassland and montane communities, U6d (100%), located south-west of the Highland Mainline Railway and the A9. The area sits on a relatively flat area, upslope of the railway and the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z030-a	Je/U6d/U4a	Moderately Dominant	Mosaic of Je (50%), and calcifugous grassland and montane communities, located immediately south-west of the Highland Mainline Railway and the A9. Allt Cosach, tributary of the River Findhorn, runs parallel to the area. The area sits on a gentle slope towards the railway line, and downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, a high groundwater level due to the proximity to a watercourse, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z030-b	Je/U6d/U4a	Moderately Dominant	Mosaic of Je (50%), and calcifugous grassland and montane communities including U6d (48%), located south-west of the Highland Mainline Railway and the A9. Allt Cosach. The area sits on a relatively flat area, upslope of the railway and downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z041-	M23b/Je/U4a	Highly Dominant	Mosaic of Je (90%), and calcifugous grassland and montane communities, located south-west of the Highland Mainline Railway and the A9. An unnamed pond overlays partially the area. The area sits on a relatively flat area, upslope of the railway and downslope of the existing A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to a pond, the topography, low bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z043-	Je	Moderately Dominant	Area of Je (100%) located south-west of the Highland Mainline Railway and the A9. The area sits on a relatively flat area, upslope of the railway and the existing A9. The area is underlain by a thin layer of soils upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to a track, the topography, lack of superficial aquifer, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
Z046-	Je/U4/U5	Moderately Dominant	Mosaic of Je (65%), and calcifugous grassland and montane communities, located south-west of the Highland Mainline Railway and the existing A9. The area sits on a relatively flat area, upslope of the railway and the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock.	Low	Moderate	High

Polygon ID	NVC Community Name	Initial SEPA Groundwater Dependency	Baseline Environment of hydrology, hydrogeology, soil, groundwater and drainage conditions.	Confidence	Revised GW Dependency	Sensitivity
			Due to the proximity to the access tracks, the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.			
Z049-	Je/U5	Moderately Dominant	Mosaic of Je (98%), and calcifugous grassland and montane communities, located south-west of the Highland Mainline Railway and the existing A9. The area sits on a gentle slope towards the railway, upslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to a track, the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z051-	M23b/Je/M6c/U4	Highly Dominant	Mosaic of mire including M23b (70%) and M6c (9%), Je (20%), and calcifugous grassland and montane communities, located south-west of the Highland Mainline Railway and the A9. The area sits on a gentle slope towards the railway, downslope of the A9. The area is underlain by glaciofluvial sheet deposits (gravel, sand and silt) (high productivity) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to a track, the topography, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Moderate	High
Z067-	MG10a	Moderately Dominant	Mesotrophic grassland, MG10a (100%), located south-west of the A9, and immediately north of the Highland Mainline Railway. The area sits on a gentle slope, downslope of the A9. The area is underlain by a thin layer of soils (not aquifer) upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the proximity to the cycle path, the A9 and the railway, the topography, lack of superficial aquifer and low productivity bedrock aquifer, a combination of water sources are considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium
Z076-a	M6c	Highly Dominant	Mire, M6c (100%), located to the north-east of the A9. The area sits on a gentle slope, upslope of the A9. The area is underlain by peat (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z076-b	M6c	Highly Dominant	Mire, M6c (100%), located to the north-east of the A9. The area sits on a gentle slope, upslope of the A9. The area is underlain by till (Diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater, precipitation and surface generated run-off.	Low	Moderate	High
Z079-a	Je/U4a	Moderately Dominant	Mosaic of Je (80%) and calcifugous grassland and montane communities, located to the north-east of the A9. The area sits on a gentle slope, upslope of the existing A9. The area is underlain by till (Diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, the area is likely to be fed predominantly by precipitation and surface water generated runoff.	Low	Low	Medium
Z079-b	Je/U4a	Moderately Dominant	Mosaic of Je (80%) and calcifugous grassland and montane communities, located to the north-east of the A9. The area sits on a gentle slope, upslope of the existing A9. The area is underlain by till (Diamicton) (not a significant aquifer) superficial deposits upon Gneissose Psammite and Gneissose Semipelite (very low productivity) bedrock. Due to the topography, lack of significant superficial aquifer, low productivity bedrock aquifer, a combination of water sources is considered likely to be supplying the communities present in the area in addition to groundwater; precipitation and surface generated run-off.	Low	Low	Medium

Table 7.3: Revised groundwater dependency within 250m study area

Revised Groundwater Dependency	Sensitivity	Area (ha)	No of polygons
High	Very High	20.74	40
Moderate	High	243.37	312
Low	Medium	19.65	116
Not Groundwater Dependent	Low	18.23	39
Total		302.35	507

7.1.9. The results show that approx. 86% of the NVC habitats initially identified using the SEPA criteria, are still considered as GWDTEs with potential High, Moderate or Low groundwater dependence. Therefore 14% of the communities are no longer considered to be groundwater dependent or hydrologically linked to the scheme.

7.1.10. For the purpose of this assessment, NVC communities which are defined as highly dependent are considered to be genuinely groundwater dependent and are considered to be of Very High sensitivity.

7.1.11. Areas with potential moderate groundwater dependency are likely to feature a combination of surface and groundwater dependency, and are considered to be of High sensitivity. Low groundwater dependency areas are likely to be predominantly fed by surface runoff and direct rainfall, but groundwater inputs cannot be entirely ruled out. These are deemed to be of Medium Sensitivity.

7.1.12. The limited coverage of monitoring wells across the scheme does not provide enough information to determine whether these areas are solely groundwater fed at the present time. It is proposed that further groundwater monitoring is carried out at a representative sample of these areas during the detailed design phase to determine whether they are true GWDTEs; this has been included as a mitigation commitment in Section 10.5.

7.1.13. Areas assessed as having no groundwater dependency, while assessed as having a Low sensitivity, have not been progressed to the impact assessment.

7.2. Impact Assessment

Introduction

7.2.1. GWDTEs within the study area may be impacted through direct loss of habitat under the footprint of the Proposed Scheme, through severance of habitat and through changes to the groundwater regime supporting the habitat. This could result in altered vegetation in corridors close to infrastructure.

7.2.2. In addition to the impacts quantified above, GWDTEs located adjacent to the new infrastructure may be indirectly impacted through severance of habitat and through changes to the groundwater regime supporting the habitat. This could result in altered vegetation in corridors close to infrastructure. This may be caused by:

- soil compaction within the working area;
- unlined filter drains, which are proposed along much of the mainline carriageway – depending on the groundwater table these may intercept shallow groundwater flow,

or may discharge a small proportion of road runoff to groundwater. This could affect downhill GWDTEs either adversely or beneficially;

- loss of groundwater infiltration due to the increased impermeable road surface; and
- interruption of groundwater flow due to less permeable embankment material – free-draining granular material is proposed for the embankments to allow water to pass below and perpendicular to the carriageway. For GWDTEs down gradient of embankments it is unlikely that subsurface flows would be impacted.

7.2.3. It should be noted that as part of the design process, the potential loss of GWDTEs has been reduced through the optimisation of proposed access tracks for SuDs ponds.

7.2.4. Table 7.4 below summarises the direct loss of GWDTEs under the footprint of the scheme, the indirect loss of GWDTEs as a result of drawdown from cuttings, and indirect loss of GWDTEs as a result of changes to subsurface flows. It also includes potential mitigation measures proposed in Section 10.5, with the residual magnitude and significance ratings for each habitat.

Table 7.4: Impact assessment of the Proposed Scheme on GWDTEs

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
A003	0.115	High	0.043	Habitat located, immediately adjacent to the railway, partially within the footprint, with the remainder of the area located downslope of the Proposed Scheme footprint, featuring small embankments and ditches. A proportion of the area will be directly lost, with the remainder impacted by the construction works upslope which may change subsurface flows as the are falls partially within the zone of influence of cuttings.	Moderate	Moderate	None	Moderate	Moderate
A006	0.206	High		Habitat located 20m south-west and upslope of the scheme's LMA and 24m south-west and upslope of the Proposed Scheme footprint, which includes a new hardstanding area. Due to its location upslope, there is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A007	0.425	High		Habitat located immediately adjacent to the railway and 21m south-west and upslope of the scheme's LMA and 23m south-west and upslope of the Proposed Scheme footprint, which includes cuttings and embankments. Due to minimal construction work proposed downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A008	0.440	High		Habitat located immediately adjacent to the railway and 20m south-west and upslope of the scheme's LMA and 22m south-west and upslope of the Proposed Scheme footprint, which includes cuttings and embankments. Due to minimal construction work proposed downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A010	0.158	High		Habitat located immediately adjacent to the railway and 9m south-west and upslope of the scheme's LMA and footprint, comprising a new track. A proportion of the area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE. The remaining area lies upslope of the Proposed Scheme and will be unaffected.	Moderate	Moderate	Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A018	0.776	High		Habitat located 67m south-west and upslope of the scheme's LMA and 70m south-west and upslope of the Proposed Scheme footprint, comprising a new track. Due to minimal construction work proposed downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A021	0.211	High		Habitat located 158m south-west and upslope of the scheme's LMA and 162m south-west and upslope of the Proposed Scheme footprint, comprising a new track. Due to minimal construction work proposed downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A023	0.425	High		Habitat located 158m south-west and upslope of the scheme's LMA and 164m south-west and upslope of the Proposed Scheme footprint, which includes both cuttings and embankments. Given the lack of hydrological connectivity between the scheme and the habitat, no impacts to groundwater in this area are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A025	0.343	High		Habitat located 180m south-west and upslope of the scheme's LMA and 190m south-west and upslope of the Proposed Scheme footprint, which includes both cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A028	0.367	High		Habitat located immediately adjacent to the railway, 7m south-west and downslope of the scheme's LMA and 18m south-west parallel and downslope of the Proposed Scheme footprint, featuring cuttings. A proportion of the habitat will likely be affected by indirect loss.	Minor	Slight	None	Minor	Slight

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
A029	1.073	High	0.829	Habitat located partially within the scheme's LMA and the Proposed Scheme, featuring the upgrade of the National Cycle Route 7. A large proportion of this habitat will be directly lost, with minor impacts anticipated downslope.	Major	Large	None	Major	Large
A035	0.327	Medium	0.096	Habitat located partially within the footprint of the cycle path upgrade and the scheme's LMA. The remainder of the area is located parallel and downslope of the mainline carriageway widening, which includes cuttings, embankments and ditches. Some of the area will be directly lost, with the remainder impacted by the earthworks upslope which may change subsurface flows.	Moderate	Moderate	None	Moderate	Moderate
A038	0.003	Medium		Habitat located immediately adjacent and downslope of the railway line and the scheme's LMA and 12m south-west and downslope of the Proposed Scheme, featuring cuttings. Indirect loss is anticipated given the location of the habitat.	Minor	Slight	None	Minor	Slight
A085	0.267	High		Habitat located 204m south and upslope of the schemes's LMA and 209m south and upslope of the Proposed Scheme corridor, featuring new cuttings. Due to its location upslope and the distance from the scheme, no impacts predicted to groundwater changes in this areas.	Negligible	Neutral	None	Negligible	Neutral
A087	0.155	High		Habitat located 45m south and upslope of the scheme's LMA and 49m south and upslope of the Proposed Scheme corridor, featuring new cuttings. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A088	0.513	High	0.164	Habitat located partially under the scheme's LMA and footprint, featuring new cuttings. A proportion of the area will be directly lost, with the cuttings likely to intercept any groundwater flow. A combination of direct and indirect loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
A089	0.406	Medium		Habitat located 16m south and upslope of the scheme's LMA and 21m south and upslope of the Proposed Scheme corridor, featuring new cuttings. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A091	0.858	High	0.571	Habitat located partially under the scheme's LMA and footprint, featuring new cuttings. A proportion of the area will be directly lost, with the remainder located downslope of the Proposed Scheme. The ditch will likely intercept any groundwater flow. A combination of direct and indirect loss is anticipated.	Major	Large	None	Major	Large
A094	0.503	High	0.324	Habitat located partially under the scheme's LMA and footprint, featuring a new ditch and embankments. A proportion of the area will be directly lost, with the remainder located downslope of the Proposed Scheme. The ditch will likely intercept any groundwater flow. A combination of direct and indirect loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
A096	0.060	High		Habitat located 53m south and downslope of the scheme's LMA and 66m south and downslope of the Proposed Scheme footprint, comprising embankments. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A097	0.281	High		Habitat located 129m south and downslope of the scheme's LMA and 142m south and downslope of the Proposed Scheme footprint, featuring embankments. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A098	0.213	High		Habitat located 141m south and downslope of the scheme's LMA and 176m south and downslope of the Proposed Scheme footprint,	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				featuring embankments. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.					
A099	0.773	High		Habitat located 65m south and downslope of the scheme's LMA and 78m south and downslope of the Proposed Scheme footprint, comprising embankments. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A101	0.309	High	0.141	Habitat located partially under the scheme's LMA and footprint, featuring embankments for the mainline widening. A large proportion of the area will be directly lost, with the remainder located downslope of the Proposed Scheme.	Moderate	Moderate	None	Moderate	Moderate
A103	0.141	High	0.052	Habitat located partially under the scheme's LMA and footprint, featuring no earthworks. A proportion of the area will be directly lost, with the remainder located downslope of the Proposed Scheme. No indirect impacts are anticipated due to the lack of earthworks proposed upslope.	Moderate	Moderate	None	Moderate	Moderate
A105	0.444	High		Habitat located 13m south and downslope of the scheme's LMA and 19m south and downslope of the Proposed Scheme. Due to minimal construction work proposed upslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A106	5.183	High	0.025	Habitat located partially within the scheme's LMA, with the remainder located south and downslope of the Proposed Scheme. A small proportion of the area will be directly lost under the footprint, with the remainder unaffected given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
A109	0.822	High		Habitat located 137m south and downslope of the scheme's LMA and 142m south and downslope of the Proposed Scheme, featuring cuttings on the carriageway southbound. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A110	0.029	High		Habitat located 108m south and downslope of the scheme's LMA and 112m south and downslope of the Proposed Scheme corridor, featuring small cuttings. Due to minimal construction works proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A113	0.106	Medium		Habitat located 5m south and upslope of the scheme's LMA and 11m south and upslope of the Proposed Scheme, featuring cuttings on the carriageway southbound. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A116	0.040	Medium		Habitat located adjacent to an access track, 23m south and upslope of the scheme's LMA and 30m south and upslope of the Proposed Scheme corridor, featuring new cuttings on the carriageway southbound. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A145	0.067	Medium	0.014	Habitat located partially within the scheme's LMA and the Proposed Scheme, featuring a ditch discharging to SuDS pond N2. A proportion of the area will be directly lost, with tracks likely to intercept any groundwater flow. A combination of direct and indirect loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
A154	0.212	Medium		Habitat located adjacent to an access track, 104m north-west and upslope of the scheme's LMA and 150m south-west and upslope of the Proposed Scheme corridor (including both cuttings and embankments). Given the distance from the scheme and its location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
A155	3.539	High		Habitat located 145m west and upslope of the scheme's LMA and 180m south-west and upslope of the Proposed Scheme corridor, featuring cuttings and embankments. Given the distance from the scheme and its location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A157	0.030	Medium	0.030	Habitat located entirely within the scheme's LMA and 8m south-west and downslope of the Proposed Scheme corridor. Complete loss of this habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A162	0.036	Medium	0.014	Habitat located partially within the scheme's LMA and 94m south-west and downslope of the Proposed Scheme corridor, featuring embankments on the southbound. A proportion of the area will be directly lost under the land made available footprint, with no indirect impacts anticipated.	Moderate	Moderate	None	Moderate	Moderate
A165	0.052	Medium		Habitat located, along the Allt nan Ceatharnach, 9m east and downslope of the scheme's LMA and the new SuDS pond N2 and track, which have the potential to cut off surface water flow. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A194	0.057	High		Habitat located adjacent to an access track, 136m south-west and upslope of the scheme's LMA and 141m south-west and upslope of the Proposed Scheme corridor, featuring new embankments on the southbound. Due to minimal construction work proposed downslope and its location upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A196	0.021	High		Habitat located, adjacent to an access track, 220m south-west and upslope of the scheme's LMA and 226m south-west and upslope of the Proposed Scheme corridor, featuring new embankments on the southbound. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A199	0.013	High		Habitat located, adjacent to an access track, 114m south-west and upslope of the scheme's LMA and 120m south-west and upslope of the Proposed Scheme corridor, with small cuttings and embankments on the southbound. Due to its location upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A220	2.514	Medium		Habitat located 5m west and downslope of the scheme's LMA and 9m west and downslope of the Proposed Scheme footprint, featuring embankments on the carriageway southbound. Due to minimal construction work proposed upslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A223	0.141	High	0.009	Habitat located partially within the scheme's LMA, with the remainder located upslope. A small proportion of the area will be directly lost under the footprint, with no indirect impacts anticipated given the limited extent of the earthworks in the area.	Minor	Slight	None	Minor	Slight
A224	0.043	High		Habitat located 200m south-west and upslope of the scheme's LMA and 205m south-west and upslope of the Proposed Scheme footprint, featuring C14 SuDS pond. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A227	0.084	Medium		Habitat located 189m south-west and upslope of the scheme's LMA and 208m south-west and upslope of the Proposed Scheme footprint, featuring C14 SuDS pond. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A228	1.517	High		Habitat located 22m south-west and upslope of the scheme's LMA and 39m south-west and upslope of the Proposed Scheme footprint,	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				featuring C14 SuDS pond and embankments. No direct loss is anticipated, with no measurable change in groundwater predicted.					
A229	0.018	High		Habitat located 95m south-west and upslope of the scheme's LMA and 118m south-west and upslope of the Proposed Scheme corridor, featuring new embankments. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A231	0.123	High	0.024	Habitat located partially within the scheme's LMA, with the remainder located downslope. A small proportion of the area will be directly lost under the footprint, with no indirect impacts anticipated given the limited extent of the earthworks in the area.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
A233	0.024	High		Habitat located 21m south-west and upslope of the scheme's LMA and 42m south-west and upslope of the Proposed Scheme corridor, featuring new embankments. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
A243	0.407	High		Habitat located 49m south-west and upslope of the scheme's LMA and 56m south-west and upslope of the Proposed Scheme corridor, featuring C13 SuDS pond. No direct loss is anticipated, with the remainder indirectly affected as the area falls under the zone of influence of cuttings.	Moderate	Moderate	None	Moderate	Moderate
A245	0.082	High	0.051	Habitat located partially within the scheme's LMA, featuring C13 SuDS pond, with the remainder located downslope. A small proportion of the area will be directly lost under the footprint, with the remainder affected by the changes to hydrological flow as the area falls under the zone of influence of cuttings.	Major	Large	None	Major	Large
A247	0.056	Medium	0.006	Habitat located partially within the scheme's LMA, featuring embankments, with the remainder located downslope and upslope. A small proportion of the area will be directly lost under the footprint, with indirect impacts anticipated given the area is located within the zone of influence of cuttings.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A249	0.514	High	0.514	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A250	0.536	Medium	0.482	Habitat located almost entirely within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring C13 SuDS pond. A large proportion of the area will be directly lost under the land made available, with the remainder likely to be affected by changes to hydrological flow.	Major	Large	None	Major	Large
A298	0.143	High		Habitat located 12m south and downslope of the scheme's LMA and 23m south and downslope of the Proposed Scheme corridor, featuring new cuttings. Given the scale of proposed works upslope of the area, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A301	0.034	High		Habitat located 79m south and downslope of the scheme's LMA and a track. No proposed works are proposed upslope of the area. Given there are no earthworks proposed immediately upslope of the area, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral

