Cathryn Spain, Senior Harbour Master

Published: 21/10/2024 Expires: 31/12/2025

Kings Reach

Kings Reach - Thames Tideway Tunnel Blackfriars Embankment CSO Diversion



#### **NOTICE TO MARINERS**

# **Kings Reach - Thames Tideway Tunnel Blackfriars Embankment CSO Diversion**

Mariners are advised of the continued interim operation of the Tideway Tunnel Combined Sewer Outfall (CSO) at the Blackfriars Embankment site.

The CSO may discharge rain-water and untreated sewage into the river whenever there is, or has recently been, rain in the local catchment area. The discharge amount and velocity will vary, but during a storm this could be around 6 knots, lessening further from the outfall.

Mariners should note that the CSO in this location is within the Authorised Channel and effects may be felt by all craft within the channel. Less manoeuvrable vessels and human powered craft should be aware of the possibility of cross current in most of the channel and the potential of an eddying effect and adjust their passage accordingly (example modelled flow velocities are included at the end of this Notice).

The Tideway Tunnel is now partly in operation pending further storm testing and this site is connected to the tunnel, meaning the expected number of discharges into the river is reduced to roughly 6-8 a year. These will only occur if the tunnel becomes full or it is not available.

The approximate location of the CSO on the Blackfriars site is shown in red on the chartlet below:



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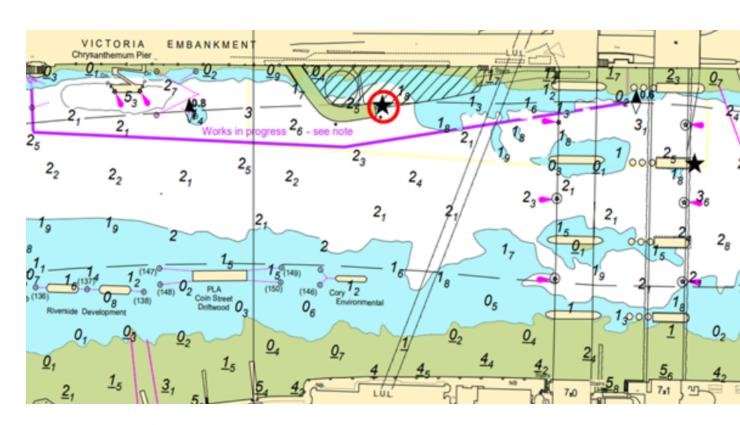
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#### **NOTICE TO MARINERS**



A set of warning lights will be mounted vertically in front of a black backboard on the riverwall above the CSO and a repeater light will be mounted above the bridge pier between arches 2 and 3. The locations of the lights are shown on the chartlet (shown as a black star).



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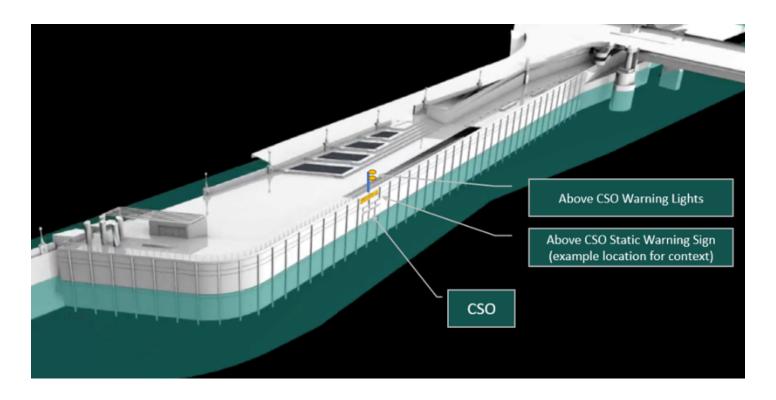
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### **NOTICE TO MARINERS**



Above - CSO warning light mounted on the river wall.



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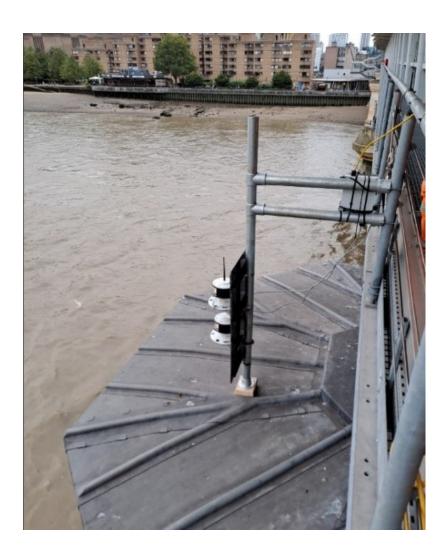
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#### NOTICE TO MARINERS



Above - CSO warning light on Blackfriars Rail Bridge

The lights will flash a yellow alternating 1 second pattern, visible day and night at a range of up to 200m, whenever the CSO is discharging or likely to discharge. Tideway advise the lights will activate approximately 8-10 minutes before any discharge will occur.

