Appendix 11.1

Water Features Survey



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1. Introduction

1.1.1 The Water Features Survey is a baseline study that identifies key water features that may be affected by the Proposed Scheme for Project 8, Dalwhinnie to Crubenmore. The format of the Water Features Survey comprises a schedule and a plan. The Schedule (see **Section 4** of this document) lists key information about each feature shown in **Drawings 11.1** to **11.9** in **Volume 3** (i.e. the Plan) of this report. This information is used to inform the Design Manual for Roads and Bridges (DMRB) Stage 3 Environmental Impact Assessment (EIA).

2 Approach and Methods

Study Area

- 2.1.1 A 1km-wide corridor, notionally 500m to the east and west of the existing A9, was initially defined as the study area for assessment of potential Road Drainage and Water Environment impacts. As the River Truim acts as a hydrological barrier it is unlikely the Proposed Scheme will have an impact on water features beyond the opposite bank (i.e. left bank looking downstream) from the A9. Therefore, the study area for this assessment has been refined for DMRB Stage 3 based upon the following selection criteria:
 - Hydrological features shown on a 1:10,000 Ordnance Survey (OS) map, and identified in more detail on the Blom topographical survey, have been delineated by a 500m offset upstream of the existing A9 corridor and the left bank (looking downstream) of the River Truim. The nominal distance has been extended in cases where there are significant hydrological features that may potentially be affected by the Proposed Scheme. This has been defined as the 'DMRB3 Wider Study Area'
 - An overview of the permanent and temporary works assessment boundaries applied in the assessment of the Proposed Scheme is provided in **Drawings 5.2 to 5.8** of **Volume 3**. In it, a red line boundary is delineated around the DMRB Stage 3 infrastructure design, including all mainline, junction and drainage infrastructure, and watercourse diversions. This red line represents the 'Permanent Works' assessment boundary and includes the 5m offset from the design extents. Outwith the red line, a green line is shown in a number of areas; these have been considered as areas required to enable construction activities and are considered as the 'Temporary Works' assessment boundary. For the purposes of this chapter, this has been defined as the 'DMRB3 Detailed Study Area'
- 2.1.2 All key water features within this study area were identified, categorised and individually labelled as; major watercourse, minor watercourse, pond, abstraction, discharge and constructed feature (i.e. dams, reservoirs, aqueduct).
- 2.1.3 The study area is shown in the **Water Features Plans, Drawings 11.1** to **11.9** in **Volume 3.** For hydrological analysis of watercourses crossed by the Scheme, full catchments areas were considered beyond the outlined study area where applicable, as shown in **Catchment Drawing 11.10** in **Volume 3** of this report.
- 2.1.4 There are a number of spatial constraints identified within the study area as discussed in greater detail in **Chapter 12**, including the River Truim, the Highland Mainline (HML) railway, and a section of the Beauly to Denny Powerline (BDL). Significant environmental constraints include internationally and nationally designated ecological sites, specifically the River Spey Special Area of Conservation (SAC) (which includes the River Truim), and the Drumochter Hills area which is also a designated SAC, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI).



Scoping out

2.1.5 Within the Project 8 extent there are numerous existing earthworks ditches, watercourse diversions, and several minor field or road drainage ditches which do not cross the existing A9 but run parallel to the road corridor. These will likely be enveloped by the widened road corridor, however, as they are man-made and do not exhibit significant hydrological/ ecological value to the water environment (and will be replaced by a new drainage layout), they are not assessed further (i.e. are not subject to a pre- and post-mitigation assessment).

Reference Numbering

2.1.6 Each water feature has been given a unique reference number. They have been assigned using letters referring to the feature type and a number. The letters used for each type of feature and the methods of identification are shown in **Table 1** below.

Water Feature	Reference Number	Source of Information
Major Watercourse	MW	OS Maps 1:50,000 RBMP Datasheets/interactive map http://map.environment.scotland.gov.uk/seweb/map.htm SNH Interactive Map http://gateway.snh.gov.uk/sitelink/ SEPA Flood Maps http://map.sepa.org.uk/floodmap/map.htm
Minor Watercourse W		OS Maps 1:10,000 RBMP Datasheets/interactive map http://map.environment.scotland.gov.uk/seweb/map.htm SNH Interactive Map http://gateway.snh.gov.uk/sitelink/ SEPA Flood Maps http://map.sepa.org.uk/floodmap/map.htm Blom survey and site walkovers Transport Scotland/ BEAR records
Pond P		OS Maps Aerial Photographs
Abstraction	ABS	Spreadsheets received from The Highland Council and the Scottish Environment Protection Agency (SEPA)
Discharge	DISC	Spreadsheets received from The Highland Council and SEPA
Constructed Feature	R: Reservoir/ Dam A: Aqueduct	OS Mapping Information received from SSE RBMP Datasheets/interactive map http://map.environment.scotland.gov.uk/seweb/map.htm

Table 1:Water Feature Numbering

- 2.1.7 Watercourses were classified as 'Major' or 'Minor' using the criteria noted below:
 - Major Watercourse: Shown on OS 1:50,000 scale 'vector' maps
 - Minor Watercourse: Shown on OS 1:10,000 scale vector mapping or identified on Blom topographical survey and via site walkovers
- 2.1.8 Minor watercourses include field drains and existing road drains which has been identified from topographical surveys and review of Transport Scotland records. All watercourses which cross the existing A9 (i.e. via bridges and culverts) have been an assigned a 'Hydro ID'.



Watercourse - Key Information

- 2.1.9 For each of the watercourses the following was noted; flood risk associated with the watercourse, water quality status, and national/ international designations.
- 2.1.10 Baseline flood risk of the watercourse was assessed using CFJV hydrological and hydraulic modelling results for the 1 in 200 year flood event. Input to the hydraulic and hydrological modelling is more locally detailed than that of the SEPA Flood Maps (2014). In particular, the CFJV has been able to use a higher resolution in areas informed by the ground model.
- 2.1.11 Where available, the surface water quality status for watercourses was obtained from River Basin Management Plans (RBMPs) provided by SEPA for 2015. Surface water bodies are classified using five quality classes; High, Good, Moderate, Poor and Bad. The classification describes by how much a waterbody differs from near natural conditions. In the water features schedule the overall status has been noted. However, the majority of the smaller watercourses within the Project 8 extent do not have individual RBMP classifications.
- 2.1.12 Any national and international designations for each watercourse are noted in the schedule. Information on designated areas is available on the Scottish National Heritage (SNH) Interactive Map (see **Chapter 11** references). Designated areas are also noted on the RBMP data sheets and interactive maps available from the Scotland's Environment website (for both references see **Chapter 11**).

Groundwater

2.1.13 The water quality status for groundwater bodies is based on available groundwater vulnerability data and private water supply information. The groundwater vulnerability scores groundwater bodies into relative classes of Very High (Class 5), High (Class 4), Moderate (Classes 3- 2) and Low (Classes 1-0) vulnerability. The vulnerability classification is derived from geological and hydraulic characteristics of aquifers and overlying material to indicate the relative risk to groundwater from contamination.

Ponds

2.1.14 Ponds were identified using the OS 1:10,000 maps. These were unnamed areas of standing water not identified as reservoirs or dams. Aerial photographs were used to confirm whether the ponds identified on the mapping were ponds or part of a structure.

Abstractions

2.1.15 Information on abstractions was obtained from SEPA, The Highland Council (THC) and private water supply questionnaires. SEPA hold data on abstractions that have required a CAR license. THC holds data on groundwater abstractions and private water supplies.

Discharges

2.1.16 Information on discharges was obtained from SEPA, The Highland Council and Scottish Water. SEPA hold data for licensed surface water discharges. Information was also obtained on septic tanks and combined sewer overflows (CSOs) and outfalls.

Constructed Features

2.1.17 Constructed features include dams, reservoirs and aqueducts. These were primarily identified using OS mapping, however information on abstractions, aqueducts and dams for hydro power generation have also been received from SEPA and SSE.



Baseline Sensitivities / Importance Values Key

2.1.18 Potential impacts of the Proposed Scheme on the water features identified in the survey process are provided within the main body text of **Chapter 11**. The schedule within this report contains baseline sensitivity values for each of those water features that have been subject to the environmental assessment. Those that have been scoped out are also included in the schedule; however, these have not been assigned sensitivity values. Justification for scoping out particular water features is also provided within the schedule.

3 Baseline Conditions

- 3.1.1 The 'baseline conditions' presented in this section are the recorded environmental state of the water features within the study area, between Dalwhinnie and Crubenmore, without the construction and operation of the Proposed Scheme. Where sensitive receptors are noted within the baseline assessment, these are considered as the determining factors of the potentially affected water feature.
- 3.1.2 The Water Framework Directive (WFD) aims to improve and protect the water environment, by:
 - preventing deterioration and enhance status of aquatic ecosystems, including groundwater
 - promoting sustainable water use
 - reducing pollution
 - contributing to the mitigation of floods and droughts
- 3.1.3 River Basin Management Plans (RBMPs) were produced as a requirement of the WFD by which statutory objectives based on ecological assessments and economic judgments are set for Scottish waters, and cover all types of water body (such as rivers, lochs, lakes, estuaries, coastal waters and groundwater), including:
 - the current condition of our water bodies
 - where current or historic activities are reducing the quality of the water bodies
 - actions required to ensure our designated waters of special value (for example, drinking waters, shellfish waters, bathing waters, and waters designated for their plants and animals) are up to required standards
 - actions needed to deliver environmental improvements over the next 6 years, and longer, to 2027
- 3.1.4 The existing RBMP information provides current WFD water quality classification, existing anthropogenic pressures, and any improvement measures identified, and fisheries designations of monitored waterbodies within the study area.
- 3.1.5 The baseline information/ classifications are used to ensure the Proposed Scheme will not have a deleterious/ detrimental effect on the WFD status of watercourses within Project 8, and where applicable, demonstrate that betterment can be provided comparative to the existing A9 single carriageway.



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River Truim (MW 8.1)

- 3.1.6 The River Truim is a major right bank tributary of the River Spey, draining the western edges of the Cairngorms with a catchment area of 125km². Its headwaters are situated in the Pass of Drumochter, approximately 8km south of Dalwhinnie.
- 3.1.7 It has a WFD classification of 'Good ecological potential' from source to Allt Cuaich confluence (2015), and 'Moderate ecological potential' lower catchment (2015). It is designated as part of the River Spey Special Area of Conservation (SAC) for its populations of Atlantic salmon (*Salmo salar*) (the Truim is noted as important for its salmonid smolt production) and otter (*Lutra lutra*). (Sea lamprey (*Petromyzon marinus*) and freshwater pearl mussel (*Margaritifera margaritifera*) are also qualifying features of the River Spey SAC; no evidence has been determined in the River Truim Project 8 extents, however presence is assumed for assessment purposes.) It is situated in the Cairngorms National Park and its source is also within the Drumochter Hills Site of Special Scientific Interest (SSSI)/ SAC as discussed in **Chapter 12**.

Water Quality

3.1.8 The River Truim is divided into two separate sections, each with a different WFD classification:

The *River Truim from source to Allt Cuaich confluence* has been classified (2015) as 'heavily modified' and having:

Overall status - Good ecological potential with medium confidence

- Pre-HMWB status Moderate
- Overall ecology Moderate
- Biological elements Moderate
- Fish Moderate
- Fish ecology Good
- Fish barrier Moderate
- Hydromorphology Moderate

- Morphology Good
- Overall hydrology Moderate
- Modelled hydrology Moderate
- Hydrology (medium/ high flows) Moderate
- Hydrology (low flows) Good

The River Truim - lower catchment has been classified (2015) as 'heavily modified' and having:

Overall status – Moderate ecological potential with medium confidence

- Pre-HMWB status Moderate
- Overall ecology Moderate
- Biological elements Moderate
- Fish Moderate
- Fish ecology Moderate
- Fish barrier High
- Hydromorphology Moderate

- Morphology Good
- Overall hydrology Moderate
- Modelled hydrology Poor
- Hydrology (medium/high flows) Poor
 - Hydrology (low flows) Poor
- 3.1.9 Existing anthropogenic pressures have been identified which result in the failure of the River Truim to meet 'good' ecological status, these are; 'abstraction' and 'morphological alterations for production of renewable electricity'. Measures to protect or improve the water environment from these pressures include; 'control pattern/ timing of abstraction (hands off flow/ utilisation of storage (new/ existing)', and 'removal of barriers or provision of mechanisms to enable fish migration'.



- 3.1.10 A number of residential, commercial and agricultural discharges are identified in the vicinity of the River Truim throughout the Project 8 extent. The majority are septic tanks to soakaway or to land greater than 50m from watercourses, with only one identified as a direct discharge to the Truim (DISC 8.5 at 263867, 785212) associated with Scottish Water treatment works in Dalwhinnie. However, as they may potentially follow subsurface pathways towards the larger watercourse, they are considered in the baseline conditions.
- 3.1.11 Groundwater abstractions for Dalwhinnie Water Treatment Works (ABS 8.5) (very high sensitivity) comprise three shallow wells (3.00m) situated adjacent to the River Truim and are considered likely to have a ground as well as surface water component. Potential permanent or indirect groundwater impacts in terms of yield and quality are considered unlikely. However, these may be vulnerable to temporary disturbance from work within or adjacent to the River Truim and from potential pollution incidents during construction.
- 3.1.12 Overall, the watercourse has been assessed as having a **Very High** sensitivity value for water quality due to the various factors described above.

- 3.1.13 The hydromorphological processes of the River Truim and its tributaries are considered as part of the wider River Spey catchment. Its headwaters are situated at an elevation of 450 metres above ordnance datum (mAOD), draining the steep valley sides to the east and west, flowing in a north-easterly direction for a distance of approximately 22km to the confluence with the Spey at 250mAOD.
- 3.1.14 The geology of the Truim catchment is dominated by metamorphic bedrock, with much of the superficial geology comprised of glacial till and alluvium. For long stretches where the floodplains are flat and wide, the gentle gradient and glacio-fluvial sediment supply has resulted in a sinuous river planform.
- 3.1.15 Downstream the river has cut into the bedrock creating the Falls of Truim. Heather acid grassland, bog and rough grassland dominate the land cover of the Glen Truim valley. There are small sections of improved grassland situated on its banks by the villages of Dalwhinnie, Invertruim and Crubenbeg, with areas of coniferous woodland in the lower reaches.
- 3.1.16 Morphological pressures have been provided by SEPA. Those identified on the River Truim within Project 8 are:
 - Wade Bridge (chainage (ch.) 21,200)
 - A889 bridge (ch. 21,450)
 - Hydropower dam (ch. 21,900)
 - Access track bridge at aqueduct outlet (ch. 22,500)
 - Pipe cable crossing at aqueduct outlet (ch. 22,600)
 - Pipe cable crossing east of Dalwhinnie (ch. 23,100)
 - Right bank outfall west of Dalwhinnie Beag (ch. 23,550)

- Left bank outfall east of Dalwhinnie Begg (ch. 23,600)
 - HML bridge west of Lechden (ch.25,400)
- Access track bridge north-west of Cuaich (26,150)
- Partial Realignment 548m in length (ch. 26,850 27,350)
- Access track bridge at Crubenmore (ch.30,950)
- Crubenmore Bridge (ch.31,050)



- 3.1.17 Engineering works in the form of bank re-profiling and bank modifications have been carried out on the River Truim downstream of the confluence with Allt Coire Uilleim (ch. 21,520).
- 3.1.18 Coarse sediment dynamic information has also been provided by SEPA for the River Truim. The dominant sediment regime for the reaches within Project 8 are summarised in **Table 2**.