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A309	0.118	Medium		Habitat located 132m west and upslope of the scheme's LMA and 144m west and upslope of the Proposed Scheme corridor. Given the works are not immediately upslope of the area, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A310	0.388	High	0.049	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring a new ditch. A proportion of the area will be directly lost, with the remainder likely to be altered by changes to hydrological flow.	Moderate	Moderate	Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A312	0.022	Medium	0.018	Habitat located almost entirely within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring a new ditch. A proportion of the area will be directly lost, with the remainder likely to be altered by changes to hydrological flow.	Major	Large	Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Major	Large
A315	0.091	Medium	0.091	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A316	0.068	High	0.067	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A326	0.022	Very High	0.012	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring embankments on the carriageway northbound. A proportion of the area will be directly lost, with the remainder likely to be altered by changes to hydrological flow.	Major	Large	For GWDTE areas downslope: Use of permeable fill within embankments and drains to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Major	Large
A333a	0.057	High		Habitat located adjacent to a track, 129m west and upslope of the scheme's LMA and 134m west and upslope of the Proposed Scheme corridor, featuring new embankments and a layby. Due to its location upslope, there is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A333b	0.024	High		Habitat located adjacent to a track, 112m west and upslope of the scheme's LMA and 117m west and upslope of the Proposed Scheme corridor, featuring new embankments and a layby. Due to its location upslope, there is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A337	0.077	Medium		Habitat located adjacent to a track, 180m west and upslope of the scheme's LMA and 184m west and upslope of the Proposed Scheme corridor, featuring new embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A351	0.070	Medium		Habitat located 60m west and upslope of the scheme's LMA and 66m west west and upslope of the Proposed Scheme corridor, with no earthworks proposed downslope of the area. No changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A355	0.010	High		Habitat located 69m west and upslope of the scheme's LMA and 74m west and upslope of the Proposed Scheme corridor, featuring small	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				cuttings. Due to minimal construction work proposed downslope and its location upslope, no changes to hydrological flow are anticipated.					
A360	0.074	High		Habitat located 25m west and downslope of the scheme's LMA and 30m west and downslope of the Proposed Scheme, featuring cuttings. No direct loss is anticipated, with no measurable change in groundwater anticipated.	Negligible	Neutral	None	Negligible	Neutral
A363	0.320	High		Habitat located 11m west and upslope of the scheme's LMA and 15m west and upslope of the Proposed Scheme corridor, featuring embankments and cuttings. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A368	0.110	High		Habitat located 27m west and upslope of the scheme's LMA and 38m west and upslope of the Proposed Scheme corridor, featuring embankments. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A371	0.060	High	0.054	Habitat located almost entirely within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring embankments on the carriageway northbound. A large proportion of the area will be directly lost, with the remainder unlikely to be altered by changes to hydrological flow.	Major	Large	None	Major	Large
A393	0.030	Medium		Habitat located 111m west and upslope of the scheme's LMA and 115m west and upslope of the Proposed Scheme corridor, featuring new embankments on the southbound. Given the distance from the earthworks and its location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A399	0.013	Medium		Habitat located 201m west and upslope of the scheme's LMA and 209m west and upslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A402	1.145	High		Habitat located 137m west and upslope of the scheme's LMA and 169m west and upslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A411	0.054	Medium		Habitat located 126m west and upslope of the scheme's LMA and 152m west and upslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A412	0.013	Medium		Habitat located 200m west and upslope of the scheme's LMA and 205m west and upslope of the Proposed Scheme corridor, featuring new cuttings on the southbound. No measurable changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A435	0.018	High		Habitat located 20m west and upslope of the scheme's LMA and 25m west and upslope of the Proposed Scheme corridor, comprising new cuttings on the southbound. No direct loss is anticipated, with no measurable changes in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A437	0.091	Medium		Habitat located 15m north-west and upslope of the scheme's LMA and 20m north-west and upslope of the Proposed Scheme footprint, featuring cuttings on the carriageway southbound. No direct loss is anticipated, with no measurable changes in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A438	0.013	Medium		Habitat located 33m north-west and downslope of the scheme's LMA and 38m north-west and downslope of the Proposed Scheme footprint,	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				featuring cuttings on the carriageway southbound. No direct loss is anticipated, with no measurable changes in groundwater predicted.					
A439	0.016	Medium		Habitat located 35m north-west and downslope of the scheme's LMA and 40m north-west and downslope of the Proposed Scheme footprint, featuring cuttings on the carriageway southbound. No direct loss is anticipated, with no measurable changes in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A444	0.064	Medium		Habitat located 4m west and upslope of the scheme's LMA and 10m west and upslope of the Proposed Scheme corridor, comprising of new embankments. No direct loss is anticipated, with no measurable change in groundwater predicted due to its location upslope.	Negligible	Neutral	None	Negligible	Neutral
A448	0.043	Medium		Habitat located 28m west and upslpe of the scheme's LMA and 37m west and upslope of the Proposed Scheme corridor, comprising of new embankments. No direct loss is anticipated, with no measurable change in groundwater predicted due to its location upslope.	Negligible	Neutral	None	Negligible	Neutral
A465	0.401	High	0.053	Habitat located partially within the scheme's LMA, with the remainder located west and upslope of the Proposed Scheme corridor, comprising of new embankments. A proportion of the area will be directly lost, with the remaining area unaffected given its location upslope.	Minor	Slight	None	Minor	Slight
A466	0.024	Medium	0.004	Habitat located partially within the scheme's LMA, with the remainder located west and upslope of the Proposed Scheme corridor, comprising new cuttings. A proportion of the area will be directly lost, with the remaining area unaffected given its location upslope.	Moderate	Moderate	None	Moderate	Moderate
A468	0.033	Medium		Habitat located 93m west and upslope of the scheme's LMA and 114m west and upslope of the Proposed Scheme corridor, comprising of new embankments. Due to its location upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A469	0.018	Medium		Habitat located 86m west and upslope of the scheme's LMA and 99m west and upslope of the Proposed Scheme corridor, comprising of new embankments. Due to its location upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A470	0.819	Medium		Habitat located 102m west and upslope of the scheme's LMA and 116m west and upslope of the Proposed Scheme corridor, comprising of new embankments. Due to its location upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A472	0.081	High		Habitat located 194m west and upslope of the scheme's LMA, and 212m west and upslope of the Proposed Scheme corridor, comprising of new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A473	0.254	High		Habitat located 223m west and upslope of the scheme's LMA and 242m west and upslope of the Proposed Scheme corridor, comprising of new cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A480	0.007	Medium		Habitat located 215m west and upslope of the scheme's LMA and 228m west and upslope of the Proposed Scheme corridor, comprising of new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A490	0.024	Medium		Habitat located 203m west and upslope of the scheme's LMA and 219m west and upslope of the Proposed Scheme footprint. Given the	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.					
A492	0.074	Medium		Habitat located 138m west and upslope of the scheme's LMA and 144m west and upslope of the Proposed Scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A494	0.027	Medium		Habitat located 192m west and upslope of the scheme's LMA and 204m west and upslope of the Proposed Scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A495	0.092	Medium		Habitat located 183m west and upslope of the scheme's LMA and 195m west and upslope of the Proposed Scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A496	0.258	Medium		Habitat located 171m west and upslope of the scheme's LMA and 183m west and upslope of the Proposed Scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A497	0.498	High		Habitat located 122m west and upslope of the scheme's LMA and 134m west and upslope of the Proposed Scheme footprint. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
A498	0.020	Medium		Habitat located 212m west and upslope of the scheme's LMA and 235m west and upslope of the Proposed Scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A511	7.218	High	0.262	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring no earthworks. A proportion of the area will be directly lost, with the remainder indirectly affected as a large proportion of the area lies within the zone of influence of cuttings.	Minor	Slight	None	Minor	Slight
A512	0.056	High		Habitat located 96m west and upslope of the scheme's LMA and 104m west and upslope of the Proposed Scheme corridor, comprising of new embankments on the southbound. A large proportion of the area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE.	Minor	Slight	None	Minor	Slight
A513	0.016	Medium		Habitat located 126m west and upslope of the scheme's LMA and 135m west and upslope of the Proposed Scheme corridor, comprising of embankments on the southbound. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A515	0.130	High		Habitat located 153m west and upslope of the scheme's LMA and 157m west and upslope of the Proposed Scheme corridor, comprising of small embankments on the southbound. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A518	0.020	Medium		Habitat located 157m west and upslope of the scheme's LMA and 162m west and upslope of the Proposed Scheme corridor, comprising cuttings. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A519	0.010	High		Habitat located 97m west and upslope of the scheme's LMA and 102m west and upslope of the Proposed Scheme corridor, featuring	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.					
A521	0.046	Medium		Habitat located 91m west and upslope of the scheme's LMA and 95m west and upslope of the Proposed Scheme corridor, comprising of new cuttings. A proportion of the area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE. The remaining area lies upslope of the Proposed Scheme and will be unaffected.	Moderate	Moderate	None	Moderate	Moderate
A522	0.017	Medium		Habitat immediately west and upslope of the scheme's LMA and 6m west and upslope of the Proposed Scheme corridor, comprising of new cuttings. No direct loss is anticipated, with indirect impacts to subsurface flows likely as the area is located within the zone of influence of cuttings.	Moderate	Moderate	None	Moderate	Moderate
A523	0.006	Medium	0.000	Habitat located partially within the scheme's LMA, with the remainder located 4m west and upslope of the Proposed Scheme corridor, featuring new cuttings. A small proportion of the habitat will be loss. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Minor	Slight	None	Minor	Slight
A524	0.068	High		Habitat located 32m west and upslope of the scheme's LMA and 38m west and upslope of the Proposed Scheme corridor, comprising of new embankments on the southbound. The area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE. No direct loss is anticipated.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A527	0.021	High		Habitat located 29m west and upslope of the scheme's LMA and 34m west and upslope of the Proposed Scheme corridor, comprising of new cuttings. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE. No direct loss is anticipated.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A536	0.224	Medium	0.036	Habitat located partially within the scheme's LMA, with the remainder located parallel and upslope of the scheme. A proportion of the habitat will be loss, with indirect impacts to subsurface flows upslope of the scheme as the area is located within the zone of influence of cuttings.	Moderate	Moderate	None	Moderate	Moderate
A539	0.027	Medium		Habitat located 5m west and upslope of the scheme's LMA and 17m west and upslope of the Proposed Scheme corridor. No direct loss is anticipated. A proportion of the area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Minor	Slight	None	Minor	Slight
A544	0.133	Medium		Habitat located 57m west and upslope of the scheme's LMA and 62m west and upslope of the Proposed Scheme corridor, featuring minimal earthworks. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A572a	0.081	High	0.081	Habitat located almost entirely within the scheme's LMA. A large proportion of the area is located within the carriageway widening, comprising embankments. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
A578	0.163	High		Habitat located 2m east and downslope of the scheme's LMA, and 14m east and downslope of the Proposed Scheme corridor, comprising of new embankments and cuttings. The area is located within two zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankment to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight

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A579	0.269	High		Habitat located 15m east and downslope of the scheme's LMA and 27m east and downslope of the Proposed Scheme corridor, featuring new embankments. The area is located within two zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankment to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A581	0.043	Very High		Habitat located 137m east and downslope of the scheme's LMA and 146m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. Due to its location along the watercourse and the distance from the scheme, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A584	0.078	High		Habitat located 77m east and downslope of the scheme's LMA and 84m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. Given the access tracks upslope of the area, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A585	0.069	High		Habitat located 44m east and downslope of the scheme's LMA and 52m east and downslope of the Proposed Scheme corridor, featuring new embankments. Given the access tracks upslope of the area, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A586	1.676	Very High		Habitat located 17m east and downslope of the scheme's LMA and 24m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. The area is located within two zones of influence of cuttings, measurable indirect impacts are predicted.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Negligible	Neutral
A591	0.028	High		Habitat located 33m east and downslope of the scheme's LMA and 40m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. The area falls within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
A596	0.459	High		Habitat located 138m east and downslope and 143m east and downslope of the Proposed Scheme corridor, featuring new cuttings. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A597	0.095	Medium		Habitat located 127m east and downslope of the scheme's LMA and 131m east and downslope of the Proposed Scheme corridor, featuring new cuttings. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A606	0.277	Medium		Habitat located 107m east and downslope of the scheme's LMA and 177m east and downslope of the Proposed Scheme corridor, featuring new cuttings on the northbound. Due to its location along the watercourse and the distance from the scheme, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A608	0.123	Medium		Habitat located 164m east and downslope of the scheme's LMA and 194m east and downslope of the Proposed Scheme corridor, featuring	Negligible	Neutral	None	Negligible	Neutral

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				new cuttings on the northbound. Due to its location along the watercourse and the distance from the scheme, no indirect impacts are anticipated.					
A619	0.434	High		Habitat located 31m east and downslope of the scheme's LMA and 55m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A622	0.011	High		Habitat located 20m east and downslope of the scheme's LMA and 43m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A629	0.087	Medium	0.087	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A670	0.199	Medium	0.199	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A711	0.124	Medium		Habitat located 231m east and downslope of the scheme's LMA and 238m east and downslope of the Proposed Scheme corridor, featuring new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A712	0.857	High		Habitat located 192m east and downslope of the scheme's LMA and 199m east and downslope of the Proposed Scheme corridor, which includes both cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A716	0.413	High		Habitat located 198m east and downslope of the scheme's LMA and 204m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A719	0.046	Medium		Habitat located 187m east and downslope of the scheme's LMA and 191m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A721	0.433	High		Habitat located 186m east and downslope of the scheme's LMA and 190m east and downslope of the Proposed Scheme corridor, featuring embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A722	0.407	Medium		Habitat located 198m east and downslope of the scheme's LMA and 201m east and downslope of the Proposed Scheme corridor, featuring new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A723	0.128	Medium		Habitat located 185m east and downslope of the scheme's LMA and 191m east and downslope of the Proposed Scheme corridor, featuring new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A746	0.553	Medium		Habitat located 42m south-east and downslope of the scheme's LMA and 47m south-east and downslope of the Proposed Scheme, comprising both embankments and cuttings. No direct loss is anticipated, with no significant changes to hydrological flow anticipated.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
							determine groundwater dependency.		
A766a	0.087	High		Habitat located 44m south-east and downslope of the scheme's LMA and 55m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Due to its location along the watercourse no direct loss is anticipated, with negligible changes in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A766b	0.159	High		Habitat located 60m south-east and downslope of the scheme's LMA and 71m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A769	0.085	High		Habitat located 74m south-east and downslope of the scheme's LMA and 85m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any change in hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A770	0.144	High		Habitat located 140m south-east and downslope of the scheme's LMA and 146m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Due to its location along the watercourse and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A772	0.110	High		Habitat located 145m south-east and downslope of the scheme's LMA and 153m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Due to its location along the watercourse and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A773	0.654	High		Habitat located 194m south-east and downslope of the scheme's LMA and 202m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A778	0.016	High		Habitat located 117m south-east and downslope of the scheme's LMA and 125m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any change in hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A779	0.059	High		Habitat located 159m south-east and downslope of the scheme's LMA and 162m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Due to its location along the watercourse and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A780	0.047	High		Habitat located 149m south-east and downslope of the scheme's LMA and 176m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A781	0.059	High		Habitat located 120m south-east and downslope of the scheme's LMA and 149m south-east and downslope of the Proposed Scheme corridor, comprising new embankments. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral

