The Green, Southwick 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.

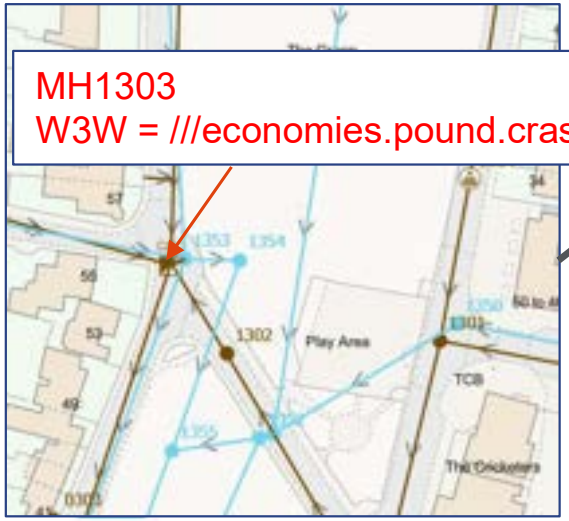
Tankering Locations

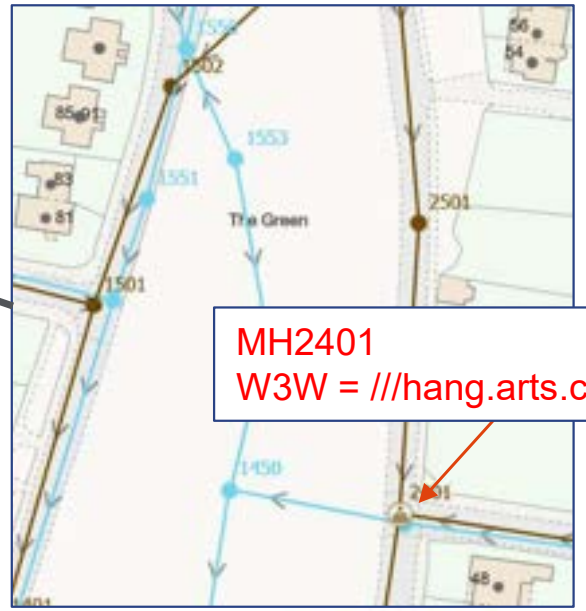
Tankering from sewers around The Green

MH1601
W3W = ///stops.solved.exams

Flow taken from nodes 1601, 1303 and 2401 as per map and insets.

MH1303
W3W = ///economies.pound.crash





MH2401
W3W = ///hang.arts.chart

WATER for LIFE
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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

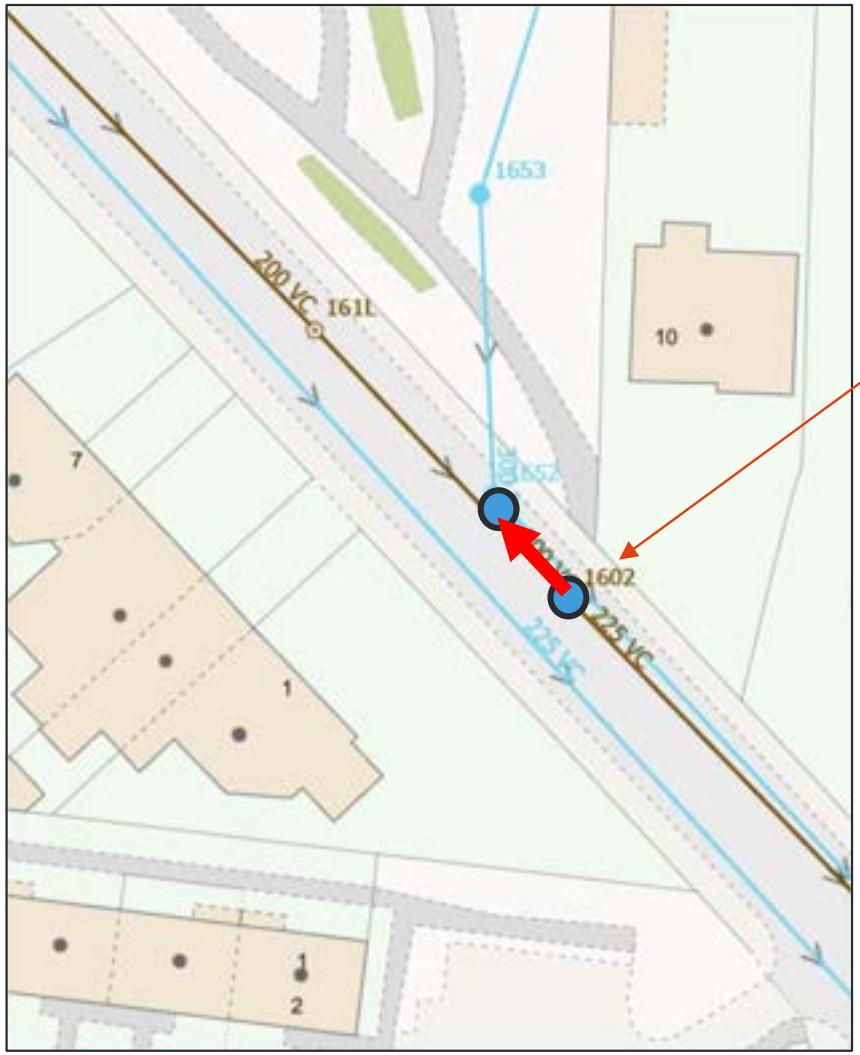
- We will monitor at all times 24/7 the performance of the groundwater treatment process
- The equipment is designed to deliver treated flow to the quality standards set out in the table below
- As the discharge is to Shoreham Harbour via a piped network it will not be possible to test the water quality as we would a sensitive watercourse. The equipment will still operate to the same standard and inspection of the receiving water will be undertaken daily. Groundwater treatment will cease should the equipment fail or if there is visual impact in Shoreham Harbour.

