

# Porirua Wastewater Treatment Plant

Release of undisinfected wastewater - January 2021

## Overview

Action has been taken to improve alarms and systems at the Porirua Wastewater Treatment Plant, following an incident investigation into a delay in responding to a discharge of undisinfected wastewater in late January.

## What happened:

- 20 – 21 January 2021: A discharge of undisinfected wastewater, with an estimated volume of 6,737 cubic metres (approximately 30% of the total daily flow) was released to the coastal marine area around Rukutane Point between 9:23pm 20 January to 8:10am 21 January 2021.
- Due process was not followed, and stakeholders were not notified and shoreline monitoring was not undertaken.
- Notification of the incident to stakeholders did not happen until 22 January 2021.
- The key causes were:
  1. A power spike in the Porirua region caused the ultraviolet (UV) system to shut down. There was no alarm to notify the operators that the UV system had faulted.
  2. There was miscommunication which resulted in the delayed notification and failure to initiate shoreline monitoring.

## Measures taken to mitigate/control the incident:

- The UV system at the Porirua Wastewater Treatment Plant was reset and was back online at 8:10am 21 January 2021.
- An email notification was sent by Wellington Water to stakeholders on 22 January 2021.
- Scheduled shoreline monitoring took place on 26 January 2021

## Measures undertaken to prevent this happening again:

- The alarm at the Porirua Wastewater Treatment Plant UV System has been modified to notify operators during a system or power failure.
- The operators have been retrained on communication protocols and the importance of notifications has been reiterated.
- Escalation systems have been enhanced to ensure a belts and braces approach. This means ensuring the team escalate to managers rather than taking on responsibility themselves

**Background**

*Wastewater that has not been through UV disinfection is formally described as 'partially-treated' but a better description would be 'almost-fully-treated'. The treatment process removes solids and the vast majority of harmful bacteria before it gets to the UV stage. UV disinfection then further reduces the concentration of bacteria and viruses.*

*In general, a discharge of undisinfected wastewater would not be expected to significantly increase the health risk to recreational water users*