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A783	0.132	High		Habitat located 114m south-east and downslope of the scheme's LMA and 142m south-east and downslope of the Proposed Scheme corridor, comprising new embankments on the southbound. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A784	0.095	Medium		Habitat located 126m south-east and downslope of the scheme's LMA and 132m south-east and downslope of the Proposed Scheme corridor, comprising new embankments on the southbound. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A785	0.253	High		Habitat located 120m south-east and downslope of the scheme's LMA and 126m south-east and downslope of the Proposed Scheme corridor, comprising new embankments on the southbound. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A786	0.046	Medium		Habitat located 149m south-east and downslope of the scheme's LMA and 154m south-east and downslope of the Proposed Scheme corridor, comprising new embankments on the southbound. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A788	0.026	High		Habitat located 99m south-east and downslope of the scheme's LMA and 196m south-east and downslope of the Proposed Scheme corridor, comprising new embankments on the southbound. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A791	0.688	High		Habitat located 77m north-east and downslope of the scheme's LMA and 176m north-east and downslope of the B9152 upgrade at Aviemore South Junction, featuring small embankments on the existing B9152. Due to the minimal construction works proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
A796	0.077	High		Habitat located 205m south-east and downslope of the scheme's LMA and 211m south-east and downslope of the Proposed Scheme corridor, featuring proposed drainage ditches. Given the presence of the B9152 and the Highland Mainline Railway between the scheme and the habitat, there is unlikely to be any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A877	0.012	High		Habitat located 197m north-west and upslope of the scheme's LMA and 202m north-west and upslope of the Proposed Scheme corridor, featuring cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A880	0.718	High		Habitat located 157m north-west and upslope of the scheme's LMA and 163m north-west and upslope of the Proposed Scheme corridor, featuring cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by any changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
A882	0.010	High		Habitat located 6m west of the scheme's LMA and 85m south and upslope of the Proposed Scheme corridor, comprising new access	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				tracks and associated drainage ditches. There is no impact predicted to groundwater changes in this area.					
A885	0.023	High	0.000	Habitat located partially within the scheme's LMA, with the remainder located 63m south and upslope of the Proposed Scheme corridor, featuring a new track and associated drainage ditches. A small proportion of the area will be loss, with the remainder located upslope, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
A895	0.037	High	0.037	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A896	0.054	High	0.054	Habitat located entirely within the scheme's LMA. Complete loss of habitat under the land made available footprint.	Major	Very Large	None	Major	Very Large
A910	0.062	High		Habitat located 139m east of the scheme's LMA and 144m east and downslope of the Proposed Scheme corridor, featuring new cuttings and drainage ditches. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B002	0.031	Very High		Habitat located 146m north-east and upslope of the scheme's LMA and 153m north-east and upslope of the Proposed Scheme corridor, featuring new cuttings and drainage ditches on the southbound. Given the distance from the scheme and the minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B005	0.272	Very High		Habita located 46m north-east and upslope of the scheme's LMA and 50m north-east and upslope of the Proposed Scheme, featuring embankments and cuttings. There is unlikely to be any changes to flow on the area given the limited extent of earthworks.	Negligible	Neutral	None	Negligible	Neutral
B007	0.187	Very High		Habita located 46m north-east and upslope of the scheme's LMA and 51m north-east and upslope of the Proposed Scheme, featuring embankments. There is unlikely to be any changes to flow on the area given the limited extent of earthworks.	Negligible	Neutral	None	Negligible	Neutral
B008	0.080	Very High		Habitat located 104m north-east and upslope of the scheme's LMA and 109m north-east and upslope of the Proposed Scheme corridor, featuring embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B011	0.453	Very High		Habita located 46m north-east and upslope of the scheme's LMA and 50m north-east and upslope of the Proposed Scheme, featuring embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B017	0.096	Very High		Habitat located 107m north-east and upslope of the scheme's LMA and 142m north-east and upslope of the Proposed Scheme corridor, featuring new cuttings. The area is located within three zones of influence of cuttings, where groundwater changes may affect the GWDTE.	Major	Large	None	Major	Large
B024	0.013	Very High		Habitat located 96m north-east and upslope of the scheme's LMA and 104m north-east and upslope of the Proposed Scheme corridor. There is no impact predicted to groundwater changes in this area, due to its location upslope.	Negligible	Neutral	None	Negligible	Neutral
B025	0.022	Very High		Habitat located 82m north-east and upslope of the scheme's LMA and 87m north-east and upslope of the Proposed Scheme corridor. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Major	Large	None	Major	Large
B028	0.074	Very High		Habitat located 167m north-east and upslope of the scheme's LMA and179m north-east and upslope of the Proposed Scheme corridor.	Moderate	Moderate	None	Moderate	Moderate

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.					
B030	0.113	Very High		Habitat located 138m north-east and upslope of the scheme's LMA and 158m north-east and upslope of the Proposed Scheme corridor. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Moderate	Moderate	None	Moderate	Moderate
B034	0.092	High		Habitat located 117m north-east and upslope of the scheme's LMA and 130m north-east and upslope of the Proposed Scheme corridor, featuring new embankments on the southbound. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Moderate	Moderate	None	Moderate	Moderate
B043	0.372	High	0.040	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring blasting works. A small proportion of the area will be directly lost under the scheme footprint. The remaining area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Minor	Slight	None	Minor	Slight
B046	0.115	High	0.080	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring blasting works. A large proportion of the area will be directly lost under the scheme footprint. The remaining area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE.	Major	Large	None	Major	Large
B066	0.346	Medium	0.281	Habitat is located almost entirely within the scheme's LMA, with the remainder located upslope of the scheme and within the zone of influence of cuttings. Almost complete loss of habitat under the land made available.	Major	Large	None	Major	Large
B084	0.196	High	0.196	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B087	0.075	High	0.075	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B099	0.156	Medium	0.156	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B101	0.935	High	0.397	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring embankments and cuttings. A proportion of the area will be directly lost, with the remainder likely to be altered by changes to hydrological flow.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankment to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
B106	0.163	Medium	0.163	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B110	1.735	High	0.316	Habitat is located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring embankments and cuttings. A proportion of the area will be directly lost, with the remainder within the zone of influence of cuttings where groundwater changes may affect the GWDTE.	Moderate	Moderate	None	Moderate	Moderate
B116	0.090	Medium	0.044	Habitat is located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring embankments and cuttings. A proportion of the area will be directly lost, with no significant changes to hydrological flow anticipated on the remainder.	Moderate	Moderate	None	Moderate	Moderate

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
B125	0.012	Medium	0.012	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B130	0.052	High	0.052	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B133	0.059	Medium	0.059	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B165	0.314	Medium	0.256	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring embankments on the carriageway southbound. A large proportion of the area will be directly lost, with the remainder unlikely to be affected by any changes to flow upslope.	Major	Large	None	Major	Large
B170	0.403	Medium	0.379	Habitat is located almost entirely within the scheme's LMA, with the remainder located upslope of the scheme and within the zone of influence of cuttings. Almost complete loss of habitat under the land made available	Major	Large	None	Major	Large
B180	0.343	Medium	0.341	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B188	0.113	Medium	0.113	Habitat is located entirely within the scheme's LMA. Complete loss of habitat under the land made available.	Major	Very Large	None	Major	Very Large
B248	0.028	Medium	0.028	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor, which includes new embankments for the mainline carriageway widening. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
B291	0.061	High		Habitat located 29m east and upslope of the scheme's LMA and 69m east and upslope of the Proposed Scheme corridor, featuring a new ditch. The area is located within three zones of influence of cuttings, where groundwater changes may affect GWDTE. No direct loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
B292	0.087	Medium		Habitat located 36m east and upslope of the scheme's LMA and 76m east and upslope of the Proposed Scheme corridor, featuring a new ditch. The area is located within three zones of influence of cuttings, where groundwater changes may affect GWDTE. No direct loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
B296	0.263	High		Habitat located 38m east and upslope of the scheme's LMA and 54m east and upslope of the Proposed Scheme corridor, featuring a new ditch. The area is located within three zones of influence of cuttings, where groundwater changes may affect GWDTE. No direct loss is anticipated.	Moderate	Moderate	None	Moderate	Moderate
B302	0.229	High		Habitat located 88m north-east and downslope of the scheme's LMA and 93m north-east and downslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed upslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B311	0.031	High	0.031	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
B352	0.089	High	0.082	Habitat located almost entirely within the scheme's LMA, with the remainder located downslope of the Proposed Scheme. Almost complete loss of habitat, with the remainder likely to be affected by changes to hydrological flow.	Major	Large	None	Major	Large
B482	0.016	High		Habitat located 129m east and downslope of the scheme's LMA and 135m east and downslope of the Proposed Scheme corridor, featuring new SuDS pond C5B. Due to the area being located within a pond and	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				the presence of the A95, there is unlikely to be any changes in hydrological flow.					
B493	0.112	High	0.024	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring a new track. A proportion of the area will be directly lost under the land made available, with no indirect impacts anticipated on the remainder.	Moderate	Moderate	None	Moderate	Moderate
B496	0.126	High		Habitat located 30m east and downslope of the scheme's LMA and 52m east and downslope of the Proposed Scheme corridor, featuring embankments on the carriageway southbound. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
B525	0.365	High		Habitat located 192m east and downslope of the scheme's LMA and 198m east and downslope of the Proposed Scheme corridor, featuring new SuDS pond C3. Given the presence of the A95 and the Allt na Criche, and the distance between the scheme and the habitat, there is unlikely to be any changes in hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B538	0.140	Medium	0.015	Habitat located partially within the scheme's LMA, with the remainder located downslope and within the zone of influence of cuttings. A proportion of the area will be directly lost under the land made available, with likely indirect impacts on the remain as a result of the cuttings.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B539	0.087	High		Habitat located 3m north and downslope of the scheme's LMA and 8m north and downslope of the Proposed Scheme corridor, featuring new cuttings. The area is located within the zone of influence of cuttings, where groundwater changes may affect the GWDTE. The remaining area lies downslope of the Proposed Scheme and will be unaffected.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B547	0.117	High		Habitat located 65m east and downslope of the scheme's LMA and 73m east and downslope of the Proposed Scheme corridor, featuring new embankments on southbound. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
B605	0.281	High		Habitat located 161m east and downslope of the scheme's LMA and 166m east and downslope of the Proposed Scheme corridor, featuring new embankments and cuttings. The habitat runs along an existing watercourse, with the watercourse unlikely to be reduced in flow. Given the presence of the B9152 and the watercourse, and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B620	0.081	High		Habitat located 106m east and downslope of the scheme's LMA and 111m east and downslope of the Proposed Scheme corridor, featuring new cuttings and filter drains. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
B628	0.023	Medium		Habitat located 3m east and downslope of the scheme's LMA and 8m east ad downslope of the Proposed Scheme corridor, featuring new cuttings. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
B642	0.043	High	0.043	Habitat located almost entirely within the scheme's LMA and partially within the mainline carriageway widening, featuring embankments and filter drains. Almost complete loss of habitat.	Major	Very Large	None	Major	Very Large
B661	0.026	Medium		Habitat located 232m east and downslope of the scheme's LMA and 239m east and downslope of the Proposed Scheme corridor, comprising both embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B664	0.089	Medium		Habitat located 186m east and downslope of the scheme's LMA and 191m east and downslope of the Proposed Scheme corridor, featuring new embankments. Given the presence of the watercourse and the B9152, and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B666	0.232	High	0.007	Habitat located partially under the scheme's LMA and 23m east and downslope of the Proposed Scheme corridor, featuring new cuttings. The habitat runs along an existing watercourse, with the watercourse unlikely to be reduced in flow. A small proportion of the area will be direct loss under the footprint, with no changes to the remainder of the area.	Negligible	Neutral	None	Negligible	Neutral
B673	0.327	High		Habitat located 154m east and downslope of the scheme's LMA and 192m east and downslope of the Proposed Scheme corridor, featuring new cuttings. Given the presence of the B9152 and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B675	0.059	Medium		Habitat located 236m east and downslope of the scheme's LMA and 250m east and downslope of the Proposed Scheme corridor, featuring embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B679	0.026	High		Habitat located 11m south and downslope of the scheme's LMA and 15m south and downslope of the Proposed Scheme corridor, featuring new filter drains. Drains have the potential to reduce and cut off overland flow, with changes to hydrological flow likely on the habitat.	Minor	Slight	None	Minor	Slight
B721	0.325	Very High		Habitat located 116m south and downslope of the scheme's LMA and 122m south and downslope of the mainline carriageway widening, featuring new cuttings and drainage ditches. A small proportion of the habitat will be directly lost, and due to the proximity to the loch and the minimal construction works proposed upslope, no indirect impacts are predicted on the habitat downslope.	Negligible	Neutral	None	Negligible	Neutral
B722	0.020	Very High		Habitat located 245m south and downslope of the scheme's LMA and 252m south and downslope of the mainline carriageway widening, featuring new embankments, cuttings and drainage ditches. Given the distance from the scheme and the proximity to a loch, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B728	0.167	Very High		Habitat located 87m south-east and downslope of the scheme's LMA and 126m south-east and downslope of the mainline carriageway widening, featuring new embankments and cuttings. The area is located within four zones of influence of cuttings, where groundwater changes may affect GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
B729	0.010	Very High		Habitat located 92m south-east and downslope of the scheme's LMA and 114m south-east and downslope of the mainline carriageway widening, featuring new embankments and cuttings. The area is located within four zones of influence of cuttings, where groundwater changes may affect GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B730	0.020	Very High		Habitat located 61m south and downslope of the scheme's LMA and 67m south-east and downslope of the mainline carriageway widening, featuring new embankments and cuttings. The area is located within four zones of influence of cuttings, where groundwater changes may affect GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B731	0.098	Very High		Habitat located 38m south-east and downslope of the scheme's LMA and 44m south-east and downslope of the mainline carriageway widening, featuring new embankments. The area is located within four zones of influence of cuttings, where groundwater changes may affect GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B741	0.210	Very High	0.210	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
B756	0.102	Very High	0.102	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
B763	0.347	Very High		Habitat located 74m south-east of the scheme's LMA and 87m south-east and downslope of a new track associated with SuDS pond S2. The area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	Where GWDTEs will be impacted by groundwater flow: groundwater entering cuttings will be directed to the downgradient side and allowed to infiltrate.	Negligible	Neutral
B765	0.019	High	0.008	Habitat located partially within the scheme's LMA, featuring the new SuDS pond S2. No direct loss of the habitat is anticipated. The remaining area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
B766	1.069	Very High		Habitat located 31m south-east and downslope of the scheme's LMA and 39m south-east and downslope of new SuDS pond S2. No direct loss of the habitat is anticipated, with the area likely to be affected by groundwater changes as it falls within two zones of influence of cuttings.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B768	0.999	Very High	0.161	Habitat located partially within the scheme's LMA and the Proposed Scheme, which includes earthworks for SuDS pond S2, with the remainder of the area downslope of the mainline carriageway	Moderate	Moderate	None	Moderate	Moderate

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				widening, featuring new cuttings on the northbound and drainage ditches. A small proportion of the area will be lost, and the area immediately downslope may be impacted from changes to subsurface flows as it falls within the zone of influence of cuttings.					
B771	0.356	Very High		Habitat located 30m south-east and downslope of the scheme's LMA and 39m south-east of the Proposed Scheme, featuring cuttings on the northbound and drainage ditches on the southbound. No direct loss is anticipated. The area is located within the zone of influence of cuttings where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B775	0.020	Very High		Habitat located 31m south-east and downslope of the scheme's LMA and 40m south-east of the Proposed Scheme, featuring cuttings on the northbound and drainage ditches on the southbound. No direct loss is anticipated. The area is located within the zone of influence of cuttings where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
B818	0.273	Medium		Habitat located 193m south and downslope of the scheme's LMA and 200m south and downslope of the mainline carriageway widening. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B842	0.075	High		Habitat located 65m west and upslope of the scheme's LMA and 70m west and upslope of the mainline carriageway widening, featuring new drainage ditches. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B845	0.021	Very High		Habitat located 107m west and upslope of the scheme's LMA and 112m west and upslope of the mainline carriageway widening, which includes small cuttings. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
B848	0.030	Very High		Habitat located 185m west and upslope of the scheme's LMA and 189m west and upslope of the mainline carriageway widening, which includes small cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B849	0.349	Very High		Habitat located 181m west and upslope of the scheme's LMA and 194m west and upslope of the mainline carriageway widening, featuring cuttings and filter drains. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
B853	0.019	High		Habitat located 68m south-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring new cuttings. The area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE. No direct loss is anticipated.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
J002	0.052	High		Habitat located 28m south-west and upslope of the scheme's LMA and 37m south-west and downslope of the mainline carriageway widening, featuring new embankments on the northbound. No direct loss is anticipated. The area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE.	Minor	Slight	None	Minor	Slight

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
J004	0.008	High		Habitat located 101m south-west and upslope of the scheme's LMA and 109m south-west and upslope of the mainline carriageway widening, featuring new embankments on the southbound. Due to its location upslope, no indirect impacts are predicted.	Negligible	Neutral	None	Negligible	Neutral
J008	0.028	High		Habitat located 202m south-west and upslope of the scheme's LMA and 212m south-west and upslope of the mainline carriageway widening, featuring new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J020	0.216	High		Habitat located 8m south-west and downslope of the scheme's LMA and 17m south-west and downslope of the mainline carriageway widening, featuring new embankments and cuttings. No direct loss is anticipated. The area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Negligible	Neutral
J025	0.402	Medium	0.320	Habitat located partially under the scheme's LMA and the Proposed Scheme footprint, featuring proposed embankments and drainage ditches, with the remainder located parallel and upslope of the scheme. A proportion of the area will be directly lost, with the remaining area affected by indirect impacts as it falls within the zone of influence of cuttings.	Major	Large	None	Major	Large
J026a	0.071	Medium	0.010	Habitat located partially under the scheme's LMA and the Proposed Scheme, featuring new embankments and drainage ditches. A small proportion of the area will be directly lost. The remainder of the area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	None	Minor	Slight
J026b	0.560	Medium	0.032	Habitat located partially under the scheme's LMA and the Proposed Scheme, featuring new embankments and drainage ditches. A small proportion of the area will be directly lost. The remainder of the area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
J039	0.116	High	0.116	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J058	0.152	High	0.152	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J085	0.268	High	0.054	Habitat located partially within the scheme's LMA and located immediately south and downslope of SuDS pond N8. The area is located downslope of the Proposed Scheme and within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
J086	0.409	High	0.210	Habitat located partially under the scheme's LMA and the Proposed Scheme, featuring a new ditch discharging to SuDS pond N8. A proportion of the area will be directly lost. The entire area is located downslope of the Proposed Scheme corridor and within the zone of	Major	Large	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-	Major	Large

