

Introduction:

Several instances this year of heavy rainfall seem to have led to Combined Sewage Overflows [CSO's] from Southern Water overflow pipes and other unspecified pipes onto Seaview beaches. The latest one was on August 2nd, when the brown scum on the water only seemed to disperse when the offshore winds built up on the 5th. This has caused significant local concern, particularly since the main locations of the outfalls coincide with heavily used bathing sites, two of which in particular are used in both summer and winter seasons.

Initial research into this has only served to demonstrate the complexity of the issue and the lack of clear lines of responsibility for the monitoring of any discharges, their level of pollution and above all their future prevention.

Current law, regulation & enforcement.

To amateur eyes, the current situation seems at best to be 'confused':

Water Authorities have an exemption from current legislation that allows them to release Storm Water (inevitably mixed with sewage from combined sewage systems) but there is a Govt task force now set up to review this:

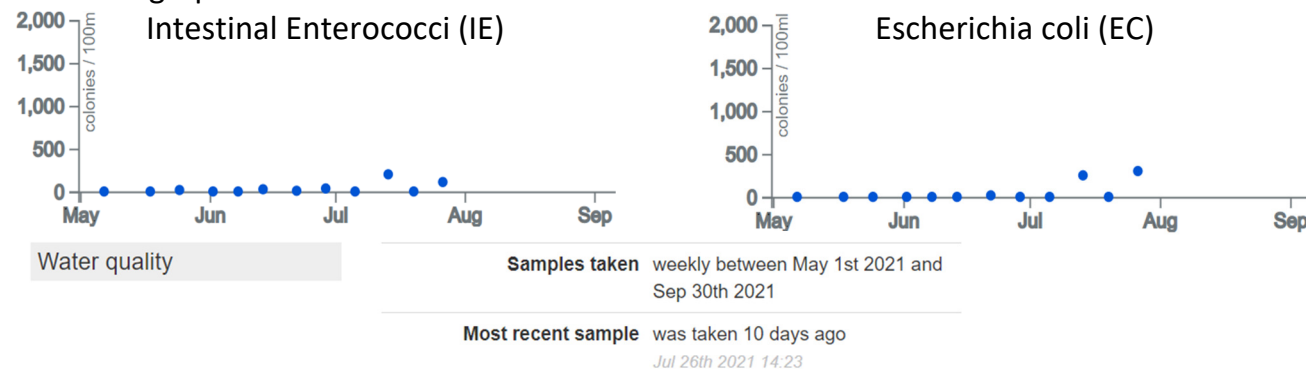
<https://www.gov.uk/government/news/taskforce-sets-goal-to-end-pollution-from-storm-overflows>

This exemption and any releases were supposed to be monitored by the Environment Agency.

The only Southern Water monitoring station near Seaview is at the North end off Seagrove Bay which is monitored only in May through September. Details here: <https://environment.data.gov.uk/bwq/profiles/profile.html?search=isle%20of%20wight&site=ukj3400-18000>

Results for 2021 are generally good, save for sewage contamination found in July. As of August 5th the same webpage reports that the supposed weekly samples have conveniently not been taken for 10 days! [see screengrabs]

The 2021 graph shows:



Full details are here: <https://environment.data.gov.uk/doc/bathing-water-quality/in-season/bathing-water/ukj3400-18000/latest>

It is interesting to note that this sampling point is remote from the principal sources of CSO's identified in the village, shown in Appendix 1.

Southern Water, extract from their website

Combined Sewer Outflows – statement

<https://www.southernwater.co.uk/help-advice/sewers/combined-sewer-overflows-csos>

Waste Water Management Plan

“Under heavy storm conditions, rainfall can enter the sewerage systems and significantly increase the flow in the system. The flow of water arriving at the Waste Water Treatment Works can exceed the recycling capacity of the works, so any excess water is temporarily stored in large storm tanks. If these tanks ever fill to capacity, then they would discharge water into the rivers or sea through storm overflows. Our aim is to prevent any discharge of water that has not been fully recycled to the required standards. Any water released from storm tanks is screened to remove items such as wet wipes and solids.

These discharges are permitted by our regulator and monitored carefully. This control mechanism is required to prevent the backing up of water within the sewers and putting homes at risk of flooding.”

A couple of things to note:

1) Southern Water only refer to the effect of storm water on Wastewater Treatment Plants where they have storm tanks to hold the excess water. They don't mention what happens, to the excess storm water which flows into the sea and rivers. Is that excess treated or just screened ?
Is it monitored ?

