

Hambleton Valley Infiltration Plan

Appendix B – Mitigation Measures



from
**Southern
Water** 

The Southern Water logo graphic consists of three stylized, wavy blue lines of varying lengths, positioned to the right of the text.

Appendix B

APPENDIX B

Mitigation measures

See notes in Section 4 regarding the potential need to introduce mitigation measures to reduce the risk of groundwater infiltration impacting the level of service provided by the sewerage system. Location of sites will be selected to provide the most effective arrangements to maintain services, whilst minimising environmental effects. Where practical, sites that have been used previously are expected to be re-used (when necessary), but the use of different locations cannot be ruled out, if hydraulic conditions dictate.

Tanker Locations



Hambledon — tankers will be deployed to the locations below (W3W/// honestly.aviators.factually)



Disposal of tankered liquid waste to Budds Farm WTW,



Groundwater Treatment Locations



At our groundwater treatment sites excess flow is extracted from the sewer by pumping. This flow is passed through screens to remove rags and solids. The screened flow is then passed through a cloth filter to remove fine deposits from the liquid flow.

After the finer solids have been removed the liquid flow is passed through ultra-violet lamps which kill harmful bacteria such as e.coli and enterococci. The resultant treated flow is then discharged to the watercourse.



Monitoring

We will monitor at all times 24/7 the performance of the groundwater treatment process

We will use sondes in watercourse upstream and downstream of the discharge to ensure no impact on the environment

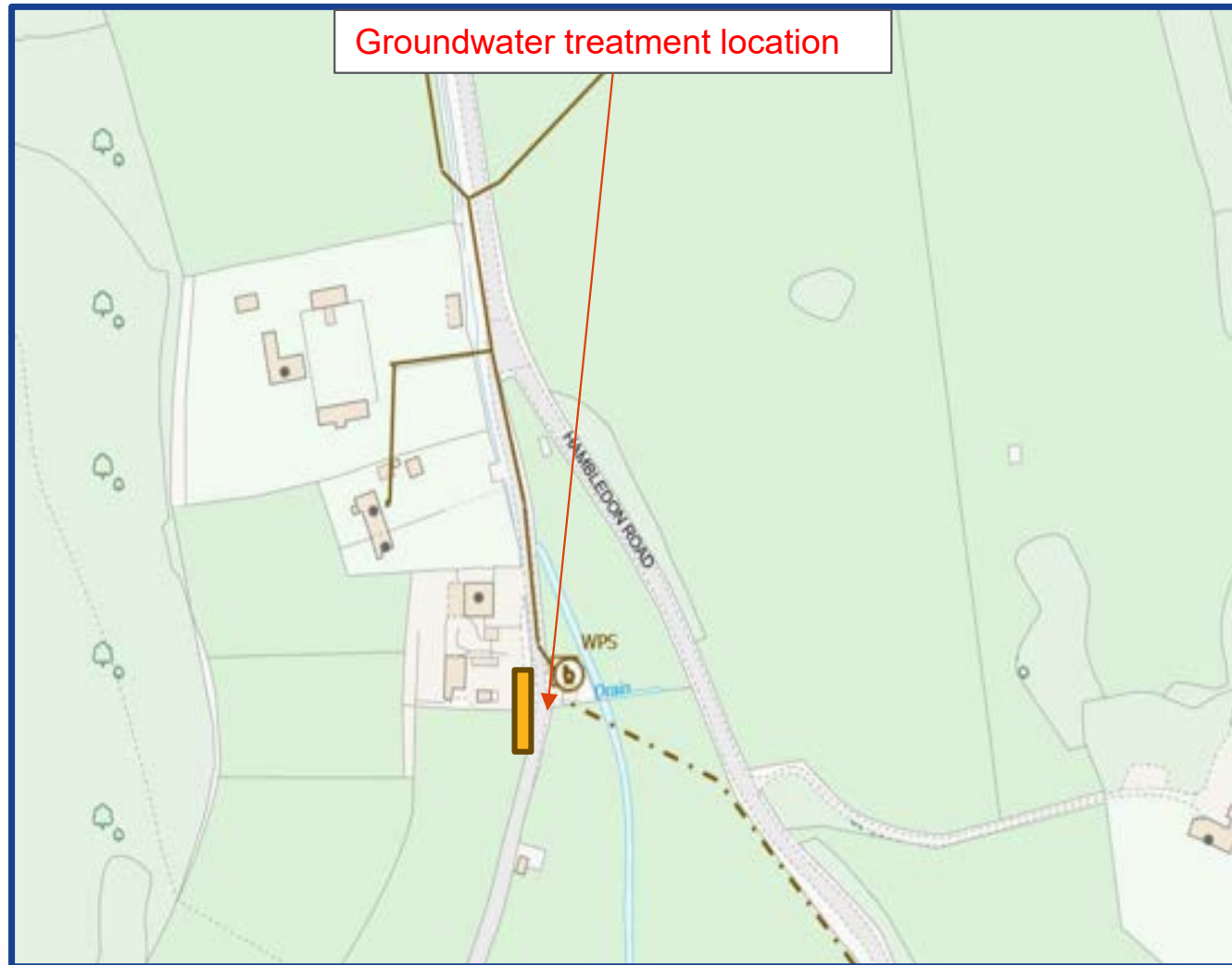
We will spot sample and take daily bottled samples to determine the quality of flow discharged from the treatment process

The quality of the treated flow will meet the standard set out in the table below.

Determinand	NH3-N (mg/l)	BOD (mg/l)	COD (mg/l)	pH (pH Units)	P (mg/l)	SS (mg/l)	E.Coli (no./100ml)	Enterococci (no./100ml)
Crude influent	5.6	18.8	44	7.62	3.19	53.77	230000	41500
Treated effluent	2.5	9.4	22	7.71	2	11	100	100
Removal Efficiency	55%	50%	50%	n/a	37%	80%	>99%	>99%



Hambledon — groundwater treatment units will be deployed to the location below (W3W:///clasps.laminate.cakes)



Flow taken from node 1901.
Flow treated in groundwater treatment unit and discharged to tributary of River Wallington.



Photo of groundwater treatment unit.

