Rivers & Seas Watch
from Southern Water

Version No. R&SW 1.1.0 Type:
Full incremental update
Release Date: 02.04.2025

Download beta release notes (1.0.0 - 1.0.5)

Release description

Rivers and Seas Watch 1.1.0 is an incremental update that introduces an upgrade to the tidal modelling predictions and changes to the way that the tidal modelling predicted impacts work. This release also addresses a few defects recently found in Rivers and Seas Watch.

New features and enhancements

Bathing water quality impact model

Rivers and Seas Watch 1.1.0 introduces a significant upgrade to the water quality impact prediction feature (otherwise known as tidal modelling). The update addresses many of the recommendations suggested by the tidal modelling expert who advised on the Beachbuoy Independent Review.

Important note: The Rivers and Seas Watch water quality impact model is based on the impact of storm overflows only. There are many other factors that can impact water quality such as agricultural run-off and illegal connections, which we are unable to report on within Rivers and Seas Watch.

New tidal model

A new tidal model has been developed for simulating the impact of storm overflows on bathing sites based on DHI MIKE 21/MIKE-3. Notable changes include:

- Upgraded model to use unstructured grid model of 70m
- Introduced a one-equation turbulence model to estimate the turbulent diffusion process
- Upgrade to the solute transport model for velocity and depth effects

Bathing site areas

Bathing water quality predictions are now calculated based on bathing water areas, previously they were based on the single sampling point set by the Environment Agency. This change of approach means that:

- Any high-concentration rates of E.Coli or I.E within proximity to the sampling point will signal an impact alert within Rivers and Seas Watch
- The bathing site areas used and referenced within the tidal model are shown on the Rivers and Seas Watch map interface

Additional tidal simulations

- Two new tidal cases (Peak Ebb; Peak Flood) have been simulated to account for how tidal currents behave during the transitional period of tidal cycles, and how this affects the movement of storm overflow releases
- A 24+ hour simulation has been added to account for long-duration releases and how these storm overflow releases impact bathing water quality

Minor enhancements

Opt-in for user research panel

Users can now opt-in to join our research panel when subscribing for bathing site email updates.

Delays in data reaching Rivers and Seas Watch

In some specific scenarios, Rivers and Seas Watch was taking longer to update than it should. Optimisation work has been carried out to retrieve the data from upstream systems more quickly.

Resolved defects

Multiple release 'Clear Notification' email defect

When there was impact to a bathing site from multiple storm overflow releases, email notifications that informed users a bathing site was 'clear' were being sent before the status of the bathing site had returned to green/clear.

Known Issues

- **[New] Some release dates/times are showing one hour incorrect: High priority –** Due to a defect with one of our API's and handling of UTC – BTS, a small number of release events are showing incorrect date/times.
- **[New] Apple device user interface defect with outfalls – High priority –** When using the service on an Apple device (e.g. iPhone), the popup appears underneath the round blue map controls and the zoom / your location controls. This hides some of the popup information, and on certain screen sizes prevents it from being closed by using the close button (popup can still be closed by tapping outside of it).
- **.CSV Exports from the release show in US (United States) date format –** When exporting .csv files of the release history table, the .csv file uses US (United States) date format instead of UK date format in the data. *This issue is logged with the ESRI Platform and is dependent on a platform update from ESRI to get the issue fixed.*

- **WCAG accessibility issues –** There are a number of WCAG accessibility issues, such as navigation, screen-reader compatibility and visual impairment accommodation across the mapping interface and release table. *The development team have explored resolutions to these issues, and at this time, there is limited work that can be undertaken by them to resolve these issues. The issue has been raised with ESRI to understand how a resolution can be achieved for the platform in the future.*