Dominant sediment regime	Location by chainage (ch.)
High erosion on River Truim	ch. 22,900 – 23,750 ch. 26,600 – 26,700 ch. 26,850 – 27,000
High deposition on River Truim	ch. 26,450 – 26,600 ch. 26,700 – 26,850
Moderate erosion on River Truim	ch. 21,050 – 21,600 ch. 23,950 – 24,450 ch. 29,250 – 29,350
Moderate deposition on River Truim	ch. 20,000 – 21, 050 ch. 23,750 – 23,950 ch. 28,600 – 29, 250
Balance	ch. 21,600 – 22,900 ch. 24,450 – 26,450 ch. 27,000 – 28,600 ch. 29, 350 – 31,150

Table 2: Dominant sediment regime for River Truim at discrete locations in Project 8

3.1.19 The gentler gradients of the wider valley floors result in lower energy flows and subsequent deposition of this coarse material; this has been noted by channel narrowing at confluences with the River Spey. The watercourses within the catchment retain gravel-bed channels due to continued lateral migration; working into the glacial deposits, transporting and depositing materials exhibited by sinuous meandering and braided planforms. Therefore, a **High** hydromorphological sensitivity value has been assigned.

Hydrology and Flood Risk

- 3.1.20 Modifications within the catchment that may impact on the natural hydrology of the River Truim include a dam on the Truim upstream of Dalwhinnie and diversions of the Allt Cuaich to Loch Ericht via the aqueduct, both part of the SSE Tummel Hydro Scheme. Several other tributaries are also known to feed into the aqueduct via overflow or dams.
- 3.1.21 Flooding of the Truim impacts on receptors including residential and non-residential properties, particularly within the immediate area of Dalwhinnie.
- 3.1.22 The risk to Dalwhinnie, as a receptor of flooding which originates from the River Truim, is assessed within SEPA PVA 05/14 (using the SEPA Flood Maps), and was summarised in the CFJV DMRB Stage 3 Hydrology and Hydraulic Modelling Approach, as noted below:

"This PVA covers the town of Dalwhinnie and the surrounding rural area. It is approximately 63km² and large parts are within the Cairngorms National Park. The River Truim is the main river in this Potentially Vulnerable Area and there are many small burns draining off the steep hillsides. There are approximately 20 residential and fewer than 10 non-residential properties at risk of flooding. The Annual Average Damages are approximately £170,000, all caused by river flooding. Three locations on the A9, with a total length of 330m, are noted as being at risk from flooding."



3.1.23 The baseline hydraulic modelling highlights flooding of properties in Dalwhinnie and A889 at the 1 in 200 year return period in existing conditions. Therefore, a **Very High** sensitivity value has been assigned.

Unnamed tributaries of the River Truim (W8.1/ Hydro ID65, W8.34/ Hydro ID66, W8.38/ Hydro ID67, W8.39/ Hydro ID68, W8.40/ Hydro ID69, W8.41/ Hydro ID70, W8.42/ Hydro ID71)

3.1.24 These unnamed tributaries of the River Truim are located within an approximate 450m length of the existing A9, and exhibit similar environmental attributes.

Water Quality

3.1.25 These tributaries are located within the Drumochter Hills SSSI boundary, however are not classified by SEPA and no water quality information was available. The downstream reaches of three (Hydro ID 69, ID 70 & ID 71) are also within the Spey SAC boundary. They flow through a peaty/ heathland area and acidification may potentially impact on the water quality. The water environment in this area will also receive a degree of runoff from the A9. They are not known to support any designated freshwater-dependent ecosystems and therefore, have been assigned a **Low** sensitivity value for water quality and biodiversity.

Hydromorphology

3.1.26 The watercourses have been identified as drains with catchment areas <0.5km² and average catchment slopes between 8.99 – 11.4° with little geomorphic diversity therefore have been assigned Low sensitivities. Only crossings 65 and 67 have exhibit notable geomorphic diversity. An alluvial fan has been identified in the vicinity of crossing 65 (at Hydro ID 64 Project 7 tie-in). W8.1 appears to have been cut to take hillslope overland flow from a c.300m wide section of hillside; however, there is evidence of pre-exiting natural channels downstream of the current A9 crossing shown on OS mapping. Bank protection is present upstream and downstream of the crossings. Flows appear to have the potential to generate sufficient power, evident from damaged armouring in drains near to the crossings. Therefore, a Medium sensitivity value has been assigned to these watercourses for hydromorphology.

Hydrology and Flood Risk

3.1.27 The baseline hydraulic modelling indicates no flooding in and around Hydro IDs 65, 66 and 71; therefore, these watercourses have been assigned **Low** sensitivities for flood risk. Flooding of the existing A9 road surface is noted between Hydro IDs 67 and 72; therefore, these watercourses have been assigned **Very High** sensitivity values for flood risk as the road is considered essential infrastructure.

Allt Coire nan Cisteachan (MW 8.5/ Hydro ID 72)

Water Quality

3.1.28 Allt Coire nan Cisteachan is a right bank tributary of the River Truim with a catchment size of 1.64km² and a length of approximately 2.4km flowing in a north-westerly direction from its source in the Cairngorms. The watercourse is situated within the Drumochter Hills (SSSI, SAC & SPA) boundaries, however does not have a SEPA RBMP classification and no water quality information was available. It flows through heather and grassland with coniferous woodland running parallel to the A9 where acidification may potentially impact on water quality. This may



be further impacted by the dam upstream. Potential salmonid spawning habitat is present immediately upstream and downstream of the crossing; however, a perched culvert (1.5m vertical drop) is noted where a cycle track crosses the watercourse downstream, which will limit fish access; therefore, a **Low** sensitivity value has been assigned for water quality/ biodiversity.

3.1.29 British Geological Survey (BGS) data indicates that the waterbody is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.30 The watercourse has a boulder, cobble and gravel bed. The upper catchment is set within a vshaped valley and the predominantly straight channel flows through a montane habitat environment with an average slope in the catchment of 13.2°. Here several tributaries are incising into bedrock and/ or superficial deposits with very large (cobble-small boulder) sediment evident as deposited bars immediately upstream of the crossing. This indicates that at the highest flows, some of this large sediment will eventually be transmitted to the crossing; therefore, a **High** sensitivity value has been assigned.

Hydrology & Flood Risk

3.1.31 Inundation upstream of the A9 from Hydro ID 72 (MW8.5) has been identified from the hydraulic modelling. This is limited to the east of the road and not shown to overtop onto the road surface itself. There is also minor flooding around the confluence with the Truim and in the vicinity of the A9 at ch. 20,750. Route 7 of the National Cycle Network (NCN7), which is discussed in **Chapter 9**, is shown to be a risk of flooding between ch. 20,750 and 20,050). Modelling identifies flooding which may potentially impact the A9, classed as critical infrastructure, and therefore a **Very High** sensitivity value has been assigned.

Unnamed tributaries of the River Truim (W8.44/ Hydro ID 74, W8.47/ Hydro ID 75)

3.1.32 These unnamed tributaries of the River Truim are located within an approximate 120m length of the existing A9, and exhibit similar environmental attributes.

Water Quality

- 3.1.33 These unnamed tributaries are located within the Drumochter Hills SSSI boundary, however do not have SEPA RBMP classifications and no water quality information was available. They flow through a peaty/ heathland area and acidification may potentially impact on their water quality. The water environment in this area will also receive a degree of runoff from the A9. They are not known to support any designated freshwater-dependent ecosystems; therefore, a **Low** sensitivity value has been assigned.
- 3.1.34 BGS data indicates that the waterbody is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.35 Both watercourses are short-length, natural streams with catchment areas <0.5km², and flow likely to be ephemeral. The predominant sediment size upstream and at the crossings is large gravel-cobble. At the downstream sections, the watercourses' morphology becomes wandering with fines as the predominant sediment size. The gradient reduces suddenly at the inlet of both crossings; deposited coarse angular sediment was noted in the culvert at Hydro ID 74. Overall, a **Low** sensitivity value has been assigned for hydromorphology.



Hydrology and Flood Risk

3.1.36 The downstream sections of these watercourses are noted as flowing into the 200 year flood extent of the River Truim. No significant sensitive receptors are noted within the immediate vicinity; therefore, a **Low** sensitivity value has been assigned.

Unnamed tributary of the River Truim (W8.4/ Hydro ID 76)

Water Quality

- 3.1.37 This unnamed tributary is not classified by SEPA and no water quality information was available, however it is located within the Drumochter Hills SSSI boundary. It flows through a peaty/ heathland and forestry area and acidification may potentially impact on the water quality. The water environment in this area will also receive a degree of runoff from the A9. It is not known to support any designated freshwater-dependent ecosystems; therefore, a **Low** sensitivity value has been assigned.
- 3.1.38 BGS data indicates that the waterbody is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.39 This natural watercourse has a catchment area of 1.2km² with an average slope of 9°. There is peat present in the catchment with possible small peat slides from convexity in the upper reaches. Previously the channel would have been a tributary of the Allt Coire Uilleim (MW8.6), joining at its lowest reaches before entering the River Truim; however, the channel has been substantially realigned in order to enter the main channel directly. Lateral migration/ bank erosion is noted on outside of a meander, above which, deposition is occurring on inside of the bend; therefore, a **Medium** sensitivity value has been assigned.

Hydrology and Flood Risk

3.1.40 Inundation upstream of the A9 from Hydro ID 76 (W8.4) has been identified by hydraulic modelling; therefore, a **High** sensitivity value has been assigned. Downstream of the A9 the lower section flows into the River Truim flood extents. The A889 road is identified as a sensitive receptor at risk of flooding in this area, though likely from the River Truim and Allt Coire Uilleim.

Allt Coire Uilleim (MW 8.6/ Hydro ID 77)

Water Quality

3.1.41 Allt Coire Uilleim is a right-bank tributary of the River Truim. It has a catchment of 1.65km², a length of approximately 3.4km and flows in a north-westerly direction from its source. The watercourse is located within the Drumochter Hills (SSSI, SAC & SPA) boundaries, however does not have a RBMP classification and no water quality information was available. Land cover in the upper catchment is comprised of montane habitat, heather in the middle reaches, and heather grassland in the lower section with coniferous woodland running parallel to the A9; acidification may potentially impact on the water quality. The water environment in this area will also receive a degree of runoff from the A9. Potential salmonid spawning habitat is present immediately upstream and downstream of the crossing; therefore, a **High** sensitivity value has been assigned for water quality/ biodiversity.



3.1.42 BGS data indicates that the waterbody is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.43 The river has a boulder, cobble and gravel bed. The channel in the upper catchment follows a direct line through the v-shaped valley but becomes more sinuous on the valley floor towards its confluence with the Truim, with an average slope in the catchment of 14.2°. Peat is present in the upper catchment with gullying, peat slides, hillslope slides, and vertical incision noted, resulting in a very high potential for sediment supply in upper catchment. There is evidence of sediment deposition beneath the existing A9 crossing, with bank erosion and lateral bar development downstream toward the Truim confluence; therefore, a **High** sensitivity value has been assigned.

Hydrology & Flood Risk

3.1.44 Inundation upstream of the A9 from Hydro ID 77 (MW8.6) has been identified from the hydraulic modelling with flood waters merging with the upstream overtopping from Hydro ID 76 (W8.4) to the south. Downstream of the A9 the lower section flows into the Truim flood extents where infrastructure flooding is noted on the A889/ NCN7 between ch. 21,350 and 21,450. Modelling identifies flooding which may potentially impact the A9 and A889, classed as critical infrastructure, and therefore a **Very High** sensitivity value has been assigned.

Unnamed tributaries of the River Truim (W8.57/ Hydro ID 78, W8.58/ Hydro ID 79)

3.1.45 These unnamed tributaries of the River Truim are located within an approximate 90m length of the existing A9, and exhibit similar environmental attributes.

Water Quality

- 3.1.46 These unnamed tributaries are within the Drumochter Hills SSSI boundary; however, they are not classified by SEPA and no water quality information was available. They flow through a peaty/ heathland, rough grassed area and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff from the A9. They are not known to support any designated freshwater-dependent ecosystems; therefore, have been assigned a **Low** sensitivity value.
- 3.1.47 BGS data indicates that the waterbody is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.48 The watercourses have catchment areas <0.5km² and average catchment slopes of 4°. Thin patchy peat is noted with valley side erosion and vertical incision evident by a tributary cut drain. Dominant sediment sizes both upstream and downstream of the existing crossings is fine but is noted as coarse (gravel-cobble) at the Hydro ID 78 crossing itself, and so have been assigned a **Medium** sensitivity. Watercourse W8.58 is noted as originally being a natural channel but is now linked in the plantation forestry as a drain and therefore has been assigned a **Low** sensitivity value.

Hydrology & Flood Risk

3.1.49 Inundation upstream of the A9 from Hydro ID 79 (W8.58) affecting embankments has been identified from the hydraulic modelling, though no sensitive receptors are evident; therefore, a **High** sensitivity value has been assigned. No flooding is evident at Hydro ID 78 which has been



assigned a **Low** sensitivity value. Downstream of the A9 the lower section of both channels flows into the River Truim flood extents. These watercourses are considered to have minimal hydrological importance to sensitive ecosystems and/ or social and economic uses and therefore, have been assigned a **Low** sensitivity value for hydrology.

Unnamed tributary of the River Truim (W8.7/ Hydro ID 81)

Water Quality

- 3.1.50 The unnamed tributary is located within the Drumochter Hills SSSI boundary, however not classified by SEPA and no water quality information was available. It flows through an area of forestry and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff from the A9. It is not known to support any designated freshwater-dependent ecosystems; therefore, a **Low** sensitivity value has been assigned.
- 3.1.51 BGS data indicates that the waterbody is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

This watercourse has a catchment of approximately 0.4km² and an average slope of 5°. Peat is present in the catchment with some bank erosion/ lateral migration evident; therefore, a
 Medium sensitivity value has been assigned. Historic mapping indicates it was previously a more substantial channel and there is evidence for this in the lower reaches.

Hydrology & Flood Risk

3.1.53 Inundation upstream of the A9 from Hydro ID 81 (W8.7) that may affect embankments has been identified from the hydraulic modelling, though no sensitive receptors are evident. Therefore, a **High** sensitivity value has been assigned. Downstream of the A9 the lower section of channel flows into the Truim flood extents.

Allt Coire Bhathaich (MW 8.8/ Hydro ID 82)

Water Quality

- 3.1.54 Allt Coire Bhathaich is a tributary of the River Truim with a catchment of 4.54km², a length of approximately 5.5km. This watercourse does not have a RBMP classification by SEPA and no water quality information was available. It flows predominantly through a montane habitat environment in the upper catchment, heather, acid grassland and bog in the middle reaches, heather grassland in the lower section, and may potentially be impacted by acidification. It has been determined that this watercourse is not generally suitable for spawning Atlantic salmon under current conditions as a result of SSE abstraction activities; therefore, a **Low** sensitivity value has been assigned for water quality/ biodiversity.
- 3.1.55 BGS data indicates that the waterbody is within a very high groundwater vulnerability zone (Class 5); therefore, a **Very High** sensitivity value has been assigned.

Hydromorphology

3.1.56 The river channel has boulder, cobble and gravel bed material evident, as well as sections of exposed bedrock from an engineered cascade. It flows firstly in a north-westerly direction from its source at Coire Bhathaich before shifting almost 90 degrees at Ruighe Coire Bhathaich with a



sinuous planform for much of its length. It has been heavily modified by the construction of the A9 bridge crossing and a dam approximately 100m upstream from the bridge, with noted sediment accumulation behind the dam; therefore, a **High** sensitivity value has been assigned. The sediment is noted as bedrock, boulder and cobbles upstream of the crossing, and boulders and cobbles both at the crossing and downstream. Channel morphology changes from cascade upstream, to plane bed at the crossing and downstream.

