

## **Council Briefing Minutes**

**Date:** Tuesday, 30 June, 2020  
**Time:** 9:00 a.m.  
**Location:** Council Chamber  
Forum North, Rust Avenue  
Whangarei

### **In Attendance**

**Cr Greg Martin (Chairperson)**  
**Her Worship the Mayor Sheryl Mai**  
**Cr Gavin Benney**  
**Cr Vince Cocurullo**  
**Cr Nicholas Connop**  
**Cr Ken Couper**  
**Cr Tricia Cutforth**  
**Cr Jayne Golightly**  
**Cr Phil Halse**  
**Cr Greg Innes**

**Cr Carol Peters**  
**Cr Simon Reid**

### **Not in Attendance**

**Cr Shelley Deeming**  
**Cr Anna Murphy**

### **Scribe**

**Nicolene Pestana (Team Leader  
Democracy)**

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The briefing commenced at 9.00am. Cr Greg Martin facilitated the briefing.

### **Apologies**

Cr Deeming and Cr Murphy.

## **1. Reports**

### **1.1 LTP - Water Services**

Andrew Venmore (Manager Water Services) provided an update on the dam levels. Whau Valley Dam is at 81%, Wilsons Dam is at 72%.

Andrew Venmore covered the content of the briefing as outlined in the agenda report and presentation on Water Services activity, including key assets and levels of service and key issues facing Water Services.

### **Drinking Water Contaminants**

- Three broad categories – microbiological, chemical and physical.

- Microbiological are the most important as they have the potential to cause widespread illness in a very short time. Bacteria and viruses may in the future become more of an issue.
- Protozoa is very resistant to chlorine, removed by good filtration and UV.
- Cyanobacteria (cross between bacteria and algae) clogs up filters and clarifiers in the treatment process, as temperatures warm up we will get more incidences.
- Chemical and physical contamination can be caused by the addition of chemicals during treatment processes or activities in the catchment.

### **Legislative requirements**

A water supplier must take all reasonable steps to:

- Protect the source of drinking water.
- Provide a wholesome water supply.
- Comply with the Drinking-water Standards for New Zealand.

### **Water Safety Plans**

- MOH introduced a requirement for water suppliers to complete Water Safety Plans in order to standardise risk management within the water sector.
- Risks are assessed from catchment through treatment process and distribution network.
- Risks need to be addressed by eliminating (often capital projects), minimising (process improvement) and response (contingency planning).

### **6 Principles of Drinking Water Supply**

- A high standard of care must be embraced.
- Protection of source water is paramount.
- Multiple barriers against contamination must be maintained.
- Change precedes contamination.
- Suppliers must own the safety of drinking-water.
- A preventative risk management approach must be applied.

### **Our supplies**

- Four water supply areas – Whangarei, Bream Bay, Maungakarama and Mangapai.

### **Key Challenges**

#### **Climate change**

- Algal Blooms – at Wilsons Dam and possible at other locations.
- Sea level Rise – intakes at Ruakaka and Ahuroa, some coastal pump stations and roads.
- Flooding events – slips at dams, water quality issues and power cuts.

## **Drought - what we can do in the future**

### **For Whangarei**

- An upgrade to the Hatea Pipeline is underway.
- Operational risk reduction – increase opex cost.
- Wairua River source – this could provide an additional 10, 000 cubic meters a day but will require a treatment plant upgrade. It will be recommended that this be brought forward in the LTP.

### **For Bream Bay**

- Operational risk reduction – increase opex cost.
- Dependent on the future of the Refinery.

## **Compliance**

- Ongoing vigilance.
- Increased monitoring and reporting requirements.
- Taumata Arowai (the new regulator).
- Competency, Licensing and Documentation.
- Water Safety Plans.
- Potential changes to Drinking Water Standards.
- Disinfection by-products.
- New contamination threats.
- Health and Safety.
- New Legislation.

## **Ageing infrastructure**

- Include water treatment plants, reservoirs, water meters and the reticulation network, including hydrants, valves and service connections.

