Appendix I - PWS Assessment

Introduction

This appendix is to support Chapter 10 Hydrology, Hydrogeology, Geology and Soils of the Environmental Appraisal for the Fort Augustus Substation ("Proposed Development" herein) and should be read in conjunction with the chapter.

Private Water Supply Data (PWS) was received from The Highland Council (THC) on the 29th of September 2023 (Table 2).

Methodology

A three-step process was conducted for assessing the likely risk to a PWS.

Step 1: Scope out any data points which are not required to be assessed i.e. outside of the 1000m study area. This included properties on the southeastern side of the Caledonian Canal (PWS Kytra Locks and PWS Ard Aluinn). They are within a separate catchment and will not be influenced by the Proposed Development.

Step 2: Assess a general risk rating based on distance from the proposed development. Before assessing the source-pathway-receptor risks, we use a risk assessment for distance of within 50m as high risk; between 50 to 250m as moderate risk and greater than 250m as low risk. This assessment takes into consideration the infrastructure for the Proposed Development.

Step 3: Establish any pathways present between sources and PWS, and assess whether the PWS should be considered for further assessment (see Table 1).

Limitations and Assumptions

The data collected from THC does not clarify whether the coordinates correlate to the property served by the PWS or the actual PWS location. For the purposes of this assessment, it has been assumed that the coordinates received from THC correspond to the location of the PWS i.e. no ground truthing has been undertaken at this stage.

PWS data was received on the 29th of September 2023 from THC and so only represent the PWS that were recorded at that time.

Summary of Findings

Overall, all PWS were located upstream to the north and northwest of the site. None of the PWS were situated within 50m of the current Fort Augustus Sub-station Site (SS) or any of the proposed works. Only PWS 1 and PWS 8 were situated within 250m of the current Fort Augustus SS or any of the proposed works (see Table 1). However, as they are situated upstream of the works it is unlikely that any contaminated or sediment laden run-off will flow towards them. Therefore, all PWS can be scoped out of any further assessment.

Table 1: PWS Assessment

			Step 1: Distance		Step 2: Source-Pathway-Receptor		Step 3: Risk	
ID	Property	NGR	Distance to works (m)	Closest works	Source	Pathway	At Risk?	Requires Further Assessment?
PWS1	Pine Tops	NH 35206 08083	240	To existing track	Potential wash out of fine sediment and chemical spillages	Upstream of works	No	No
PWS2	Auchterawe House	NH 34858 07911	635	To existing track	none	Upstream of works	No	No
PWS3	Torr Dhuin	NH 34751 07828	770	To existing track	none	Upstream of works	No	No

ID	Property	NGR	Step 1: Distance		Step 2: Source-Pathway-Receptor		Step 3: Risk	
			Distance to works (m)	Closest works	Source	Pathway	At Risk?	Requires Further Assessment?
PWS4	Auchterawe	NH 34858 07911	635	To existing track	none	Upstream of works	No	No
PWS5	Whinhill	NH 35125 07970	380	To existing track	none	Upstream of works	No	No
PWS6	Hillside / Mavisburn	NH 35034 07836	535	To existing track	none	Upstream of works	No	No
PWS7	8 Auchterawe	NH 35095 08326	355	To existing track	none	Upstream of works	No	No
PWS8	7b Achnacloich	NH 35290 08127	148	To existing track	Potential wash out of fine sediment and chemical spillages	Upstream of works	No	No

Table 2: Private Water Supplies and linked properties data Received from Highland Council

Name	Unique ID	headref	linkstat	population	number of properties	Premises Type	Premises Usage	Type A Reason	ward	area	easting	northing
PWS Pine Tops	**40299**	**FA1SPAAUCH/1**	**Header**	**6**	**1**	**S Groundwater - Borehole [GB]**	**FA1 PWS Commercial < 100m²**	**Holiday Let**	**13 Aird and Loch Ness**	**PA Inverness Rural West**	**235206**	**808083**
	28941	FA1SPAAUCH/1	Linked				FW4 Holiday Let		13 Aird and Loch Ness	PA Inverness Rural West	235206	808083
PWS Auchterawe House	**40743**	**FA1SPAAUCH/3**	**Header**	**10**	**1**	**S Groundwater - Borehole [GB]**	**FA1 PWS Commercial < 100m²**	**B & B**	**13 Aird and Loch Ness**	**PA Inverness Rural West**	**234858**	**807911**
	28935	FA1SPAAUCH/3	Linked				FC3 Food and drink manufacture		13 Aird and Loch Ness	PA Inverness Rural West	235033	807926
PWS Kytra Locks	**29538**	**FA1SPAKYTR/1**	**Header**	**18**	**4**	**S Groundwater - Borehole [GB]**	**FA1 PWS Commercial < 100m²**	**3 Holiday Lets & Bothy / Kitchen**	**13 Aird and Loch Ness**	**PA Inverness Rural West**	**235210**	**806728**
Scottish Canals	29540	FA1SPAKYTR/1	Linked				FW4 Holiday Let		13 Aird and Loch Ness	PA Inverness Rural West	235310	806781
Scottish Canals	29542	FA1SPAKYTR/1	Linked				FW4 Holiday Let		13 Aird and Loch Ness	PA Inverness Rural West	235317	806787
Scottish Canals	29543	FA1SPAKYTR/1	Linked				FW4 Holiday Let		13 Aird and Loch Ness	PA Inverness Rural West	235283	806827
Scottish Canals	40687	FA1SPAKYTR/1	Linked				FW6 Work Canteen		13 Aird and Loch Ness	PA Inverness Rural West		
PWS Torr Dhuin	**28943**	**FA1WPAAUCH/1**	**Header**	**16**	**3**	**W Surface - Watercourse [SB]**	**FA1 PWS Commercial < 100m²**	**rented properties**	**13 Aird and Loch Ness**	**PA Inverness Rural West**	**234751**	**807828**
	28944	FA1WPAAUCH/1	Linked			W Surface - Watercourse [SB]	FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West	234810	807676
	28945	FA1WPAAUCH/1	Linked			W Surface - Watercourse [SB]	FW2 Tenant		13 Aird and Loch Ness	PA Inverness Rural West		
	28946	FA1WPAAUCH/1	Linked			W Surface - Watercourse [SB]	FW2 Tenant		13 Aird and Loch Ness	PA Inverness Rural West		
PWS Auchterawe	**28934**	**FA1YPAAUCH/1**	**Header**	**10**	**1**	**Y Surface - Watercourse [SB]**	**FA1 PWS Commercial < 100m²**	**holiday let**	**13 Aird and Loch Ness**	**PA Inverness Rural West**	**234858**	**807911**