Hydrology & Flood Risk

3.1.57 The watercourse is impounded upstream from the A9 crossing as part of the SSE Tummel Hydro Scheme and considered to be locally important for social and economic uses (e.g. water supply/ abstraction; therefore, it has been assigned a **High** sensitivity value for hydrology. The CFJV modelling highlights flooding around the confluence with the Truim and in the vicinity of the A9 at ch. 22,250, though the road is not inundated and no other sensitive receptors are noted. As the watercourse contributes to the hydro scheme, and modelling identifies flooding which may potentially impact the A9 (classed as critical infrastructure), a **Very High** sensitivity value has been assigned.

Unnamed Tributary of the River Truim (W8.67/ Hydro ID 83)

Water Quality

- 3.1.58 The unnamed tributary is not classified by SEPA and no water quality information was available. It flows through mires/ bogs/ fens and grassland, and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff from the A9. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.59 BGS data indicates that the waterbody is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.60 The small catchment watercourse does not exhibit any significant geomorphic features and so has been assigned a **Low** sensitivity value. Predominant sediment sizes are noted as fine/ organic with some evidence of erosion at the existing outfall which is undermining bank armouring. The very slow moving water in channel has allowed fines to be deposited downstream as it crosses the River Truim floodplain and consequently vegetation is now established in the channel.

Hydrology & Flood Risk

3.1.61 No hydrological or flooding issues have been identified for this watercourse; therefore a **Low** sensitivity value has been assigned.

Unnamed Watercourses east of SSE Aqueduct (W8.72/ Hydro ID 84, W8.78/ Hydro ID 85, W8.80/ Hydro ID 87)

3.1.62 These unnamed tributaries of the River Truim are located within an approximate 270m length of the existing A9, and exhibit similar environmental attributes.



Water Quality

3.1.63 These small catchment watercourses (<0.5km²) to the east of the aqueduct are not classified by SEPA and no water quality information was available. They flow through mires/ bogs/ fens and grassland, and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff from the A9. They are not known to support any designated freshwater-dependent ecosystems and are outwith any designated sites; there they have been assigned a **Low** sensitivity value.

BGS data indicates that the waterbodies are within medium/ high groundwater vulnerability zones (Class 3 and 4); therefore, a **Medium** sensitivity value has been assigned for Hydro ID 87 and **High** sensitivity value for the others.

Hydromorphology

3.1.64 These watercourses do not exhibit any significant geomorphic features. W8.72 (Hydro ID 84) which has been assigned **Medium** sensitivity value. The predominant sediment sizes in the smaller watercourses are noted as fine/ organics with some evidence of erosion at the existing outfalls, undermining bank armouring. They have been assigned **Low** sensitivity values for hydromorphology.

Hydrology & Flood Risk

3.1.65 No hydrological or flooding issues have been identified for these watercourses; therefore, they have been assigned **Low** sensitivity values.

Unnamed (MW 8.9/ Hydro ID 89)

Water Quality

- 3.1.66 This watercourse is a narrow unnamed right bank tributary of the River Truim which is currently piped under the SSE aqueduct. It has a catchment of 0.57km² and length of approximately 1km, flowing north parallel to the existing A9. It does not have a RBMP classification and no water quality information was available. It flows through relatively flat bog/ mire land on the eastern side of the road and flows predominantly through densely vegetated heather grassland on the western side, and may potentially be impacted by acidification. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites; therefore, it has been assigned a **Low** sensitivity value.
- 3.1.67 BGS data indicates that the waterbody is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.68 There is peat on the hilltop and evidence of pool-hummock morphology with possible peat accumulation on lower slopes. From its source, it drops from approximately 375mAOD to 370mAOD at the A9, with a further drop to approximately 350mAOD where it joins the River Truim at ch. 23,750. This natural channel has a sinuous planform and a range of sediment sizes forming the channel bed. The channel has been modified by a small weir installed upstream of the aqueduct directing water flow under the A9, reducing natural geomorphic processes downstream of this; however, a **High** hydromorphology sensitivity value has been assigned as much of the channel and flow is unmodified.



Hydrology & Flood Risk

3.1.69 The inlet from the dam (part of the SSE Tummel Hydro Scheme) on the upstream side of the A9, will affect the natural catchment hydrology. The CFJV modelling highlights flooding around the confluence with the River Truim and in the vicinity of the A9 at ch. 23,350 downstream of the aqueduct. Flooding is also noted close to the southbound embankment between ch. 23,400 and 23,525. As the watercourse contributes to the hydro scheme, and modelling identifies flooding which may potentially impact the A9, classed as critical infrastructure, a **Very High** sensitivity value has been assigned.

Unnamed Watercourses East of SSE Aqueduct (W8.87/ Hydro ID 90, W8.88/ Hydro ID 91, W8.89/ Hydro ID 92, W8.90/ Hydro ID 93, W8.91/ Hydro ID 94, W8.92/ Hydro ID 95, W8.93/ Hydro ID 96)

3.1.70 These minor watercourses are located within an approximate 770m length of the A9, and exhibit similar environmental attributes. They drain grassland and heathland upstream of the aqueduct, the area between the aqueduct and A9, and discharge into the upper extents of the River Truim floodplain west of the A9.

Water Quality

- 3.1.71 These small catchment watercourses (<0.5km²) to the east of the aqueduct are not classified by SEPA and no water quality information was available. They flow through mires/ bogs/ fens and grassland, and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are not known to support any designated freshwater-dependent ecosystems and are outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.72 BGS data indicates that the watercourses crossing Hydro IDs 90 to 96 are within a medium groundwater vulnerability classification zone (Class 3); therefore, a **Medium** sensitivity value has been assigned. The remainder are situated in a high vulnerability classification zone (Class 4) and have been assigned a **High** value sensitivity.

Hydromorphology

3.1.73 These watercourses do not exhibit any significant geomorphic features; therefore, a **Low** sensitivity value has been assigned. Predominant sediment sizes are noted as fine/ organics with some evidence of erosion at the existing outfall which is undermining bank armouring. The very slow moving water in channel has allowed fines to be deposited downstream. There appears to be some knickpoint migration up the south channel of Hydro ID 94 (W9.91) with some vertical incision and production of mobile sediment.

Hydrology and Flood Risk

3.1.74 Hydro ID 92 (W8.89) has an inflow into the aqueduct potentially reducing upstream flooding. Downstream sections are outwith the 200 year flooding extent from the modelling results; therefore a **Low** sensitivity value has been assigned.

Unnamed Tributaries of the River Truim (W8.97/ Hydro ID 97, W8.98/ Hydro ID 98)

3.1.75 These minor watercourses are located within approximate 75m length of the A9 and exhibit similar environmental attributes.



Water Quality

- 3.1.76 These unnamed tributaries are not classified by SEPA and no water quality information was available. They flow though rough grassland and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are not known to support any designated freshwater-dependent ecosystems and are outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.77 BGS data indicates that the water features are within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.78 These small catchment watercourses do not exhibit any significant geomorphic features; therefore, a **Low** sensitivity value has been assigned. There is a stepped-cascade masonry works upstream of the A9 and heavily vegetated channel downstream. BGS mapping indicates that there is peat in the catchments. Watercourse W8.98 (Hydro ID 98) was possibly once a natural channel but has now been incorporated almost completely into an armoured drain with a limited supply of sediment, but as the channel is steep there is potential for high energy levels and subsequent bed erosion.

Hydrology and Flood Risk

3.1.79 The watercourses flow into the functional floodplain of the Truim. No sensitive receptors are evident; therefore, a **Low** sensitivity value has been assigned.

Unnamed Tributary of the River Truim (W8.12/ Hydro ID 99)

Water Quality

- 3.1.80 The unnamed tributary is not classified by SEPA and no water quality information was available. It flows though rough grassland and may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. It does not support any designated freshwater-dependent ecosystems and is outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.81 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

3.1.82 This watercourse has a catchment of 0.24km² and an overall slope of 8°. BGS mapping suggests very limited peat cover within the catchment and limited sediment source as the aqueduct cuts off the upper catchment from the crossing. Sediment noted on-site is coarse (gravel-cobble). The channel is an overspill from the aqueduct, immediately downstream of which, a cascade has been created from a series of concrete steps. At the end of the cascade the gradient reduces where flow becomes diffuse and unconstrained by the channel. There is very high incision beyond the downstream end of engineered cascade west of the aqueduct where gabion basket check dams have been introduced in order to slow flow and limit incision. Overall, it has been assigned a **Low** sensitivity value.



Hydrology and Flood Risk

3.1.83 Flooding occurs close to northbound embankment at this location; however, no sensitive receptors are evident; therefore, a **Low** sensitivity has been assigned. Downstream of the A9 the lower section of channel discharges into the River Truim a short distance (c.50m) west of the road.

Unnamed Tributary of the River Truim (MW8.12/ Hydro ID 100)

Water Quality

- 3.1.84 This unnamed watercourse is a tributary of the River Truim with a catchment of approximately 0.5km², a length of approximately 1.25km. It does not have a RBMP classification and no water quality information was available. It flows predominantly through heathland and grassland upstream of the A9, through plantation forestry (Lechden) downstream, and may potentially be impacted by acidification. It has been assumed that larger tributaries of the Truim may support salmon species and so a conservative estimation of their water quality sensitivity has been adopted and a **High** sensitivity value has been assigned.
- 3.1.85 BGS data indicates that the water feature is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.86 Ordnance Survey 1:50,000 mapping indicates the watercourse as having a source elevation of 370mAOD with a drop to 330mAOD at its confluence with the River Truim and an average catchment slope of 6.4°. It has a straightened stone protected channel which flows predominantly through heather grassland upstream of the pipe, and a more sinuous pebble and gravel-bedded channel downstream flowing through coniferous woodland (Lechden) and rough grassland, and has been assigned a **Medium** sensitivity value.

Hydrology & Flood Risk

3.1.87 Modelling identifies upstream flooding, which may potentially impact the A9, as well as the watercourse flowing into an extensive flooded area east of the HML railway, both classed as critical infrastructure; therefore, the watercourse has been assessed as having a **Very High** sensitivity value.

Unnamed Watercourse (W8.103/ Hydro ID 101)

- 3.1.88 This unnamed watercourse is a small drainage channel to the east of the A9 with a length of approximately 230m. It does not have a RBMP classification and no water quality information was available. It flows predominantly through heathland and grassland upstream of the A9, into plantation forestry (Lechden) downstream, and may potentially be impacted by acidification; therefore, a **Low** sensitivity value has been assigned.
- 3.1.89 BGS data indicates that the water feature is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.



3.1.90 OS 1: 50,000 maps indicate the watercourse as having a source elevation of approx. 370mAOD in the vicinity of the aqueduct with a drop to 360m as it passes beneath the access track and 350m by the eastern embankment of the A9. There is little evidence of morphological diversity and as a result, a **Low** sensitivity value has been assigned.

Hydrology & Flood Risk

3.1.91 Modelling output does not indicate any inundation from this watercourse to either the surrounding land or the A9; therefore, a **Low** sensitivity value has been assigned.

Unnamed Tributary of River Truim (W8.14/ Hydro ID 102)

Water Quality

- 3.1.92 This unnamed channel drains an area of high ground south of Allt Cuaich. It flows west under the A9 into the flat grassland floodplain south of the hamlet of Cuaich and has a catchment area of approximately 0.066km². This watercourse does not have a RBMP classification and no water quality information was available. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.93 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

This watercourse catchment has an average slope of 3.5°. As an alluvial fan is present at or near the crossing there is risk of avulsion into the Allt Cuaich (MW8.14/ Hydro ID 104); therefore, a Medium sensitivity value has been assigned. Sediment supply is limited to fines and organics. Low slope angles preclude mass movements and sediment arising from erosion or failure of short steep terrace slope (formed in hummocky glacial deposits from review of BGS map).

Hydrology & Flood Risk

3.1.95 There is no flooding impact related to this watercourse identified by the hydraulic modelling; therefore, a **Low** sensitivity value has been assigned.

Unnamed watercourse (W8.16/ Hydro ID 103)

- 3.1.96 This unnamed channel drains the left bank of Allt Cuaich and passes under the A9. The watercourse does not have a RBMP classification by SEPA and no water quality information was available. It flows through an area of rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites; therefore, a **Low** sensitivity value has been assigned.
- 3.1.97 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.



3.1.98 This watercourse has a catchment of 0.09km² and is in close proximity to an alluvial fan; therefore, a risk of avulsion into Allt Cuaich (Hydro ID 104/ W8.14) has been identified. Evidence of previous realignment is identified from an historical 1902 map; there is a secondary, slightly sinuous channel shown diverging from the main channel c.30m upstream of the current divergence. This channel crosses the current road alignment at the approximate location of the existing. Mapping indicates that this channel was larger and less ephemeral than the present which is now a very minor artificial drain and flows only occur when the Allt Cuaich is out of bank. Upstream of the A9, the former large secondary channel shown in the 1902 map is no longer active. Overall, a **Low** sensitivity value has been assigned.

Hydrology & Flood Risk

3.1.99 This channel is within the left bank floodplain of Allt Cuaich and acts as a relief channel when the main river is out of bank. The hydraulic modelling indicates that Cuaich, downstream of the A9 crossing, is at risk of inundation. Further downstream the HML railway is also shown inundated at this section of Project 8. The modelling predicts flood waters upstream of both Hydro ID 103 and ID 104 (between ch. 25,875 and 26,050) will combine, potentially impacting the existing southbound embankment. Downstream of the crossings the predicted flood extent shows that flooding will potentially also affect the northbound embankment. Therefore, a **High** sensitivity value has been assigned.

Allt Cuaich (MW8.14/ Hydro ID 104)

- 3.1.100 Allt Cuaich is a right bank tributary of the River Truim. It has a catchment of 36.44km² and flows in a south-west then westerly direction from Loch Cuaich for approximately 4.1km. It has a RBMP classification of 'Bad ecological potential' (2015). Pressures identified in it not meeting good ecological status are 'abstraction for production of renewable electricity thus changing natural flow conditions'.
- 3.1.101 Allt Cuaich has been classified (2015) as being heavily modified and having:
 - Overall status Bad ecological potential
 - Pre-HMWB status Bad
 - Overall ecology Bad
 - Biological elements Poor
 - Fish Poor
 - Fish ecology Moderate
 - Fish barrier Poor
 - Hydromorphology Bad

- Morphology Good
- Overall hydrology Bad
- Modelled hydrology Bad
- Hydrology (medium/ high flows) Bad
- Hydrology (low flows) Bad
- Ecological indicators Fail
- 3.1.102 Measures to protect or improve the water environment from these pressures include; 'control pattern/timing of abstraction (hands off flow/ utilisation of storage (new/ existing)', and 'removal of barriers or provision of mechanisms to enable fish migration'. However, habitat surveys concluded that salmon are present in the Allt Cuaich; therefore, a **Very High** sensitivity value has been assigned.



