Briefing: Knowing your pipes – project update

9 August 2023 – 4.45pm

Attendees

Elected Members:, Cr Briggs, Cr Dyer, Cr Edwards, Deputy Mayor Lewis, Cr Mitchell, Cr Morgan, Cr Parkin, Cr Shaw, Cr Stallinger, Cr Tupou (via audio-visual link), M Fisher (Petone Community Board), K Yung (Petone Community Board), B Spedding (via audio-visual link)(Eastbourne Community Board).

Staff: A Blackshaw; Acting Chief Executive; K Puketapu-Dentice, Director Economy and Development; C Parish, Head of Mayor's Office; B Hodgins, Strategic Advisor; K Butler-Hare, Tumuaki Māori; C Ellis, Head of Chief Executive's Office; K Stannard, Acting Director Strategy and Engagement and J Randall, Democracy Advisor.

Apologies

Mayor Barry, Cr Barratt, Cr Brown.

Presenters

B Hodgins, Strategic Advisor; Noah Boyte, Joe Hemi and Sean de Roo, representatives of the Wellington Water Limited (Wellington Water) Drainage Investigations Team.

Key Objectives of the Briefing

The purpose of the briefing is to provide an update on the 'Knowing your Pipes' project.

Introduction

The presentation covers the Drainage Investigation Team's work, the process used in their investigations, and what has been happening in the Hutt Valley to date.

Presentation by Noah Boyte, Joe Hemi and Sean de Roo, representatives of the Wellington Water Drainage Investigations Team

Slide 1 (Header)

Slide 2 – Agenda.

Slide 3 – Meet the drainage investigations team – knowing your pipes programme.

Slide 4 – **Who are the drainage investigation team and their objectives**: The main objective is to improve the quality of stormwater within catchments. This is done using Sanitary Surveys and Human Health Mitigation Plans (HHMPs)

Slide 5 – Drainage investigation team processes: The Drainage Investigations Team (the team) uses water quality grab samples along with visual inspections, smoke and dye testing and CCTV inspections.

Slide 6 – Common private faults found: Root intrusions, breaks and ruptures, blockages and displaced joints are common.

Slide 7 – Photos of works being completed by contractors: An example where a business owner opted to replace sections of an affected pipe. Most customers replace or clear their pipes quickly, others take time.

Slide 8 – Investigated catchments history: Lower Hutt has three active HHMPs underway. Five cross connections from reactive works that were discharging into the stormwater and creeks have been repaired.

Slide 9 – Time spent in catchments to date: Opahu stream and Stokes Valley will be closed out in the next few months. Waiwhetū Stream will follow. Catchments are often closed out and reopened many times as new problems are found.

Slide 10 – Wainuiomata catchment HHMP: Catchment sample sites.

Slide 11 – Wainuiomata and Lees Grove HHMP: 19 of the 20 properties in Lees Grove that needed repair work have been completed and closed off. Part of the job is connecting with local communities. The team has received a very positive response in the Wainuiomata area.

Slide 12 – An improvement to receiving water quality: Consent triggers at 1,000 cfu/100ml. The highest results have been spiked by contamination caused by rain and a blockage that overflowed into stormwater. Without investigations these could become ongoing network issues.

Slide 13 - Inflow and infiltration investigation: A large amount of pipe renewals have been undertaken throughout Lees Grove. An Inflow and Infiltration Investigation will show what impact this has had.

Slide 14 – Renewals in Lees Grove Wainuiomata: An image of the extent of pipe renewals in Lees Grove.

Slide 15 – Waiwhetū Stream at Tilbury HHMP: Consent sample sites.

Slide 16 – Waiwhetū Stream at Tilbury HHMP: 14 private faults were found with two still outstanding. The team is working with Friends of Waiwhetū Stream who keep an eye on the catchment.

Slide 17 - An improvement to receiving water quality: Sampling and CCTV found a mains pipe in Seddon Street was leaking wastewater into the stormwater main and flushing into Naenae Stream. It has now been fixed.

Slide 18 – Stokes Valley HHMP: Catchment sample sites.

Slide 19 - Stokes Valley HHMP: As a result of samples, investigation works and CCTV, several stormwater mains in Stokes Valley have been cleared and consent levels have lowered to below the trigger point.

Slide 20 – An improvement to receiving water quality: Investigations discovered Stokes Valley had a build-up of e-coli bacteria that was being washed into the stream due to blockages. These have been cleared but the mains are now monitored annually since the stormwater main is flat and does not allow for flow.

Slide 21 – Opahu Stream at White Line West SS: Stormwater consent sample site.

Slide 22 - Opahu Stream at White Line East SS: A number of works have been completed to improve the water quality of the Opahu Stream.

Slide 23 - An improvement to receiving water quality: Investigations and works have vastly improved the water quality of Opahu Stream. The stream is routinely monitored, and the team works with community groups to maintain it. An education programme is also underway.

Slide 24- Monthly routine sampling programme: The team undertakes routine sampling over the entire Hutt Valley. This is a proactive approach to keep ahead of the curve and maintain good control over the catchment.

Questions and discussion points

- The Drainage Investigations Team (the team) mainly focusses on private infrastructure but also works on public infrastructure when there are

infiltrations. Most infrastructure is aging, and the balance of public and private failures is unknown.

- If properties are tenanted Wellington Water will work with the tenants to get leaks fixed. If clients are reluctant to fix problems due to financial issues, Wellington Water will work with them and give them time to get the work done. It also works with Councils to find options if clients cannot pay.

- The team extends its monitoring beyond consented areas and is proactive in finding faults. It takes samples from a broad area and uses tools to narrow down problems in the most cost-effective way possible.

- The team uses data and the age of pipes to highlight risk areas. It targets areas that are most likely to need remedial work. to keep ahead of the curve and make repairs before there is an issue.

- The team looks for trends in its sampling – if there are multiple high levels of contamination then there is likely to be an issue. Sometimes many issues can be discovered in one small area. Its work is a mixture of being proactive and responding to spikes found in samples.

- A leak near Speedy's Stream on the Western Hills that was repaired is still monitored monthly as part of the team's proactive approach to reduce contamination.

- As a result of work done by the team, the Wellington Water key performance indicator for closures is once again zero for the 2022-2023 year.

- The team is working with teams leading RMA consenting changes for overflows. Part of the problem is spikes of wet weather overloading pump stations. The team is planning for the changes but is only funded for dry weather sampling. More funding would enable the team to extend its work.

- Technology to make sampling more automated is expensive and not very portable. The team is looking at technology changes for future use but having staff on the ground is also important. The team currently uses weather gauges to determine the difference between rainwater and groundwater.

- The team uses education to help residents understand their responsibilities. It is helpful for people to know what happens in rainwater events, how it affects the network, how property owners can help and what their responsibilities are. Council can assist by publicising the team's work, and the improvements to the network.

- E-coli testing tends to be visual in the first instance, but ammonia could be considered for quick assessments. The team has been working with a chemical engineer to test this.

Next steps

The 'Know Your Pipes' programme is run across several parts of the region. Wellington Water hopes to roll it out across the entire Wellington region by 2024.

Briefing materials

Attachment 1 – **Presentation:** Drainage investigations Team 'Knowing your Pipes' Hutt Valley Project Update 2023

The briefing closed at 5.30pm