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				influence of cuttings, where groundwater changes may impact GWDTE.			construction monitoring to determine groundwater dependency.		
J088	0.805	High	0.477	Habitat located partially within the scheme's LMA and the Slochd LILO footprint, featuring a new slip road, with the remainder of the area located downslope of the Proposed Scheme. A proportion of the area will be directly lost, and the area immediately downslope may be impacted from changes to subsurface flows as it falls within the zone of influence of cuttings.	Major	Large	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Major	Large
J092	0.644	High	0.021	Habitat located partially within the scheme's LMA and 160m south-west and downslope of the Proposed Scheme corridor. A small proportion of the area will be directly lost, with no predicted indirect impacts on the remainder due to the presence of the watercourse.	Negligible	Neutral	None	Negligible	Neutral
J097	5.523	High		Habitat located 49m south-west and downslope of the scheme's LMA and 50m south-west and downslope of the mainline carriageway widening. The area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
J104	0.311	High	0.311	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J119	0.552	High		Habitat located 97m south-west and downslope of the scheme's LMA and 102m south-west and downslope of the Proposed Scheme corridor, featuring cuttings. A proportion of the area is located downslope of the Proposed Scheme and within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
J123	1.019	Medium	1.015	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J125	0.095	Medium	0.017	Habitat located partially under the scheme's LMA and upslope of the Proposed Scheme, comprising N1 SuDS pond. A proportion of the area will be directly lost, with likely changes to groundwater flow as a results of the pond.	Moderate	Moderate	None	Moderate	Moderate
J132	0.175	High	0.044	Habitat located partially under the scheme's LMA and 52m south-west and downslope of the Proposed Scheme, comprising new cuttings and embankments. A proportion of the area will be directly lost, with negligible changes in groundwater predicted on the remainder of the area due to the proximity to a watercourse and the minimal construction works proposed immediately upslope.	Moderate	Moderate	None	Moderate	Moderate
J141	0.036	High		Habitat located 99m west and upslope of the scheme's LMA and 111m west and upslope of the Proposed Scheme corridor. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
J154	0.506	High		Habitat located 51m west and up/downslope of the scheme's LMA and 138m west and up/downslope of the Proposed Scheme corridor. A large proportion of the area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
							determine groundwater dependency.		
J157	0.012	High	0.011	Habitat located almost entirely within the scheme's LMA and Proposed Scheme corridor. Almost complete loss of habitat.	Major	Large	None	Major	Large
J174	0.126	High	0.037	Habitat located partially under the scheme's LMA and the Proposed Scheme footprint, with the remainder of the area located immediately east and downslope of an upgraded track, featuring new cuttings and embankments. A proportion of the area will be directly lost, with some changes to subsurface flows to the remainder of the area downslope of the track.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
J193	0.493	High	0.473	Habitat located almost entirely within the scheme's LMA and located partially within the mainline carriageway widening footprint, featuring new cuttings on the northbound, with the remainder of the area located upslope of the scheme. Almost complete loss of habitat. The remainder of the habitat is located upslope and is unaffected by changes to flow.	Major	Very Large	None	Major	Very Large
J215	0.073	High		Habitat located 28m east and downslope of the scheme's LMA and 37m east and downslope of the Proposed Scheme corridor. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
J219	0.314	High	0.013	Habitat located partially within the scheme's LMA and the Proposed Scheme corridor, which includes a new track and the mainline carriageway widening, comprising embankments and cuttings. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J240	0.447	High	0.307	Habitat located partially within the scheme's LMA and located partially under the Proposed Scheme corridor, which includes a new track and the mainline carriageway widening, comprising embankments and cuttings. The remainder of the area is located downslope of the new upgraded track and upslope of the mainline carriageway widening. A proportion of the area will be directly lost, and the area immediately downslope may be impacted from changes to subsurface flows.	Major	Large	Use of permeable fill in within track to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Major	Large
J241	0.186	Medium	0.013	Habitat located partially within the scheme's LMA, with the remainder located immediately south-east and downslope to an upgraded track (part of the Granish and Black Mount Junction), featuring embankments and cuttings. A small proportion of the area will be directly lost, with some changes to subsurface flows downslope of the Proposed Scheme.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
J245	0.114	High		Habitat located 74m north-west and upslope of the scheme's LMA and 79m north-west and upslope of the Proposed Scheme corridor, featuring a new slip road. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J262	0.084	High		Habitat located 261 north-west and upslope of the scheme's LMA and 272m north-west and upslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J263	0.238	High		Habitat located 201m north-west and upslope of the scheme's LMA and 211m north-west and upslope of the mainline carriageway widening, featuring new cuttings. A watercourse runs through the area.	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
				Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.					
J269	0.130	High		Habitat located 192m north-west and upslope of the scheme's LMA and 201m north-west and upslope of the mainline carriageway widening, featuring new cuttings and filter drains. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J272	0.153	High		Habitat located 177m north-west and upslope of the scheme's LMA and 185m north-west and upslope of the mainline carriageway widening, featuring new cuttings and filter drains. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J275	0.182	High		Habitat located 145m north-west and upslope of the scheme's LMA and 171m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J277	0.414	High		Habitat located 170m north-west and upslope of the scheme's LMA and 175m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J281	0.364	High		Habitat located 74m north-west and upslope of the scheme's LMA and 79m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. A proportion of the area is located within the zone of influence of cuttings, where groundwater chanegs may affect GWDTE.	Minor	Slight	None	Minor	Slight
J292	1.054	High		Habitat located 12m north-west and upslope of the scheme's LMA and 18m north-west and upslope of the a new ditch (part of the Granish and Blackmount Junction), featuring new cuttings and embankments. Two watercourses run through the area. Due to its location along the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J293	0.622	High		Habitat located 64m north-west and upslope of the scheme's LMA and 68m north-west and upslope of a new ditch (part of the Granish and Blackmount Junction). There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J294	0.196	Medium		Habitat located 74m north-west and upslope of the scheme's LMA and 79m north-west and upslope of a new ditch (part of the Granish and Blackmount Junction). There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J311	0.190	High	0.048	Habitat located partially within the scheme's LMA, with the remainder located immediately north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. A proportion of the area will be directly lost. The remainder of the area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	None	Moderate	Moderate
J312	0.032	High		Habitat located 5m north-west and upslope of the scheme's LMA and 10m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. The habitat falls within the zone of influence of cuttings and drainage ditches downslope have the potential to cut off overland surface flow to the habitat, so changes to hydrological flow may result in indirect loss.	Minor	Slight	None	Minor	Slight

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J313	0.090	High		Habitat located 9m north-west and upslope of the scheme's LMA and 14m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. The area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	None	Minor	Slight
J314	0.051	High		Habitat located 28m north-west and upslope of the scheme's LMA and 34m north-west and upslope of the mainline carriageway widening, featuring new embankments and associated drainage. The area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	None	Minor	Slight
J315	0.158	High		Habitat located 29m north-west and upslope of the scheme's LMA and 55m north-west and upslope of the mainline carriageway widening, featuring new embankments, cuttings and associated drainage. The area is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	None	Minor	Slight
J319	2.414	High	0.006	Habitat is located partially under the scheme's LMA and the Proposed Scheme corridor, featuring cuttings and filter drains on the northbound. The remainder of the area is located immediately upslope of the scheme. A small proportion of the habitat will be directly lost, with likely impacts to the remainder of the area as a result of the cuttings.	Minor	Slight	None	Minor	Slight
J321	0.071	High		Habitat located 89m north-west and upslope of the scheme's LMA and 98m north-west and upslope of the mainline carriageway widening, featuring new cuttings. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Minor	Slight	None	Minor	Slight
J323	0.058	Medium		Habitat located 40m north-west and upslope of the scheme's LMA and 49m north-west and upslope of the mainline carriageway widening, featuring new cuttings and filter drains. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J347	0.070	Very High	0.015	Habitat located partially within the scheme's LMA and downslope of the Proposed Scheme corridor, comprising new cuttings and embankments. A proportion of the area will be directly lost, with likely indirect impacts as the area is located within the zone of influence of cuttings.	Moderate	Moderate	None	Moderate	Moderate
J353	0.037	Very High	0.002	Habitat located partially within the scheme's LMA (featuring a new swale and SuDS pond S7A), with the remainder located 8m west and downslope of the mainline carriageway widening, comprising small cuttings. A small proportion of the habitat will be directly lost, with the remainder likely to be affected as is located within the zone of influence of cuttings.	Minor	Slight	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Negligible	Neutral
J387	3.350	Very High		Habitat located 5m west and upslope of the scheme's LMA and 12m west and upslope of the Proposed Scheme corridor, which includes new SuDS pond S7 and associated ditch. As a result of the SuDS pond, changes to subsurface flow may impact hydrological flow directly upslope.	Minor	Slight	None	Minor	Slight
J458	0.048	Very High		Habitat located 10m west and upslope of the scheme's LMA and 21m west and upslope of the mainline carriageway widening, comprising new filter drains, ditches and embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
J493	0.986	High	0.744	Habitat located almost entirely within the scheme's LMA and the Proposed Scheme, featuring a new SuDS pond and associated track, with the remainder located upslope of the scheme. A large proportion of the habitat will be directly lost under the land made available footprint. The new access track and drainage have the potential to reduce and cut off overland flow.	Major	Large	None	Major	Large
J494	0.300	High	0.169	Habitat located partially under the scheme's LMA and the new SuDS pond S5 footprint, with the remainder located parallel and downslope of the new ditch. A proportion of the area will be directly lost under the scheme's footprint, with the remainder likely impacted by changes to groundwater flow.	Major	Large	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Major	Large
J540	0.071	High	0.071	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J562	0.138	High		Habitat located 29m south-east and downslope of the scheme's LMA and 34m south-east and downslope of the Proposed Scheme, featuring new embankments. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
J584	0.433	High	0.163	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring embankments and new S4 SuDS pond. A proportion of the area will be directly lost under the land made available footprint, with the rest unlikely to be affected by changes to hydrological flow.	Moderate	Moderate	None	Moderate	Moderate
J610	0.340	High		Habitat located 42m east and downslope of the scheme's LMA and 47m east and downslope of the mainline carriageway widening, featuring upgrades to an underpass beneath the A9. Given the presence of the existing road and the minimal construction work required upslope, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J611	0.168	High		Habitat located 46m east and downslope of the scheme's LMA and 53m east and downslope of the mainline carriageway widening, featuring new embankments. Given the presence of the existing B9152 and the minimal construction work required upslope, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J652	0.012	High		Habitat located 128m north-west and downslope of the scheme's LMA and 132m north-west and downslope of upgrade works for the B9152 (part of the Aviemore South Junction). There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J653	0.042	High		Habitat located 103m south-west and downslope of the scheme's LMA and 108m south-west and downslope of an upgraded track (part of the Aviemore South Junction). There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J654	0.088	High		Habitat located 109m south-west and downslope of the scheme's LMA and 116m south-west and upslope of an upgraded track and new slips (part of the Aviemore South Junction). There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J655	0.018	High		Habitat located 58m south-west and downslope of the scheme's LMA and 66m south, and downslope of the track upgrade (part of Aviemore South Junction), featuring large embankments. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Minor	Slight

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J657	0.273	High		Habitat located 29m south and downslope of the scheme's LMA and 33m south and downslope of the Proposed Scheme corridor, featuring new filter drains. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J659	0.003	High		Habitat located 56m south and downslope of the scheme's LMA and 60m south and downslope of the Proposed Scheme corridor, featuring new filter drains. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J663	0.219	High		Habitat located 55m north-west and down/upslope of the scheme's LMA and 60m north-west and down/upslope of the B9152 upgrade, which includes small embankments. Given the presence of the existing road and the minimal construction work required upslope, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J666	0.138	High		Habitat located 34m north-west and downslope of the scheme's LMA and 39m north-west and downslope of the B9152 upgrade works, which includes small embankments. Given the presence of the existing road and the minimal construction work proposed upslope, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
J707	0.026	High		Habitat located immediately north of the scheme's LMA and 176m west and upslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme and the location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J710	0.014	High		Habitat located 66m west and upslope of the scheme's LMA and 150m west and upslope of the Proposed Scheme, featuring upgraded track. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
J716	0.131	High	0.131	Habitat located entirely within the scheme's LMA and Proposed Scheme corridor. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
J721	0.044	Medium		Habitat located 129m west and upslope of the scheme's LMA and 135m west and upslope of the Proposed Scheme, featuring an upgraded track. Given the distance from the scheme and the location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J722	0.022	High		Habitat located 140m west and upslope of the scheme's LMA and 143m west and upslope of an upgraded track. Given the distance from the scheme and the location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
J730	0.016	Medium	0.008	Habitat located partially within the scheme's LMA and located 24m south-west and downslope of the mainline carriageway widening, comprising embankments and cuttings. A proportion of the area will be directly lost under the scheme footprint, with the remainder of the are unlikely to be affected by indirect impacts.	Major	Large	None	Major	Large
J732	0.015	Medium	0.004	Habitat located partially within the scheme's LMA and located 75m south-west and downslope of the mainline carriageway widening, comprising embankments and cuttings. A proportion of the area will be directly lost under the scheme footprint, with the remainder of the area unlikely to be affected by indirect impacts.	Moderate	Moderate	None	Moderate	Moderate
J738	0.021	Medium		Habitat located 63m east and downslope of the scheme's LMA and located 73m south-west and downslope of the mainline carriageway widening, comprising embankments and cuttings. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral

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J739	0.019	High		Habitat located 27m east and downslope of the scheme's LMA and located 34m south-west and downslope of the mainline carriageway widening, comprising embankments and cuttings. No direct loss is anticipated, with no measurable change in groundwater predicted.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI1	3.191	High		Habitat located 101m north-east and upslope of the scheme's LMA and 113m north-east and upslope of the Proposed Scheme, featuring a new ditch discharging to SuDS pond S4. There is no impact predicted to groundwater changes in this area given the location upslope.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI10	0.005	High		Habitat located 194m north-west and downslope of the scheme's LMA and 202m north-west and downslope of the Proposed Scheme, comprising small embankments. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI12	0.552	High		Habitat located 34m west and upslope of the scheme's LMA and 209m west and upslope of the Proposed Scheme, featuring a new ditch and SuDS pond N8. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI13	0.495	High		Habitat located 217m east and downslope of the scheme's LMA and 262m east and downslope of the Proposed Scheme, featuring a new ditch. Given the distance from the scheme this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI15	0.459	High		Habitat located 24m south-west and downslope of the scheme's LMA and 40m south-west and downslope of the Proposed Scheme, featuring new cuttings. Due to minimal construction work proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI16	1.985	High		Habitat located 7m east and downslope of the scheme's LMA and 168m east and downslope of the Proposed Scheme, featuring cuttings for a path upgrade. Due to minimal construction work proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI17	2.394	High		Habitat located 122m east and downslope of the scheme's LMA and 252m east and downslope of the Proposed Scheme corridor, featuring cuttings for a path upgrade. Due to minimal construction work proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI18	2.273	High		Habitat located 175m south-west of the scheme's LMA and the Proposed Scheme, featuring no earthworks. Given the distance from the scheme and the minimal construction work proposed, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI19	0.038	High		Habitat located 266m south and upslope of the scheme's LMA and 273m south and upslope of the Proposed Scheme. Given the distance from the scheme and the minimal construction work proposed, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI2	1.145	High		Habitat located 201m north and upslope of the scheme's LMA and 258m north and upslope of the Proposed Scheme, featuring cuttings and embankments for a track upgrade. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI20	0.776	High		Habitat located 85m north and upslope of the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. No direct loss is anticipated, with no measurable change in groundwater anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI21	3.100	High		Habitat located 51m south and upslope of the scheme's LMA and 57m south and upslope of the Proposed Scheme corridor. No direct loss is anticipated, with no measurable change in groundwater anticipated.	Negligible	Neutral	None	Negligible	Neutral

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NVC-NCAI22	0.426	High	0.127	Habitat located partially within the scheme's LMA and the Proposed Scheme corridor, featuring new cuttings. A proportion of the area will be directly lost under the scheme footprint, with the rest unlikely to be affected given the minimal construction works proposed upslope/	Moderate	Moderate	None	Moderate	Moderate
NVC-NCAI23	0.202	High		Habitat located 4m north-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring new cuttings. No direct loss is anticipated, with no measurable change in groundwater anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI24	0.720	High		Habitat located 16m north-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. No direct loss is anticipated, with no measurable change in groundwater anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI25	1.712	High	0.000	Habitat located partially within the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. A small proportion of the area will be directly lost, with no indirect impacts anticipated in the remaining area.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI26	0.005	High		Habitat located 252m south and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI27	0.054	High		Habitat located 231m south-west and downslope of the scheme's LMA and 250m south-west and downslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI28	0.128	High		Habitat located 252m south-west and downslope of the scheme's LMA and 274m south-west and downslope of the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI29	0.045	High		Habitat located 240m north-east and downslope of the scheme's LMA and 246m north-east and upslope of the Proposed Scheme corridor, featuring cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI3	1.159	High	0.004	Habitat located partially within the scheme's LMA and 289m south-east and upslope of the Proposed Scheme corridor, featuring new ditch. A small proportion of the area will be directly lost under the scheme footprint. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI30	110.611	High		Habitat located 245m south-west of the scheme's LMA and the Proposed Scheme, featuring no earthworks. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI31	0.484	High		Habitat located 216m north and downslope of the scheme's LMA and 261m north and downslope of the Proposed Scheme corridor, featuring embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI32	0.526	High		Habitat located 207m north-east and upslope of the scheme's LMA and 252m north-east and upslope of the Proposed Scheme corridor, featuring the Ballinluig Underpass works. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral

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NVC-NCAI33	0.091	High		Habitat located 208m north-east and upslope of the scheme's LMA and 250m north-east and upslope of the Proposed Scheme corridor, featuring the Ballinluig Underpass works. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI34	0.696	High		Habitat located 180m north-east and upslope of the scheme's LMA and 254m north-east and upslope of the Proposed Scheme corridor, featuring cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI35	2.851	High	0.008	Habitat located partially within the scheme's LMA, with the remainder located downslope of the Proposed Scheme, featuring a new ditch. A small proportion of the area will be directly lost under the land made available. No measurable indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI36	0.063	High		Habitat located 242m east and downslope of the scheme's LMA and 250m east and downslope of the Proposed Scheme corridor, featuring cuttings and embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI37	0.607	High		Habitat located 273m north-east and upslope of the scheme's LMA and 277m north-east and upslope of the Proposed Scheme corridor, featuring earthworks for the mainline widening. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI38	1.066	High		Habitat located 153m south and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. Given the distance from the scheme and the minimal construction work proposed upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI39	3.428	High		Habitat located 12m south and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed upslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI4	2.607	High		Habitat located 33m south and downslope of the scheme's LMA and 71m south and downslope of the Proposed Scheme, featuring new SuDS pond S1. As there are no construction work proposed directly upslope of the area, no changes to hydrological flow are anticipated. A proportion of the area is located within the zone of influence of cuttings, where impacts may affect GWDTE. However, groundwater level was estimated using the groundwater contour plot for the the zone of influence calculation.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI40	0.002	High		Habitat located 246m east and downslope of the scheme's LMA and 252m east and downslope of the Proposed Scheme corridor, featuring embankments and cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI41	0.005	High		Habitat located 228m east and downslope of the scheme's LMA and 349m east and downslope of the Proposed Scheme corridor, featuring upgrade works. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI5	0.318	High		Habitat located 55m south and downslope of the scheme's LMA and 74m south and downslope of the Proposed Scheme, featuring S2 SuDS pond. A proportion of the area is located within the zone of influence of cuttings, where impacts may affect GWDTE.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
NVC-NCAI6	2.393	High	0.005	Habitat located partially within the scheme's LMA and 15m east and upslope of the Proposed Scheme, comprising a SuDS pond. As there are no construction work proposed directly upslope of the area, no changes to hydrological flow are anticipated. A proportion of the area is located within the zone of influence of cuttings, where impacts may affect GWDTE.	Minor	Slight	For indirect impacts associated with cuttings, to be included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
NVC-NCAI8	6.059	High		Habitat located 68m south-west and downslope of the scheme's LMA and 80m south-west and downslope of the Proposed Scheme, featuring new cuttings. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
NVC-NCAI9	0.041	High		Habitat located 191m north-east and downslope of the scheme's LMA and 197m north-east and downslope of the Proposed Scheme, featuring new embankments. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
R002	0.699	Very High		Habitat located 14m west and upslope of the scheme's LMA and 21m west and upslope of the mainline carriageway widening, which includes filter drains and small cuttings. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
R004	0.658	Very High		Habitat located 56m west and upslope of the scheme's LMA and 61m west and upslope of the mainline carriageway widening, featuring new embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
R007	3.375	Very High		Habitat located 44m west and upslope of the scheme's LMA and 52m west and upslope of the mainline carriageway widening, comprising new filter drains, cuttings and embankments. Due to minimal construction work proposed downslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
R011	1.135	Very High		Habitat located 93m west and upslope of the scheme's LMA and 113m west and upslope of the mainline carriageway widening, comprising new cuttings. Given the distance from the scheme and its location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
R016	2.158	Very High	0.101	Habitat located partially within the scheme's LMA and the mainline carriageway widening, comprising new filter drains, embankments and cuttings. Some direct loss anticipated, with the remainder not affected given its location upslope.	Negligible	Neutral	None	Negligible	Neutral
R017	1.456	Very High	0.001	Habitat located within the scheme's LMA and 12m west and upslope of the mainline carriageway widening, comprising new embankments and cuttings. A small proportion of the habitat will be directly lost under the Proposed Scheme. There is unlikely to be any changes to groundwater flow given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
R034	1.501	High		Habitat located 149m north and upslope of the scheme's LMA and 177m north and upslope of the Proposed Scheme, featuring a track upgrade. Given the distance from the scheme and its location upslope, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
R043	0.987	High	0.356	Habitat located partially within the scheme's LMA and Proposed Scheme footprint, featuring embankments and cuttings for an upgraded track and the mainline carriageway widening, with the remainder located upslope of the scheme. A proportion of this habitat will be directly lost, and indirect impacts anticipated as a proportion of the habitat is located within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	None	Moderate	Moderate