- 3.1.103 Five residential properties at Cuaich are registered to have septic tank effluent to soakaway discharges; however, these are greater than 50m from Allt Cuaich and not considered to impact the sensitivity of the watercourse.
- 3.1.104 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

- 3.1.105 Morphological pressures identified by SEPA have been provided for the Allt Cuaich:
 - A9 bridge crossing east of Cuaich (ch. 26,030)
 - HML bridge crossing north of Cuaich (ch. 26,180)
- 3.1.106 Coarse sediment dynamic information has also been provided by SEPA. The dominant sediment regime at specified reaches are summarised below:
 - Moderate deposition (approx. 500 640m upstream of existing A9 crossing)
 - Moderate erosion (approx. 40 500m upstream of existing A9 crossing)
 - High deposition (approx. 40m upstream of existing A9 crossing to 60m downstream of existing A9 crossing)
 - High erosion (approx. 60m downstream of existing A9 crossing to 100m downstream of HML crossing)
 - Moderate deposition (100m downstream of HML crossing to approx. 120m further downstream (at confluence with River Truim))
- 3.1.107 Allt Cuaich flows predominantly through heather, acid grassland and rough grassland, though peat is present within the catchment. Much of the channel is straight in the steeper sections, water directed towards the dam via weirs, and becoming more sinuous downstream. From its source at Loch Cuaich the river has a fall from approximately 410mAOD to 340mAOD at the A9, down to 335mAOD at its confluence with the River Truim, with an average slope of 12.3°. On the flatter reaches by the A9 corridor it has a largely boulder, cobble and gravel bed. There is geomorphic evidence of bar development and bank erosion as well as engineered preventative measures using stone gabions. Channels are laterally mobile within the boundaries of the terraces, but will erode banks and terraces at times and there is potential for avulsion of channel across floodplain during a flood event. Overall, a **High** sensitivity value has been assigned.

Hydrology & Flood Risk

- 3.1.108 The watercourse provides a large input into the SSE Tummel Hydro Scheme; waters abstracted from the upper catchment at Loch Cuaich, and ultimately transferred from the Spey catchment to the Tay. There is no requirement to release any compensation flow to the Allt Cuaich downstream of Loch Cuaich which results in a dry river channel for much of the time and major loss of river habitat.
- 3.1.109 The settlement of Cuaich, downstream of the A9 crossing, is identified in the hydraulic modelling as being at risk of flooding. Further downstream the HML railway is shown to be inundated at this section of Project 8. The flood extent shows that predicted flooding upstream of both Hydro ID 103 and ID 104 between ch. 25,875 and 26,050 will combine potentially impacting on the existing southbound embankment. Downstream of the crossing the predicted flood extent shows that flooding will potentially also affect the northbound embankment. Overall a very high sensitivity has been assigned to Allt Cuaich as modelling identifies flooding to the A9, properties



downstream of the A9, and to the HML railway. Therefore, a **Very High** sensitivity value has been assigned.

Unnamed watercourse (W8.17/ Hydro ID 106)

Water Quality

- 3.1.110 The watercourse does not have a RBMP classification by SEPA and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream of the A9. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites. Therefore, a **Low** sensitivity value has been assigned.
- 3.1.111 BGS data indicates that the water feature is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.112 This watercourse has a catchment of 0.1km² and an average slope of 4.3°. The predominant sediment size is noted as fines throughout the crossing section. There is some incision/ scour at the outflow from the road culvert and some lateral migration/ bank erosion downstream as a result; therefore, it has been assigned a **Medium** sensitivity value.

Hydrology & Flood Risk

3.1.113 Inundation downstream of the A9 from Hydro ID 106 (W8.17) has been identified by the hydraulic modelling. The HML railway is shown to be inundated at this section of Project 8 in a 200 year event; therefore, a **High** sensitivity value has been assigned.

Unnamed watercourse (MW8.16/ Hydro ID 107)

Water Quality

- 3.1.114 The watercourse does not have a RBMP classification and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites. Therefore, a **Low** sensitivity value has been assigned.
- 3.1.115 BGS data indicates that the water feature is within a medium groundwater vulnerability zone (Class 3); therefore, a **Medium** sensitivity value has been assigned.

Hydromorphology

3.1.116 This watercourse has a boulder, cobble and gravel bed with a straightened stone protected channel section. It has a catchment of 0.39km² with a length of approximately 1.1km. It flows west then north-west from its source to the A9 stone culvert with a fall from 390mAOD to 334mAOD; its confluence with the Truim is at approximately 330mAOD with an average catchment slope of 4.5°. There appears to be erosion upstream, visible by deep-incised channel and deposition of material downstream at the culvert; therefore, a **Medium** sensitivity value has been assigned. Engineering is evident with a bedrock cascade upstream of the culvert.



Hydrology & Flood Risk

3.1.117 The watercourse flows into the functional floodplain of the Truim; however, no sensitive receptors at risk from flooding are evident and so the watercourse is assigned a **Low** sensitivity value.

Unnamed watercourses (W8.19/ Hydro ID 109, W8.19a/ Hydro ID 110)

3.1.118 These minor watercourses are located within an approximate 300m length of the A9, and exhibit similar environmental attributes.

Water Quality

- 3.1.119 These watercourses do not have a RBMP classification and no water quality information was available. They flow through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are not known to support any designated freshwater-dependent ecosystems and are outwith any designated sites. Therefore, a **Low** sensitivity value has been assigned.
- 3.1.120 BGS data indicates that the water features are within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.121 The small (<0.5km²) catchments have an average slope of 8.3°. They are not located within any designated area, nor exhibit any significant fluvial geomorphic features; therefore, a **Low** sensitivity value has been assigned. The dominant sediment size within the catchments is mostly fines and organic sediments. The road is in bedrock cutting at this point and cascades have been cut into the bedrock to achieve the required drop in elevation. There is incision noted into peaty soils on lower slopes and erosion of cascades.

Hydrology & Flood Risk

3.1.122 These watercourses flow into the functional floodplain of the Truim, with floodwater reaching the HML embankment and over-topping predicted between Hydro IDs 110 and 111, therefore, a **Very High** sensitivity value has been assigned to W W8.19a. No other sensitive receptors are identified as being at risk from flooding. The watercourse is considered to have minimal hydrological importance to sensitive ecosystems and/ or social and economic uses and therefore, has been assigned a **Low** sensitivity value for hydrology.

Unnamed watercourse (W8.22/ Hydro ID 111)

Water Quality

3.1.123 The watercourse does not have a RBMP classification and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. It is not known to support any designated freshwater-dependent ecosystems and is outwith any designated sites. Therefore, a **Low** sensitivity value has been assigned.



3.1.124 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity has been assigned.

Hydromorphology

3.1.125 This watercourse has a catchment of 0.2km² and an average slope of 6.4°. The small catchment has historic incision which has created a terrace. Stabilisation has now occurred and upstream of the crossing the channel appears to meander within a small floodplain; therefore, a **Medium** sensitivity value has been assigned. Some gravel is deposited at the culvert entrance where gradient reduces. Generally, the channel appears stable within the catchment, and as such, sediment supply is considered to be limited and the predominant sediment size in the area of the crossing is noted as fine.

Hydrology and Flood Risk

3.1.126 Minor inundation in the area of land downstream between the A9 and HML is predicted by the hydraulic modelling with flooding noted on the railway where the line crosses W8.22; therefore, a **Very High** sensitivity value has been assigned. The watercourse is considered to have minimal hydrological importance to sensitive ecosystems and/ or social and economic uses and therefore, has been assigned a **Low** sensitivity value for hydrology.

Dalannach (MW8.18/ Hydro ID 112)

Water Quality

- 3.1.127 The watercourse does not have a RBMP classification and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. Although classed as a Major watercourse, based on its poor connectivity to the River Truim, it is considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.128 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

3.1.129 This watercourse is an unnamed right bank tributary of the River Truim. It has a catchment of 0.2km², is approximately 2.6km in length, flowing north to the pipe crossing the A9 then north-east, joining several other streams also culverted under A9, to the Truim. Its source is approximately 400m AOD on the foothills of Creag Ruadh with a fall to 325mAOD at the A9 and then to 320mAOD at its confluence with the River Truim. Downstream, bed cover is predominantly gravels and pebbles, and upstream there are larger boulder and cobble-sized materials. The watercourse flows from its source through heather on the slopes of Creag Ruadh, acid grassland, and into rough grassland as it flows onto the valley floor. Upstream of the A9 pipe the channel is straightened and bound by stone bank protection. Overall, it has been assigned a **Medium** sensitivity value.

Hydrology & Flood Risk

3.1.130 Inundation downstream of the A9 from Hydro ID 112 (MW8.18) has been identified by the hydraulic modelling. The watercourse merges with the downstream flood extents of Hydro IDs 114, ID 115, ID 116 and ID 118 due to the relatively flat area of ground between the HML railway,



the A9, and the Truim flood extent further north acting as a barrier to the conveyance of flood water away from the area; therefore, it has been assigned a **Low** sensitivity value.

Unnamed watercourse (W 8.139/ Hydro ID 113)

Water Quality

- 3.1.131 The watercourse does not have a RBMP classification and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. Although classed as a Major watercourse, based on its poor connectivity to the River Truim, it is considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.132 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

3.1.133 The watercourse is a minor ephemeral drainage ditch flowing beneath A9 via a pipe. It has a catchment size of 0.5km², flowing through acid grassland. There is very little evidence of geomorphic diversity therefore, the watercourse has been assigned a **Low** sensitivity value.

Hydrology & Flood Risk

3.1.134 There is no flooding impact related to this watercourse identified by the hydraulic modelling; therefore, a **Low** sensitivity value has been assigned.

Unnamed watercourse (MW8.19/ Hydro ID 114)

Water Quality

3.1.135 The watercourse does not have a RBMP classification and no water quality information was available. It flows through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. Although classed as a Major watercourse, based on its poor connectivity to the River Truim, it is considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.

Hydromorphology

3.1.136 This watercourse is a narrow unnamed tributary of MW8.18 flowing beneath the A9 via a box culvert. It has a catchment of 0.5km² and a length of approximately 540m. Evidence suggests it was previously a natural channel which has been realigned to form a drain. Bed materials are largely gravels, pebbles and cobbles with evidence of deposition at the confluence with MW8.18 and at the outlet of the culvert; therefore, it has been assigned a **Medium** sensitivity value. There is some degree of vegetation establishment indicating a level of stability. Some engineering to the channel bed has been carried out with installation of concrete slabs.

Hydrology & Flood Risk

3.1.137 Flooding is noted downstream of the crossing. Flooding downstream would merge with the downstream flood extents of Hydro IDs 115, ID 116 and ID 118 due to the relatively flat area of



ground between the HML railway the A9 and the Truim flood extent further north acting as a barrier to the conveyance of flood water away from the area. Modelling identifies flooding to embankments of the HML railway; therefore, a **High** sensitivity value has been assigned.

Unnamed watercourses (W8.23/ Hydro ID 115, W8.24/ Hydro ID 116, W8.153/ Hydro ID 117, W8.25/ Hydro ID 118, W8.26/ Hydro ID 119 and W8.166/ Hydro ID 120)

3.1.138 These minor watercourses are located within an approximate 1km length of the A9 and exhibit similar environmental attributes.

Water Quality

- 3.1.139 These minor watercourses do not have a RBMP classification and no water quality information was available. They flow through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are not known to support any designated freshwater-dependent ecosystems and are outwith any designated sites. Therefore, a **Low** sensitivity value has been assigned.
- 3.1.140 BGS data indicates that the water features are within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.141 The catchments are small (<0.5km²) with limited geomorphic characteristics. The predominant sediment size is noted as gravel-cobble throughout the crossing area of Hydro ID 115, gravels at ID 116, fines at ID 117 (on inspection the small culvert was choked with sediment), and gravels elsewhere. There appears to be limited sediment source areas as the catchments are mostly vegetated, therefore, any sediment will likely be fines from slope wash. Where channels are short and steep, sediment may be delivered to the crossings. All have been assigned a **Low** sensitivity value except ID119 which has been assigned as **Medium**.

Hydrology and Flood Risk

3.1.142 These watercourses are all identified in the hydraulic modelling as inundating land downstream of the A9. The elevated land of the road and the HML has acted as a barrier confining and merging the flood waters from these watercourses. The combined flood waters potentially affect the HML embankment but do not overtop; therefore, a **High** sensitivity value has been assigned.

Allt Garbh (MW 8.20/ Hydro ID 121)

Water Quality

3.1.143 Allt Garbh is a tributary of the River Truim with a catchment of 2.42km², and flows in a westerly direction from its source at Coire Thearlaich for a distance of 2.5km. This watercourse does not have a RBMP classification and no water quality information was available. It flows predominantly through a montane habitat environment in the upper catchment, heather, acid grassland and bog in the middle reaches, heather grassland in the lower section, and may potentially be impacted by acidification. It has been assumed that larger tributaries of the Truim may support salmon species and so a conservative estimation of their water quality sensitivity has been adopted; therefore, a **High** sensitivity value has been assigned.



3.1.144 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

3.1.145 At its source height of 530mAOD the watercourse flows over gently sloping acid grassland and bog within the corrie; it reaches a steeper gradient and fall from 470m to 330mAOD over a distance of approximately 850m down a straight channel, with an average catchment slope of 9°. Incision is evident at the crossing (this has been reduced by the presence of a reno mattress); however, the materials have been reworked indicating excess energy. There is high sediment source potential from upper catchment from debris flows, shallow slides and valley side erosion in till and alluvial fan deposits, as well as unvegetated bars. The bed materials downstream include boulders, cobbles and pebbles, indicative of the potential stream power. At the intake side of the bridge there is development of a mid-channel bar consisting of large sediment sizes. Therefore, a **High** sensitivity value has been assigned. Engineering work is extensive with gabion bank protection and a reinforced bed at the bridge.

Hydrology & Flood Risk

3.1.146 Conveyance of flooding beneath the HML railway crossing is likely to be restricted and is identified as a sensitive receptor potentially at risk of flooding. Modelling also identifies flood risk of the A9 embankments; therefore, a **High** sensitivity value has been assigned.

Unnamed watercourses (W8.167/ Hydro ID 122, W8.27/ Hydro ID 123, W8.28/ Hydro ID 124 W8.29/ Hydro ID 125 and W8.172/ Hydro ID 126)

3.1.147 These minor watercourses are within an approximate 300m length of the A9 and exhibit similar environmental attributes.

Water Quality

- 3.1.148 These minor watercourses do not have a RBMP classification and no water quality information was available. They flow through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.149 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.

Hydromorphology

3.1.150 The small catchments have average slopes between 10 and 11.8° with peat indicated in very uppermost part of catchments. There is potential valley side/ terrace erosion but the catchments appear mostly stable with incision limited to immediate vicinity upstream of the crossings. If, however, sediment sources are created, deposition at the crossings could increase; therefore, **Medium** sensitivity value has been assigned. Slope failures are noted; however, they are now vegetated and are not coupled to the channel of W8.172 (Hydro ID 126). Watercourse W8.167/ Hydro ID 122 is not shown on OS mapping and therefore has been considered less sensitive in terms of hydromorphology; therefore, a **Low** sensitivity value has been assigned to it.



Hydrology and Flood Risk

3.1.151 Flooding is identified by the hydraulic modelling downstream of Hydro IDs 123, 124 and 125; the HML railway acting as barrier merges the flood waters from these watercourses. As the flood waters may potentially impact the HML embankment, a **High** sensitivity value has been assigned.

Unnamed watercourses (W8.177/ Hydro ID 127, W8.178/ Hydro ID 128)

3.1.152 These minor watercourses are located within an approximate 80m length of the A9 and exhibit similar environmental attributes.

Water Quality

- 3.1.153 These minor watercourses do not have a RBMP classification and no water quality information was available. They flow through an area of heathland and rough grassland so may potentially be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. They are considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.154 BGS data indicates that the water features are within a high groundwater vulnerability classification zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.155 These small watercourse catchments (<0.5km²) have slope failures noted, though these now vegetated and are not directly coupled to the channels. Original headwaters of the W8.177 channel have been removed by the existing road cutting; however, downstream the channel follows its original alignment. Downstream of Hydro ID 128 the channel is now in a cut drain. At the crossings there appears little sediment deposition (some fines and gravels were noted in catchpits). These watercourses have been assigned a **Low** sensitivity value.