Name	Unique ID	headref	linkstat	population	number of properties	Premises Type	Premises Usage	Type A Reason	ward	area	easting	northing
Auchterawe Farmhouse	28937	FA1YPAAUCH/1	Linked			Y Surface - Watercourse [SB]	FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West		
Auld Dipper	37068	FA1YPAAUCH/1	Linked			Y Surface - Watercourse [SB]	FW4 Holiday Let		13 Aird and Loch Ness	PA Inverness Rural West		
PWS Whinhill	**30121**	**FB1SPAAUCH/2**	**Header**	**20**	**0**	**S Groundwater - Borehole [GB]**	**FB1 PWS Domestic < 50 Persons**		**13 Aird and Loch Ness**	**PA Inverness Rural West**	**235125**	**807970**
The Stables	30122	FB1SPAAUCH/2	Linked				FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West	235095	807999
Whinhill	36627	FB1SPAAUCH/2	Linked				FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West		
The Cottage	36693	FB1SPAAUCH/2	Linked				FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West		
PWS Hillside / Mavisburn	**45448**	**FB1SPAAUCH/3**	**Header**	**6**	**2**	**S Groundwater - Borehole [GB]**	**FB1 PWS Domestic < 50 Persons**		**13 Aird and Loch Ness**	**PA Inverness Rural West**	**235034**	**807836**
Mavisburn (B&B)	28936	FB1SPAAUCH/3	Linked			K Food Premises	T02 Guesthouse / Bed & Breakfast		13 Aird and Loch Ness	PA Inverness Rural West		
Hillside B&B	34425	FB1SPAAUCH/3	Linked			K Food Premises	T02 Guesthouse / Bed & Breakfast		13 Aird and Loch Ness	PA Inverness Rural West		
PWS Lochuanagan	**30130**	**FB1VPAFORT/1**	**Header**	**2**	**1**	**V Surface - Watercourse [SB]**	**FB1 PWS Domestic < 50 Persons**		**I Inverness**	**PA Inverness Rural West**	**237208**	**807540**
Lochuanagan	30132	FB1VPAFORT/1	Linked				FW1 Domestic House (Private)		I Inverness	PA Inverness Rural West		
PWS 8 Auchterawe	**28938**	**FB1VPBAUCH/1**	**Header**	**5**	**2**	**S Groundwater - Borehole [GB]**	**FB1 PWS Domestic < 50 Persons**		**13 Aird and Loch Ness**	**PB Inverness Rural South**	**235095**	**808326**
Auchterawe	28940	FB1VPBAUCH/1	Linked			S Groundwater - Borehole [GB]	FW1 Domestic House (Private)		I Inverness	PA Inverness Rural West		
Old Farmhouse	41798	FB1VPBAUCH/1	Linked			S Groundwater - Borehole [GB]	FPA premises attached to private water supply			PA Inverness Rural West		

Name	Unique ID	headref	linkstat	population	number of properties	Premises Type	Premises Usage	Type A Reason	ward	area	easting	northing
PWS 7b Achnacloich	**41587**		**Header**	**2**	**1**	**Y Surface - Watercourse [SB]**	**FB1 PWS Domestic < 50 Persons**		**14 Inverness West**	**RA Inverness West**	**235290**	**808127**
PWS Ard Aluinn	**37949**	**FB1YPACULL/1**	**Header**	**8**	**1**	**Y Surface - Watercourse [SB]**	**FB1 PWS Domestic < 50 Persons**		**13 Aird and Loch Ness**	**PA Inverness Rural West**	**237355**	**806945**
Ard Aluinn	37948	FB1YPACULL/1	Linked				FW1 Domestic House (Private)		13 Aird and Loch Ness	PA Inverness Rural West	237319	807113

Highlighted rows show the data for the PWS and what is included within the assessment. Below each of the highlighted are the linked properties.