## **Swanage Central Beach Water Quality Overview**

## Produced by Swanage Town Council – January 2024

#### Introduction

Swanage Town Council is the owner of Swanage Central beach which stretches from the Mowlem Theatre to the Ulwell Stream at Ocean Bay. Currently water quality classification at this location is 'Excellent'.

## Sources of poor water quality in Swanage Bay

Water quality samples are taken weekly by the Environment Agency between May and September at a point located near the RNLI Lifeguard Kiosk/Walrond Road – see Appendix 1 for a map of the location.

Data is reported on various websites (see the table at the bottom of this document) and entered onto the 'Beach Information Board' outside the Swanage Information Centre.

The majority of sewers in England are "combined sewers" and carry both sewage and surface water from roofs and drains. A 'storm overflow' operates during heavy rainfall when the sewerage system becomes overwhelmed by the amount of surface water. The overflow acts in the same way as an overflow on a bath and prevents sewage from backing up pipes and flooding properties and gardens. An 'emergency overflow' will operate very infrequently, for example due to pump failure or blockage in the sewerage system.

The quality of bathing water at Swanage Central Beach can be affected by storm overflows from four different locations.

The location of storm overflows in Swanage are as follows:

- 1. Ocean Bay Storm overflow
- 2. Marine Parade x 2 outlets Storm overflow (these seem to rarely, if ever, be used)
- 3. Herston Cross Storm overflow (usually one or two releases a year)
- 4. Peveril Point (170m out to sea) Storm overflow

#### Water quality incidents

During the bathing season (May to September), Swanage Town Council receives daily advice from the Environment Agency regarding the potential of poor water quality, which is mainly concerned with the Ulwell Stream storm overflow as this is situated in the 'bathing area' but this also accounts for such issues as farm 'run off'.

In addition to the daily Environment Agency advice, the Town Council receives email notification each time a spill occurs at the Ulwell Stream storm overflow and these are listed in the table below along with the number of occasions that advice was received from the Environment Agency.

The Town Council collects the following information during the year. It should be noted that on some occasions a spill may last for only a few minutes, but other times may be for a few hours, thus 'minutes of spill' is just as important to appreciate as the 'no of spills' during the year.

#### Spills and advisory sign deployment recorded by Swanage Town Council.

For the purposes of this table, the year runs from 1<sup>st</sup> October.

| Year    | No. of spills  - winter (Wessex Water alerts) | No. of spills - summer (Wessex Water alerts) | Total Minutes<br>of spills<br>(Wessex Water<br>alerts) | No. of days<br>affected<br>(Wessex Water<br>alerts) | No. of days signs deployed advising against bathing (Environment Agency advice) |
|---------|---|--|--|---|---|
| 2020-21 | 16  | 6  | 1398   | 14  | 5   |
| 2021-22 | 8   | 5  | 340  | 7   | 6   |
| 2022-23 | 8   | 5  | 749  | 8   | 5   |

Please see Appendix 2 for a breakdown of these figures.

## What action do the Town Council take in a water quality incident?

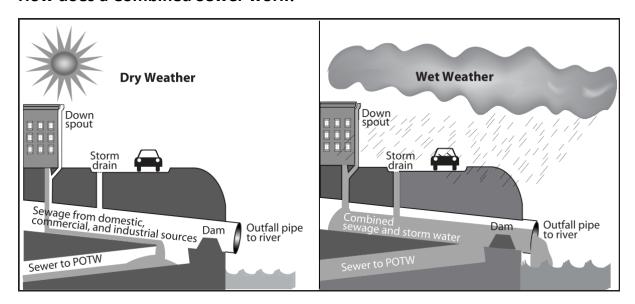
Each day during the bathing season (May to September), the Town Council receive an email and text message from the Environment Agency advising if 'Signs advising against bathing' should be displayed. The Environment Agency makes a daily pollution risk forecast at this site based on the effects of rain, tide and seasonality on bathing water quality. These factors affect the levels of bacteria that get washed into the sea from livestock, sewage and urban drainage via rivers and streams and how they disperse. When these factors combine to cause a temporary reduction in water quality, the Environment Agency will issue a pollution risk warning to Swanage Town Council as part of the daily email and text service.

On these occasions Swanage Town Council will place warning signs out at all beach access points owned by the Town Council. Signs are usually required to remain in place for 24 hours although this can be longer. It should be noted that not all incidents lead to warning notices as on these occasions they are either outside the bathing period (May to September) or the incidents do not meet the thresholds defined by the Environment Agency as stated above. This might be because there has been a spill perhaps lasting for a very short time.

#### How will such incidents affect the Blue Flag criteria?

The Town Council applies for the Blue Flag qualification on an annual basis each January. The qualification includes a number of factors such as facilities and accessibility, but water quality remains the most important aspect. Currently Swanage Central Beach is classed as 'Excellent', and this is based on the weekly water sampling undertaken during the bathing season. The results show that while there were some minor peaks in poor water quality (with 2019 being more notable), water quality quickly returned to the normal level. Appendix three shows the detail for this. It should be noted that there is no correlation between incidents and sampling, as sampling is undertaken by the Environment Agency on a routine basis at a location near the Lifeguard kiosk. The weekly results can be found on the Environment Agency website below.