Hydrology and Flood Risk

3.1.156 There is no flooding impact related to this watercourse identified by the hydraulic modelling; therefore, a **Low** sensitivity value has been assigned.

Unnamed watercourse (MW 8.21/ Hydro ID 129)

- 3.1.157 The unnamed watercourse is a tributary of the River Truim with a catchment of 0.18km². It does not have a RBMP classification and no water quality information was available, it flows for a short straight distance of approximately 400m primarily through heather and so may be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. Although classed as a Major watercourse, based on its poor connectivity to the River Truim, it is considered unlikely to support any designated fresh-water species; therefore, a Low sensitivity value has been assigned.
- 3.1.158 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a High sensitivity value has been assigned.



3.1.159 This watercourse has a source height of 370mAOD and a fall to the confluence on the valley floor at approximately 300mAOD and average catchment slope of 11°. There is evidence of channel engineering upstream of the pipe crossing in the form of bedrock cascade. Downstream, the channel flows through vegetated areas with little evidence of significant geomorphic diversity. There appears to be a limited sediment supply in the catchment as it is well-vegetated throughout though there are numerous boulders located around the catchment, indicating a supply of coarse material below the vegetation. A **Medium** sensitivity value has been assigned.

Hydrology & Flood Risk

3.1.160 The downstream reach of this watercourse flows into the River Truim floodplain. No flooding of sensitive receptors has been identified by the hydraulic modelling; therefore, a **Low** sensitivity value has been assigned.

Allt na Ceardaich (MW 8.22/ Hydro ID 130)

Water Quality

- 3.1.161 Allt na Ceardaich is a tributary of the River Truim with a catchment area of 3.81km² which flows in a westerly direction from its source for approximately 1.6km to the Truim confluence. It does not have a RBMP classification and no water quality information was available. It flows through heather and so may be impacted by acidification and the water environment in this area will also receive a degree of runoff downstream from the A9. Although classed as a Major watercourse, based on its poor connectivity to the River Truim, it is considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.162 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.163 Its source elevation is approximately 405mAOD with a fall to the confluence at 300mAOD with an average catchment slope of 7.5°. The catchment contains a network of natural channels with unimpeded flow, sediment supply and sediment transport regime. These channels therefore display a wide range of geomorphological processes that contribute to the associated morphological diversity of form along the most of the length of the main channel. The exception is the short, heavily engineered section associated with the road crossing where the channel has been straightened and the streambed laid with cobble bricks. Little to no natural geomorphic variation is evident locally at this location; however, overall a **High** sensitivity value has been assigned for hydromorphology to reflect the diverse nature of the majority of the channel.

Hydrology & Flood Risk

3.1.164 This watercourse is identified in the hydraulic modelling as inundating upstream and downstream of the A9 and predicts that upstream channel capacity will be exceeded. Conveyance of flow downstream of the crossing is likely to be hindered by the HML railway crossing and the Truim flood extent beyond. Overtopping onto the road is predicted and as this is considered critical infrastructure, a **Very High** sensitivity value has been assigned.



Unnamed watercourse (W8.183/ Hydro ID 132)

Water Quality

- 3.1.165 The unnamed watercourse is a tributary of the River Truim with a catchment of 0.1km². It does not have a RBMP classification and no water quality information was available. It flows through heather and forested area and so may be impacted by acidification. The water environment in this area will also receive a degree of runoff downstream from the A9. The watercourse is considered unlikely to support any designated fresh-water species; therefore, a **Low** sensitivity value has been assigned.
- 3.1.166 BGS data indicates that the water feature is within a high groundwater vulnerability zone (Class 4); therefore, a **High** sensitivity value has been assigned.

Hydromorphology

3.1.167 This small watercourse flows over a cascade cut into the bedrock on the upstream section of the A9 into a catchpit. Downstream it flows in a paved, stepped, and brick-walled channel. It flows a short distance (c.20m) before reaching the HML railway culvert. There is very little geomorphic activity evident; therefore, a **Low** sensitivity value has been assigned.

Hydrology and Flood Risk

3.1.168 The watercourse discharges into the River Truim floodplain extent outlined by the hydraulic modelling. No inundation from this watercourse or impact on sensitive receptors has been identified; therefore, a **Low** sensitivity value has been assigned.

Other water features

Project 7 Watercourses

3.1.169 Additional to the watercourses in the Project 8 extent, several to the south within Project 7 are considered in the Potential Impacts of this chapter. This is a result of the existing BDL access track, which links the two Projects, crossing several watercourses; therefore, their baseline conditions are also included.

Allt Coire Chuirn (MW7.22/ Hydro ID 59)

- 3.1.170 The Allt Coire Chuirn has a catchment area of approximately 3.602km² and a length of 4.3km, generally flowing in a north-westerly direction, crossing under the existing A9 and NCN7 before discharging into the River Truim at NGR 263167 780815. A **High** sensitivity value has been assigned for both water quality and biodiversity, given that there are likely to be only a small proportion of pollutant sources and as ecological permeability is facilitated within the span bridge crossing.
- 3.1.171 BGS data indicates that the Allt Coire Chuirn is situated within a high groundwater vulnerability zone (Class 4); therefore, it has been assigned a **High** groundwater quality sensitivity value.



3.1.172 The Allt Coire Chuirn is located within a steep sided V- shaped valley and an extensive sediment supply from the upper catchment is transported and deposited along a major alluvial fan. The fan is largely contained within the channel, which helps contribute towards active morphological processes and further sediment production. The existing A9 crossing creates a pinch-point which restricts the passage of sediment and debris movement; therefore, a **High** sensitivity value has been assigned for the hydromorphology of the Allt Coire Chuirn.

Hydrology and Flood Risk

3.1.173 The hydraulic model indicates that the Allt Coire Chuirn is associated with inundation of the HML railway embankment during a 1:200 year event and therefore it has been assigned a **High** sensitivity value for hydrology and flood risk.

Unnamed Tributary of River Truim (W7.167 / Hydro ID 61)

Water Quality

- 3.1.174 This small tributary is ephemeral in nature, and is likely to receive an input of either untreated or partially treated road runoff. The vegetated channel had negligible flow recorded during the site visit and the oversized circular culvert provides an existing pressure; therefore, a **Low** sensitivity value has been assigned for water quality and biodiversity.
- 3.1.175 BGS data indicates that this tributary is situated within a high groundwater vulnerability zone (Class 4); therefore, it has been assigned a **High** groundwater quality sensitivity value.

Hydromorphology

3.1.176 There is evidence of engineered channel modifications in the form of localised channel straightening downstream of the crossing. There are signs of some vertical incision as an adjustment related to the channel straightening. Although there is limited flow and sediment supply, during extreme high flow events the channel could act as a distributary channel for the adjacent Allt Coire Chuirn. The channel has been assigned a **Medium** sensitivity value for hydromorphology.

Hydrology and Flood Risk

3.1.177 The hydraulic model indicates that W7.167 (Hydro ID 61) is associated with inundation of the HML railway embankment during a 1:200 year event, and therefore it has been assigned a **High** sensitivity value for hydrology and flood risk.

Unnamed Tributary of River Truim (W7.23/ Hydro ID 63)

Water Quality

3.1.178 The unnamed watercourse has a length of approximately 1km, generally flowing in a north-westerly direction, crossing under the existing A9 and NCN7 before discharging into the River Truim at NGR 263677 781573. It is likely that the watercourse will receive some form of untreated or partially treated road runoff and has been assigned a **Medium** water quality value. A **Medium** sensitivity value has also been assigned for biodiversity, given that there are existing pressures from bed protection and the circular culvert at the existing A9 crossing.



3.1.179 BGS data indicates that the watercourse is situated within a high groundwater vulnerability zone (Class 4); therefore, it has been assigned a **High** groundwater quality sensitivity value.

Hydromorphology

3.1.180 There is evidence of historic channel realignment upstream of the existing A9 crossing, but the existing channel length is similar to the former with little evidence of morphological activity. The issues identified downstream of the crossing are attributable to MW7.23 (Hydro ID 64) i.e. deposition of sediment on reducing slopes by the A9 is causing lateral adjustment. Therefore, a **Medium** sensitivity value has been assigned for hydromorphology.

Hydrology and Flood Risk

3.1.181 The hydraulic model indicates that W7.23 (Hydro ID 63) is associated with inundation of the HML railway embankment during a 1:200 year event, and therefore, has been assigned a **High** sensitivity value for hydrology and flood risk.

Allt Coire Bhotie (MW7.23/ Hydro ID 64)

Water Quality

- 3.1.182 The Allt Coire Bhotie has a catchment area of approximately 1.363km² and a length of 3.1km, generally flowing in a north-westerly direction, crossing under the existing A9 and NCN7 before discharging into the River Truim at NGR 263676, 781545. A **High** sensitivity value has been assigned for water quality given that there are likely to be only a small proportion of pollutant sources relative to watercourse flow. A **Medium** sensitivity value has been assigned for biodiversity, given that there are existing pressures from the twin circular culvert at the existing A9 crossing.
- 3.1.183 BGS data indicates that the Allt Coire Bhotie is situated within a high groundwater vulnerability zone (Class 4); therefore, it has been assigned a **High** groundwater quality sensitivity value. .

Hydromorphology

3.1.184 The Allt Coire Bhotie receives sediment supply from coupled hillslope failures upstream, transported along a steep, confined channel. There is an area of sediment deposition adjacent to a section of channel realignment. Erosion downstream of the crossing has also resulted in channel incision and bank collapse. A High sensitivity has been assigned for the hydromorphology of the Allt Coire Bhotie.

Hydrology and Flood Risk

3.1.185 The hydraulic model indicates that W7.23 (Hydro ID 64) is associated with inundation of the HML railway embankment during a 1:200 year event, and therefore has been assigned a **High** sensitivity value for hydrology and flood risk.

Scottish & Southern Energy (SSE) Aqueduct (A8.1)

3.1.186 SSE currently operates a number of licenced abstractions and associated infrastructure (intakes, channels and pipelines) for hydro power generation within the study area. In addition, Scottish Water operates a licenced groundwater abstraction and a discharge to the River Truim associated with the Dalwhinnie water treatment works, and a licenced discharge associated with Dalwhinnie water treatment works. Dalwhinnie Distillery operates a licenced discharge to the River Truim.



- 3.1.187 The headwaters of the Spey in the south east of the catchment are controlled by Scottish & Southern Energy (SSE), and all the water used is diverted away from the Spey into Loch Ericht to the Tay catchment. There is one power station at Cuaich within the Spey catchment which forms part of the Tummel Valley Hydropower scheme, which contains a total of nine power stations¹. Control features within the Project 8 extent include; Loch Cuaich (Cuaich Dam capacity 1.68 million m³), Cuaich Aqueduct (Drawings 11.3 to 11.5 (Volume 3)), and Truim Intake (Drawing 11.3 (Volume 3)). There is no compensation flow agreement associated with these features.
- 3.1.188 The catchment draining to Loch Cuaich is increased by the aqueduct from Loch an t-Seilich and smaller aqueducts from Allt a'Choire Chais and Allt a'Choire Chaim. There is no requirement to release any compensation flow to the Allt Cuaich (MW8.14) downstream of Loch Cuaich which results in a dry river channel for much of the time and major loss of river habitat.
- 3.1.189 The intake on the River Truim does have a flow that is constantly released although it is not a true compensation flow. A flow of 0.684m³/s (13Mgal/d) is released continuously down through the fish-pass on the intake. The flow is measured downstream of the intake on the River Truim at Dalwhinnie and if the flow drops below 0.684m³/s, a valve is opened on the pipeline that feeds water from Allt Cuaich into Loch Ericht. However, as there are occasions when this pipe is empty for various operational reasons, this flow in the Truim is not guaranteed. The catchment of the River Truim to the intake is 36.3km².

SSE Abstractions (ABS 8.6 - 8.16)

3.1.190 A series of impoundments, abstractions and returns are located within the Project 8 extent as part of the SSE Tummel Valley Hydropower scheme. The water from Loch Cuaich passes through Cuaich power station and the outflow is then diverted at the Allt Cuaich weir into the aqueduct (A8.1) and pipeline to Loch Ericht, picking up some smaller tributaries along its length via abstractions (ABS) 8.6, 8.7, 8.9, 8.12, 8.13, 8.14, 8.15, and 8.16. Additional abstraction from Allt Coire Bhathaich (ABS 8.8) and the River Truim (ABS 8.10 and 8.11) also contribute to the SSE scheme. As they contribute to, and support, vital social/ economic use they have been assigned as **Very High** sensitivity value.

Private Water Supplies

3.1.191 Private water supplies (PWS) are also identified within the Project 8 extent; however, despite being outwith the water environment study area boundary, they are deemed to be of very high sensitivity as they support vital social/ economic use and are, therefore, highlighted in this report for reference. They include supplies at:

¹ The Tummel scheme was initiated in the 1930's when the Grampian Electricity Supply Company built power stations at Rannoch and Tummel Bridge. The scheme was extended to the north and into the Spey in the 1940-50's. The water draining from the Spey catchment is very valuable to SSE as it provides 'green', renewable energy each time it flows through up to five hydro power stations before flowing out to the sea at Perth.



- Crubenmore (ABS 8.1)
 - The landowner identified a PWS sourced from a spring which supplies four properties (Crubenmore Lodge, Truim Cottage, Crubenmore Cottage and Crubenmore Chalet)
- Dalwhinnie Water Treatment Works (ABS 8.5)
 - Consultation with Scottish Water identified that the Dalwhinnie Water Treatment
 Works sources water for public supply and domestic use to the village of Dalwhinnie
 from three wells that 3m deep located adjacent to the River Truim
- Dalwhinnie Beag (ABS 8.23)
 - The landowner has reported that this property is serviced by the mains supply in Dalwhinnie (ABS 8.5). The PWS is therefore assumed to be inactive or possibly for local agricultural use
- Cuaich (ABS 8.24)
 - Water supplied to settlement of Cuaich from spring source to the east of the A9 via tank and pipe network that crosses the existing road south of the left bank of Allt Cuaich
- 3.1.192 Additional PWS features identified as ABS 8.2 (Etteridge Farm), ABS 8.3 (Birch Cottage) and ABS 8.4 (Old Schoolhouse) were scoped-out from the assessment, as these are greater than 1km to the north of the Proposed Scheme. Landowner consultation did not identify any additional PWS features in the area.