## **Growth**

- Growth in population doesn't correspond directly to growth in demand.

## **Factors impacting demand**

- Water intensive businesses closing.
- Leakage.
- Illegal connections.
- Weather patterns.
- Water efficient devices.
- Water conscious consumers.
- Water metering.
- The cost of water.
- Water restrictions.

## **Risk Management**

- Can put more barriers in place and add more redundancy to a system, thus reducing the risk of failure, this is not always practical or affordable.
- General risks - contaminated water supply and water outages.

## **Key upcoming Projects**

Recommended for inclusion in the first three years of the new LTP:

- Wairua River Source and Treatment at Poroti.
- Fairway Drive Pump Station upgrade.
- Ruddells WTP upgrade.
- Three Mile Bush, Kamo and Waipu Reservoir upgrades.
- Water Tanker Filling station.
- Site Security improvements.
- Water Reticulation Renewals and upgrades.

## **Main Pipeline Renewal / Upgrade Projects**

- Station Road Trunk Main.
- Onerahi Trunk Main – Riverside Drive.
- SH1 Maungakarama Road to Loop Road (in conjunction with NZTA).
- Other SH1 opportunities (in conjunction with NZTA four laning projects).
- Vinegar Hill.
- Pyle Road East.
- Poroti Trunk Main Renewal.

## **Delayed Project**

- Whau Valley Dam Chimney drain upgrade.

## **Levels of Service**

- No proposed changes to current levels of service.

## **Fluoridation**

- The bill is currently stalled in Parliament, likely that DHB's will be given power to decide.
- Not proposed to make an allowance in this LTP for Fluoridation.

## **Summary**

The focus for this LTP period for Water Services will be:

- Drought Management – implementing the Wairua Water Source and optimising the operational strategies.

- Improving the performance of all WTP's – algae and disinfection by-products.
- Reducing the risk of failure – SCADA and security, mechanical – pumps and WTP equipment, reticulation – watermains and trunk mains.
- Allowing for growth planned projects.
- Improved management – expertise professional services and operators, better condition assessment, legislative compliance, Health and Safety, Knowledge Management.

## **Discussion**

- Discussion on Taumata Arowai. Resourcing of qualified and experienced staff to comply with the new regulators' competency, licencing and documentation requirements will be challenging. Currently, we have qualified and experienced staff. It would be a challenge if staff had to leave, as we cannot always get fully trained and qualified staff. The regulator would have to be pragmatic about this.
- Electronic metering at point of delivery has been considered, especially for larger users. To do this for all users would be very expensive and the benefits would have to be considered.
- Chlorination is necessary as a residual in the network. Without chlorination, there is a risk that contaminated water will get into the network. Chlorination, is a good test for issues in the network.
- Discussion on water demand. In the city, there is very low industrial use (at 20%) but residential demand is high (80%). In Ruakaka, industrial use is high, with 60% going to the refinery and 40% for residential use.
- It is good that there are no changes to levels of service.

## **1.2 LTP – Wastewater Activity**

Simon Charles (Manager Waste and Drainage) covered the content of the briefing as outlined in the agenda report and presentation on Wastewater Activity, including key assets and levels of service and key issues.

### **Waste and Drainage – what we do**

- Keeping our District safe, healthy and clean.
- Over 23,000 connections across the District.
- Laboratory Services.
- Trade Waste.

### **Key Assets**

- 9 wastewater treatment plants and systems.
- Whangarei Wastewater Treatment Plant.
- Okara Park pump station.
- Hatea Drive pump station and treatment facility.

- Tarewa Park storage and treatment facility.
- Raukaka Wastewater Treatment Plant.
- Waipu Wastewater Treatment Plant.
- 840km of pipework.

### **Levels of Service**

No proposed changes to current levels of service.

### **Key issues 2021 – 2024**

- Whangarei Wastewater Treatment Plant Resource Consent renewal.
- Wastewater network renewals, upgrades and sewer capacity increases.
- Asset information and Condition Assessment.

