

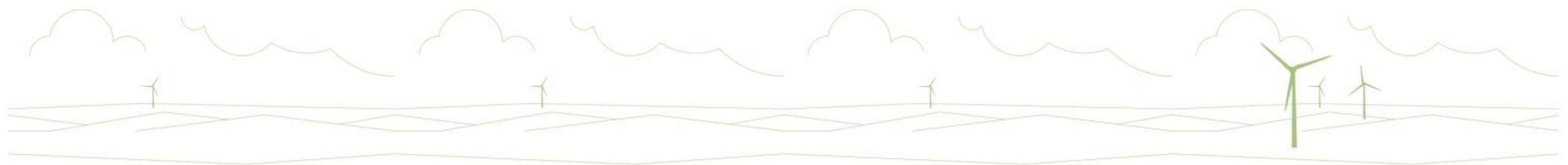


# Technical Appendix 6.6

## Private Water Supply Assessment

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# 1 Private Water Supply Assessment

## 1.1 Background

1. This appendix should be read in conjunction with **Chapter 6: Hydrology, Hydrogeology, Geology and Soils**.
2. The information within this appendix covers Private Water Supplies (PWS) considered to be potentially hydrologically connected to the Site prior to detailed assessment. These supplies are shown in **Figure 6.7 Hydrology Overview**.

## 1.2 Methodology

3. The PWS locations were evaluated based on their position relative to the Site and on the potential of the Proposed Development to affect the PWS, in order to determine if there could be potential pollutant source-pathway-receptor relationships. This took into account source type and location, distance from Proposed Development infrastructure, groundwater pathways, intervening topography, and other surface water features. Potential effects on water supply and on infrastructure of the PWS were also considered.
4. Dumfries and Galloway Council provided data of PWS within 10km of the Application Boundary. This data specifies whether each supply represents a small domestic supply (known as Type B) or a supply to a larger population and/or for commercial purposes (known as Type A).
5. SEPA provided a list of Control Activities Regulations (CAR) Licences, which were reviewed with regards to licensed abstractions, based on the site address provided.
6. Groundwater sources within a 1km buffer zone and surface water sources within a 5km buffer zone of the Site Boundary were considered. In addition, sources within a 100m buffer around tracks and other ancillary infrastructure, and those within a 250m buffer around wind turbines and borrow pits, were considered further as per Scottish Environment Protection Agency (SEPA) (2017) Land Use Planning System Guidance Note 31 (LUPS-GU31) with regards to potential groundwater monitoring. All other PWS were scoped out, as were judged unlikely to be hydrologically connected to the Proposed Development.
7. Following the desktop review, a preliminary questionnaire was sent out to one property connected to a PWS source of interest (Burrance). This information was used to plan the site visit to assess the noted source and properties served, which took place during the week commencing 20<sup>th</sup> July 2020. During that survey, a second property connected to a PWS of interest was visited (Glenkiln).

## 1.3 Results

8. Information relating to Burrance (PWS01) and Glenkiln (PWS02) is presented in **Table 6.4.1** and **Figure 6.7 Hydrology Overview**. Grid references are noted in **Table 6.6.1** and were confirmed onsite unless stated otherwise.
9. None of the properties investigated were determined to be on mains supply.
10. After review of all collated information, neither supplies (PWS01 and PWS02) are considered to be potentially at risk of adverse construction effects from the Proposed Development due to the intervening distance and topography.

11. The conclusions regarding the assessment are listed in the 'Potential for Impact on Supply from Proposed Development' and 'Mitigation Measures' columns of **Table 6.4.1**.

Source ID (Supply Name)	Source Type (A or B)	Grid Reference and Location Description	Number of Properties Served	Location Relative to Infrastructure	Potential for Impact on Supply from Proposed Development	Mitigation Measures
PWS01 (Burrance).	Spring (Type B).	NGR 304597, 591656  Situated on Davie's Kirk hillside above the Mill Burn.  See <b>Photograph 6.4.1</b> and <b>6.4.2</b> .	One property: Burrance of Courance Farm.	1.1km north of the access track.	Not considered at risk of impact due to intervening distance and topography.	None required.
PWS02 (Glenkiln).	Unknown.	NGR 301197, 591131  Supply infrastructure at the entrance to the property was observed although the property is empty, so supply details have not been confirmed.  See <b>Photograph 6.4.3</b> .	One property: Glenkiln - SPR owned, currently unoccupied.  SPR confirmed the supply is not currently in use.	750m south of proposed Turbine 3.	Not considered at risk of impact due to intervening distance and topography.	None required.

Table 6.6.1: Details of Private Water Supplies



Photograph 6.4.1: PWS01 spring collector tanks at NGR 304597, 591656, looking north



Photograph 6.4.2: PWS01 spring collector tanks at NGR 304597, 591656, looking south



Photograph 6.4.3: PWS02, looking north towards the suspected supply source infrastructure at NGR 301197, 591131

## 1.4 References

SEPA (2017). Land Use Planning System Guidance Note 31 (LUPS-GU31). [online]. Available from: <https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions-and-groundwater-dependent-terrestrial-ecosystems.pdf> [Accessed August 2020]

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