APPENDIX 8.1

WATER FEATURES SURVEY

A82 Crianlarich Bypass

WATER FEATURES SURVEY

A bypass is proposed on the A82/A85 junction at Crianlarich

As part of the Scottish Environmental Protection Agency's (SEPA) requirements for a flood risk assessment, Grontmij undertook a water features survey within the immediate vicinity of the proposed bypass route between the 21st and 23rd April 2008. The survey area covered an area south of the River Fillan, extending southwards towards Creag a' Bheannain, west to the Old Military Road and east to the edge Crianlarich. The full extent of the survey area is shown on the map at the end of this report.

The following report includes details of all surface water and groundwater features identified within the survey area. The locations of the water features are shown on the map at the end of the report.

No public or private groundwater or surface water abstractions were identified during this survey.



WATER FEATURES SURVEY REPORT

Ref:	National Grid Reference	Name and Address of Occupier	Source Type	Use	Discharge	Comments		
A	NN 3834 2535	Mr Ramsey, Gleannfiadh Lodge Willow Brae Crianlarich	Septic Tank	Domestic	To surface water	2500l tank located to the south-west of house. Septic tank discharge to a local burn as shown in Photograph A1 at NN 3836 2532 – (outlet located at NN 3836 2532)		
В	NN 3838 2527	Hotel	Septic Tank	Disused	NA	Old septic tank served Hotel prior to its connection to the main sewage, has been disused for approx 10 years		
С	NN 3843 2499	Hill View B&B Glenfalloch Road Crianlarich	Septic Tank	Domestic/ Commerical	Probable Groundwater	Unable to speak to owner, tank located on front lawn by main road. No visible outlet at local burn – likely to discharge to groundwater		
D	NN 3845 2491	Mrs Elliot, 1 Glenfalloch Road Crianlarich	Septic Tank	Domestic	Groundwater	Septic tank used by three house (1-3 Glenfalloch Road) soakaway to groundwater		
E	NN 3842 2481	Mr George Cull. 5 Glenfalloch Road, Crianlarich	Septic Tank	Domestic	Probable Groundwater	Unable to speak to owner, tank likely to serve two houses (4 & 5 Glenfalloch Road) located at rear of property no visible discharge, likely to soakaway to groundwater		
1.1	NN 3799 2558	-	Drainage ditch	None	-	Ditch running northwest to southeast along the southern side of the current A82 to Fort William/Oban. Approx 0.5m wide 0.4m deep		
1.2	NN 3791 2564	-	Burn	None	-	Burn passing under A82 flowing NE towards River Fillan. Approx 0.7m wide, 0.2m deep NGR at culvert. Photograph 1.2 shows culvert under road looking NE from NN 3791 2564		
1.3	NN 3795 2567	-	Marsh	None	-	Marshy ground by the side of the burn		
1.4	NN 3798 2566	-	Collects	None	-	Small collects from marshy ground on eastern bank of burn (feature 1.2). Water flows into burn at this location. Photograph 1.4 shows marsh and collects from NN 3795 2567		
1.5	NN 3805 2556	-	Burn	None	-	Burn flows NE from trees, under existing A82 and railway. Approx 0.3-0.5m wide to 0.6m deep		
1.6	NN 3818 2568	-	Spreads	None	-	Spreads for feature 1.5 located north of the railway line		



