

## Gardening tips

Over the past few months Wellington Water's operations team has been investigating the catchment area around the stream, and a number of cross connections and wastewater leaks have been identified and repaired. Daily monitoring of the stream confirmed that there were high levels of contamination in the stream and our Network Engineering Team will be undertaking more detailed investigations into sources of contamination.

One area of interest noted during this work was the community garden, and the risk of contamination in the stream as a result of domesticated fowl such as chickens in the area.

This is not Wellington Water's area of expertise, so we sought advice from Wellington City Council's Open Space and Parks Manager. The Council's Park Ranger team has now been onsite working and is supporting members of the community garden to find solutions to reduce the contaminations issues. These included managing run-off into the stream and the wildlife on site.



*There have been dead fowl and chickens found in the stream posing a risk of contamination.*

## Real time monitoring trial

We are currently trialling new and innovative monitoring technology in the Ōwhiro Bay catchment. It is called the Proteus Probe and it allows us to monitor various water quality parameters in real time, including some microbiological measures. At the moment, there is a delay of 24 hours or more to receive results from the lab, where water quality samples are cultured to evaluate e.coli levels.

All data from the Proteus Probe can be sent straight through to any web-based dashboard or mobile device. Results and data from the trial will also be shared with residents through the association's technical leads.



*The Proteus Probe will allow us to monitor various water quality parameters in real time.*

# WorkStream

*A collaboration between Wellington Water and the Ōwhiro Bay community*

## Stream Team builds network for care

The Ōwhiro Stream Team is a group of dedicated local residents working to help restore Ōwhiro Stream's health.

As the only daylighted (not piped) stream on the south coast and one that empties into the Taputeranga Marine Reserve, the group champions Ōwhiro Stream's local and regional significance. With three separate landfills located near the stream's headwaters, the stream faces all the challenges of urban contaminants and rubbish entering the stream and more.

Ōwhiro Bay residents Jess Allen, Kirsten McDougall, Jade Lorier and Nat Randall are members of the Stream Team. The team is made up of parents and children connected to the Ōwhiro Bay School. A key reason for the Stream Team's advocacy is that they would like the stream to again be healthy enough for children to be able to play in.

The Team is partnering with Ōwhiro Bay School to create learning opportunities for children through stream-based activities such as planting, outdoor classrooms, water testing, eel feeding, and using nature as an inspiration for their writing.

The long term goal is that through these relationships with the stream, the children will become the next generation of kaitiaki.



*Stream team members are focused on riparian planting to help improve water quality.*

### Disclaimer

WorkStream is a joint communication between the Ōwhiro Bay community and Wellington Water. Please note that views expressed in articles appearing in WorkStream do not necessarily represent those of either the community at large, or Wellington Water or its council owners.



Through the Stream Team's restoration efforts, the streamside area, once thick with blackberry, is now a thriving native riparian area and popular local walking trail. This year, in partnership with Wellington City Council, the group started predator trapping along the stream. This is to support native wildlife and the recently planted native lizard garden.

At a recent meeting, also attended by Eugene Doyle from the Ōwhiro Bay Residents Association, the Team agreed to tackle additional areas for riparian planting. The team will also do further clean-up and advocate to help transform the Ōwhiro Stream into one of New Zealand's cleanest waterways.



The Stream Team getting to work with their restoration efforts.

## Solving Water

### The Mayoral Task Force on the Three Waters finalises its report

By Eugene Doyle, Ōwhiro Bay Residents Association

The flood of water crises that hit Wellington at the beginning of this year set in motion the Mayoral Task Force on Three Waters that is set to report to the Council and to the citizens of Wellington shortly.

As one of the Task Force members I can't say I got everything I wanted but there is definitely enough in the report that will provide a solid basis for fundamental change if our Council chooses to seize the nettle, to stick their hands into the Troubled Waters of Wellington and get cracking on the long-overdue reforms that will sort out:

- Massive loss of drinking water leaking into the ground (over 20%)
- Ageing public sewage and stormwater systems that are delivering billions of litres of contaminated water to our streams and beaches
- Failing private connections which have been poorly supervised by WCC
- Long overdue reform of the Moa Point and Southern Landfill sludge treatment systems
- Overhaul of the governance of Wellington Water to bring it in line with the Government's Three Waters reform programme

- A serious review of the state of the City's swimming beaches to make sure we are not quietly poisoning our citizens and leaving them to assume their sicknesses are to do with food outlets or child care
- Some real steps in the direction of Water-Sensitive Urban Design.
- Better-structured relationships between WCC, Greater Wellington, Wellington Water, mana whenua and communities.