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R082	0.470	High		Habitat located 84m north-west and upslope of the scheme's LMA and 94m north-west and upslope of the mainline carriageway widening, comprising new cuttings and filter drains on the northbound. A proportion of the area is located within the zone of influence of cuttings, where groundwater changes may affect GWDTE.	Minor	Slight	None	Minor	Slight
W002	1.337	High		Habitat located 18m north-east and upslope of the scheme's LMA and 23m north-east and upslope of the Proposed Scheme corridor, featuring cuttings on the carriageway southbound. Due to minimal construction work proposed downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W004	0.108	High		Habitat located 75m north-east and upslope of the scheme's LMA and 112m north-east and upslope of the Proposed Scheme corridor, featuring minimal construction works as the road is already dualled downslope of this habitat. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
W005	0.194	High		Habitat located 113m north-east and upslope of the scheme's LMA and 134m north-east and upslope of the Proposed Scheme, featuring new SuDS pond N12. There is unlikely to be any changes to flow downslope given the presence of the existing A9 between the scheme and the area.	Negligible	Neutral	None	Negligible	Neutral
W012	1.773	High	0.255	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring cuttings. A small proportion of the area will be directly lost under the land made available footprint, with the remainder unaffected by the works given the extent of the earthworks.	Minor	Slight	None	Minor	Slight
W014	0.574	High	0.132	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring cuttings. A small proportion of the area will be directly lost under the land made available footprint, with the remainder unaffected by the works given the extent of the earthworks.	Moderate	Moderate	None	Moderate	Moderate
W015	0.116	High	0.053	Habitat located partially within the scheme's LMA, with the remainder located upslope of the Proposed Scheme, featuring cuttings. A proportion of the area will be directly lost under the land made available footprint, with the remainder unaffected by the works given the extent of the earthworks.	Moderate	Moderate	None	Moderate	Moderate
W032	0.537	Very High		Habitat located 58m north-east of the scheme's LMA and 71m north-east of the Proposed Scheme, featuring new cuttings. The area is located withint the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Minor	Slight	None	Minor	Slight
W045	0.068	Medium	0.068	Habitat entirely located within the scheme's LMA and the Proposed Scheme footprint. Complete loss of habitat.	Major	Very Large	None	Major	Very Large
W052	0.051	High		Habitat located 64m north and downslope of the scheme's LMA and 83m north and downslope of the Proposed Scheme corridor, featuring cuttings and embankments. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
W057a	0.246	High		Habitat located 180m north and downslope of the scheme's LMA and 188m north and downslope of the Proposed Scheme corridor, featuring cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W057b	0.093	High		Habitat located 177m north and downslope of the scheme's LMA and 183m north and downslope of the Proposed Scheme corridor, featuring	Negligible	Neutral	None	Negligible	Neutral

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				cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.					
W061	0.283	High		Habitat located 109m north and downslope of the scheme's LMA and 114m north and downslope of the Proposed Scheme corridor, featuring cuttings. There is unlikely to be any changes to flow downslope given the limited extent of earthworks in the area.	Negligible	Neutral	None	Negligible	Neutral
W064	0.259	High		Habitat located 1m north and downslope of the scheme's LMA and 31m north and downslope of the Proposed Scheme corridor, featuring cuttings and embankments. No direct loss is anticipated, with no measurable changes in this area.	Negligible	Neutral	None	Negligible	Neutral
W082	1.670	High	0.000	A small proportion of the habitat is located under the scheme's LMA with the remainder of the habitat located 50m north and downslope of the upgrade to the B938. A small proportion of the habitat will be directly lost, with no measurable impacts on the remainder habitat due to its location along the watercourse and the presence of the existing B938.	Negligible	Neutral	None	Negligible	Neutral
W084	1.462	High	0.776	The habitat is located partially under the scheme's LMA with the remainder of the habitat located downslope of the upgrade to the B938 and N5 SuDS pond. A large proportion of the habitat will be directly lost, with no measurable impacts on the remainder habitat due to its location along the watercourse and the presence of the existing B938.	Major	Large	None	Major	Large
W089	0.050	High		Habitat located 40m north and downslope of the scheme's LMA and 112m north and downslope of the Proposed Scheme corridor, featuring N4 SuDS pond. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
W090	0.098	High	0.010	Habitat located partially within the scheme's LMA and the Proposed Scheme corridor, featuring N4 SuDS pond. A small proportion of the area will be directly lost under the scheme footprint, with the remainder likely to be affected by changes to groundwater as the area falls partially within the zone of influence of cuttings.	Minor	Slight	None	Minor	Slight
W095	0.159	High	0.023	Habitat located partially within the scheme's LMA and 53m north and downslope of the Proposed Scheme corridor, featuring N4 and N5 SuDS ponds. A small proportion of the area will be directly lost, with no measurable changes to groundwater flow anticipated.	Minor	Slight	None	Minor	Slight
W097	0.072	High		Habitat located 76m north and downslope of the scheme's LMA and 138m north and downslope of the Proposed Scheme corridor, featuring N4 SuDS pond. There is no impact predicted to groundwater changes in this area.	Negligible	Neutral	None	Negligible	Neutral
W111	0.035	High		Habitat located 116m north-east and downslope of the scheme's LMA and 158m north-east and downslope of the Slochd LILO construction works. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W120	0.219	High		Habitat located 36m north and downslope of the scheme's LMA and 56m north and downslope of the Proposed Scheme corridor, featuring cuttings. Given the presence of the railway line and Bogbairn Burn, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W121	0.067	High		Habitat located 113m north and downslope of the scheme's LMA and 126m north and downslope of the Proposed Scheme corridor, featuring embankments. Given the presence of the railway line and Bogbairn Burn, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral

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W123	0.413	High		Habitat located 93m north and downslope of the scheme's LMA and 105m north and downslope of the Proposed Scheme corridor, featuring embankments. Given the presence of the railway line and Bogbairn Burn, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W125	0.157	High		Habitat located 117m north and downslope of the scheme's LMA and 130m north and downslope of the Proposed Scheme corridor, featuring embankments. Given the presence of the railway line and Bogbairn Burn, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W140	0.204	High		Habitat located 151m north-east and downslope of the scheme's LMA and 158m north-east and downslope of the mainline carriageway widening, featuring small cuttings on the southbound. Due to its location adjacent to the watercourse, the minimal construction works proposed upslope and the distance from the scheme, no measurable changes in groundwater are predicted.	Negligible	Neutral	None	Negligible	Neutral
W144	0.281	High		Habitat located 107m north-east and downslope of the scheme's LMA and 113m north-east and downslope of the mainline carriageway widening, featuring cuttings. Due to its location adjacent to the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W145	0.491	High		Habitat located 91m north-east and downslope of the scheme's LMA and 95m north-east and downslope of the mainline carriageway widening, featuring cuttings. Due to its location adjacent to the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W146	0.068	High		Habitat located 132m north-east and downslope of the scheme's LMA and 137m north-east and downslope of the mainline carriageway widening, featuring cuttings. Due to its location adjacent to the watercourse, no indirect impacts are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W170	0.950	High		Habitat located 101m east and downslope of the scheme's LMA and 140m east and downslope of the Proposed Scheme corridor, featuring a new ditch. The area is located within three zones of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
W174	0.041	High		Habitat located 85m east and downslope of the scheme's LMA and 106m east and downslope of the Proposed Scheme corridor, featuring C12 SuDS pond. Given there presence of the railway line between the scheme and the habitat, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W176	0.187	High		Habitat located 60m east and downslope of the scheme's LMA and 67m east and downslope of the Proposed Scheme corridor, featuring cuttings. Given there presence of the railway line between the scheme and the habitat, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W185	0.015	High		Habitat located 133m east and downslope of the scheme's LMA and 144m east and downslope of the Proposed Scheme corridor, featuring embankments on the southbound carriageway. Due to minimal construction work proposed upslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W186	0.101	High		Habitat located 66m east and downslope of the scheme's LMA and 76m east and downslope of the Proposed Scheme corridor, featuring embankments on the southbound carriageway. Due to minimal	Negligible	Neutral	None	Negligible	Neutral

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				construction work proposed upslope, no significant changes to hydrological flow are anticipated.					
W190	0.129	High		Habitat located 172m east and downslope of the scheme's LMA and 185m east and downslope of the Proposed Scheme corridor, featuring embankments on the southbound carriageway. Due to minimal construction work proposed upslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W193	0.023	High		Habitat located 146m east and downslope of the scheme's LMA and 151m east and downslope of the Proposed Scheme corridor, featuring cuttings on the southbound carriageway. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W196	0.085	High		Habitat located 166m east and downslope of the scheme's LMA and 170m east and downslope of the Proposed Scheme corridor, featuring cuttings on the southbound carriageway. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W197	0.159	High		Habitat located 170m east and downslope of the scheme's LMA and 183m east and downslope of the Proposed Scheme corridor, featuring cuttings on the southbound carriageway. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W199	0.191	High		Habitat located 155m east and downslope of the scheme's LMA and 176m east and downslope of the Proposed Scheme corridor, featuring C12 SuDS pond. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W200	0.019	Medium		Habitat located 158m east and downslope of the scheme's LMA and 227m east and downslope of the Proposed Scheme corridor, featuring cuttings on the southbound carriageway. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W202	0.212	High		Habitat located 196m east and upslope of the scheme's LMA and 209m east and upslope of the Proposed Scheme corridor, featuring C12 SuDS pond. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W206	0.169	High		Habitat located 154m east and downslope of the scheme's LMA and 159m east and downslope of the Proposed Scheme corridor, comprising cuttings on the southbound. Given the distance from the scheme and the presence of the existing B9153, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W208	0.057	High		Habitat located 134m east and downslope of the scheme's LMA and 140m of the Proposed Scheme corridor, featuring cuttings on the southbound carriageway. Given the presence of the B9153 and the railway line, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W209	0.141	High		Habitat located 144m east and downslope of the scheme's LMA and 149m east and downslope of the Proposed Scheme corridor, comprising cuttings on the southbound. Given the distance from the scheme and the presence of the existing B9153, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W210	0.059	High		Habitat located 100m east and downslope of the scheme's LMA and 104m east and downslope of the Proposed Scheme corridor,	Negligible	Neutral	None	Negligible	Neutral

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				comprising cuttings and embankments on the southbound carriageway. Given the presence of the existing B9153, no measureable changes to groundwater flow are anticipated.					
W211	0.053	High		Habitat located 58m east and downslope of the scheme's LMA and 71m east and downslope of the Proposed Scheme corridor, featuring embankments on the southbound carriageway. Given the presence of the existing B9153 and railway line, no measureable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W216	0.028	Medium		Habitat located 120m east and upslope of the scheme's LMA and 127m east and upslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W217	0.105	Medium		Habitat located 192m east and upslope of the scheme's LMA and 197m east and upslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W218	0.063	High		Habitat located 189m east and upslope of the scheme's LMA and 195m east and upslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W219	0.259	High		Habitat located 145m east and upslope of the scheme's LMA and 151m east and upslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W220	0.023	High		Habitat located 151m east and downslope of the scheme's LMA and 156m east and downslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W225	0.030	High		Habitat located 195m east and downslope of the scheme's LMA and 201m east and downslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W226	0.031	High		Habitat located 150m east and downslope of the scheme's LMA and 156m east and downslope of the Proposed Scheme corridor, featuring no earthworks. Due to minimal construction work proposed directly downslope and the distance from the scheme, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W240	1.448	Medium		Habitat located 116m east and downslope of the scheme's LMA and 126m east and downslope of the Proposed Scheme corridor, comprising cuttings and embankments. Given the presence of the watercourse and the minimal construction works proposed upslope, no changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W242	0.081	High		Habitat located 198m east and downslope of the scheme's LMA and 202m east and downslope of the Proposed Scheme corridor, comprising cuttings on the southbound. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral

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W243	0.213	High		Habitat located 188m east and downslope of the scheme's LMA and 193m east and downslope of the Proposed Scheme corridor, comprising cuttings on the southbound. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
W291	0.038	High		Habitat located 87m south-east and downslope of the scheme's LMA and the scheme fooprint, which features SuDS pond C11. Given the presence of the existing A95, no change in hydrological flow is likely.	Negligible	Neutral	None	Negligible	Neutral
W294	0.083	High		Habitat located 35m east and downslope of the scheme's LMA and the scheme footprint, featuring SuDS pond C11. Given the presence of the existing A95, no change in hydrological flow is likely.	Negligible	Neutral	None	Negligible	Neutral
W321	0.425	High		Habitat located 55m east and downslope of the scheme's LMA and a new upgraded track. Given the presence of the existing General Wade's Military Road between the scheme and the habitat, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W327	0.186	High		Habitat located 185m east and downslope of the scheme's LMA and 219m east and downslope of the mainline carriageway widening, featuring new cuttings on the northbound. Given the presence of the existing General Wade's Military Road and the distance from the scheme, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W351	0.079	High		Habitat located 100m south-east of the scheme's LMA and 104m south-east and downslope of the upgrades proposed for the B9152 (part of the Granish and Black Mount Junction). Given the presence of the existing B9152, no measurable changes to groundwater flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
W357	0.286	High	0.000	Habitat located partially within the scheme's LMA and 4m south-east and downslope of the upgrades proposed for the B9152. The area is located within three zones of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Minor	Slight
W369	0.077	High		Habitat located 225m south-east and downslope of the scheme's LMA and 230m south-east and downslope of the mainline carriageway widening, immediately adjacent to the B9152. Given the presence of the existing B9152 and the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
X053	0.723	High	0.357	Habitat located partially within the scheme's LMA and Proposed Scheme, featuring a ditch discharging to a SuDS pond. The remainder of the area is located downslope of the Proposed Scheme and within the zone of influence of cuttings, where groundwater changes may impact GWDTE.	Moderate	Moderate	For GWDTE areas downslope: Use of permeable fill within embankments to maintain flow, and inclusion of cross-formation drains. Included in baseline pre-construction monitoring to determine groundwater dependency.	Moderate	Moderate
Z003-	0.034	Medium		Habitat located 209m south and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring new cuttings. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
Z005-	0.299	High		Habitat located 114m south and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work	Negligible	Neutral	None	Negligible	Neutral

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				directly upslope of the area, no significant changes to hydrological flow are anticipated.					
Z007-	0.159	High		Habitat located 155m south and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z011-	0.189	High		Habitat located 222m south and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z014-a	0.335	High		Habitat located 32m south and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z014-b	0.107	High		Habitat located 105m north-west and downslope of the scheme's LMA and 145m north-west and downslope of the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z021-	0.040	High		Habitat located 216m south-west and downslope of the scheme's LMA and 228m south-west and downslope of the Proposed Scheme corridor. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
Z025-	0.050	High		Habitat located 186m south-west and downslope of the scheme's LMA and 200m south-west and downslope of the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z029-	0.024	High		Habitat located 191m south-west and downslope of the scheme's LMA and 206m south-west and downslope of the Proposed Scheme corridor. Given the distance from the scheme, this area is unlikely to be altered by changes to hydrological flow.	Negligible	Neutral	None	Negligible	Neutral
Z030-a	0.249	High		Habitat located 84m north-west and downslope of the scheme's LMA and 119m north-west of the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z030-b	0.147	High		Habitat located 150m south-west and downslope of the scheme's LMA and 165m south-west and downslope of the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z041-	0.026	High		Habitat located 240m north-west and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z043-	0.046	Medium		Habitat located 222m north-west and downslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z046-	0.367	High		Habitat located 219m south-west and upslope of the scheme's LMA and the Proposed Scheme corridor. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral

Polygon ID	Area (ha)	Sensitivity	Direct loss (ha)	Description of Impact	Potential Magnitude	Potential Significance	Proposed Mitigation	Residual Impact Magnitude	Residual Impact Significance
Z049-	0.317	High		Habitat located 157m south-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring cuttings. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z051-	0.066	High		Habitat located 128m south-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring cuttings. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z067-	0.012	Medium		Habitat located 109m north-west and downslope of the scheme's LMA and the Proposed Scheme corridor, featuring no earthworks. Given the lack of construction work directly upslope of the area, no significant changes to hydrological flow are anticipated.	Negligible	Neutral	None	Negligible	Neutral
Z076-a	0.017	High		Habitat located 129m north-east and upslope of the scheme's LMA. As the carriageway is already dualled at this location, and no construction works are located directly downslope of the area, no impacts are predicted.	Negligible	Neutral	None	Negligible	Neutral
Z076-b	0.049	High		Habitat located 136m north-east and upslope of the scheme's LMA. As the carriageway is already dualled at this location, and no construction works are located directly downslope of the area, no impacts are predicted.	Negligible	Neutral	None	Negligible	Neutral
Z079-a	0.000	Medium		Habitat located 201m north-east and upslope of the scheme's LMA. As the carriageway is already dualled at this location, and no construction works are located directly downslope of the area, no impacts are predicted.	Negligible	Neutral	None	Negligible	Neutral
Z079-b	0.045	Medium		Habitat located 196m north-east and upslope of the scheme's LMA. As the carriageway is already dualled at this location, and no construction works are located directly downslope of the area, no impacts are predicted.	Negligible	Neutral	None	Negligible	Neutral

7.2.5. Following this assessment, a total of 286 habitats (216.63 Ha) will not be impacted. These habitats are located outside of the Proposed Scheme footprint, either upslope of the scheme, where there are no proposed works upslope of the habitat, no hydrological or topographical connection between the habitat and the Proposed Scheme, or where the distance between the two is such that there is no impact anticipated.