Ref:	National Grid Reference	Name and Address of Occupier	Source Type	Use	Discharge	Comments		
1.7	NN 3819 2568	-	Collects	None	-	Collects for feature 1.8		
1.8	NN 3823 2567	-	Burn	None	-	Small burn which joins River Fillan. Approx 0.2m wide and up to 0.6m deep		
1.9	NN 3820 2549	-	Burn	None	-	Burn flows N-NE passing under A82 where is joins Feature 1.10. Approx 0.6m wide and up to 0.7m deep		
1.10	NN 3823 2544	-	Burn	None	-	Small burn passes under Willow Brae and A82 before joining feature 1.9 on N side of A82. Reinforced sides made of stone approx 0.6m wide and up to 0.5m deep shown in photograph 1.10 from NN 3823 2546		
1.11	NN 3824 2554	-	Burn	None	-	Burn created by the joining of features 1.10 and 1.9. Approx. 0.2m wide and 0.2m deep		
2.1	NN 3825 2554	-	Spreads	None	-	Spreads for feature 1.11 on north side of railway embankment as shown in photograph 2.1 from NN 3816 2559		
2.2a	NN 3830 2555	-	Tributary Burn	None	-	Small side burn of feature 2.3 approx 0.2m wide and up to 0.2m deep		
2.2b	NN 3830 2553	-	Collects	None	-	Collects for feature 2.2a		
2.2c	NN 3829 2553	-	Tributary Burn	None	-	Small side burn of feature 2.3 approx 0.2m wide and up to 0.1m deep		
2.2d	NN 3828 2554	-	Collects	None	-	Collects for feature 2.2c		
2.2e	NN 3829 2554	-	Tributary Burn	None	-	Small side burn of feature 2.3 approx 0.1m wide and up to 0.1m deep		
2.2f	NN 3829 2554	-	Collects	None	-	Collects for feature 2.2e shown in photograph 2.2 from NN 3829 2554		
2.3a	NN 38312556	-	Burn	None	-	Burn flows north into River Fillan. Approx 0.3m wide and up to 1.2m deep		
2.3b	NN 3828 2552	-	Collects	None	-	Collects for feature 2.3a. Shown in photograph 2.3 at railway embankment looking S from NN 3828 2552		
2.4	NN 3838 2533	-	Burn	None	-	Burn passing new house and flows into culvert under town. Approx 0.4m wide and up to 0.7m deep		
2.5	NN 3834 2532	-	Drainage Ditch	None	-	Small drainage ditch joins Burn 2.4 at this location		
2.6	NN 3833 2532	-	Collects	None	-	Small collects joins burn 2.4 at this location		
2.7	NN 3850 2551	-	Collects	None	-	Boggy pond which acts as a collects for feature 2.8,		



Ref:	National Grid Reference	Name and Address of Occupier	Source Type	Use	Discharge	Comments		
						shown in photograph 2.7 looking S from NN 3850 2551		
2.8	NN 3847 2552	-	Drainage Ditch	None	-	Drainage Ditch discharges into River Fillan. Approx 0.15m wide and 0.1m deep		
2.9	NN 3844 2554	-	Drainage Ditch	None	-	Drainage Ditch discharges into River Fillan. Approx 0.25m wide and 0.15m deep		
3.1	NN 3853 2515	-	Burn	None	-	Burn runs down the eastern side of Crianlarich (and A85 before joining with feature 2.4 and discharging into Rive Fillan. Approx 1m wide and up to 0.7m deep. Shown in photograph 3.1 from NN 3827 2492		
3.2	NN 3835 2483	-	Burn	None	-	Small burn draining NE approx 0.1m wide and 0.05m deep		
3.3	NN 3827 2483	-	Drainage ditch	None	-	Drainage ditch runs towards the N approx 0.4m wide and up to 0.3m deep		
3.4	NN 3827 2486	-	Spring	None	-	Very small spring shown in photograph 3.4 looking W from NN 3827 2486		
3.5	NN 3827 2492	-	Tributary burn	None	-	Tributary for feature 3.1 flowing N approx 0.2m wide and 0.3m deep		
3.6	NN 3833 2500	-	Tributary burn	None	-	Tributary to feature 3.1 flowing E approx 0.15m wide and 0.15m deep		
3.7	NN 3833 2511	-	Drainage Ditch	None	-	Drainage Ditch flowing NE towards A85 approx 0.45m wide and 0.3m deep. Shown in photograph 3.7 looking W from NN 3833 2511		



PHOTOGRAPHS



Photograph A1: Septic tank discharge pipe into local burn (feature 2.4) – looking west from location NN 38356 25323



Photograph 1.2: Burn 1.2 passing out from underneath A82 looking north-east from NN 37927 25643





Photograph 1.4: Marshy ground and collects (Feature 1.4) on the eastern side of burn 1.2 looking east from NN 37952 25669



Photograph 1.10: Culvert for burn 1.10 underneath A82 looking north from NN 38232 25455





Photograph 2.1: Spreads (feature 2.1) for burn 1.11 looking north-west from NN 38162 25586



Photograph 2.2: Collects (feature 2.2f) for burn 2.2a looking west from NN 38285 25538





Photograph 2.3: Collects (feature 2.3b) for burn 2.3a looking south-west from NN 38275 25519



Photograph 2.7: Collects (feature 2.7) for drainage ditch 2.8 looking south from NN 38496 25508