Discharges

3.1.193 Consented point source discharges are identified from CAR licence information received from SEPA (**Table 3**). They include private residential, commercial and agricultural discharges associated with discharge of septic tank effluent to soakaways (STE) and occasionally land or surface watercourses. Although many are outwith the 'DMRB Stage 3 Detailed Study Area' they are considered here as they are located in the vicinity of watercourses identified as part of the baseline assessment and may have potential hydraulic connectivity to these via subsurface flows. Further information on these discharges and additional potential contaminations sources is provided in **Appendix 10.4** (**Volume 2**). Discharges include:

Water Features Ref.	Discharge	Chainage (approx.)	Position and Distance from Scheme
DISC 8.13	1 & 2 Loch Ericht Cottage, Dalwhinnie (Private Contact) STE to soakaway	ch. 22,600	145m west
DISC 8.14	1 Ben Alder Cottage, Dalwhinnie (Private Contact) STE to land	ch. 22,600	75m west
DISC 8.15	Woodside Cottage, Dalwhinnie (Private Contact) STE to land	ch. 22,600	40m west
DISC 8.16	Dalwhinnie Service Station, A889, Dalwhinnie (JIG Ltd) STE to soakaway	ch. 22,600	Adjacent west
DISC 8.17	Dalwhinnie Office, Dalwhinnie (JIG Ltd) STE to soakaway	ch. 22,600	65m west
DISC 8.18	Construction Yard, Dalwhinnie (Balfour Beatty Utility Solutions)	ch. 22,800	250m west/ north
DISC 8.4	Dalwhinnie Water Treatment Works, Dalwhinnie (Scottish Water) TE to River Truim and potable water treatment and supply	ch. 24,425	400m west

Table 3: Licenced Discharges within Project 8 Extent



Water Features Ref.	Discharge	Chainage (approx.)	Position and Distance from Scheme
DISC 8.19	Tigh Fhothannan, Dalwhinnie (Kirklands Law Ltd) STE to unnamed tributary of the River Truim	ch. 23,400	300m west
DISC 8.1	Discharge - Septic Tank	ch. 23,350	225m west
DISC 8.2	Discharge - Cooling water	ch. 23,350	235m west
DISC 8.5	Dalwhinnie Septic Tank (Scottish Water) FE to River Truim	ch. 23,400	210m west
DISC 8.6	Dalwhinnie Distillery, Dalwhinnie (Diageo Scotland Ltd) TE from settlement lagoons to the River Truim.	ch. 24,400	200m west
DISC 8.7	No 4 Cuaich Cottages, Cuaich (Private Contact) STE to soakaway	ch. 26,000	80m west
DISC 8.8	No 2 Cuaich Cottages, Cuaich (Private Contact) STE to soakaway	ch. 26,000	80m west
DISC 8.9	No 1 Cuaich Cottages, Cuaich (Private Contact) STE to soakaway	ch. 26,000	80m west
DISC 8.10	No 3 Cuaich Cottages, Cuaich (Private Contact) STE to soakaway	ch. 26,000	200m west
DISC 8.11	No 5 Cuaich Cottages, Cuaich (Private Contact) STE to soakaway	ch. 26,000	200m west
DISC 8.20	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land	ch. 27,000	175m west
DISC 8.21	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land	ch. 27,100	200m west
DISC 8.22	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land	ch. 27,300	250m west
DISC 8.23	Crubenmore Lodge, Newtonmore (Ralia Enterprises) STE to soakaway	ch. 30,700	50m west
DISC 8.24	Invertruim Cottage, Glentruim (Private Contact) STE to soakaway	ch. 30,900	55m west

4 Water Features Schedule

- 4.1.1 The water feature schedule **(Table 4)** lists the waterbodies identified within the Project 7 study area and provides their assigned reference number, NGR location, and approximate chainage and associated watercourse crossing Hydro ID related to the Proposed Scheme.
- 4.1.2 The schedule also outlines key environmental information relating to the waterbodies including RBMP status (where applicable) and specific designations (e.g. SSSI, SAC, SPA, Drinking Water Protected Area (DWPA)). Justification for scoping-out water features from the environmental assessment is provided and for those subject to the assessment process, sensitivity values are given for the parameters: water quality (surface and groundwater), hydrology and flood risk, and hydromorphology.



Appendix 11.1 –Water Features Survey Page 34
Table 4: Water Features Schedule

					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	y	
Water	Relevant			NGR	NGR	Approx.	Affected by flooding in 1:200	RBMP Classification	Located within any			Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Hydro ID	Name/Description	Category	Easting	Northing	Chainage From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.30	N/A	Minor ephemeral drain (west of A9)	Minor	263795	781636	20050	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	-	-	_	-
W 8.31	N/A	Unnamed earthworks ditch (east of A9) discharging into Hydro ID 65	Minor	263861	781665	9300/20150	Yes	No watercourse- specific information available	Drumochter Hills - Protected as SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	-	_
W 8.1	65	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	263878	781552	9450/20750	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI DWPA [Groundwater]	No	_	Low	Low	Medium	Medium	Low
W 8.32	N/A	Unnamed earthworks ditch (east of A9) discharging into Hydro ID 65	Minor	263905	781684	20100	No	No watercourse- specific information available	Drumochter Hills - Protected as SSSI; DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	-	-	-	-	-
W 8.33	N/A	Unnamed earthworks ditch (east of A9) discharging into Hydro ID 65	Minor	263887	781742	20150	Yes	No watercourse- specific information available	Drumochter Hills - Protected as SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
MW 8.1	N/A	River Truim	Major	262840	776680	20000/25350	Yes (throughout P08)	Good ecological potential [Heavily Modified] - [River Truim from source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	_	High	Very High	High - [Upper Spey Sand and Gravel 150814]	High	High
MW 8.1	N/A	River Truim	Major	262840	776680	25350/31050	Yes (throughout P08)	Moderate ecological potential [Heavily Modified] d/s of Allt Cuaich - [River Truim - lower catchment 23146]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	-	Medium	Very High	High - [Upper Spey Sand and Gravel 150814]	High	High
W 8.34	66	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263898	781813	20180/20210	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	_	Low	Low	Medium	Low	Low
W 8.35	N/A	Unnamed earthworks ditch (east of A9) discharging into Hydro ID 66	Minor	263918	781817	20210/20230	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	-	-	-	-
W 8.36	N/A	Road drainage network (east of A9) between Hydro ID 65 & 66	Minor	263922	781876	20230/20350	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.37	N/A	Unnamed earthworks ditch (east of A9) discharging into Hydro ID 67	Minor	263935	781920	20300/20350	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.38	67	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263931	781952	20300/20350	Yes (d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Medium	Very High
W 8.39	68	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263947	782025	20400/20430	Yes (d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Very High
W 8.40	69	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263953	782065	20450/2480	Yes (d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Very High



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivity	/	
Water	Relevant			NGR	NGR	Approx. Chainage	Affected by flooding in 1:200	RBMP Classification	Located within any			Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Hydro ID	Name/Description	Category	Easting	Northing	Chainage From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.41	70	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263970	782125	20510/20550	Yes (d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Very High
P 8.1	N/A	unnamed on OS 1: 10000 (retention pond by Beauly – Denny access track)	Pond	264204	782174	20600	N/A	N/A	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	_	_	_	-	_
W 8.42	71	unnamed on OS 1: 10000 (tributary of W8.1)	Minor	263974	782219	20630	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
MW 8.5	72	Allt Coire nan Cisteachan	Major	264115	782287	20650/ 20800	Yes (u/s & d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA; DWPA [Groundwater]	No	_	Low	Low	Medium	High	Very High
W 8.43	N/A	Road drainage network (east of A9) meets Hydro ID 74	Minor	263999	782429	20800/20880	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	_	_
W 8.44	74	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	263992	782479	20850/20900	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater];	No	-	Low	Low	Medium	Low	Low
W 8.45	N/A	Road drainage (west side of A9) between Hydro ID 74 and existing A889 junction	Minor	263977	782537	20900/21250	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.46	N/A	Road drainage network (east of A9) between Hydro ID 74 & 75	Minor	263993	782538	21900/22000	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.47	75	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	263992	782602	20970/21000	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater];	No	_	Low	Low	Low	Low	Low
W 8.48	N/A	Unnamed earthworks ditch (east of A9) discharges into W8.81	Minor	264002	782659	21020/21100	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.49	N/A	Unnamed earthworks ditch (east of A9) discharges into Hydro ID 76	Minor	264017	782691	21050/21300	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	_	-
W 8.50	N/A	Unnamed earthworks ditch (east of A9) links W8.2 & W8.48 (discharges into Hydro ID 76)	Minor	264020	782898	21310	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.2	76	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	264152	782530	20950/21350	Yes (u/s & d/s of A9)	No watercourse- specific information available	Drumochter Hills - Protected as SSSI; DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	High
W 8.3	N/A	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	264196	782653	20900/21050	No	No watercourse- specific information available	Drumochter Hills - Protected as SSSI; DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	Low
W 8.4	N/A	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	264030	782968	20350/20400	Yes (u/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	High
W 8.51	N/A	Unnamed earthworks ditch (east of A9) discharges into Hydro ID 76	Minor	263996	782980	21360/21410	Yes (north of Hydro ID 76)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	-	_



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	y	
Water Feature	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage	Affected by flooding in 1:200 (CFJV Baseline	RBMP Classification (2015) Surface water	Located within any Designated	Y/N	Justification	Water Quality Water Quality	(Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
Ref. W 8.52	N/A	Unnamed earthworks ditch (east of A9) discharges into Hydro ID 78	Minor	263995	783111	From/To 21500/21540	Modelling) No	No watercourse- specific information available	boundaries Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-		-	_	_
W 8.53	N/A	Minor ephemeral drain (east of A9) discharges into W8.92	Minor	264032	783129	21540	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	_	-
W 8.54	N/A	Minor ephemeral drain (east of A9) discharges into road earthwork drainage between Hydro ID 78 & 79	Minor	264009	783242	21630/21670	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	-	-
W 8.55	N/A	Unnamed earthworks ditch (west of A9) between Hydro ID 78 & 79	Minor	263953	783271	21620/21680	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	_
W 8.56	N/A	Minor drain (east of the A9) from Beauly - Denny access track discharges into Hydro ID 79	Minor	264016	783389	21750/21800	Yes (u/s & north of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
MW 8.6	77	Allt Coire Uilleim	Major	264143	783045	21400/ 21440	Yes (u/s & d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA; DWPA [Groundwater]	No	-	Medium	High	Medium	High	Very High
W 8.57	78	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	263989	783213	21550/21630	Yes (d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Medium	Low
W 8.58	79	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	264231	783080	21500/21750	Yes (u/s & d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	Medium	Medium	High
ABS 8.10	N/A	Tummel Hydro (SSE Ltd) impoundment and abstraction from River Truim	Abstraction	263825	783501	21900	Yes	Good ecological potential [Heavily Modified] -[River Truim from source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	_	N/A	N/A	High - [Upper Spey Sand and Gravel 150814]	N/A	Very High
R 8.1	N/A	River Truim Dam (elevation 370mAOD) [manmade structure (barrier ID 2737) which is passable under certain conditions. Fish pass present]	Constructe d feature	263829	783490	21900	Yes	Good ecological potential [Heavily Modified] - River Truim from source to Allt Cuaich 23638	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	-	N/A	N/A	High - [Upper Spey Sand and Gravel 150814]	N/A	Very High
W 8.7	81	unnamed on OS 1: 10000 (tributary of River Truim)	Minor	264008	783672	21950/22140	Yes (u/s & d/s of A9)	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.59	N/A	Minor drain (east of the A9) flowing from Beauly - Denny access discharges into Hydro ID 81	Minor	264055	783692	22050/22100	No	No watercourse- specific information available	Drumochter Hills - SSSI; DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	_	_	-	-
W 8.60	N/A	Road drainage network (west of A9) between Hydro ID 80 & 81	Minor	263966	783688	22050/22150	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	_	-	-	_
W 8.61	N/A	Minor ephemeral drain (west of A9)	Minor	263900	783769	22150/22200	Yes (discharges into Truim floodplain)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivity	,	
Water	Relevant		0-1	NGR	NGR	Approx. Chainage	Affected by flooding in 1:200	RBMP Classification	Located within any	N/AI		Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Hydro ID	Name/Description	Category	Easting	Northing	From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
MW 8.8	82	Allt Coire Bhathaich	Major	264095	783821	22175/22290	Yes (u/s & d/s of crossing & A9)	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA (northern boundary); DWPA [Groundwater]	No	_	Low	Low	Very High	High	Very High
W 8.62	N/A	Unnamed earthworks ditch (east of A9) discharges into Hydro ID 83	Minor	264026	783937	22290/22410	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	-	_	_
W 8.63	N/A	Minor ephemeral field drain (east of the A9) discharges to Hydro ID 83	Minor	264070	783930	22300/22360	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.64	N/A	Minor ephemeral field drain (east of the A9) discharges to Hydro ID 83	Minor	264069	783952	22330/22400	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.65	N/A	Minor ephemeral field drain (east of the A9) discharges to Hydro ID 83	Minor	264094	783949	22350/22360	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.66	N/A	Minor ephemeral field drain (east of the A9) discharges to Hydro ID 83	Minor	264098	783962	22380	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
ABS 8.8	N/A	Tummel Hydro (SSE Ltd) Abstraction on Allt Coire Bhathaich	Abstraction	264086	783819	22230	Yes (d/s of dam)	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA (northern boundary); DWPA [Groundwater]	No	-	N/A	N/A	Very High	N/A	Very High
R8.2	N/A	Allt Coire Bhathaich Dam (elevation 372mAOD) [manmade structure (barrier ID 2741) which is passable under certain conditions. Fish pass present]	Constructe d feature	264094	783822	22250	Yes (d/s of dam)	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA (northern boundary); DWPA [Groundwater]	No	_	N/A	N/A	Very High	N/A	Very High
W 8.67	83	unnamed on OS 1: 10000 (floodplain ephemeral tributary to River Truim)	Minor	264023	784004	22300/22400	No	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	Low
R8.3	N/A	River Truim weir [manmade structure (barrier ID 1836) which is passable under certain conditions. No fish pass present]	Constructe d feature	263741	784189	22250	Yes	No watercourse- specific information available	Drumochter Hills - SSSI, SAC, SPA (northern boundary); DWPA [Groundwater]	No	-	N/A	N/A	High - [Upper Spey Sand and Gravel 150814]	N/A	Very High
ABS 8.11	N/A	Tummel Hydro (SSE Ltd.) Abstraction/Abstractio n return (Cuaich Power Station, Recharge to River Truim)	Abstraction	263741	784189	22250	Yes	Good ecological potential [Heavily Modified] - River Truim source to Allt Cuaich 23638	River Spey - SAC; DWPA [Groundwater]	No	_	N/A	N/A	High - [Upper Spey Sand and Gravel 150814]	N/A	Very High
W 8.68	N/A	Road drainage network (east of A9) between Hydro ID 83 & 84	Minor	264035	784056	22400/22660	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.69	N/A	Minor field drainage (east of the A9) discharges to Hydro ID 84	Minor	264086	784106	22500/22650	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	-	-	_



					Water F	eature					Scoped out of Environmental Assessment?			Sensitivit	У	
Water Feature	Relevant	Name/Description	Catagory	NGR	NGR	Approx. Chainage	Affected by flooding in 1:200	RBMP Classification (2015)	Located within any Designated	Y/N	Justification	Water Quality	(Surface Water)	Water Quality	Hydromorphology	Hydrology &
Ref.	Hydro ID	Name/Description	Category	Easting	Northing	From/To	(CFJV Baseline Modelling)	Surface water	boundaries	T/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.70	N/A	Minor field drainage (east of the A9) discharges to Hydro ID 84	Minor	264101	784160	22550/22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	-	_	-
DISC 8.13	N/A	1 & 2 Loch Ericht Cottage, Dalwhinnie (Private Contact) STE to soakaway.	Discharge	263553	784110	22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	_	-	_
DISC 8.14	N/A	1 Ben Alder Cottage, Dalwhinnie (Private Contact) STE to land.	Discharge	263620	784140	22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	_	-	_
DISC 8.15	N/A	Woodside Cottage, Dalwhinnie (Private Contact)	Discharge	263660	784150	22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	_	-	_
DISC 8.16	N/A	Dalwhinnie Service Station, A889, Dalwhinnie (JIG Ltd) STE to soakaway.	Discharge	263640	784210	22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	-	-	_
DISC 8.17	N/A	Dalwhinnie Office, Dalwhinnie (JIG Ltd) STE to soakaway.	Discharge	263644	784215	22600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	_	-	_
W 8.71	N/A	Minor field drainage (east of the A9) discharges to Hydro ID 84	Minor	264121	784226	22650/22675	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	-	-	-	-	-
W 8.72	84	unnamed on OS 1: 10000 (intake into Aqueduct)	Minor	264062	784255	22600/22660	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	Low
W 8.73	N/A	Minor field drainage (east of the A9) discharges to Hydro ID 84	Minor	264088	784266	22670/22700	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
W 8.74	N/A	Minor field drainage (east of the A9) discharges to Hydro ID 85	Minor	264115	784273	22670/22750	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	-	-	_
W 8.75	86	Minor field drainage (east of the A9) discharges to unnamed earthworks drainage channel W8.121	Minor	264122	784388	22810	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
W 8.76	N/A	Minor ephemeral drain (west of the A9) intake into aqueduct d/s of Hydro ID 86	Minor	264026	784416	22800/22900	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_
DISC 8.18	N/A	Construction Yard, Dalwhinnie (Balfour Beatty Utility Solutions)	Discharge	263711	784540	22800	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	-	-	-	-
W 8.77	N/A	Unnamed earthworks ditch (east of A9) discharges into Hydro ID 87	Minor	264116	784458	22810/22950	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	-	_	_
W 8.8	N/A	marked on OS 1:10000 as Collects (ephemeral drainage west of Aqueduct)	Minor	263961	784441	22770/23150	Yes	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	-	-	-	-	-
W 8.78	85	unnamed on OS 1: 10000 (ephemeral drainage intake into Aqueduct)	Minor	264081	784335	22700/22750	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low



