**Background on water sampling and Howrah Beach**

Howrah Beach Water Quality

As part of the Recreational Water Quality Guidelines, 20 swimming sites throughout the Derwent Estuary are tested weekly from the beginning of November to the end of March for sewage contamination. The results contribute to a five-year rolling average that is used to grade these sites. During the 2020-21 season, the middle of Howrah Beach was downgraded to ‘Poor’, meaning swimming is not advised in this section of the beach.

**How has this happened?**

Stormwater flows directly into the River Derwent. Therefore, any sewage contamination in the stormwater can adversely affect beach water quality. This contamination can occur in the following ways:

* Infiltration of sewage through cracks, breaks, and joints into the stormwater network.
* Direct cross-connection of sewer to the stormwater network.
* Sewage overflows into the stormwater network.

Alternative sources of contamination are also being explored. These include groundwater beneath Wentworth Park, polluted coastal sands, run off from nature reserves and sewage events up or downstream.

**The initial plan**

A Stormwater Investigation Officer was appointed in August 2021 with the Howrah area being of primary focus. Council also engaged founder of the Derwent Estuary Program, Dr Christine Coughanowr as a consultant, who has provided an initial review and a number of recommendations.

**Stage 1: Collect, compile, and review existing information**

* Review and analyse recent and historical recreational water quality data at Howrah Beach, within the context of regional and broader Derwent Estuary results.
* Sub-divide the Howrah area into sub-catchments for methodical sampling.
* Consider potential impacts of rainfall, tides, and wind events.
* Identify potential sources of contamination.
* Review reports and data related to previous investigations, repairs, and upgrades.

**Stage 2: Undertake targeted monitoring and investigations to identify primary sources of sewage pollution**

* Work through the stormwater network and trace issues primarily using ammonia testing (a cost-effective and reliable indicator of bacterial activity), followed by dye testing and lab testing to confirm contamination.
* Once issues are found, repairs will be completed by TasWater (sewer) or council (stormwater). Follow up testing will be completed to ensure the issue is resolved.
* Sediment sampling to determine the presence of faecal bacteria in the beach sand.
* Groundwater sampling is to be undertaken downstream of the old tip site at Wentworth Park.

**The progress so far**

* Clarence City Council has worked with the Derwent Estuary Program and the Department of Health to develop and install advisory signage indicating which section of Howrah Beach is affected.
* Since the beginning of September, a total of 28 issues have been identified. 10 are resolved, 6 have been approved to be fixed by TasWater (sewer) and 9 by council (stormwater). 3 are currently under investigation.
* Weekly environmental water quality sampling has commenced at Howrah Beach, at 3 swimming locations, as well as weekly sampling of the stormwater outfalls. This data is helping to gain further insight into how the weather can affect water quality.
* Results from sediment sampling at Howrah Beach have not given evidence of widespread contamination. Further studies are being planned.
* Multiple existing groundwater monitoring wells have been developed at Wentworth Park for sampling and testing. Results suggest groundwater is not a source of beach water contamination.

**What’s next?**

* The investigation will continue through the Howrah area with the intent to move into adjacent beach catchments (Bellerive and Little Howrah) in mid-2022.
* Council will continue working closely with the Derwent Estuary Program, TasWater, council engineers, and maintenance teams to resolve any issues found.
* Weekly sampling of the stormwater outfalls will track long-term changes in sewage contamination, as issues are found and fixed.
* The water quality grading will remain at ‘Poor’ for the 2021-22 swimming season due to this rating being based on a 5-year rolling average. Advisory signage will remain at Howrah Beach until this average is improved.

**What can I do to help?**

* Be aware that anything that you put into the stormwater network will wash out at the beach. This includes such activities as cleaning your car or pressure washing your driveway.
* Please be mindful to pick up after your dog.
* Notify council of any illegal or suspicious polluting activities into the stormwater system.