2) Contrast this with Wessex water which has a programme of monitoring all of its storm overflows - this is an extract from its website

Wessex Water, extract from their website - Waste Water Management Plan

“We currently monitor around 75% of storm overflows and have a programme in place to install monitoring equipment on all storm overflows by 2023.”

And this is how they deal with the inevitable debris.

“Many storm overflows are fitted with screens or scum boards that prevent debris entering the watercourse or have attenuation tanks which also improve water quality. “

Southern Water appears to lag far behind Wessex Water in this approach?

Possible Approaches:

Ending CSO's could require the replacement of many outdated combined sewers and even if there is legislation, the high cost & any actions by dilatory Statutory Bodies means this could take decades.

In the meantime, what can be done both for the Solent / Isle of Wight area and in particular the clearly pressing issues in Seaview?

There seem to be possibilities here at many levels:

1. Since much of the storm water comes from the streets. the IoW Council Highways Dept could be obliged to create a new surface water outflow for the High Street and Old Seaview Lane. This would not be too expensive and would mean that the storm release of sewage would be hugely reduced and may not happen, because it is actually the road surface water in combined sewers that causes the problem.
2. Planners need to take more account of the impact of recent and planned large housing developments on already over-pressed combined sewage systems. Making 'Section 106' provision for; sewers to be upgraded or combined sewers removed or holding/slow release tanks be part of the planning requirement for large developments.
3. Research a number of local issues, to implement improvements at a street level. Perhaps by asking local councillors or by using Freedom of Information requests?
 - a. Who decided to just take summer samples on Seagrove? (Southern Water or the Council or the Environment Agency) when several locations are used year-round by bathers and the location is remote from the main source of pollution identified.
 - b. It seems that Southern Water takes the samples. Are they therefore their own most effective 'police'?
 - c. Who decided where the samples are taken (SW, IOW or EA)
 - d. Why are samples not collected from the other well used local beaches? Considering that other outflows are flowing directly onto popular bathing beaches.
 - e. Why do they only collect the samples in the summer, when winter rainfall is higher and the beaches here are used year-round.
 - f. Southern water have produced a 'Drainage and Wastewater Management Plan' for the Isle of Wight, that does not even mention Seaview. See Appendix 3. Why not?
 - g. There are notice boards at Springvale & Seagrove Bay. But they do not contain any updated water quality data or warnings of contamination. Rather the opposite, they seek to paint a permanently rosy picture of local water quality. These [and other] key beach sites should have safety notices that are updated daily and following any CSO events.

Seaview Village – Storm Water / Sewage Outfalls.

1. Bottom of the High Street opposite 'Portview'.

Connected to the Southern Water pumping station.

Images taken after heavy rain on 12/07/2021 showing that the pipe is both fractured & partially blocked lower down and is spewing out under great pressure from several fractures. Resulting in the visible oily pollution slick being carried away to the East on a falling tide.

In telephone conversations with Southern Water at the time, We were told that it was not their pipe, but the outfall is clearly marked in red on the Southern Water plan at Appendix 2.



APPENDIX 1.

2. Bottom of the High Street c50m East of above.

Image taken after heavy rain on 12/07/2021



APPENDIX 1.

3. Bottom of the High Street opposite 'Starboard House'

Image taken after heavy rain on 12/07/2021. There was deep erosion of the beach that indicated a large volume of water and an oily pollution slick being carried away to the East on a falling tide.



The water samples taken by Southern Water in Seagrove Bay in mid-July, so immediately after this event, showed elevated levels of both Intestinal Enterococci (IE) and Escherichia coli (EC). No action was taken to alert the village to this.

APPENDIX 1.

4. Seagrove / Sandy Cove. Bottom of the slipway on Pier Road.

Images taken on 28/07/2021 to show the fractured / blocked pipe, with water flowing out from under the seawall beside the pipe.

This is a very popular beach for families with small children, as shown playing in the shallow water in the 2nd image.

The Water Company sponsored website, 'Safer Seas & Rivers Service'

www.sas.org.uk/safer-seas-service/

And Surfers Against Sewage www.sas.org.uk have this to say about Seagrove Bay:

Seagrove is a small bay situated on the east coast of the Isle of Wight. Measuring less than 1km in length, the bay slopes gently, with channels and sandbanks at low tide. The beach is mainly sand. Two streams cross the beach and there is a sewage overflow just offshore at the north end that could operate in response to significant rainfall.



