

## Wessex Water Briefing:

On infiltration of groundwater into the foul system:

I've listed out the SOs in West Dorset that are linked with groundwater inflow, or a combination of groundwater and direct rainfall. Our Matt Kettle provided notes on the infiltration work we've done upstream of each with some comments, as per the table below. Matt has presented at a series of *Wessex Area Groundwater Prepared Roadshows* recently, spearheaded by EA. These were aimed at residents in flood-prone areas. The survey and sealing figures provided below cover our most recent programmes. For some SOs, we have carried out previous survey and sealing works, some very extensively.

In areas where we suspect infiltration is a problem, we typically CCTV the sewers to try to locate the points of water ingress, then carry out sealing works. It can be hard to achieve the former however, because it is no use looking when the groundwater table is low, and if the GWT is too high, you still can't spot the points of ingress because the sewers are simply full of water. You need to get your timing for the survey just right. In the table below:

- CCTV meterage will include places where we've surveyed the same sewer length multiple times, so some catchments have quite high numbers because of this.
- In the same vein, where we haven't had many problems in the past, some catchments haven't really been looked at, so may only have low totals.
- For sewer rehabilitation meterage, there is only a small amount of double counting, e.g. where we did joint sealing in the noughties, and have since relined with Cured In Place Pipelining.

I've mentioned previously that our SOAF investigations completed so far ( [SOAF.pdf \(water.org.uk\)](#) ) have concluded that for some frequent spilling overflows, the identified cause of observed high spill frequency is infiltration. At that point, the SOAF investigation stops and the overflow concerned falls into our 'business as usual' CCTV and sealing programme. Ultimately, these SOs will also fall under the SODRP however ( [Storm Overflows Discharge Reduction Plan.pdf \(publishing.service.gov.uk\)](#) ) and we'll have obligations with timescales to reduce spill numbers right down from 2025 onwards. The seven frequent spilling overflows with a completed SOAF investigation and a confirmed cause of infiltration are **highlighted blue below**. Piddletrenthide and Martinstown in particular have long histories of groundwater flooding and sewer infiltration problems, and I imagine their SOAF studies were fairly succinct.

Andy Mears

December 2023

Ref	Site name	Asset type	Reported Spills (EDM) - 2022	from groundwater or combination?	Infiltration Reduction Comments	Historical work
13316C	TOLLER PORCORUM TOLLER LANE	Inlet SO at WwTW	43	Combination	Some infiltration found, lining likely 2025-30.	1.3 Km CCTV
17637Z	PIDDLETRENTHIDE ACROSS RIVER FROM RIVENDELL (CS04)	SO on sewer network	10	Groundwater	Lining scheme completed 2023/24.	18 Km CCTV, 565 m rehab , 11 manholes sealed
17638Z	PIDDLETRENTHIDE R/O TRENT HOUSE (CS06)	SO on sewer network	10	Groundwater	Lining scheme completed 2023/24.	21 Km CCTV, 658 m of rehab, 12 manholes sealed
13036S	BROADMAYNE WEST KNIGHTON ROAD	Storm tank at WwTW	22	Combination	Survey due this winter.	940 m of CCTV, 65 m of rehab
13060S	CHIDEOCK MILL LANE	Storm tank at WwTW	35	Groundwater	Lining scheme due before April 2024. Survey due 2024/25.	2.4 Km of CCTV, 2 m of rehab, (216 m due before April 2024), 6 manholes sealed
13120S	EVERSHOT OFF EAST HILL	Storm tank at WwTW	36	Combination	Survey due this winter. Foul sewer takes the highway drainage.	5 Km of CCTV, 612 m of rehab, 1 manhole sealed
13192S	MAIDEN NEWTON DORCHESTER ROAD	Storm tank at WwTW	27	Groundwater	Lining scheme planned for 2024/25. Infiltration found and due to be addressed.	6 Km of CCTV, 21 m of rehab, 2 manholes sealed
13250S	PUNCKNOWLE NEXT TO GULLY KNAP FARM	Storm tank at WwTW	46	Groundwater	Lining scheme completed 2022/23. Survey due winter 2024/25, followed by more lining.	36 Km of CCTV, 1.8 Km of rehab, 5 manholes sealed
13303S	SYDLING ST NICHOLAS NEAR HUIISH FARM	Storm tank at WwTW	55	Groundwater	Lining scheme completed 2023/24. Survey due winter 2024/25.	14 Km of CCTV, 834 m of rehab, 21 manholes sealed
14415B	LITTON CHENEY CHICKSBRIDGE (Linked to Puncknowle)	Storm discharge at pumping station	89	Groundwater	Lining scheme completed 2022/23. Survey due winter 2024/25, followed by more lining.	24 Km of CCTV, 1.8 Km of rehab, 4 manholes sealed
15497C	MARTINSTOWN B3159	Storm discharge at pumping station	49	Groundwater	Lining scheme planned 2023/24 but deferred to 2024/25 due to high groundwater table preventing works. Survey due this winter, further lining to follow after the deferred works.	13 Km of CCTV, 500 m of rehab (173 m due in spring), manholes sealed
15486B	WEST BEXINGTON	Storm discharge at pumping station	46 (Imps made 2022)	Combination	Under investigation, surveyed 2023. Lining planned 2024/25.	3.9 Km of CCTV
13246S	POYNTINGTON NEAR HILLSIDE FARM	Storm tank at WwTW	57	Combination	Survey likely 2025-30.	205 m of CCTV, 11 m of rehab
14404B	BEAMINSTER SOUTHGATE	Storm discharge at pumping station	43	Combination	Small amount of lining, survey not currently planned.	7.9 Km of CCTV, 350 m of rehab
14411B	SYDLING ST NICHOLAS (Linked to Sydling Huish Farm)	Storm discharge at pumping station	7	Groundwater	Lining scheme completed 2023/24. Survey due winter 2024/25.	14 Km of CCTV, 834 m of rehab, 21 manholes sealed
19031C	BUCKLAND NEWTON DUNTISH	Inlet SO at WwTW	107	Groundwater	Lining scheme completed 2021/22. Survey due winter 2024/25.	13 Km of CCTV, 2.8 Km of rehab, 4 manholes sealed
14397B	BEER HACKETT	Storm discharge at pumping station	19	Groundwater	Lining completed 2021/22. Structural work in progress. Survey due this winter.	52 Km of CCTV, 2.3 Km of rehab, 9 manholes sealed
13021S	BISHOPS CAUNDLE BLIND LANE OFF A3030	Storm tank at WwTW	45	Groundwater	Lining completed 2020/21. Survey due this winter.	2.9 Km of CCTV, 680 m of rehab
13140S	HALSTOCK WATERY LANE	Storm tank at WwTW	87	Groundwater	Surveyed 2022/23. Lining likely 2025-30.	1.4 Km of CCTV