					Water F	eature					Scoped out of Environmental Assessment?			Sensitivit	У	
Water	Relevant			NGR	NGR	Approx.	Affected by flooding in 1:200	RBMP Classification	Located within any			Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Hydro ID	Name/Description	Category	Easting	Northing	Chainage From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.80	87	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct	Minor	264120	784525	22950	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
W 8.81	N/A	Unnamed earthworks ditch (east of A9) between Hydro ID 87 & 89	Minor	264168	784697	23000/23300	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	_	_	_
ABS 8.23	N/A	THC indicated the presence of a PWS at Dalwhinnie Beag but the landowner believes this property is serviced by the mains	Abstraction	263646	785259	23550	No	N/A	DWPA [Groundwater]	Yes	Outwith refined study area; opposite bank of River Truim and not likely to be affected by the Proposed Scheme	-	-	_	_	-
W 8.82	N/A	Minor ephemeral drain (west of the A9) west of the Aqueduct	Minor	264069	784729	23130/23150	Yes (d/s of Aqueduct)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	-	-	_	-
DISC 8.4	N/A	Dalwhinnie WTW, Dalwhinnie (point source 'other effluent' discharge, receiving water - River Truim)	Discharge	263764	784740	23050	Yes	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	_	High	Very High	High - [Upper Spey Sand and Gravel 150814]	Very High	High
ABS 8.5	N/A	WTW Shallow infiltration chambers adjacent to River Truim, Dalwhinnie	Abstraction	263720	784780	23050	Yes	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	No	_	N/A	N/A	High - [Upper Spey Sand and Gravel 150814]	N/A	Very High
ABS 8.7	N/A	Tummel Hydro (SSE Ltd.) Abstraction from, U/T of River Truim (MW 8.9)	Abstraction	264261	784875	23325	Yes	No watercourse- specific information available	DWPA [Groundwater]	No	-	High	Low	Medium	High	Very High
MW 8.9	89	unnamed on OS 1: 10000 (tributary to River Truim, passes under the aqueduct at A9 crossing)	Major	264297	784806	22950/23800	Yes (u/s & d/s of crossing & A9)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	Medium	High	Very High
W 8.83	N/A	Minor ephemeral drain (east of the A9) feeding Hydro ID 89	Minor	264280	784916	23360/23370	Yes (u/s of A9 & Aqueduct)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	-	-
W 8.84	N/A	Minor ephemeral drain (east of the A9) intake into aqueduct	Minor	264320	784991	23430/23450	Yes (u/s of A9 & Aqueduct)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	-	-	-	-
W 8.85	N/A	Minor ephemeral drain (east of the A9) intake into aqueduct	Minor	264310	785014	23430/23470	Yes (u/s of A9 & Aqueduct)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	-	-	-	-
W 8.86	N/A	Minor ephemeral drain (west of the A9)	Minor	264227	785129	23550	Yes (u/s of A9 & Aqueduct)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	-	-	-	-



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	y	
Water	Delawart			NOD	NOD	Approx.	Affected by	RBMP Classification	Located within any			Water Quality	(Surface Water)	Weter Ouelity		lludrology 9
Feature Ref.	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Chainage From/To	flooding in 1:200 (CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
DISC 8.1	N/A	Discharge - Septic Tank (receiving water - River Truim)	Discharge	264006	784996	23350	No	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	Yes	_	N/A	High	High - [Upper Spey Sand and Gravel 150814]	N/A	N/A
DISC 8.2	N/A	Discharge - Cooling water (receiving water - River Truim)	Discharge	263996	785001	23350	No	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	Yes	-	N/A	High	High - [Upper Spey Sand and Gravel 150814]	N/A	N/A
DISC 8.5	N/A	Dalwhinnie Septic Tank (point source public sewer discharge, receiving water - River Truim)	Discharge	263940	785022	23350	Yes	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	Yes	-	N/A	High	High - [Upper Spey Sand and Gravel 150814]	N/A	N/A
A 8.1	N/A	Aqueduct	Constructe d feature	264390	785150	22650/25700	Yes	N/A	N/A	No	_	N/A	N/A	N/A	N/A	Very High
DISC 8.19	N/A	Tigh Fhothannan, Dalwhinnie (Kirklands Law Ltd). STE to unnamed tributary of the River Truim.	Discharge	263749	784966	23400	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	_	-	-
W 8.87	90	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct - outlet flows under A9)	Minor	264289	784986	23400/23430	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
W 8.88	91	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct - outlet flows under A9)	Minor	264303	785051	23450/23500	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
W 8.89	92	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct - outlet flows under A9)	Minor	264317	785128	23550/23600	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
W 8.90	93	unnamed on OS 1: 10000 (ephemeral drainage)	Minor	264347	785220	23680/23710	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
ABS 8.9	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Impoundment on Aqueduct	Abstraction	264550	785300	23850	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	N/A	N/A	Medium	N/A	Very High
W 8.91	94	unnamed on OS 1: 10000 (ephemeral drainage from Aqueduct outlet)	Minor	264481	785491	23950/24400	Yes (u/s of R. Truim confluence)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	Medium	Low	Low
ABS 8.6	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Abstraction from Aqueduct	Abstraction	264700	785550	24150	No	No watercourse- specific information available	DWPA [Groundwater]	No	_	N/A	N/A	High	N/A	Very High
W 8.92	95	unnamed on OS 1: 10000 (ephemeral drainage from Aqueduct outlet)	Minor	264575	785639	24100/24150	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	у	
Water	Relevant			NGR	NGR	Approx.	Affected by flooding in 1:200	RBMP Classification	Located within any			Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Hydro ID	Name/Description	Category	Easting	Northing	Chainage From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.93	96	unnamed on OS 1: 10000 (ephemeral drainage from Aqueduct outlet)	Minor	264610	785689	24210/24300	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
W 8.94	N/A	Unnamed ephemeral drain (west of the A9) on Truim floodplain - discharges to W8.37	Minor	264580	785777	24275	No	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	Low
W 8.95	N/A	Unnamed ephemeral drain (west of the A9) on Truim floodplain	Minor	264617	785798	24325	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
W 8.96	N/A	Unnamed ephemeral drain (west of the A9) on Truim floodplain	Minor	264644	785875	24400	Yes (discharges into Truim floodplain)	No watercourse- specific information available	River Spey SAC DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	-	-	-	-	-
DISC 8.6	N/A	Effluent Disposal Lagoons (Diageo) (point source 'other effluent, distilling' discharge, receiving water - River Truim)	Discharge	264512	785961	24350	Yes	Good ecological potential [Heavily Modified] -[<i>River Truim from</i> source to Allt Cuaich confluence 23638]	River Spey SAC; Drumochter Hills - SAC, SSSI; DWPA [Groundwater]; National Park - Cairngorms National Park	Yes	_	N/A	High	High - [Upper Spey Sand and Gravel 150814]	N/A	N/A
W 8.97	97	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct - outlet flows under A9)	Minor	264815	785946	24500/24550	Yes (d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
ABS 8.13	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Impoundment on Aqueduct	Abstraction	264900	785850	24550	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	N/A	N/A	High	N/A	Very High
W 8.98	98	unnamed on OS 1: 10000 (ephemeral drainage feeds into Aqueduct - outlet flows under A9)	Minor	264857	786002	24600/24660	Yes (d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
ABS 8.14	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Abstraction from Aqueduct	Abstraction	265150	786100	24850	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	N/A	N/A	High	N/A	Very High
W 8.99	N/A	Road earthworks drain (east of A9) between Hydro ID 98 & 99	Minor	264946	786093	24650/24890	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	-	-
W 8.100	N/A	Minor ephemeral drain (west of the A9) discharges into River Truim	Minor	264868	786142	24700/24750	Yes	No watercourse- specific information available	River Spey SAC DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	-	-	-	-	-
W 8.101	N/A	Minor ephemeral drain (west of the A9) discharges into River Truim	Minor	264916	786178	24800	Yes	No watercourse- specific information available	River Spey SAC DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	_	_	_	-	_
W 8.12	99	unnamed on OS 1:10000 (outlet channel from Aqueduct flows under A9 - tributary of River Truim)	Minor	265065	786190	24850/24950	Yes (u/s & d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	_	Low	Low	High	Low	Low



					Water F	eature					Scoped out of Environmental Assessment?			Sensitivity	y	
Water	Polovant			NGR	NGR	Approx. Chainage	Affected by flooding in 1:200	RBMP Classification	Located within any			Water Quality	(Surface Water)	Water Quality		Hydrology &
Feature Ref.	Relevant Hydro ID	Name/Description	Category	Easting	Northing	Chainage From/To	(CFJV Baseline Modelling)	(2015) Surface water	Designated boundaries	Y/N	Justification	Water Quality	Biodiversity	(Groundwater)	Hydromorphology	Flood Risk
W 8.102	N/A	Road earthworks drain (east of A9) between Hydro ID 99 & 100	Minor	265163	786316	24900/25400	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	_	-	_
ABS 8.16	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Abstraction from Aqueduct	Abstraction	265400	786300	25200	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	N/A	N/A	High	N/A	Very High
W 8.13		unnamed on OS 1:10000 (drainage from Aqueduct outlet converges with MW8.12/MW8.13)	Minor	265287	786456	25100/25370	Yes (u/s of A9 & into extensive flood extent d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	Very High
MW 8.12	100	unnamed on OS 1: 10000 (drainage from Aqueduct outlet converges with W8.13 & MW8.13)	Major	265420	786423	25280/25350	Yes (u/s of A9 & into extensive flood extent d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	Very High
MW 8.13		unnamed on OS 1: 10000 (drainage from Aqueduct outlet converges with W8.13 & MW8.12)	Major	265486	786448	25250/25400	Yes (u/s of A9 & into extensive flood extent d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Medium	Low	Medium	Medium	Very High
ABS 8.12	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Impoundment on Aqueduct	Abstraction	265650	786450	25450	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	N/A	N/A	Medium	N/A	Very High
W 8.103	101	unnamed on OS 1: 10000 (ephemeral drainage)	Minor	265459	786676	25550	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Low	Low
ABS 8.15	N/A	Tummel Hydro (SSE Ltd.) Rannoch Power Station Impoundment on Aqueduct	Abstraction	265850	786550	25650	No	No watercourse- specific information available	DWPA [Groundwater]	No	_	N/A	N/A	Medium	N/A	Very High
PWS	N/A	Private Water Supply for Cuaich. For five residences and agriculture		266347	786310	25550	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme					
W 8.14	102	unnamed on OS 1:10000 (field drainage channel)	Minor	265558	786930	25800	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	Low
W 8.104	N/A	Minor ephemeral drain (east of the A9) discharges to Hydro ID 102	Minor	265652	786882	25800	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral field drainage is outwith 10m buffer around proposed A9 earthworks extents	-	-	-	_	-
W 8.105	N/A	Unnamed road drainage (east of the A9) between Hydro ID 102 & 103 - discharges to Allt Cuaich	Minor	265654	786984	25840/25940	Yes (east of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	_	-	-
W 8.106	N/A	Unnamed road drainage (west of the A9) between Hydro ID 102 & 103	Minor	265614	786995	25810/25910	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new Scheme drainage network	_	_	-	_	_



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	y	
Water Feature Ref.	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage From/To	Affected by flooding in 1:200 (CFJV Baseline Modelling)	RBMP Classification (2015) Surface water	Located within any Designated boundaries	Y/N	Justification	Water Quality Water Quality	r (Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
W 8.15	N/A	unnamed on OS 1: 10000 (floodplain tributary of Allt Cuaich)	Minor	265850	786889	24800/25900	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	_
W 8.16	103_1	unnamed on OS 1:10000 (Mill lade from Allt Cuaich)	Minor	265620	787115	25950/26150	Yes (u/s & d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	High
W 8.107	103_2	Unnamed ditch (west of the A9) draining Allt Cuaich floodplain	Minor	265646	787168	26000/26025	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Medium
DISC 8.7	N/A	Cuaich Cottages, Cuaich by Dalwhinnie (point source discharge private sewage)	Discharge	265550	787100	25900	No	N/A	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
DISC 8.8	N/A	Cuaich Cottages, Cuaich by Dalwhinnie (point source discharge private sewage)	Discharge	265559	787124	25950	No	N/A	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
DISC 8.9	N/A	Cuaich Cottages, Cuaich by Dalwhinnie (point source discharge private sewage)	Discharge	265547	787177	26000	No	N/A	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
DISC 8.10	N/A	Cuaich Cottages, Cuaich by Dalwhinnie (point source discharge private sewage)	Discharge	265450	787250	25950	No	N/A	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
DISC 8.11	N/A	Cuaich Cottages, Cuaich by Dalwhinnie (point source discharge private sewage)	Discharge	265500	787300	26000	No	N/A	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
MW 8.14	104	Allt Cuaich	Major	265807	786941	25950/26250	Yes (u/s/& d/s of crossing; Cuaich & A9)	Bad ecological potential [Heavily modified] - [All Cuaich 23639]	River Spey - SAC; DWPA [Groundwater]; National Park - Cairngorms	No	-	Low	Very High	High - [Upper Spey Sand and Gravel 150814]	High	Very High
ABS 8.24	N/A	Active PWS sourced from a spring, supplying five residential units at the Cuaich Farm Settlement for domestic and agricultural use	Abstraction	265775	786920	28500	No	No watercourse- specific information available	DWPA [Groundwater]	No	_	High	-	High	_	_
W 8.108	105	unnamed on OS 1: 10000	Minor	265728	787205	26120	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
W 8.109	N/A	Unnamed road drainage (east of the A9) discharges to Allt Cuaich	Minor	265727	787185	26030/26110	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
W 8.110	N/A	Unnamed road drainage (east of the A9) discharges to Hydro ID 106	Minor	265743	787247	26120/26200	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	-	_
W 8.111	N/A	Unnamed road drainage (east of the A9) discharges to Hydro ID 106	Minor	265753	787241	26120/26200	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	у	
Water Feature	Relevant	Name/Description	Category	NGR	NGR	Approx. Chainage	Affected by flooding in 1:200	RBMP Classification (2015)	Located within any Designated	Y/N	Justification	Water Quality	(Surface Water)	Water Quality	Hydromorphology	Hydrology &
Ref.	Hydro ID			Easting	Northing	From/To	(CFJV Baseline Modelling)	Surface water	boundaries			Water Quality	Biodiversity	(Groundwater)	,	Flood Risk
W 8.17	106	unnamed on OS 1:10000 (field drainage channel)	Minor	265729	787298	26200/26350	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	Medium	Medium	High
W 8.112	N/A	Minor ephemeral drain (east of A9) discharges to Hydro ID 106	Minor	265824	787291	26220/26230	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.113	N/A	Minor ephemeral drain (east of A9) discharges to Hydro ID 107	Minor	265826	787326	26230/26260	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	-	-	-	-
W 8.114	N/A	Unnamed road drainage (west of the A9) between Hydro ID 106 & 107	Minor	265831	787466	26200/26600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	_	_
W 8.115	N/A	Unnamed road drainage (east of the A9) between Hydro ID 106 & 107	Minor	265855	787474	26200/26600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	_	_
W 8.116	N/A	Unnamed earthworks drainage (east of the A9) between Hydro ID 106 & 107	Minor	265865	787447	26400/26600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	_	_	_	_
W 8.117	N/A	Unnamed field drainage (east of the A9) discharges to W8.153	Minor	265876	787439	26390	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.118	N/A	Unnamed ephemeral drain (east of A9) discharges to W8.153	Minor	265936	787474	26450/26490	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.119	N/A	Unnamed ephemeral drain (east of A9) discharges to W8.153	Minor	265965	787526	26490/26530	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.121	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 107 & 108	Minor	266039	787706	26600/26800	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	-	-	-	-
W 8.122	N/A	Unnamed ephemeral drain (east of A9)	Minor	266081	787672	26650/26800	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor earthworks ditch will be replaced by new drainage network	_	-	-	-	_
MW 8.16	107	unnamed on OS 1: 10000 (tributary of River Truim)	Major	266134	787374	26450/26800	Yes (d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	High	Low
W 8.123	N/A	Road earthworks drain (east of A9) between Hydro ID 107 & 109	Minor	266062	787795	26600/26910	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	-	-	-	_
W 8.124	N/A	Road earthworks drain (west of A9) between Hydro ID 107 & 109	Minor	266047	787800	26600/26910	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_
W 8.125	N/A	Unnamed ephemeral drain (east of A9) discharges to Hydro ID 109	Minor	266154	787835	26850/26910	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	-	-	-	-
W 8.126	N/A	Minor ephemeral drain (east of A9)	Minor	266199	787898	26950/26975	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	_