The fate of the report will be in the hands of the Mayor, the Councillors, powerful Council officers, and very importantly, the citizens.

We have to keep the heat on our dear leaders to ensure that problems do not continue to be shunted into Tomorrowland for another generation to deal with. The principle of intergenerational equity demands that we start real action now to sort out Wellington's catchments, starting with Ōwhiro and the Tapu Teranga Marine Reserve.

That will require a lot more Wellingtonians to turn into water activists. Water is our most important resource and is too important to be left to politicians, bureaucrats and the water company. Write to the mayor, write to your councillors, join a group today.

## Investigations team sniffs out leaky laterals

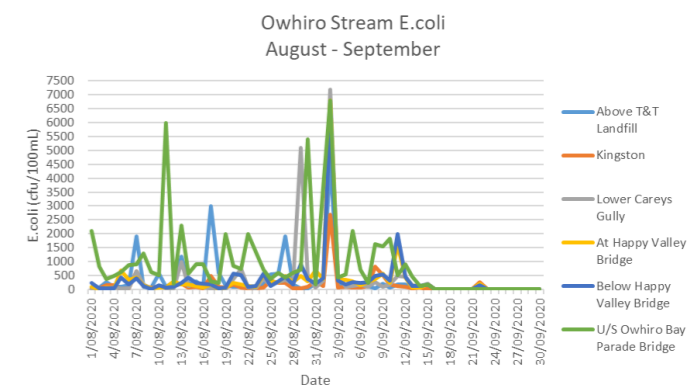
Wellington Water's Operations Group has completed its investigations into the catchment and the area around the lower 1.5km of the Ōwhiro Stream.

The public wastewater mains in and around the lower Ōwhiro Stream catchment have been inspected and hundreds of house pipes (known as laterals, which connect private homes and commercial building to the public network) have been investigated.

This revealed a handful of cross-connections (where wastewater laterals are connected to public stormwater pipes, or stormwater into wastewater) and some leakage of the wastewater network into the stream. These faults have either been repaired or the owners have been notified of faults in their pipes that needs fixing.

This has concluded the first stage investigation that was seeking to identify acute faults. The daily monitoring of the stream water quality confirms that high levels of microbiological contamination still persist in the lower stream. This leads the team to conclude that the issues are chronic, rather than acute, or resulting from one or two major problems.

What this means is that we need a more thorough and broader catchment-wide process to address contamination affecting the stream. This has brought Wellington Water's Network Engineering Team into the picture.



The rainfall causes pollution spikes as it concentrates contamination.

This team has the expertise and resources to undertake these more detailed investigations. The network engineering team is drafting a project plan that will be shared with the Ōwhiro Bay Residents Association in the next few weeks.

Because we can confirm that the current issues are not acute e.g. blockages and cross connections, and appear to be larger systemic issues, we've agreed with the community through Olivier to reduce the daily sampling regime to regular sampling frequencies. This decision is based on the conclusion that daily water quality testing, which is quite costly, is no longer informing us of anything new.

A more detailed sampling and monitoring programme will no doubt be part of the network engineering team's catchment based approach, however, once that has been agreed.

## Selection under way for catchment-focused teams

Recruitment is under way at Wellington Water for the catchment-focused crews, an initiative that the Wellington, Hutt and Porirua city councils agreed to fund in their 2020-21 annual plans in response to increased community interest in and concern for environmental water quality.

The crews will work with private property owners to ensure their laterals are in good condition, help with responses to issues identified by Wellington Water's customer operations teams, and support work programmes developed by our network engineering team.

This project is led in Wellington Water by Sam Lister. "We're planning to have two crews on the road and in communities by December," says Sam. Much of the work these crews will do – investigating private laterals – has already been done in the Ōwhiro Catchment by our investigations team (see the Investigations Team story). Sam says there are 140 catchments in the region for the crews to work on, so they'll need a plan. "We expect a prioritisation framework to be finalised in late October and will share this with the community at large at that time," says Sam.