#### How does a Combined Sewer work?



POTW – Publicly owned treatment works

#### Why do different websites show different numbers of alerts?

Wessex Water have explained the following: "We also provide information to Surfers Against Sewage (SAS) for use on their SaferSeas App. Every year, SAS produce a report which is based on the 'notification alerts' they receive. Unfortunately, this data can be misleading as the alerts do not always reflect storm overflow use. There can also be false alarms triggered by wildlife or mobile communication issues.

For example, according to SAS, our overflow at Poole Shore Road sewage pumping station was in use around 290 times during a 12-month period. In actual fact, the overflow was used six times during the 2021 bathing water season and 41 times over the 12-month period, with most of these events being during the wetter months of the year. This is because the overflow, which releases stormwater 0.5km offshore when in use, triggers an alert every time the pump operates, which could be several times during one event. "

The key point is that all the various websites use the same 'core information', which is provided by Wessex Water and regularly audited by the Environment Agency.

#### **Banjo Pier**

The Banjo Pier was constructed in the 1990s as part of the Swanage flood alleviation scheme. Water flows from the hills along the Swan Brook and passes alongside King George's Park before exiting near the Mowlem. When the amount of water passing along the Swan Brook reaches a certain level, the additional water is directed along a tunnel under Victoria Avenue and passes out to sea at the Banjo Pier. During the summer, sometimes the pier emits a slightly unsavoury smell. This is rotting seaweed which has been pushed into the tunnel by high tides and which has no easy way of escaping. Banjo Pier has no connection with sewers and is operated by the Environment Agency.

#### Where to find further information?

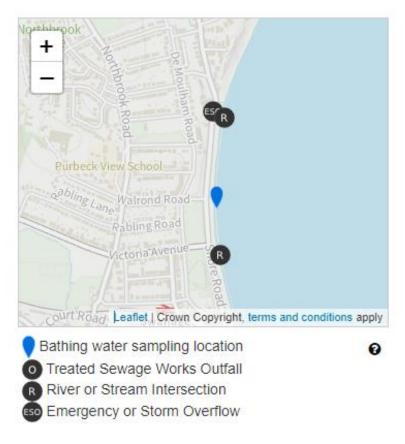
| Environment Agency - Bathing Water Information and weekly water sampling data | http://environment.data.gov.uk/bwq/profiles/profile.html?site=ukk2204-19800   |
|---|---|
| Wessex Water Coastwatch alerts  | https://www.wessexwater.co.uk/coastwatch                                      |
| Surfers Against Sewage – records number of alerts                             | https://www.sas.org.uk/map/   |
| The Rivers Trust – records alerts and number of hours                         | https://experience.arcgis.com/experience/e834e261b<br>53740eba2fe6736e37bbc7b |

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Appendix 1 – Location of water sampling point and Storm Overflow at Ulwell Stream/Ocean Bay

Bathing water profile (data.gov.uk)



Appendix 2 – Data collected by Swanage Town Council regarding spills form the Ocean Bay CSO

| 2020 to 2021  | No. of<br>spills<br>(WW) | Minutes of<br>spills<br>(WW) | No. of days<br>affected<br>(WW) | No. of days signs<br>deployed advising<br>against bathing<br>(EA) |
|---|--------------------------|------------------------------|---------------------------------|---|
| 1 <sup>st</sup> October 2020 to 30 <sup>th</sup> April 2021 | 16                       | 1267                         | 9                               | 0   |
| 1 <sup>st</sup> May 2021 to 30 <sup>th</sup> September 2021 | 6                        | 131                          | 5                               | 5   |
| Total for year  | 22                       | 1398                         | 14                              | 5   |

| 2021 to 2022  | No. of<br>spills<br>(WW) | Minutes of<br>spills<br>(WW) | No. of days<br>affected<br>(WW) | No. of days signs<br>deployed advising<br>against bathing<br>(EA) |
|---|--------------------------|------------------------------|---------------------------------|---|
| 1st October 2021 to 30th April 2022                         | 8                        | 228                          | 4                               | 0   |
| 1 <sup>st</sup> May 2022 to 30 <sup>th</sup> September 2022 | 5                        | 112                          | 3                               | 6   |
| Total for year  | 13                       | 340                          | 7                               | 6   |

| 2022 to 2023  | No. of<br>spills<br>(WW) | Minutes of<br>spills<br>(WW) | No. of days<br>affected<br>(WW) | No. of days signs<br>deployed advising<br>against bathing<br>(EA) |
|---|--------------------------|------------------------------|---------------------------------|---|
| 1 <sup>st</sup> October 2022 to 30 <sup>th</sup> April 2023 | 8                        | 672                          | 6                               | 0   |
| 1 <sup>st</sup> May 2023 to 30 <sup>th</sup> September 2023 | 5                        | 77                           | 2                               | 5   |
| Total for year  | 13                       | 749                          | 8                               | 5   |

#### Appendix 3 – Weekly sampling results taken by the Environment Agency

This is taken from the following web page <a href="Bathing water profile">Bathing water profile</a> (data.gov.uk)

# Water quality sample results

**1** See the <u>help page</u> for additional information on interpreting these charts.

#### Intestinal Enterococci (IE)