Photograph 3.1: Steam 3.1 looking west from NN 38270 24923



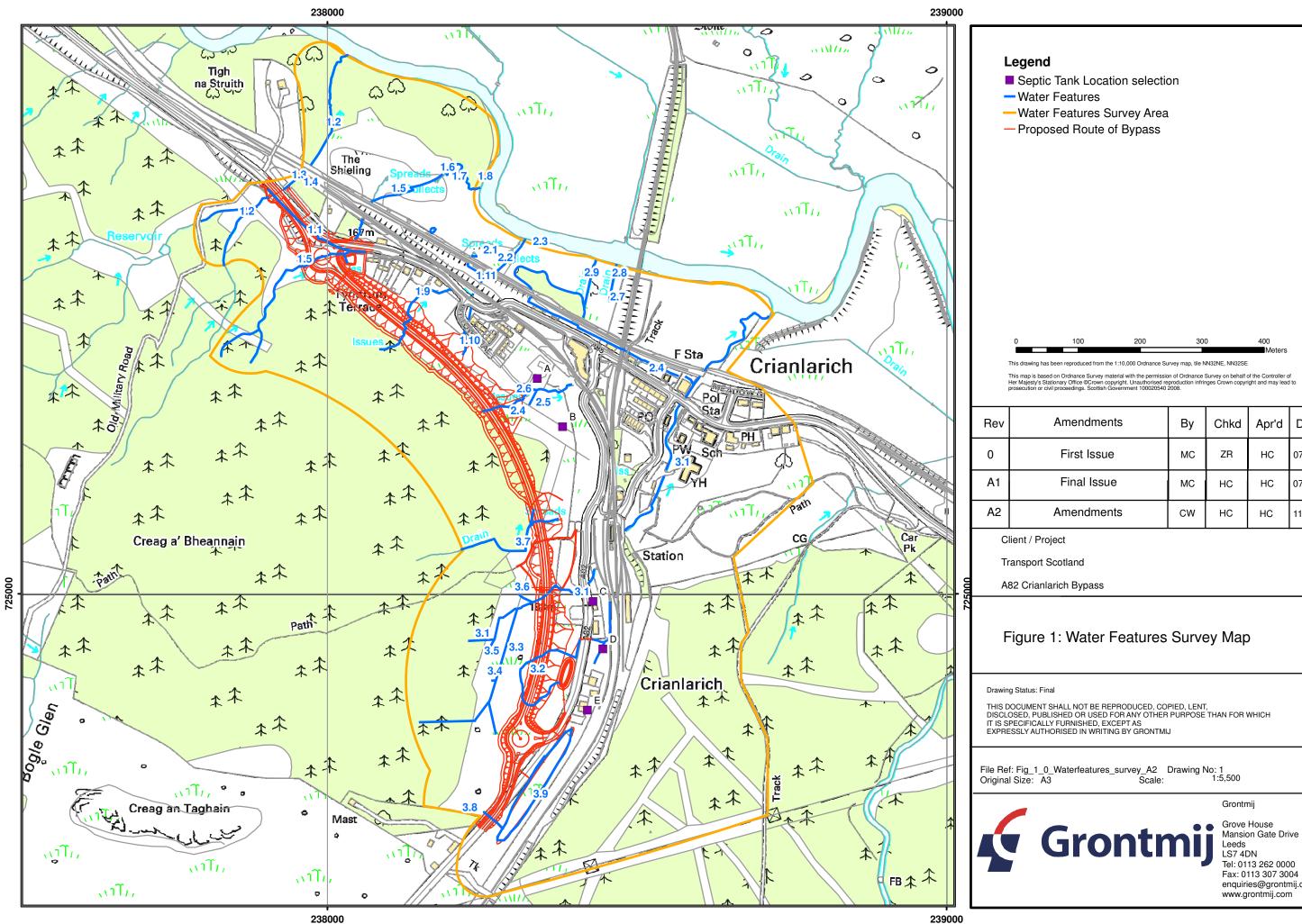
Photograph 3.4: Small spring (feature 3.4) issuing from hill side, looking south-west from NN 38271 24860





Photograph 3.7: Drainage Ditch (feature 3.7) running west to east looking upstream from NN 38333 25110





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Amendments	Ву	Chkd	Apr'd	Date
First Issue	MC	ZR	HC	07/08
Final Issue	MC	HC	HC	07/08
Amendments	CW	HC	HC	11/08

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