Direct Loss

7.2.6. A total of 111 habitats (15.42 Ha) will be partially or completely lost under the footprint of the Proposed Scheme (Land Made Available (LMA) boundary). This includes 31 habitats (5.07 Ha) where there is a loss of over 95% of the habitat, 22 habitats (6.44 Ha) where 50%-95% of the habitat is lost, 29 habitats (2.94 Ha) where there is a loss of 15%-50% and 29 habitats (0.96 Ha) which feature less than 15% loss of habitat.

7.2.7. The loss of habitat calculated is within the LMA boundary. This includes the permanent earthworks of the Proposed Scheme, as well as temporary construction areas which may be used for temporary haul routes, construction SuDS, storage areas etc. The GWDTEs located within temporary works areas will be cleared for construction works, but the majority of these areas will not be impacted by long term changes to groundwater flows (with the exception of those which also lie within the drawdown zones of the permanent cuttings, as discussed below). The groundwater table is likely to remain unchanged over the long term, therefore although the GWDTE habitat will be lost in the short term, the ground conditions conducive to GWDTE formation will remain, with the possibility of some form of GWDTE habitat re-establishing in the long term. Therefore, the total area of GWDTEs lost under the footprint is a conservative estimate, given some of these areas could return in the long term.

7.2.8. Also, the area of GWDTE loss includes both dominant and sub-dominant habitats. A number of these mosaics will feature non-groundwater dependent habitats, which may result in an over-estimate of true GWDTE loss.

Indirect loss from cuttings

7.2.9. A number of cuttings are required as part of the Proposed Scheme design, some of which intercept groundwater. Dewatering within cuttings can alter the groundwater flow in the surrounding area (zone of influence) with long term changes to groundwater levels.

7.2.10. Of the 396 cuttings associated with the Proposed Scheme, 184 have been identified as intercepting the groundwater table, primarily at the deeper cutting locations. These include new cuttings required at Aviemore South Junction, Ballinluig Underpass and a new ditch connected to S2 SuDS pond. Further details on the cuttings are provided within Chapter 3 of this report.

7.2.11. A total of 109 habitats (59.82 Ha) are located within the zone of influence of cuttings, all of which intercept groundwater. However, the majority of these GWDTEs will be lost directly within the LMA boundary. As the changes to groundwater levels in these areas are likely to be permanent, any habitats that are located within these areas which may be used for temporary works are not likely to be re-established as they could not be supported by groundwater in the long term.

7.2.12. Of the 109 habitats, 87 habitats are located within groundwater drawdown zones of influence which extend outside of the LMA, resulting in an additional permanent loss of 41.05 Ha. The zones of influence relate to cuttings 1, 2, 3, 6, 9, 10, 11, 12, 15, 18, 19, 82, 100, 101, 102, 104, 105, 113, 114, 115, 136, 140, 167, 183, 184, 185, 186, 269,

321, 322, 323, 332, 334, 335, 337, 349, 363, 364, 365, 369, 374, 375, 376, 377, 378, 380, 383 and 384. This results in a percentage of GWDTEs (17.15%) impacted solely by groundwater changes.

Indirect loss to habitats downslope

7.2.13. A total of 229 habitats are located downslope of the Proposed Scheme and may be impacted indirectly by changes to subsurface flows. Many of these habitats also lie within the LMA and partially under the permanent earthworks footprint, and so will suffer from direct loss in the both the short and long term. Given the combined effects of these impacts it is not possible to quantify the areas associated solely with indirect loss. However, the impacts have been assessed qualitatively, and the potential area impacted can conservatively be assumed to be the GWDTE area downslope of the permanent earthworks.

Summary of impacts

7.2.14. An overall impact magnitude and significance has been determined for each GWDTE habitat assessed, taking into consideration each of the impact types discussed above.

7.2.15. A summary of the potential GWDTE impacts before any mitigation is provided below, with significant impacts highlighted in red.

Table 7.5: Summary of potential impacts on GWDTEs

Groundwater Dependency	Sensitivity	Number of polygons	Area Loss (ha)	% of Total Area of Baseline GWDTE	% of Overall Study Area, 250m Buffer	Potential Impact Magnitude	Potential Significance on Individual GWDTE
High	Very High	2	0.312	0.191	0.018	Major	Very Large
		3	0.012	0.007	0.001	Major	Large
		11	0.175	0.107	0.010	Moderate	Moderate
		5	0.0016	0.001	0.000	Minor	Slight
		19	0.101	0.062	0.006	Negligible	Neutral
	Subtotal	40	0.6016	0.368	0.034	-	-
Moderate	High	16	2.404	1.472	0.137	Major	Very Large
		13	4.361	2.670	0.249	Major	Large
		32	2.91	1.782	0.166	Moderate	Moderate
		28	0.661	0.405	0.038	Minor	Slight
		208	0.077	0.047	0.004	Negligible	Neutral
	Subtotal	297	10.413	6.375	0.595	-	-
Low	Medium	13	2.361	1.445	0.135	Major	Very Large
		7	1.743	1.067	0.100	Major	Large
		14	0.282	0.173	0.016	Moderate	Moderate
		6	0.022	0.013	0.001	Minor	Slight
		59	0	0.000	0.000	Negligible	Neutral
	Subtotal	99	4.408	2.699	0.252	-	-
Various	Various	111	14.56	8.914	0.833	Various	Individual GWDTE Areas with Very Large / Large / Moderate Significance Values

7.2.16. The baseline conditions and potential effects of the Proposed Scheme on individual GWDTE polygons are provided in Tables 7.2 to 7.4, with significance values for individual polygons summarised in Table 7.5. Table 7.5 identifies that there are 111 GWDTE polygons, with an aggregated area of 14.56 hectares, with direct and indirect losses that each have a potentially significant effect (i.e. Very Large, Large or Moderate significance values). This equates to 8.9% of the total area of baseline GWDTE identified and 0.83% of the overall study area.

7.2.17. Individual GWDTE locations have been assessed and due to local characteristics wide-ranging outcomes have been collated, with sensitivity values of Medium-Very High, magnitude values of Negligible-Major and significance outcomes ranging from Neutral-Very Large.

7.2.18. The allocation of sensitivity and importance of GWDTEs has been a key consideration, with individual polygons evaluated on the basis of potential groundwater dependency, enabling design input and monitoring and mitigation to target appropriate locations. When considering the overall GWDTE effect in an EIA context, it would not be appropriate to consider an undesignated GWDTE area, which may represent a widespread vegetation community in Scotland, to hold equivalent importance to a receptor with an international designation, such as a SAC, as there is a clear differential in status, leading to design influence and degree of protection that should be applied. Overall, GWDTE within designated sites at the Proposed Scheme are therefore considered of High importance.

7.2.19. As a general assessment outcome, GWDTE receptors by default are assigned Moderate importance (when without formal designation, as is the case for 94% of the total GWDTE area), with the potential impact of the Proposed Scheme as a whole of Moderate magnitude and Moderate Adverse significance, taking into account the relatively small areas of GWDTE where significant effects are anticipated.

7.3. Mitigation

7.3.1. A number of mitigation measures are proposed for reducing the impact on GWDTEs within the Proposed Scheme study area. No mitigation measures are proposed for GWDTEs lost under the permanent earthworks of the Proposed Scheme.

7.3.2. However, a number of areas within the LMA for temporary works are included within the Landscape and Ecological Mitigation Plans, and it is anticipated that this restoration works will encourage the re-establishment of GWDTES in areas where the groundwater levels are unaffected by the permanent works.

7.3.3. As part of the Detailed Design process, pre-construction groundwater monitoring will be carried out at a representative sample of high and moderate groundwater dependency GWDTEs to determine whether they are true GWDTEs. This will comprise a minimum of ten samples over a 6 month period, with at least five taken during the summer period.

7.3.4. During construction of the Proposed Scheme, where GWDTEs will be affected by groundwater drawdown in the vicinity of cuttings, any groundwater entering cuttings will be directed to the down gradient side and allowed to infiltrate. Where possible the location and frequency of these discharges will be designed to replicate the natural groundwater flow as closely as possible.

7.3.5. Where GWDTES are located downslope of proposed road embankments, permeable fill material will be used in the embankment construction wherever possible, to maintain groundwater flows. The precise design mitigation for each GWDTE identified downslope

will be considered during pre-construction phase. The fill material will be selected to not cause any changes in groundwater geochemistry.

7.3.6. Those GWDTEs considered to be at risk of impact will be monitored prior to and after construction to determine the level of impact from groundwater drawdown. All GWDTEs where cutting groundwater drawdown impacts are anticipated will be monitored, while a representative sample of downslope GWDTEs potentially impacted will be included within the monitoring locations.

7.3.7. Monitoring will involve both groundwater level readings and repeated NVC surveys. The groundwater monitoring will be carried out in accordance with SEPA guidance, and may feature hand-driven groundwater monitoring wells, with a minimum of 1 up gradient location and two down gradient locations of the proposed infrastructure where GWDTEs may be impacted. Pre and post construction requirements include:

- Pre-construction monitoring – a minimum of ten samples of groundwater level over a minimum of 6 months prior to construction, including at least five in the summer period;
- Post-construction monitoring – a minimum of ten measurements of groundwater level per year, conducted for a minimum of three years until it is demonstrated the receptors are not impacted.

7.3.8. Monitoring during the construction phase will also be considered where required to identify potential adverse impacts early on. All monitoring locations will be agreed with SEPA at the pre-construction stage.

7.3.9. The potential mitigation proposed for individual GWDTE habitats is summarised in Table 7.6 below.

Table 7.6: Summary of mitigation requirements GWDTEs

Mitigation Item	GWDTE Polygon ID
Cutting drainage redirected / dispersed downhill	B763
Permeable embankment fill	A010, A231, A247, A310, A312, A326, A578, A579, A586, A591, A746, B101, B538, B539, B728, B729, B730, B731, B765, B766, B771, B775, J020, J026b, J085, J086, J119, J154, J174, J240, J241, J353, J494, W170, W357, X053
Monitoring	A010, A231, A247, A310, A312, A326, A524, A578, A579, A591, A746, B101, B538, B539, B728, B729, B730, B731, B765, B766, B771, B775, B853, J020, J026b, J085, J086, J119, J154, J174, J240, J241, J353, J494, NVC-NCAI5, NVC-NCAI6, W170, X053

7.4. Residual Impacts

7.4.1. The residual impact on GWDTEs, including the number of habitats and area impacted by the Proposed Scheme, are summarised in Table 7.7.

Table 7.7: Summary of residual impacts on GWDTEs

Groundwater Dependency	Sensitivity	Number of polygons	Area Loss (ha)	% of Total Area of Baseline GWDTE	% of Overall Study Area, 250m Buffer	Residual Magnitude	Residual Significance
High	Very High	2	0.312	0.103	0.016	Major	Very Large
		3	0.012	0.004	0.001	Moderate	Large
		4	0.175	0.058	0.009	Moderate	Moderate
		9	0	0.000	0.000	Minor	Slight
		22	0.103	0.034	0.005	Negligible	Neutral
	Subtotal	40	0.602	0.199	0.032	-	-
Moderate	High	16	2.404	0.795	0.127	Major	Very Large
		13	4.361	1.442	0.230	Major	Large
		24	2.862	0.947	0.151	Moderate	Moderate
		35	0.71	0.235	0.037	Minor	Slight
		209	0.077	0.025	0.004	Negligible	Neutral
	Subtotal	297	10.414	3.444	0.549	-	-
Low	Medium	13	2.361	0.781	0.125	Major	Very Large
		7	1.743	0.576	0.092	Major	Large
		11	0.0229	0.008	0.001	Moderate	Moderate
		8	0.075	0.025	0.004	Minor	Slight
		60	0	0.000	0.000	Negligible	Neutral
	Subtotal	99	4.201	1.390	0.222	-	-
Various	Various	93	14.252	4.714	0.752	Various	Individual GWDTE Areas with Very Large / Large / Moderate Significance Values

7.4.2. Table 7.7 identifies that there are 93 GWDTE polygons, with an aggregated area of 14.25 hectares, with direct and indirect losses that each have a potentially significant effect (i.e. Very Large, Large or Moderate significance values). This equates to 4.71% of the total area of baseline GWDTE identified and 0.75% of the overall study area.

7.4.3. As per the pre-mitigation stage, individual GWDTE locations have been assessed and wide-ranging outcomes have been collated, with sensitivity values of Medium-Very High, magnitude values of Negligible-Major and significance outcomes ranging from Neutral-Very Large.

7.4.4. There is uncertainty in relation to the degree of groundwater influence in local soil conditions that are leading to the specified GWDTE vegetation communities recorded in the NVC survey, with the above individual outcomes following a precautionary approach, due to the limited data available. Given local geology and meteorological conditions, the combination of surface water flow and direct rainfall contribution to these locations may be substantial, thereby reducing dependency on groundwater. Planned monitoring of baseline groundwater conditions and during the construction of the Proposed Scheme will result in a better understanding of local groundwater characteristics, potentially providing evidence of reduced concern regarding local groundwater influence or enable consideration of further detailed design adaptations to reduce adverse effect.

7.4.5. Some individual GWDTE polygon outcomes are influenced by proposed temporary works, which would be reasonably expected to be moderated as groundwater would be anticipated to return to former conditions in a relatively short timeframe. Other than locations where permanent infrastructure shall be installed, much of the GWDTE vegetation evaluated as being removed would be expected to recover, taking account of mitigation measures to maintain groundwater conditions and encouraging appropriate re-vegetation. Specific issues in relation to habitat loss are discussed in Chapter 12: Ecology and Nature Conservation.

7.4.6. The outcomes for individual GWDTE polygons were evaluated using a purposefully precautionary approach, in order to establish constraints during the design process, propose specific mitigation measures to limit adverse effect on groundwater conditions and identify groundwater monitoring locations. However, it is also important to ensure that the overall effects on GWDTE are appropriately assessed and proportionate to determine residual significance in the context of the Proposed Scheme (including other discipline significance outcomes), scale of groundwater bodies and DMRB HD45/09 Guidance.

7.4.7. Notwithstanding the recognition that a number of individual GWDTE locations may have a localised significant impact, the overall importance of GWDTE for the Proposed Scheme is evaluated as Moderate, with a residual effect magnitude of Minor Adverse, resulting in a Slight Adverse residual significance.