CSO discharge alerts and warnings will be broadcast by London VTS on Ch 14. Additionally, the live status of each CSO is available on the PLA website: https://pla.co.uk/cso-status



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#### **NOTICE TO MARINERS**

Routine VTS broadcasts will also include a warning if Tideway inform us there is a likelihood there will be a discharge from the site within the next hour.

Human powered recreational craft, lower powered vessels and craft engaged in towing are advised to avoid the area over the slack water period (around 2 hours over low water and around 1 hour over high water), or if there has been heavy rain and to be vigilant if there is a Met Office weather warning for rain or storms in force for the London area.

For this period, whilst construction works are still underway, the number 2 arch closure smart signal will continue to display a closed signal. See Notice to Mariners M85-23 for details.

The CSO is partly connected to the tunnel which will intercept most of the discharges, but any larger storms and rain downpours may result in a discharge directly into the river. The Tunnel is expected to be in full service later in 2025. A new Notice will be issued at a later date to advise of permanent Tideway Tunnel operations.

All mariners are advised to exercise caution when passing the site, remain outside of the works area (marked in purple on the chart) and to pay attention to warnings given.

Further information on the characteristics of the CSO discharges, assessments of risk and potential impacts on mariners, which were undertaken by Tideway's designers, are available on their website. Go to <a href="https://www.tideway.london/contact-us/document-library">www.tideway.london/contact-us/document-library</a> and follow the link to <a href="https://www.tideway.london/contact-us/document-library">www.tideway.london/contact-us/document-library</a> and follow the link to <a href="https://www.tideway.london/contact-us/document-library">CSO DISCHARGES - RISK TO NAVIGATION</a>. Mariners should consult these documents when passage planning.

(This link will take you to a third-party website which does not belong to the Port of London of Authority and may have different security, privacy and accessibility standards.)

Example discharge plume and velocities in m/sec for a 1 year return period discharge

(1 m/sec = 1.94 knots)



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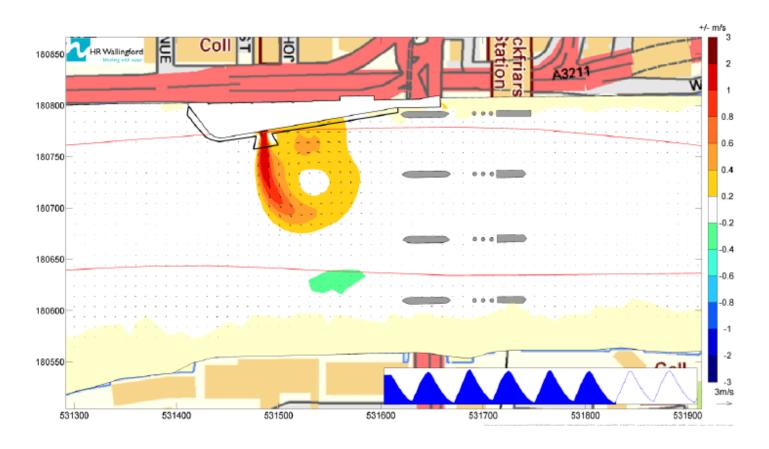
Kings Reach



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# Kings Reach - Thames Tideway Tunnel Blackfriars Embankment CSO Diversion

#### NOTICE TO MARINERS



Above - LW slack (difference in depth-averaged currents)

#### Example discharge plumes and velocities in m/sec for a 15 year return period discharge

(1 m/sec = 1.94 knots)



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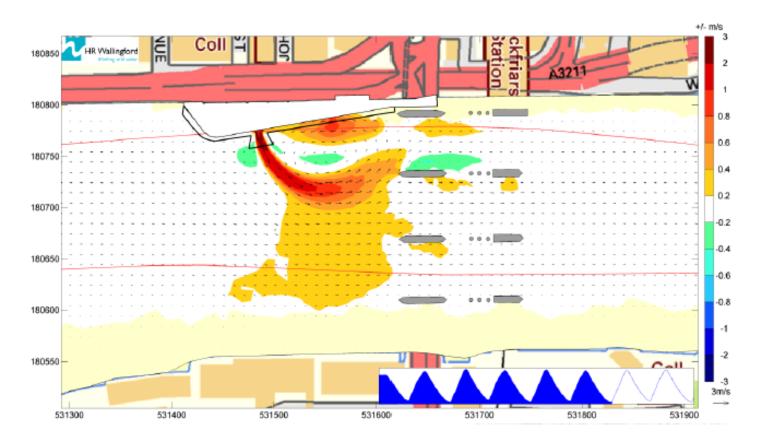