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5. Seagrove Bay. Close to the slipway at the bottom of Gully Road

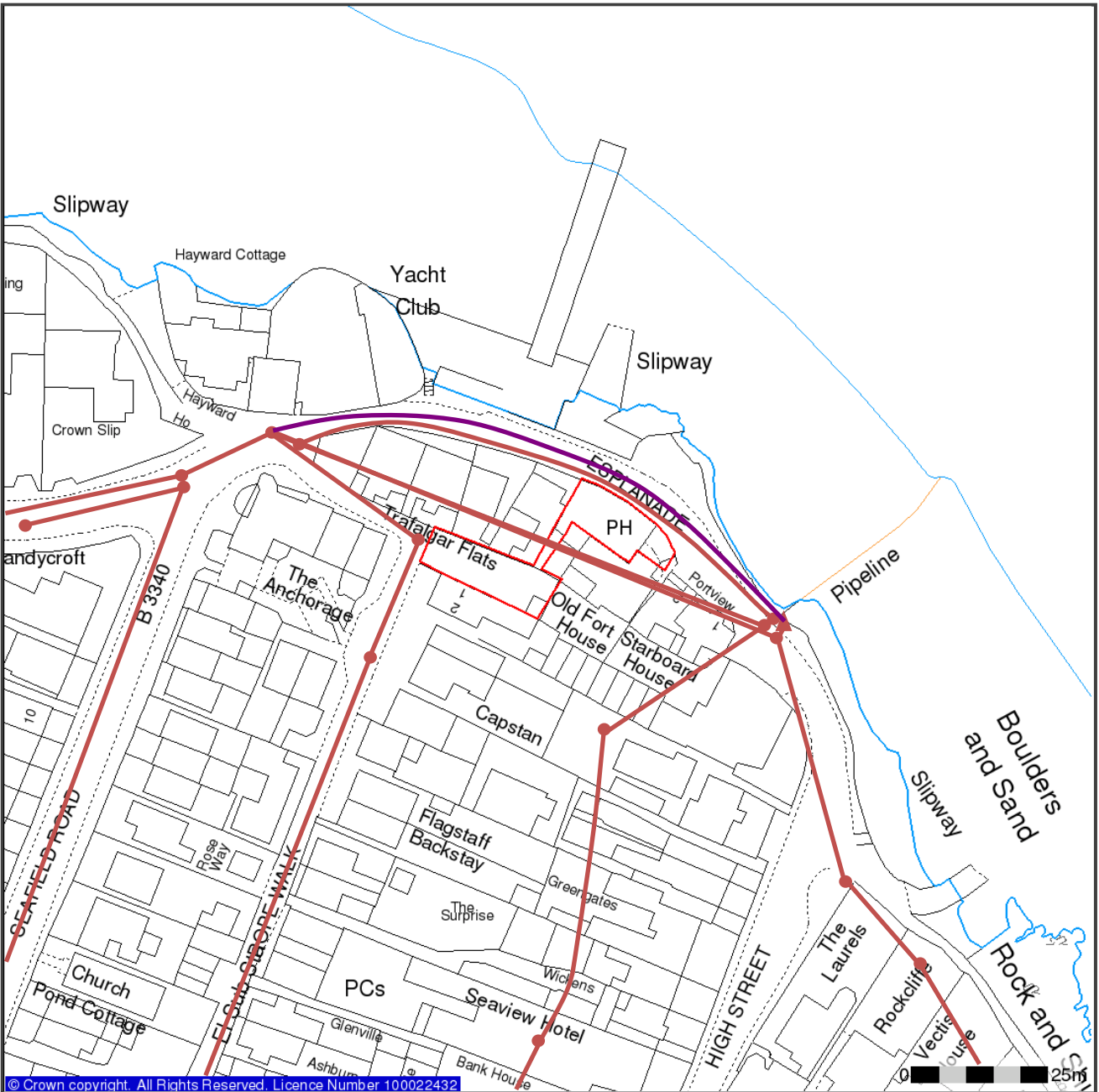
Image taken on 28/07/2021 to show what appears to be a natural stream / land drain that flows very fast after heavy rain, as demonstrated by the heavy beach erosion. This is a very popular place for children to play in this flowing water on the beach.



6. Opposite Salterns Cottages / Seaview Duver

This pipe is mostly covered by sand and it has therefore not been practical to check for fractures.