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%

WATER for LIFE from Southern Water

The Green, Southwick Set-Up 1

groundwater treatment units will be deployed to the location below



Flow taken from node 1602.
Flow is treated in groundwater treatment unit and discharged to surface water node 1652. W3W for these manholes are: Foul MH1602 =///rich.money.blocks. Surface water MH 1652 = ///edgy.tilt.chop

Photo of groundwater treatment unit.

WATER for LIFE from Southern Water

The Green, Southwick Set-Up 2

groundwater treatment units will be deployed to the location below

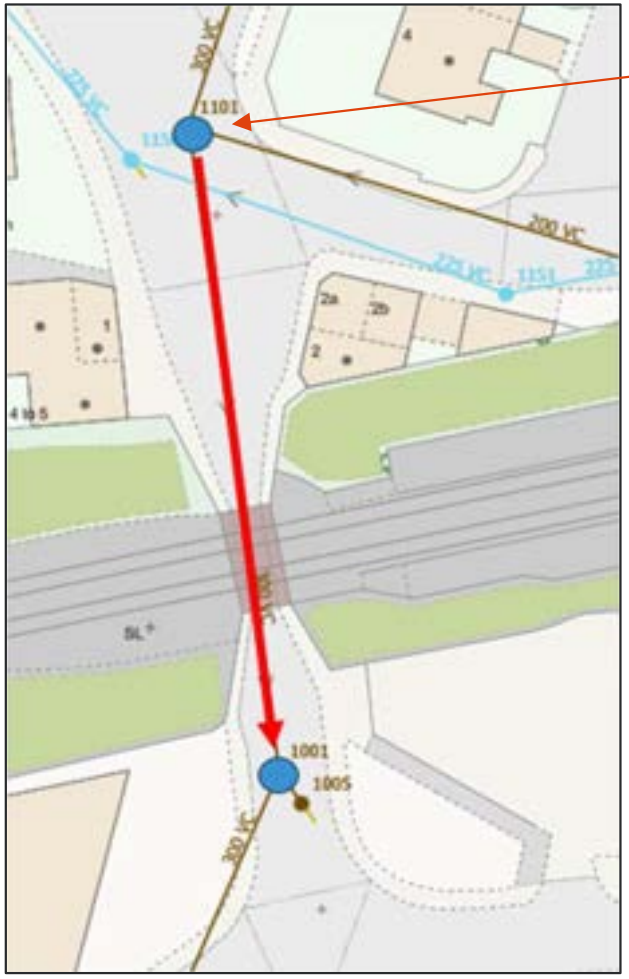
Flow taken from node 1304.
Flow is treated in groundwater treatment unit and discharged to surface water node 1353. W3W for these manholes are: Foul MH1304 = ///spark.critic.token to Surface Water MH1353 = ///cycles.zebra.mixer.

Photo of groundwater treatment unit.

Pipes laid across The Green

The Green, Southwick Set-Up 3

groundwater treatment units will be deployed to the location below



Flow taken from foul node 1101 and discharged to foul node 1001 to bypass the syphon below the railway bridge which restricts the flow. W3W for these manholes are MH1101 = ///limes.makes.begin and MH1001 = ///cliff.await.hits.

Pipes laid below the railway bridge