Annex A. NVC Survey Results

Table A.1 – NVC Survey Results

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A003	MG9	50	MG1	50		0		0		0		0		0		0
A006	U4a	40	U5a	40	M6c	10	H12b	10		0		0		0		0
A007	U4a	40	U5a	40	M6c	10	H12b	10		0		0		0		0
A008	M6c	85	U4a	5	U5a	5	M19a	3	H12b	2		0		0		0
A010	M6c	45	M19b	45	U4a	5	M6b	5		0		0		0		0
A018	M15a	32	M6b	32	M19a	31	M6c	5		0		0		0		0
A021	M15a	50	M6b	50		0		0		0		0		0		0
A023	U4a	32	U5a	32	U6d	31	H12b	5		0		0		0		0
A025	H12b	50	M19b	45	U6d	5		0		0		0		0		0
A028	W17b	50	H21a	45	U16c	5		0		0		0		0		0
A029	H12b	19	U4a	19	U5a	19	MG9	19	W17b	9	W17c	9	M6c	5	W11c	1
A031	M17a	35	Pt	35	M3	10	SW	10	M6b	5	M6c	5		0		0
A033	M17a	80	M6c	10	U6d	10		0		0		0		0		0
A034	BG	40	U5a	35	MG9	10	U19	5	M6c	5	MG10	5		0		0
A035	MG9	94	H12b	5	MG10	1		0		0		0		0		0
A036	H12b	24	W11d	24	H21a	23	W17b	12	W17c	12	W4b	5		0		0
A038	U4a	25	MG5	25	BG	25	H12b	10	MG10	10	W23	5		0		0
A057	H12b	50	U16c	45	U4a	5		0		0		0		0		0
A058	MG5	25	U16c	25	OV27	24	MG1	24	H10a	2		0		0		0
A065	U4a	86	M6c	10	MG9	2	MG10	1	H12b	1		0		0		0
A085	U4a	35	MG10	35	M6c	30		0		0		0		0		0
A087	H12b	50	M15b	45	M6c	5		0		0		0		0		0
A088	W18b	35	M15b	35	M6c	30		0		0		0		0		0
A089	M15b	95	M15a	5		0		0		0		0		0		0
A091	U5a	35	M25a	35	M6a	15	M6c	15		0		0		0		0
A094	U5a	35	M25a	35	M6a	15	M6c	15		0		0		0		0
A096	M25a	35	M20	35	M6c	30		0		0		0		0		0
A097	M17a	50	M3	35	M2	10	M6c	5		0		0		0		0
A098	M6c	50	M15c	50		0		0		0		0		0		0
A099	M16d	89	M17a	10	M2	1		0		0		0		0		0
A101	M16d	25	BG	25	Pt	20	JE	10	M17a	10	M3	10		0		0
A103	M20	50	M6c	50		0		0		0		0		0		0
A105	M16d	49	M17a	49	M3	2		0		0		0		0		0
A106	M16d	99	M2	1		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A109	M17a	50	M16d	50		0		0		0		0		0		0
A110	M15a	50	M6c	50		0		0		0		0		0		0
A111	M17a	89	M16d	10	M2	1		0		0		0		0		0
A113	U5a	35	H12b	35	JE	30		0		0		0		0		0
A114	H12b	50	M16d	50		0		0		0		0		0		0
A116	U4a	70	H12b	15	JE	15		0		0		0		0		0
A117	M16d	50	H12b	45	M17a	5		0		0		0		0		0
A120	U4a	85	JE	15		0		0		0		0		0		0
A145	MG10	95	U4b	5		0		0		0		0		0		0
A154	U4a	45	U5a	40	H12c	10	JE	5		0		0		0		0
A155	H12b	89	M16d	10	U5a	1		0		0		0		0		0
A157	U4a	85	MG10	15		0		0		0		0		0		0
A162	U5b	50	MG9	50		0		0		0		0		0		0
A165	U5a	45	MG9	45	W23	10		0		0		0		0		0
A167	U5a	75	MG9	25		0		0		0		0		0		0
A184	W11c	95	W4b	5		0		0		0		0		0		0
A194	H12b	50	M6c	50		0		0		0		0		0		0
A196	W4b	55	W17b	45		0		0		0		0		0		0
A199	W4b	100		0		0		0		0		0		0		0
A219	M15b	100		0		0		0		0		0		0		0
A220	M15b	50	M19b	49	U5a	1		0		0		0		0		0
A223	M6c	80	M19b	10	M20	10		0		0		0		0		0
A224	M20	60	M6c	40		0		0		0		0		0		0
A227	M25a	85	M20	15		0		0		0		0		0		0
A228	M20	88	M25a	10	M2	1	M6c	1		0		0		0		0
A229	M6c	95	M2	5		0		0		0		0		0		0
A231	M19a	95	M6c	5		0		0		0		0		0		0
A233	S9a	85	M2	10	M6c	5		0		0		0		0		0
A243	U4a	40	U5a	40	JE	8	M6c	7	H9	5		0		0		0
A245	M6c	75	U5b	25		0		0		0		0		0		0
A247	MG9	90	U4a	10		0		0		0		0		0		0
A249	U4a	41	H9	41	M6c	15	M4	2	S9a	1		0		0		0
A250	W18d	90	MG9	10		0		0		0		0		0		0
A254	U4a	50	MG9	45	H9	5		0		0		0		0		0
A298	W4b	60	W11d	35	W11c	5		0		0		0		0		0
A301	M6c	50	U4a	50		0		0		0		0		0		0
A309	U4a	40	U20a	40	M25a	20		0		0		0		0		0
A310	W11d	70	W4b	30		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A312	MG9	100		0		0		0		0		0		0		0
A315	MG9	65	U4a	15	U20a	15	H12b	5		0		0		0		0
A316	M6c	50	M4	45	M15b	5		0		0		0		0		0
A326	M6c	100		0		0		0		0		0		0		0
A333a	W4b	100		0		0		0		0		0		0		0
A333b	W4b	100		0		0		0		0		0		0		0
A337	U20b	85	MG9	10	W19	5		0		0		0		0		0
A351	U5b	50	MG13	45	MG9	5		0		0		0		0		0
A355	SW	90	M6c	10		0		0		0		0		0		0
A360	M23b	100		0		0		0		0		0		0		0
A363	U4b	78	MG10	20	MG9	2		0		0		0		0		0
A368	W4c	85	W4b	5	M6b	5	M15a	5		0		0		0		0
A371	U4b	65	MG9	30	MG10	5		0		0		0		0		0
A393	U5b	65	MG9	15	MG10	15	W19	5		0		0		0		0
A399	U4a	40	U20a	40	U5a	10	MG9	10		0		0		0		0
A402	W11d	54	W19	30	W4b	10	U20b	5	U5b	1		0		0		0
A405	U5b	50	MG9	45	MG10	5		0		0		0		0		0
A411	U4a	44	MG9	44	U5b	5	W19	5	MG10	2		0		0		0
A412	U5b	50	MG9	50		0		0		0		0		0		0
A435	MG10	100		0		0		0		0		0		0		0
A437	U4b	50	MG10	50		0		0		0		0		0		0
A438	SW	90	MG10	10		0		0		0		0		0		0
A439	MG9	100		0		0		0		0		0		0		0
A444	MG10	100		0		0		0		0		0		0		0
A448	U4b	95	MG10	5		0		0		0		0		0		0
A462	W17b	45	W4b	25	W4c	25	W11d	5		0		0		0		0
A465	W11d	95	W4b	5		0		0		0		0		0		0
A466	U4b	95	MG9	5		0		0		0		0		0		0
A468	M25a	100		0		0		0		0		0		0		0
A469	M25a	100		0		0		0		0		0		0		0
A470	W11d	95	W4b	5		0		0		0		0		0		0
A472	W4b	90	M6d	5	M25a	5		0		0		0		0		0
A473	M6c	90	M25a	5	U5b	5		0		0		0		0		0
A480	M25a	100		0		0		0		0		0		0		0
A484	W11	29	W23	28	Hl	28	MG10	15		0		0		0		0
A486	MG10	85	SW	15		0		0		0		0		0		0
A490	U4b	35	MG10	35	Hl	30		0		0		0		0		0
A492	MG1	70	MG10	30		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A494	MG10	100		0		0		0		0		0		0		0
A495	U4a	30	W11d	30	HI	30	MG10	10		0		0		0		0
A496	W11	95	MG10	5		0		0		0		0		0		0
A497	W11d	32	W4b	32	W17c	31	BG	5		0		0		0		0
A498	M25a	100		0		0		0		0		0		0		0
A511	W17b	49	W11d	49	W4b	2		0		0		0		0		0
A512	M25a	95	M6c	3	SW	2		0		0		0		0		0
A513	M25a	100		0		0		0		0		0		0		0
A515	M25a	88	U20b	10	W4b	2		0		0		0		0		0
A518	M15b	100		0		0		0		0		0		0		0
A519	M6b	45	M6c	40	W4b	10	W4c	5		0		0		0		0
A521	M15b	93	M25a	5	U20b	2		0		0		0		0		0
A522	M15b	50	M25a	50		0		0		0		0		0		0
A523	M15b	50	M25a	50		0		0		0		0		0		0
A524	M25a	50	W4b	50		0		0		0		0		0		0
A527	W4b	100		0		0		0		0		0		0		0
A536	U4b	95	MG10	5		0		0		0		0		0		0
A539	HI	95	MG10	5		0		0		0		0		0		0
A544	U4b	90	MG10	10		0		0		0		0		0		0
A572a	MG10	60	U4b	33	W23	5	W24	2		0		0		0		0
A572b	MG10	60	U4b	33	W23	5	W24	2		0		0		0		0
A575	U4b	45	MG10	45	W23	10		0		0		0		0		0
A578	HI	80	W24	15	W7b	5		0		0		0		0		0
A579	HI	33	PG	33	W24	33	W7	1		0		0		0		0
A581	W11d	85	W4b	5	W23	5	W7b	5		0		0		0		0
A584	MG10a	45	W24	45	OV27	5	W3	5		0		0		0		0
A585	W4b	90	M25a	10		0		0		0		0		0		0
A586	W11c	49	W11d	48	W17b	2	W4b	1		0		0		0		0
A591	M25a	100		0		0		0		0		0		0		0
A596	MG10a	71	W24	15	MG9a	5	W11	3	W4	2	U4b	2	H10c	2		0
A597	MG1	34	MG9a	33	MG10a	33		0		0		0		0		0
A606	MG9a	85	MG10a	15		0		0		0		0		0		0
A608	MG9a	45	HI	44	U4b	10	W24	1		0		0		0		0
A619	Mx	35	M23b	35	HI	30		0		0		0		0		0
A622	W4b	100		0		0		0		0		0		0		0
A629	MG10a	100		0		0		0		0		0		0		0
A670	U4b	45	MG10a	40	U20a	10	W24	5		0		0		0		0
A711	W3	100		0		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A712	W11d	50	W7b	50		0		0		0		0		0		0
A716	W2	25	W3	25	W7b	25	W7c	25		0		0		0		0
A719	MG9a	50	MG10a	50		0		0		0		0		0		0
A721	W3	50	W7b	25	W7c	25		0		0		0		0		0
A722	MG9a	100		0		0		0		0		0		0		0
A723	MG10a	100		0		0		0		0		0		0		0
A737	W7c	50	W11d	50		0		0		0		0		0		0
A746	U4b	50	MG10a	50		0		0		0		0		0		0
A761	U4a	33	MG10a	33	Hl	33	W24	1		0		0		0		0
A762	W11d	75	U4b	20	MG10a	5		0		0		0		0		0
A764	U4b	45	MG10a	40	W4b	10	W11d	5		0		0		0		0
A766a	W11d	50	W7b	50		0		0		0		0		0		0
A766b	W11d	50	W7b	50		0		0		0		0		0		0
A769	CG10a	40	H10d	40	W24	10	W11	10		0		0		0		0
A770	W2	25	W3	25	W7b	25	BG	25		0		0		0		0
A772	W7b	35	W7c	35	W11d	30		0		0		0		0		0
A773	W7b	45	W11	45	W23	10		0		0		0		0		0
A775	U4b	50	MG10a	50		0		0		0		0		0		0
A778	W4b	100		0		0		0		0		0		0		0
A779	W11d	95	W7c	5		0		0		0		0		0		0
A780	M23b	100		0		0		0		0		0		0		0
A781	M23b	95	MG10a	5		0		0		0		0		0		0
A783	M9b	100		0		0		0		0		0		0		0
A784	W3	100		0		0		0		0		0		0		0
A785	MG10a	90	M23a	10		0		0		0		0		0		0
A786	W3	100		0		0		0		0		0		0		0
A788	W3	50	M9	50		0		0		0		0		0		0
A791	M6c	85	MG10a	10	U5b	5		0		0		0		0		0
A792	MG10a	50	U4a	25	U5b	25		0		0		0		0		0
A795	M25b	100		0		0		0		0		0		0		0
A796	W4b	100		0		0		0		0		0		0		0
A818	W24	70	MG10a	10	OV25	10	U4b	10		0		0		0		0
A819	MG6	50	MG10a	50		0		0		0		0		0		0
A825	OV25	50	MG6	25	MG10a	25		0		0		0		0		0
A877	U4a	50	M6c	50		0		0		0		0		0		0
A880	CP	85	W18c	10	W4b	5		0		0		0		0		0
A882	MG9a	50	U4a	50		0		0		0		0		0		0
A885	U4a	95	MG9a	5		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
A895	M15b	94	M6c	5	M6b	1		0		0		0		0		0
A896	U4b	30	H12b	30	W23	30	W4b	5	W17b	5		0		0		0
A910	W4b	90	W4c	5	W7b	5		0		0		0		0		0
B002	Je	40	U4	20	U6	20	H12	10	M6c	10		0		0		0
B005	M15b	100		0		0		0		0		0		0		0
B007	M6b	100		0		0		0		0		0		0		0
B008	M15b	96	U5a	4		0		0		0		0		0		0
B011	M15b	99	M10a	1		0		0		0		0		0		0
B017	M15a	100		0		0		0		0		0		0		0
B024	M10a	85	M32	15		0		0		0		0		0		0
B025	U5a	94	M10a	4	M32	2		0		0		0		0		0
B028	M15a	90	M10a	10		0		0		0		0		0		0
B030	U5a	65	M15a	34	M10a	1		0		0		0		0		0
B034	M6c	100		0		0		0		0		0		0		0
B043	M6c	94	M6b	6		0		0		0		0		0		0
B046	M20	70	M6c	30		0		0		0		0		0		0
B066	M15a	100		0		0		0		0		0		0		0
B084	M6c	90	Je	5	M15a	3	M20	1	M19	1		0		0		0
B087	W4c	70	W4b	30		0		0		0		0		0		0
B099	Je	75	U4	25		0		0		0		0		0		0
B101	M6c	80	Je	20		0		0		0		0		0		0
B106	Je	100		0		0		0		0		0		0		0
B110	M16d	99	M3	1		0		0		0		0		0		0
B116	Je	100		0		0		0		0		0		0		0
B117	M16d	90	H9-H12	10		0		0		0		0		0		0
B125	M15b	100		0		0		0		0		0		0		0
B130	M23b	80	M6c	15	Je	5		0		0		0		0		0
B133	U4	75	Je	20	U5	5		0		0		0		0		0
B165	Je	100		0		0		0		0		0		0		0
B170	Je	97	U4	3		0		0		0		0		0		0
B180	Je	95	U4	5		0		0		0		0		0		0
B188	Je	80	U4	20		0		0		0		0		0		0
B228	W7	100		0		0		0		0		0		0		0
B229	M23b	100		0		0		0		0		0		0		0
B248	Je	100		0		0		0		0		0		0		0
B269	Je	65	H9-H12	20	U4	15		0		0		0		0		0
B271	Je	85	W23	10	U4	5		0		0		0		0		0
B276	H9-H12	50	Je	48	U4	2		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
B283	M25a	100		0		0		0		0		0		0		0
B286	M25a	100		0		0		0		0		0		0		0
B291	M19a	75	M6c	15	Je	10		0		0		0		0		0
B292	Je	70	U4a	30		0		0		0		0		0		0
B296	M4	80	S9	10	M6c	10		0		0		0		0		0
B302	M16	100		0		0		0		0		0		0		0
B305	Je	100		0		0		0		0		0		0		0
B307	H9-H12	77	Je	10	U4	8	W23	5		0		0		0		0
B309	H9-H12	95	M6c	5		0		0		0		0		0		0
B311	M6c	100		0		0		0		0		0		0		0
B352	Je	100		0		0		0		0		0		0		0
B385	MG10a	100		0		0		0		0		0		0		0
B434	Je	100		0		0		0		0		0		0		0
B435	S7	100		0		0		0		0		0		0		0
B482	M23b	100		0		0		0		0		0		0		0
B493	M6c	70	M4	28	S28	2		0		0		0		0		0
B496	M23b	80	W7	10	M6c	8	S9a	2		0		0		0		0
B525	MG9	95	U4	5		0		0		0		0		0		0
B538	MG9	100		0		0		0		0		0		0		0
B539	Je	90	M6c	10		0		0		0		0		0		0
B547	M4	60	M6c	20	SW	20		0		0		0		0		0
B605	Mx	65	U4b	33	M6b	2		0		0		0		0		0
B620	M6c	52	M23b	40	S9a	8		0		0		0		0		0
B628	Je	100		0		0		0		0		0		0		0
B642	M23b	97	S9a	3		0		0		0		0		0		0
B661	MG9	100		0		0		0		0		0		0		0
B664	Je	90	U4b	7	MG9	3		0		0		0		0		0
B666	M23a	90	M6d	10		0		0		0		0		0		0
B673	M6c	90	M2	7	M23b	3		0		0		0		0		0
B675	U4	88	MG9	12		0		0		0		0		0		0
B677	MG10a	100		0		0		0		0		0		0		0
B679	MG10a	100		0		0		0		0		0		0		0
B721	W7	100		0		0		0		0		0		0		0
B722	W3	100		0		0		0		0		0		0		0
B728	W4	85	W11	15		0		0		0		0		0		0
B729	W7c	100		0		0		0		0		0		0		0
B730	M25b	75	U5a	25		0		0		0		0		0		0
B731	W7	75	W11	25		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
B741	W11	75	W7b	25		0		0		0		0		0		0
B756	W7	80	W11	20		0		0		0		0		0		0
B763	W4b	80	W7	15	W11	5		0		0		0		0		0
B765	M6c	100		0		0		0		0		0		0		0
B766	W7	88	W11	10	W4b	2		0		0		0		0		0
B768	W4b	100		0		0		0		0		0		0		0
B771	W2	60	S4	35	S9a	5		0		0		0		0		0
B775	M25a	100		0		0		0		0		0		0		0
B818	Je	100		0		0		0		0		0		0		0
B842	W4b	100		0		0		0		0		0		0		0
B845	M25a	95	M6c	5		0		0		0		0		0		0
B848	W4c	100		0		0		0		0		0		0		0
B849	M25a	100		0		0		0		0		0		0		0
B853	M6c	100		0		0		0		0		0		0		0
J002	M23b	95	M6c	5		0		0		0		0		0		0
J004	M6c	100		0		0		0		0		0		0		0
J008	M6c	75	U5	25		0		0		0		0		0		0
J020	M23b	80	U5	17	W19b	3		0		0		0		0		0
J025	H16b	92	BG	3	U4b	2	U16	1	U20	1	W19	1		0		0
J026a	H12a	50	H16b	20	U4b	15	M25	10	W19a	5		0		0		0
J026b	H12a	50	H16b	20	U4b	15	M25	10	W19a	5		0		0		0
J032	MG9	70	U4b	30		0		0		0		0		0		0
J033	MG9	95	U4b	5		0		0		0		0		0		0
J038	W17	50	H12b	30	W23	10	MG9	5	U4b	5		0		0		0
J039	W7c	85	MG9	15		0		0		0		0		0		0
J058	U4b	45	BG	30	MG9	15	M23b	10		0		0		0		0
J085	W7c	55	U4b	30	W3	10	M23b	5		0		0		0		0
J086	U4	37	W7c	35	M23b	25	M6c	3		0		0		0		0
J088	W7c	35	M19a	20	M23b	20	U4	20	M6c	5		0		0		0
J092	M23b	70	U4b	30		0		0		0		0		0		0
J097	W11	65	W7	33	W3	2		0		0		0		0		0
J104	H9a	65	U4b	25	W23	7	M23b	3		0		0		0		0
J117	H12b	70	W17b	15	W4c	15		0		0		0		0		0
J119	W7c	100		0		0		0		0		0		0		0
J123	BG	50	MG1a	35	MG9	15		0		0		0		0		0
J125	MG1a	65	MG9	35		0		0		0		0		0		0
J132	MG9	65	U5	20	M23b	6	H9a	5	W18	4		0		0		0
J141	U5	75	H9a	15	M23b	10		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
J154	H12b	75	M19a	15	U5d	8	M6c	2		0		0		0		0
J157	M23b	75	U4e	25		0		0		0		0		0		0
J174	W11b	50	W4c	30	U4	20		0		0		0		0		0
J193	W11b	60	W18	30	U20	7	W7c	3		0		0		0		0
J215	M6b	100		0		0		0		0		0		0		0
J219	H12	60	H12b	15	M6b	14	U20	11		0		0		0		0
J240	W7c	90	W17b	10		0		0		0		0		0		0
J241	U4	85	MG9	15		0		0		0		0		0		0
J245	M6c	70	M23b	30		0		0		0		0		0		0
J262	M23b	77	MG9	20	M6c	3		0		0		0		0		0
J263	MG9	60	M23b	22	U4b	10	U20	8		0		0		0		0
J269	MG9	60	U4	28	M23b	12		0		0		0		0		0
J272	M23b	100		0		0		0		0		0		0		0
J275	U4	80	MG10a	15	M6c	5		0		0		0		0		0
J277	M23b	70	M6c	30		0		0		0		0		0		0
J281	MG10a	60	M23b	25	MG9	10	M6c	5		0		0		0		0
J289	W18	80	MG9	10	U4	8	U20	2		0		0		0		0
J292	W11	65	W7c	23	W4b	12		0		0		0		0		0
J293	W7	100		0		0		0		0		0		0		0
J294	U4b	95	MG10a	5		0		0		0		0		0		0
J302	MG10a	90	U4b	10		0		0		0		0		0		0
J305	MG10a	100		0		0		0		0		0		0		0
J311	MG10a	100		0		0		0		0		0		0		0
J312	M6c	100		0		0		0		0		0		0		0
J313	W7c	80	W4b	20		0		0		0		0		0		0
J314	M6c	100		0		0		0		0		0		0		0
J315	M6c	65	M19a	35		0		0		0		0		0		0
J319	W11	75	W7	15	W17	10		0		0		0		0		0
J321	U20	65	M16d	30	U5	5		0		0		0		0		0
J323	H12b	68	U20	20	U5	7	MG9	5		0		0		0		0
J347	U5	85	MG9	15		0		0		0		0		0		0
J353	U4	85	M23b	13	W23	2		0		0		0		0		0
J387	W11	40	W17	30	W4	30		0		0		0		0		0
J458	U4a	65	MG9	25	W11	10		0		0		0		0		0
J493	MG10a	75	U4b	25		0		0		0		0		0		0
J494	MG10a	100		0		0		0		0		0		0		0
J540	M23b	75	U4b	25		0		0		0		0		0		0
J562	U4b	92	M23b	8		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
J582	MG9	75	MG10a	25		0		0		0		0		0		0
J584	U4b	40	MG1	30	M23b	30		0		0		0		0		0
J610	M23b	75	U4b	15	W11	10		0		0		0		0		0
J611	U4b	80	M23b	20		0		0		0		0		0		0
J617	U4b	65	M23b	35		0		0		0		0		0		0
J622	MG9	45	W11	30	M23b	25		0		0		0		0		0
J627	MG6	55	MG9	30	U4b	15		0		0		0		0		0
J652	MG10a	100		0		0		0		0		0		0		0
J653	Je	100		0		0		0		0		0		0		0
J654	Je	80	OV27	15	OV24a	5		0		0		0		0		0
J655	MG10a	100		0		0		0		0		0		0		0
J657	Je	50	MG10a	42	S9a	8		0		0		0		0		0
J659	Je	100		0		0		0		0		0		0		0
J663	U4b	90	MG10a	8	OV24a	2		0		0		0		0		0
J666	MG10a	100		0		0		0		0		0		0		0
J679	W6	100		0		0		0		0		0		0		0
J680	MG9a	65	U4d	35		0		0		0		0		0		0
J681	W7	55	MG9a	25	W11	20		0		0		0		0		0
J682	MG9a	100		0		0		0		0		0		0		0
J707	W4c	100		0		0		0		0		0		0		0
J710	H9a	80	U4d	13	U20	5	M6c	2		0		0		0		0
J716	U4b	50	M23b	35	W23	10	OV27	5		0		0		0		0
J721	U5	60	H12a	35	M25	5		0		0		0		0		0
J722	W4c	70	M25b	30		0		0		0		0		0		0
J730	M25	70	U4	30		0		0		0		0		0		0
J732	M25	80	U4	20		0		0		0		0		0		0
J738	H9a	75	W18	15	U5	8	MG9	2		0		0		0		0
J739	M6c	60	S9a	30	M19a	10		0		0		0		0		0
NVC-NCAI1		0		0		0		0		0		0		0		0
NVC-NCAI10		0		0		0		0		0		0		0		0
NVC-NCAI12		0		0		0		0		0		0		0		0
NVC-NCAI13		0		0		0		0		0		0		0		0
NVC-NCAI14		0		0		0		0		0		0		0		0
NVC-NCAI15		0		0		0		0		0		0		0		0
NVC-NCAI16		0		0		0		0		0		0		0		0
NVC-NCAI17		0		0		0		0		0		0		0		0
NVC-NCAI18		0		0		0		0		0		0		0		0
NVC-NCAI19		0		0		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
NVC-NCAI2		0		0		0		0		0		0		0		0
NVC-NCAI20		0		0		0		0		0		0		0		0
NVC-NCAI21		0		0		0		0		0		0		0		0
NVC-NCAI22		0		0		0		0		0		0		0		0
NVC-NCAI23		0		0		0		0		0		0		0		0
NVC-NCAI24		0		0		0		0		0		0		0		0
NVC-NCAI25		0		0		0		0		0		0		0		0
NVC-NCAI26		0		0		0		0		0		0		0		0
NVC-NCAI27		0		0		0		0		0		0		0		0
NVC-NCAI28		0		0		0		0		0		0		0		0
NVC-NCAI29		0		0		0		0		0		0		0		0
NVC-NCAI3		0		0		0		0		0		0		0		0
NVC-NCAI30		0		0		0		0		0		0		0		0
NVC-NCAI31		0		0		0		0		0		0		0		0
NVC-NCAI32		0		0		0		0		0		0		0		0
NVC-NCAI33		0		0		0		0		0		0		0		0
NVC-NCAI34		0		0		0		0		0		0		0		0
NVC-NCAI35		0		0		0		0		0		0		0		0
NVC-NCAI36		0		0		0		0		0		0		0		0
NVC-NCAI37		0		0		0		0		0		0		0		0
NVC-NCAI38		0		0		0		0		0		0		0		0
NVC-NCAI39		0		0		0		0		0		0		0		0
NVC-NCAI4		0		0		0		0		0		0		0		0
NVC-NCAI40		0		0		0		0		0		0		0		0
NVC-NCAI41		0		0		0		0		0		0		0		0
NVC-NCAI5		0		0		0		0		0		0		0		0
NVC-NCAI6		0		0		0		0		0		0		0		0
NVC-NCAI7		0		0		0		0		0		0		0		0
NVC-NCAI8		0		0		0		0		0		0		0		0
NVC-NCAI9		0		0		0		0		0		0		0		0
R002	W11	50	W17	45	W4b	5		0		0		0		0		0
R004	W4	80	W11	20		0		0		0		0		0		0
R007	W4	70	W17	30		0		0		0		0		0		0
R011	W4b	80	W17	20		0		0		0		0		0		0
R016	W17	80	W11	15	W4	5		0		0		0		0		0
R017	W17	60	W4	40		0		0		0		0		0		0
R034	W11	66	W4	34		0		0		0		0		0		0
R043	W11d	90	W7b	5	W4b	5		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
R069a	M15	100		0		0		0		0		0		0		0
R069b	M15	100		0		0		0		0		0		0		0
R070	M15	90	M3	10		0		0		0		0		0		0
R071	SW	50	S9	25	JE	25		0		0		0		0		0
R082	SW	50	M23b	25	JE	15	U4	10		0		0		0		0
R100a	M23b	100		0		0		0		0		0		0		0
R100b	M23b	100		0		0		0		0		0		0		0
W002	H12b	80	M6c	20		0		0		0		0		0		0
W004	M6c	100		0		0		0		0		0		0		0
W005	U5d	50	M6c	50		0		0		0		0		0		0
W012	H12b	50	U4d	40	M6c	10		0		0		0		0		0
W014	H12b	70	M6c	30		0		0		0		0		0		0
W015	M16d	50	M6c	45	M19	5		0		0		0		0		0
W032	M16d	98	M15a	2		0		0		0		0		0		0
W045	Je	100		0		0		0		0		0		0		0
W052	U16	100		0		0		0		0		0		0		0
W057a	M23b	100		0		0		0		0		0		0		0
W057b	M23b	100		0		0		0		0		0		0		0
W061	M16d	100		0		0		0		0		0		0		0
W064	M19	80	M16d	20		0		0		0		0		0		0
W082	W17c	50	W7a	50		0		0		0		0		0		0
W084	W7	35	W17	30	W4	15	W18	15	W11	5		0		0		0
W089	M6c	100		0		0		0		0		0		0		0
W090	W4b	100		0		0		0		0		0		0		0
W095	U4d	50	M6c	50		0		0		0		0		0		0
W097	M19a	93	M6c	7		0		0		0		0		0		0
W111	M16d	100		0		0		0		0		0		0		0
W120	M9	100		0		0		0		0		0		0		0
W121	M16d	100		0		0		0		0		0		0		0
W123	M6c	100		0		0		0		0		0		0		0
W125	M16d	100		0		0		0		0		0		0		0
W126	M5	100		0		0		0		0		0		0		0
W140	M20	95	M6c	5		0		0		0		0		0		0
W144	M16d	65	M6c	35		0		0		0		0		0		0
W145	M16d	65	M6c	35		0		0		0		0		0		0
W146	M16d	85	W18b	15		0		0		0		0		0		0
W170	W4c	100		0		0		0		0		0		0		0
W174	M9	100		0		0		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
W176	W4c	100		0		0		0		0		0		0		0
W185	W4c	100		0		0		0		0		0		0		0
W186	W3	100		0		0		0		0		0		0		0
W190	W4b	100		0		0		0		0		0		0		0
W193	M6c	100		0		0		0		0		0		0		0
W196	M4	80	M6c	20		0		0		0		0		0		0
W197	S9a	80	W3	20		0		0		0		0		0		0
W199	W4c	100		0		0		0		0		0		0		0
W200	M27a	100		0		0		0		0		0		0		0
W202	W4c	70	W18b	20	W17d	10		0		0		0		0		0
W206	W4c	100		0		0		0		0		0		0		0
W208	W4b	100		0		0		0		0		0		0		0
W209	W4c	100		0		0		0		0		0		0		0
W210	W4b	100		0		0		0		0		0		0		0
W211	M6c	60	S9a	40		0		0		0		0		0		0
W216	M25a	80	S9a	20		0		0		0		0		0		0
W217	M25a	100		0		0		0		0		0		0		0
W218	W4c	100		0		0		0		0		0		0		0
W219	W4c	50	W18b	50		0		0		0		0		0		0
W220	W4c	80	W18c	20		0		0		0		0		0		0
W225	CG10a	100		0		0		0		0		0		0		0
W226	U4b	95	CG10a	5		0		0		0		0		0		0
W240	M25a	70	M17a	30		0		0		0		0		0		0
W242	M6c	100		0		0		0		0		0		0		0
W243	W4	100		0		0		0		0		0		0		0
W291	M28a	100		0		0		0		0		0		0		0
W294	M28a	100		0		0		0		0		0		0		0
W311	M23b	100		0		0		0		0		0		0		0
W321	M23b	100		0		0		0		0		0		0		0
W327	MG9	80	W24	20		0		0		0		0		0		0
W351	S9a	90	M6c	10		0		0		0		0		0		0
W357	M28a	40	S9a	30	SW	25	W7b	5		0		0		0		0
W369	S9a	50	M6c	50		0		0		0		0		0		0
X053	W11	70	W7	30		0		0		0		0		0		0
Z003-	Je	100		0		0		0		0		0		0		0
Z005-	M23b	50	U4a	43	M6c	3	H12a	2	W19	2		0		0		0
Z007-	Je	95	U4	3	U5	1	W19	1		0		0		0		0
Z011-	U4a	80	Je	15	U5	5		0		0		0		0		0