PORTOF

#### Kings Reach - Thames Tideway Tunnel Blackfriars Embankment **CSO Diversion**

#### NOTICE TO MARINERS



Above - 10 minutes before LW slack (Difference in depth-averaged currents)



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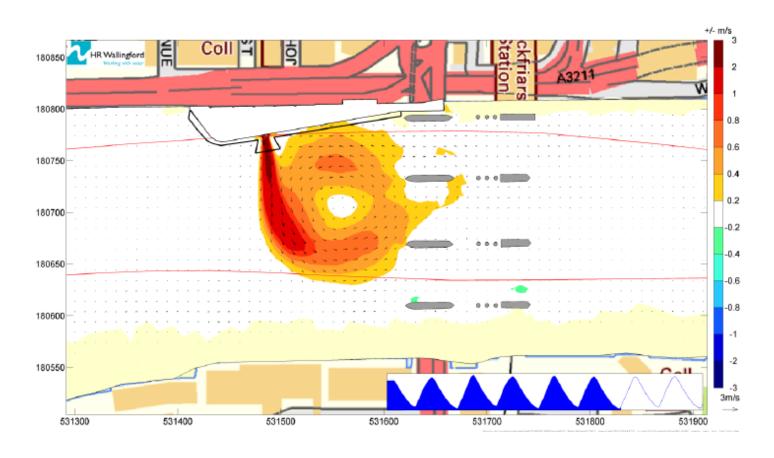
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#### **NOTICE TO MARINERS**



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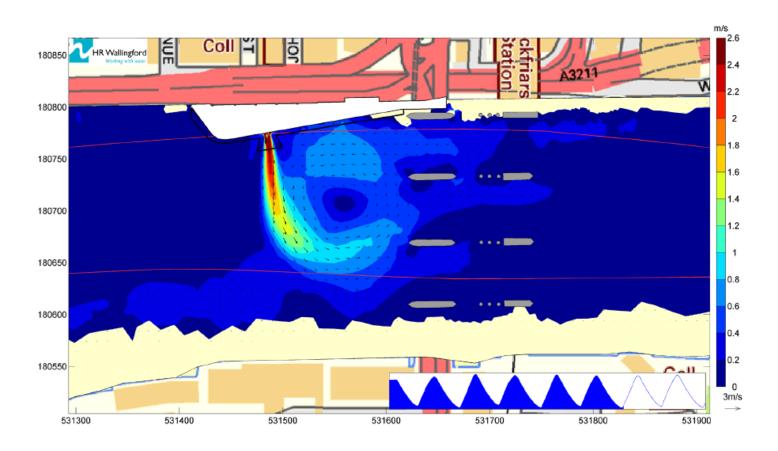
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#### **NOTICE TO MARINERS**



Above - LW slack (Depth-averaged currents)



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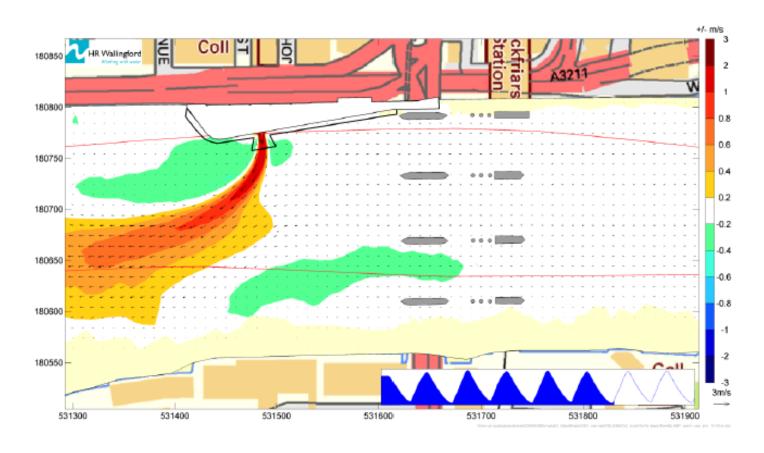
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#### **NOTICE TO MARINERS**



Above - 10 minutes after LW slack (difference in depth-averaged currents)