					Water Fe	eature					Scoped out of Environmental Assessment?			Sensitivit	y	
Water Feature	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage	Affected by flooding in 1:200 (CFJV Baseline	RBMP Classification (2015)	Located within any Designated	Y/N	Justification	Water Quality Water Quality	(Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
Ref. W 8.127	N/A	Minor ephemeral drain (east of A9)	Minor	266217	787912	From/To 26975/2700	Modelling)	Surface water No watercourse- specific information available	boundaries DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-		-	-	_
W 8.128	N/A	Unnamed earthworks drain (east of A9) feeding into Hydro ID 109	Minor	266205	787945	27000/27030	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	_	_	_	_
W 8.129	N/A	Road earthworks drain (east of A9) between Hydro ID 109 & 110	Minor	266240	788008	26910/27250	Yes (s/b carriage of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	-	_	_
W 8.130	N/A	Road earthworks drain (west of A9) between Hydro ID 109 &110	Minor	266219	788012	26910/27251	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_
W 8.131	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 110	Minor	266302	788042	27030/27250	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	_
W 8.132	N/A	Unnamed field drain (east of A9) discharges to Hydro ID 110	Minor	266359	788048	27150/27200	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.133	N/A	Road drainage (east of A9) between Hydro ID 110 & 111	Minor	266411	788179	27250/27460	Yes (s/b carriage of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	-	-	_
W 8.134	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 110	Minor	266433	788171	27250/27400	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.18	N/A	unnamed on OS 1:10000 (field drainage channel discharges to MW8.16)	Minor	266211	787421	26450	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	-
W 8.19	109	unnamed on OS 1:10000 (tributary of River Truim)	Minor	266151	787886	26900	Yes (d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	Low	Very High
DISC 8.20	N/A	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land.	Discharge	266020	788070	27000	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	_	_	-	_	_
DISC 8.21	N/A	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land.	Discharge	266120	788220	27100	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	-	_	-	_	_
DISC 8.22	N/A	Breackachy, Laggan, Newtonmore (Breackachy) sheep dip disposal to land.	Discharge	266170	788360	27300	Yes	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	-	-	-	-	_
W 8.19a	110	unnamed on OS 1: 10000 (drainage channel)	Minor	266355	788129	27150/27300	Yes (d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	Low	Very High
W 8.22	111	unnamed on OS 1:10000 (tributary of River Truim)	Minor	266528	788271	27450	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	Very High
W 8.135	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 111 & 112	Minor	266642	788362	27460/27710	Yes (east of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	-	_	_



					Water Fe	eature			Scoped out of Environmental Assessment?	Sensitivity						
Water Feature	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage	Affected by flooding in 1:200 (CFJV Baseline	RBMP Classification (2015) Surface water	Located within any Designated	Y/N	Justification	Water Quality Water Quality	y (Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
Ref. W 8.136	N/A	Unnamed earthworks drain (west of A9) discharges to Hydro ID 112	Minor	266688	788433	From/To 27650/27750	Modelling) Yes (A9)	No watercourse- specific information available	boundaries DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	_	_
W 8.137	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 112 & 113	Minor	266778	788467	27730/27850	Yes (A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	_	_	_
W 8.138	N/A	Unnamed earthworks drain (west of A9) discharges to Hydro ID 113	Minor	266765	788494	27730/27850	Yes (A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
MW 8.18	112	Dalannach (tributary of Allt Garbh)	Major	266747	788290	27430/29430	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	High	Low
W 8.139	113	unnamed on OS 1: 10000 (ephemeral field drainage)	Minor	266821	788508	27800/27850	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
W 8.140	N/A	Road earthworks drain (east of A9) between Hydro ID 113 & 114	Minor	266876	788547	27850/27960	Yes (east of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_
W 8.141	N/A	Road earthworks drain (west of A9)	Minor	266845	788586	27890/27950	Yes (west of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	_	_	_	_
MW 8.19	114	unnamed on OS 1: 10000 (has confluence w/ MW8.18 d/s of A9)	Major	266883	788437	27650/28050	Yes (u/s & d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.142	N/A	Road earthworks drain (east of A9) between Hydro ID 114 & 115	Minor	266958	788625	27960/28058 0	Yes (u/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	-	-	_
W 8.143	N/A	Unnamed ephemeral drain (east of A9)	Minor	266975	788580	27960/28025	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.144	N/A	Unnamed earthworks drain (west of A9)	Minor	266951	788660	28020/28050	Yes (A9 & d/s of Hydro ID 115)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	_
W 8.23	115	unnamed on OS 1:10000 (field drainage)	Minor	267041	788606	28050	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	High
W 8.145	N/A	Road earthworks drain (east of A9) discharges to Hydro ID 115	Minor	267028	788685	28050/28130	Yes (u/s of Hydro ID 115)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	_	_	_
W 8.146	N/A	Unnamed ephemeral field drain (east of A9) discharges to W8.186	Minor	267081	788696	28150/28160	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	_	_	_	_
W 8.147	N/A	Unnamed ephemeral field drain (east of A9) discharges to W8.186	Minor	267114	788759	28200/28250	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.24	116	unnamed on OS 1:10000 (field drainage)	Minor	267147	788822	28300	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	High
W 8.148	N/A	Road earthworks drain (east of A9) between Hydro ID 116 & 117	Minor	267190	788877	28300/28380	Yes (u/s of Hydro ID 116)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	_	_	-	-	_



	Water Feature											Sensitivity						
Water Feature	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage	Affected by flooding in 1:200 (CFJV Baseline	RBMP Classification (2015)	Located within any Designated	Y/N	Justification		(Surface Water)	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk		
Ref.				Ĵ		From/To	Modelling)	Surface water	boundaries			Water Quality	Biodiversity	(Oroundwater)		TIOOU KISK		
W 8.149	N/A	Unnamed ephemeral drain (east of A9)	Minor	267283	788876	28380/28430	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-		
W 8.150	N/A	Unnamed ephemeral drain (east of A9) discharges to Hydro ID 117	Minor	267253	788919	28400/28430	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-		
W 8.151	N/A	Road earthworks drain (east of A9) between Hydro ID 117 & 118	Minor	267276	788990	258450/2851 0	Yes (u/s of Hydro ID 117)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	-	_	_		
W 8.152	N/A	Unnamed ephemeral drain (east of A9)	Minor	267296	788977	28460/28500	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	_	_	_		
W 8.153	117	unnamed on OS 1: 10000 (field drainage)	Minor	267236	788943	28410/28460	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	High		
W 8.25	118	unnamed on OS 1:10000 (field drainage)	Minor	267339	789073	28550	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	High		
W 8.154	N/A	Unnamed field drain (east of A9) discharges to Hydro ID 118 -appears on Blom survey - looks to be main channel rather than W8.25 on OS 1:10K	Minor	267323	789022	28550	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	_	Low	Low	High	Low	High		
W 8.155	N/A	Unnamed earthworks drain (west of A9) discharges to W8.25 d/s of Hydro ID 118	Minor	267282	789073	28550/28600	Yes (d/s of Hydro ID 118)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-		
W 8.156	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 119	Minor	267420	789186	27700/27800	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	-	_	_		
W 8.157	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 119	Minor	267449	789260	28800/28850	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	_	_	_		
W 8.158	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 119	Minor	267454	789253	28800/28850	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	_	_	_		
W 8.26	119	unnamed on OS 1:10000 (field drainage)	Minor	267406	789258	28800	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High		
W 8.159	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 119 & 120	Minor	267511	789345	28850/29040	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-		
W 8.160	N/A	Unnamed field drainage (west of A9)	Minor	267421	789377	28900/28950	Yes (west of A9 in Truim floodplain)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-		
W 8.161	N/A	Minor ephemeral drain (west of A9) discharges to W8.51 d/s of Hydro ID 120	Minor	267448	789458	28950/29050	Yes (west of A9 in Truim floodplain)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	-	-	_		



					Water Fe	eature			Scoped out of Environmental Assessment?	Sensitivity						
Water Feature Ref.	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage From/To	Affected by flooding in 1:200 (CFJV Baseline Modelling)	RBMP Classification (2015) Surface water	Located within any Designated boundaries	Y/N	Justification	Water Quality Water Quality	r (Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
W 8.162	N/A	Unnamed earthworks drain (east of A9)	Minor	267546	789415	28990/29030	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	-	-	_
W 8.163	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 120	Minor	267561	789459	29030/29100	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.164	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 120	Minor	267622	789489	29100	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	_	_	-	_
W 8.165	N/A	Unnamed earthworks drain (east of A9) discharges to Hydro ID 121	Minor	267621	789604	29170/29360	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	_	_	_	_
W 8.166	120	unnamed on OS 1: 10000 (field drainage)	Minor	267566	789502	29050/29100	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	High
MW 8.20	121	Allt Garbh	Major	267710	789522	29200/ 29425	Yes (u/s & d/s of crossing and A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Medium	High	High	High	High
W 8.167	122	unnamed on OS 1: 10000 (field drainage tributary to Allt Garbh)	Minor	267670	789745	29350/29370	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	High
W 8.168	N/A	Road earthworks drain (east of A9) between Hydro ID 122 & 123	Minor	267685	789781	29360/29430	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.169	N/A	Road earthworks drain (east of A9) between Hydro ID 123 & 124	Minor	267708	789861	29430/29520	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	_
W 8.27	123	unnamed on OS 1:10000 (tributary to Allt Garbh)	Minor	267705	789809	29400	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.28	124	unnamed on OS 1:10000 (tributary to Allt Garbh)	Minor	267713	789897	29500	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.170	N/A	Road earthworks drain (east of A9) between Hydro ID 124 & 125	Minor	267724	789938	29520/29600	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	-	-	-	-
W 8.29	125	unnamed on OS 1:10000 (tributary to Allt Garbh)	Minor	267733	789975	29600	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.171	N/A	Minor ephemeral drain (east of A9) between Hydro ID 125 & 126	Minor	267741	790019	29600/29675	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Drainage will be replaced by new drainage network	-	_	_	_	_
W 8.172	126	unnamed on OS 1: 10000 (field drainage tributary to River Truim)	Minor	267741	790051	29650/29680	Yes (d/s of A9)	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Medium	High
W 8.173	N/A	Unnamed ephemeral drain (east of A9) discharges to Hydro ID 126	Minor	267773	790119	29675/30030	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	_	_	_



					Water Fe	eature			Scoped out of Environmental Assessment?	Sensitivity						
Water Feature Ref.	Relevant Hydro ID	Name/Description	Category	NGR Easting	NGR Northing	Approx. Chainage From/To	Affected by flooding in 1:200 (CFJV Baseline Modelling)	RBMP Classification (2015) Surface water	Located within any Designated boundaries	Y/N	Justification	Water Quality Water Quality	r (Surface Water) Biodiversity	Water Quality (Groundwater)	Hydromorphology	Hydrology & Flood Risk
W 8.174	N/A	Unnamed ephemeral drain (east of A9) discharges to W8.229	Minor	267801	790182	29780/29850	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	-	-	-	_
W 8.175	N/A	Unnamed ephemeral drain (east of A9) discharges to W8.229	Minor	267843	790263	29840/29900	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	_
W 8.176	N/A	Minor ephemeral drain (east of A9)	Minor	267827	790409	30030	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	-
W 8.177	127	unnamed on OS 1: 10000 (field drainage tributary to River Truim)	Minor	267797	790574	30200	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
W 8.178	128	unnamed on OS 1: 10000 (field drainage tributary to River Truim)	Minor	267794	790649	30200/30350	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low
W 8.179	N/A	Unnamed ephemeral drain (west of A9) between Hydro ID 127 &128	Minor	267725	790619	30200/30270	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	_	-	_
W 8.180	N/A	Minor ephemeral drain (west of A9) under HML discharges to River Truim	Minor	267736	790774	30400	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new Scheme drainage network	-	-	-	-	-
MW 8.21	129	unnamed on OS 1: 10000 (tributary of River Truim)	Major	267891	790892	30500/ 30610	Yes (u/s & d/s of A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	-	Low	Low	High	Medium	Low
W 8.181	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 129 & 130	Minor	267795	790990	30510/30610	Yes (u/s of Hydro ID 129)	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	_	_	_	_	_
ABS 8.1	N/A	Private Water Supply at Crubenmore Lodge outwith refined study area	Abstraction	267487	791007	30650	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Not likely to be affected by Scheme	-	-	-	-	_
MW 8.22	130	Allt na Ceardaich	Major	267970	791078	30660/ 30750	Yes (u/s & d/s of crossing and A9)	No watercourse- specific information available	River Spey - SAC; DWPA [Groundwater]	No	_	Medium	Low	High	High	Very High
DISC 8.23	N/A	Crubenmore Lodge, Newtonmore (Ralia Enterprises). STE to soakaway.	Discharge	267509	791005	30700	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	-	-	-	-	_
W 8.182	N/A	Unnamed earthworks drain (east of A9) between Hydro ID 130 & 131	Minor	267765	791170	30760/30800	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Minor ephemeral channel will be replaced by new drainage network	-	-	-	-	_
DISC 8.24	N/A	Invertruim Cottage, Glentruim (Private Contact). STE to soakaway.	Discharge	267610	791287	30900	No	No watercourse- specific information available	DWPA [Groundwater]	Yes	Outwith scheme extent	-	-	-	-	_
W 8.183	132	unnamed on OS 1: 10000 (field drainage tributary to River Truim)	Minor	267745	791281	30900	No	No watercourse- specific information available	DWPA [Groundwater]	No	-	Low	Low	High	Low	Low