Poly_id	Nvc_1	Nvc_1pc	Nvc_2	Nvc_2pc	Nvc_3	Nvc_3pc	Nvc_4	Nvc_4pc	Nvc_5	Nvc_5pc	Nvc_6	Nvc_6pc	Nvc_7	Nvc_7pc	Nvc_8	Nvc_8pc
Z014-a	Je	75	U4a	21	U5a	4		0		0		0		0		0
Z014-b	Je	75	U4a	21	U5a	4		0		0		0		0		0
Z021-	M6c	90	Je	10		0		0		0		0		0		0
Z025-	H12c	65	U4	10	U6d	10	W19	10	U5	5		0		0		0
Z029-	U6d	100		0		0		0		0		0		0		0
Z030-a	Je	50	U6d	48	U4a	2		0		0		0		0		0
Z030-b	Je	50	U6d	48	U4a	2		0		0		0		0		0
Z041-	M23b	90	Je	7	U4a	3		0		0		0		0		0
Z043-	Je	100		0		0		0		0		0		0		0
Z046-	Je	65	U4	25	U5	10		0		0		0		0		0
Z049-	Je	98	U5	2		0		0		0		0		0		0
Z051-	M23b	70	Je	20	M6c	9	U4	1		0		0		0		0
Z067-	MG10a	100		0		0		0		0		0		0		0
Z076-a	M6c	100		0		0		0		0		0		0		0
Z076-b	M6c	100		0		0		0		0		0		0		0
Z079-a	Je	80	U4a	20		0		0		0		0		0		0
Z079-b	Je	80	U4a	20		0		0		0		0		0		0

Annex B. Groundwater Assessment – Neutral Impacts

Table B.1: Groundwater Assessment - Neutral Impacts

ID	Elevation	NGR	Permeability	Drawdown	ROI	Sensitivity	Magnitude	Significance
4	214	NH8658810104	0.000001	6	12	Moderate	Negligible	Neutral
16	212	NH8658810104	0.000001	1	2	Medium	Negligible	Neutral
24	216	NH8658810104	0.000001	1	2	Medium	Negligible	Neutral
31	224	NH8719310287	0.000006	5	24	Medium	Negligible	Neutral
32	228	NH8719310287	0.000006	1	5	Medium	Negligible	Neutral
37	224	NH8719310287	0.00000254	2	6	Medium	Negligible	Neutral
40	212	NH8719310287	0.00000254	14	45	Medium	Negligible	Neutral
41	212	NH8719310287	0.00000254	14	45	Medium	Negligible	Neutral
42	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
43	218	NH8719310287	0.00000254	8	25	Medium	Negligible	Neutral
45	222	NH8719310287	0.00000254	4	13	Medium	Negligible	Neutral
46	223	NH8719310287	0.00000254	3	10	Medium	Negligible	Neutral
47	219	NH8719310287	0.00000254	7	22	Medium	Negligible	Neutral
48	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
51	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
52	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
53	224	NH8719310287	0.00000254	2	6	Medium	Negligible	Neutral
54	224	NH8719310287	0.00000254	2	6	Medium	Negligible	Neutral
55	224	NH8719310287	0.00000254	2	6	Medium	Negligible	Neutral
56	225	NH8837110575	0.0001	2	40	Medium	Negligible	Neutral
57	225	NH8837110575	0.0001	2	40	Medium	Negligible	Neutral

ID	Elevation	NGR	Permeability	Drawdown	ROI	Sensitivity	Magnitude	Significance
59	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
65	225	NH8719310287	0.00000254	1	3	Medium	Negligible	Neutral
66	223	NH8837110575	0.0001	1	20	Medium	Negligible	Neutral
84	235	NH8837010632	0.0000221	1	9	Low	Negligible	Neutral
86	226	NH8837010632	0.0000221	2	19	High	Negligible	Neutral
87	227	NH8837010632	0.0000221	2	19	High	Negligible	Neutral
89	227	NH8837010632	0.0000221	3	28	High	Negligible	Neutral
94	223	NH8915911673	0.0001	1	20	High	Negligible	Neutral
103	223	NH8915911673	0.0001	1	20	High	Negligible	Neutral
107	222	NH8915911673	0.0001	2	40	High	Negligible	Neutral
115	222	NH8915911673	0.0001	2	40	High	Negligible	Neutral
131	224	NH8916213312	0.00000012	8	6	High	Negligible	Neutral
132	230	NH8916213312	0.00000012	2	1	High	Negligible	Neutral
140	229	NH8923513736	0.0001	2	40	High	Negligible	Neutral
145	229	NH8934513957	0.0001	1	20	High	Negligible	Neutral
179	229	NH8934513957	0.0001	1	20	High	Negligible	Neutral
189	229	NH8934513957	0.0001	1	20	High	Negligible	Neutral
232	235	NH9077917361	0.0001	1	20	High	Negligible	Neutral
265	245	NH9077917361	0.0001	1	20	High	Negligible	Neutral
266	249	NH9077917361	0.0001	1	20	High	Negligible	Neutral
272	259	NH9107918525	0.0001	1	20	Low	Negligible	Neutral
273	271	NH9105219136	7.31E-08	6	3	Low	Negligible	Neutral
274	272	NH9105219136	0.0001	1	20	Low	Negligible	Neutral
285	275	NH9105219136	0.0001	2	40	High	Negligible	Neutral
286	279	NH9105219136	0.0001	1	20	High	Negligible	Neutral

ID	Elevation	NGR	Permeability	Drawdown	ROI	Sensitivity	Magnitude	Significance
303		NH9082320393	0.0001	1	20	High	Negligible	Neutral
304		NH9082320393	0.0001	1	20	High	Negligible	Neutral
312	271	NH9082320393	0.0000221	6	56	Low	Minor	Neutral
313	265	NH9082320393	0.0000221	7	66	Low	Minor	Neutral
314	268	NH9082320393	0.0000221	5	47	Low	Negligible	Neutral
315	270	NH9082320393	0.0000221	3	28	Low	Negligible	Neutral
317	262	NH9075220888	0.0000221	6	56	Low	Minor	Neutral
318	262	NH9075220888	0.0000221	4	38	Low	Negligible	Neutral
319	262	NH9075220888	0.0000221	3	28	Low	Negligible	Neutral
324	264	NH9075220888	0.0001	1	20	Low	Negligible	Neutral
327	263	NH9075220888	0.0000001	7	4	Low	Negligible	Neutral
336	275	NH8920323124	0.000001	7	14	Moderate	Negligible	Neutral
337	276	NH8920323124	0.000001	4	8	Moderate	Negligible	Neutral
338	278	NH8920323124	0.000001	2	4	Moderate	Negligible	Neutral
339	277	NH8920323124	0.000001	6	12	Moderate	Negligible	Neutral
350	314	NH8805824047	0.0000001	2	1	Low	Negligible	Neutral
351	311	NH8805824047	0.0000001	6	4	Low	Negligible	Neutral
356	359	NH8538023795	0.0000001	4	3	Low	Negligible	Neutral
357	359	NH8538023795	0.0000001	4	3	Low	Negligible	Neutral
358	360	NH8538023795	0.0000001	3	2	Low	Negligible	Neutral
359	359	NH8538023795	0.0000001	4	3	Low	Negligible	Neutral
361	370	NH8538023795	0.0000001	1	1	Low	Negligible	Neutral
363	382	NH8520223918	0.0000221	5	47	Low	Negligible	Neutral
366	375	NH8452124313	0.0000221	1	9	High	Negligible	Neutral
367	375	NH8452124313	0.0001	1	20	High	Negligible	Neutral

ID	Elevation	NGR	Permeability	Drawdown	ROI	Sensitivity	Magnitude	Significance
368	371	NH8452124313	0.0001	2	40	High	Negligible	Neutral
371	378	NH8440824526	0.000000001	6	0.379473	Low	Negligible	Neutral
379	397	NH8369725553	0.000001	2	4	Low	Negligible	Neutral
382	401	NH8369725553	0.000000001	1	0.063246	Low	Negligible	Neutral
384	399	NH8369725553	0.0000001	18	11	Low	Negligible	Neutral
389	404	NH8369725553	0.0000001	1	1	Low	Negligible	Neutral
390	406	NH8369725553	0.0000001	1	1	Low	Negligible	Neutral
392	403	NH8369725553	0.0000001	2	1	Low	Negligible	Neutral
395	402	NH8369725553	0.000000001	1	0.063246	Low	Negligible	Neutral
396	398	NH8369725553	0.000000001	2	0.126491	Low	Negligible	Neutral

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