The discharge point is just below low spring tide level, so it is also not practical to show images of outflows. However, there was clearly a significant flow on August 2nd & 3rd, betrayed by the nasty brown & oily scum near the end of the pipe.



LEGEND			
COMBINED SEWER		FOUL SEWER SECTION 104	
FOUL SEWER		SURFACE WATER SECTION 104	
SURFACE SEWER		SIDE ENTRY MANHOLE, DEMARCATION CHAMBER, DUMMY MANHOLE OR SURFACE WATER SOAKAWAY	
PUMPING STATION		MANHOLE	
RISING MAIN/VACUUM SYPHON		MANHOLE	
ABANDONED SEWER		SECTION 104 AGREEMENT	

Drainage and Wastewater Management Plans (DWMPs)

Baseline Risk and Vulnerability Assessment (BRAVA)

Results for the Isle of Wight



Wastewater Catchment Reference	Wastewater Catchment Reference	Population Equivalent	Sewer Length (KM)	Planning Objective																			
				Internal Sewer Flooding Risk	Pollution Risk	Sewer Collapse Risk	Risk of Sewer Flooding in a 1 in 50 year storm		Storm Overflow performance		Risk of WTW Compliance Failure		Risk of flooding due to Hydraulic Overload		Dry Weather Flow Compliance		Good Ecological Status / Potential	Surface Water Management	Nutrient Neutrality		Groundwater Pollution	Bathing Waters	Shellfish Waters
				2020	2020	2020	2020	2050	2020	2050	2020	2050	2020	2050	2020	2050	2020	2020	2020	2020	2020	2020	2020
ATOP	ARRETON STREET ARRETON TOP	93	0.230	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	
BLAC	BLACKWATER	89	0.234	0	0	0	0	0	NA	NA	NA	NA	0	0	0	0	0	0	1	1	0	NA	NA
BSTN	BRIGHTSTONE	1,619	26.165	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	2	2	0	0	NA
CALB	CALBOURNE	212	3.037	0	0	0	0	0	2	2	0	1	0	0	0	0	0	0	1	1	0	NA	NA
CHLE	CHALE	579	12.870	0	0	0	0	0	0	0	0	0	1	1	2	2	0	0	1	1	0	NA	NA
CHON	CHILLERTON	348	5.038	0	0	0	0	0	NA	NA	0	0	2	2	0	0	0	0	1	1	2	NA	NA
GOHI	GODSHILL	1,681	20.404	0	2	0	0	0	2	2	0	1	0	0	0	0	0	0	2	2	0	NA	NA
HAZE	HAZELEY COOMBE ARRETON	148	1.436	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
HELS	ST HELENS	1,436	11.336	0	0	0	0	0	2	2	1	1	2	2	1	2	0	0	0	0	0	0	NA
HIGL	HIGHWOOD LANE ROOKLEY	52	0.574	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
KNIG	KNIGHTON	11	0.083	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
MNEW	NEWLANDS MERSTONE	138	1.505	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF	NF
ROUD	ROUD	1,828	26.225	0	0	0	0	0	2	2	0	0	0	1	0	0	0	0	2	2	0	NA	NA
SAND	SANDOWN	130,771	1,299.164	1	2	2	2	2	2	2	0	0	0	0	2	2	1	0	2	2	0	1	2
SHAL	SHALFLEET	821	10.936	0	0	0	0	0	2	2	0	0	0	0	0	0	1	0	1	1	0	NA	NA
SHOR	SHORWELL	470	6.321	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	NA	NA
THYN	NORTH VIEW THORLEY	154	3.777	0	0	0	0	0	NA	NA	0	1	0	0	0	0	0	0	1	1	0	NA	NA
VICL	NEWTOWN IOW	37	0.230	0	0	0	0	0	NA	NA	0	0	0	0	2	2	0	0	1	1	0	NA	NA
WILL	WILLOW WOOD ST LAWRENCE	271	2.377	0	0	0	0	0	NA	NA	0	0	0	1	2	2	0	0	1	1	0	NA	NA
WROX	WROXALL	2,784	23.128	0	0	0	1	1	1	1	0	0	0	0	0	0	2	0	2	2	0	NA	NA

Key	
NF	Not Flagged *
NA	Not Applicable **
0	Not Significant
1	Moderately Significant
2	Very Significant

* Wastewater systems that did not proceed to BRAVA
 ** No issues relevant to planning objective within Wastewater System

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