Hambledon Valley Infiltration Plan

Appendix B – Mitigation Measures

from Southern Water

Appendix B

APPENDIX B

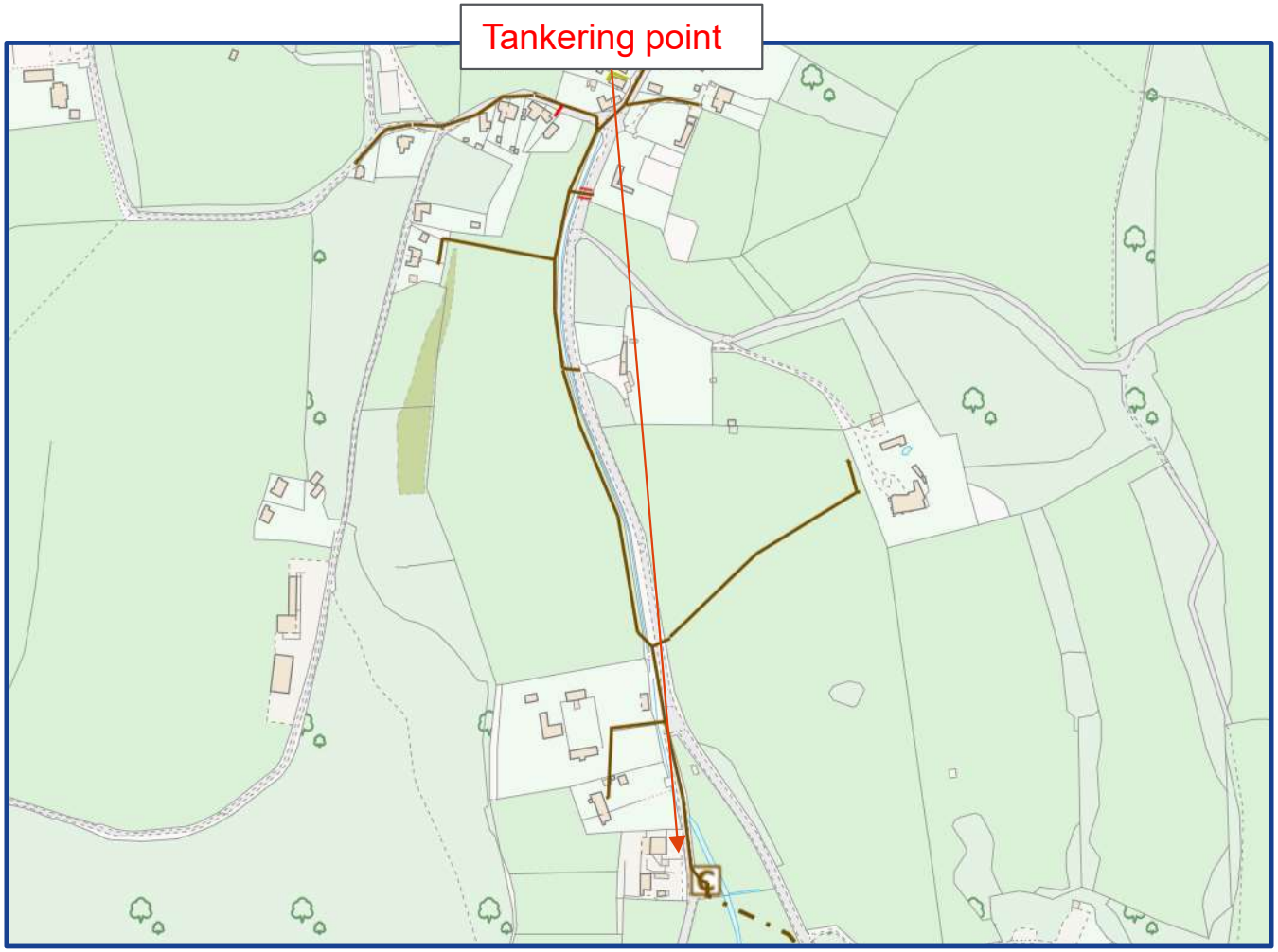
Mitigation measures

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

Disposal of tankered liquid waste to Budds Farm WTW,

Hambledon – tankers will be deployed to the locations below



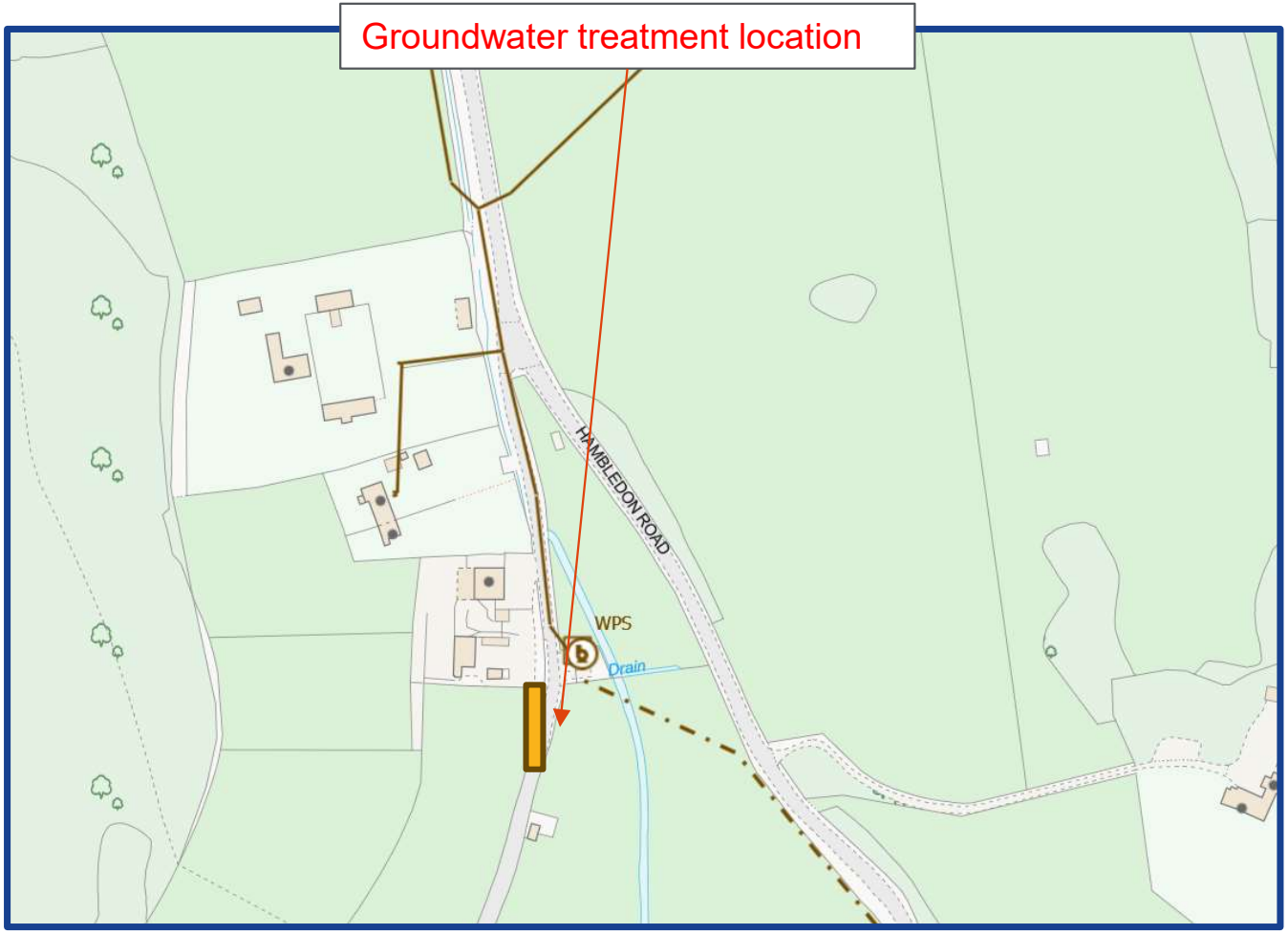
Groundwater Treatment Locations

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 which removes 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.

We continuously monitor the quality of flow discharged from the treatment process and the quality of water in the receiving watercourse upstream and downstream of the discharge point.
The quality of the treated flow will meet the outlet effluent quality parameters set out in the table below.

Determinand	NH3-N MG/L AS N	BOD MG/L	COD MG/L	PH PH UNITS	P (ORTHO) MG/L AS P	SS (105°) MG/L	E.COLI NUMBER/100ML	ENTEROCOCCI NUMBER/100ML
SMB Crude Loading	5.57	18.77	43.92	7.62	3.19	53.77	230929	41500
SMB Outlet Effluent Quality	2.50	9.40	22.00	7.71	2.00	11.00	100	100
Removal Efficiency	55%	50%	50%	n/a	37%	80%	100%	100%

Hambledon – groundwater treatment units will be deployed to the location below



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

Photo of groundwater treatment unit.