### **Key issues 2024 – 2031**

- Changes to the regulatory environment.
- Asset renewals and upgrades.
- Climate adaptation.

### **Key issues 2031 and beyond**

- Raukaka Wastewater Treatment Plant discharge limits.
- Growth in Whangarei and plant / network capacity.

### **Discussion**

- Discussion on the issue of odour control at the Whangarei Wastewater Treatment Plant. The design has been completed. The engineers estimate is above budget. Staff have decided to wait for more certainty around 3 Waters. There haven't been any complaints about odour in a while.
- Whangarei Heads network to be upgraded, a lot of houses still on septic tanks, are these houses captured in terms of getting them on reticulated service? Flow monitoring is ongoing and in the process of finalising results of monitoring.
- Discussion on the approach to wastewater outpour into the sea. This is likely to be contentious, the issue is limited land for discharge, we may end up at a point where it is unavoidable. A lot of research has been done into disposing it to the ground but there are so many problems in trying to dispose of huge amounts of treated waste water into ground and dunes, the practical method is into water. We treat wastewater to a very high standard, but this is dependent on a very high-quality wastewater treatment plant. If Ruakaka is going to develop in terms of production, we are going to need a high-quality wastewater treatment plant.
- We have a 3-year contract for CCTV monitoring in order to gain more knowledge about asset condition.

### **1.3 LTP – Stormwater Activity**

Simon Charles (Manager Waste and Drainage) covered the content of the briefing as outlined in the agenda report and presentation on Stormwater Activity, including key assets and levels of service and key issues.

#### **Waste and Drainage – what we do**

- Our stormwater network prevents flooding to properties and roads.

#### **Stormwater - legislative requirements**

- Stormwater management must align with the LGA Sanitary Assessments and the Northland Regional Plan to prepare catchment management plans.

#### **Key Assets**

- 580km of pipework.
- 31,000 pipes, channels, manholes, inlets and treatment devices.
- CBD stormwater network.
- CBD open drainage systems and streams.
- Hatea River / Town Basin outlets.
- Storage basins / Attenuation Dams.

#### **Levels of Service**

- No proposed changes to current levels of service.

#### **Key issues 2021 – 2024**

- Asset information and Condition Assessment.
- Stormwater network renewals.

#### **Key issues 2024 – 2031**

- Changes to the regulatory environment.
- Growth in Whangarei and Bream Bay upgrades and capacity increases.
- Climate adaptation.
- Water quality improvement.

#### **Key issues 2031 and beyond**

- Contaminant loading and resource consents.
- Sea level rise and Coastal Communities.

#### **Discussion**

- What investment will be needed to resolve the key issues? There has been a massive underinvestment in stormwater in previous years but in the last LTP there was considerable investment. What is the most concerning is the

amount of overland flow paths that get pushed from property to property when subdivisions occur. Climate Change will add a lot more storm events and we will need to put in a lot of infrastructure to manage this. Resourcing is an issue, it is a challenge to find good stormwater engineers.

- How far have we progressed with infiltration of stormwater into the wastewater network? Sewer network renewals have just been completed in Hikurangi which has helped the Inflow and Infiltration problem in this area. We haven't had any spillages and it is being managed but we need renewals.
- What can be done to improve water attenuation on the coast? The current engineering standards provide that attenuation requirements can be waived if there is coastal discharge with tidal influence. We consider the impacts and effects of each development on a case by case basis.

#### **1.4 LTP - Flood Protection**

Simon Charles (Manager Waste and Drainage) covered the content of the briefing as outlined in the agenda report and presentation on Flood Protection, including key assets and levels of service and key issues.

##### **Waste and Drainage – what we do**

- Flood management – Hikurangi Swamp Scheme.

##### **Key Assets**

- Approximately 68km of control and stop banks within the scheme, forming both boundaries and defining the floodway.
- 7 pump stations within the scheme housing between 1 pump and 5 pumps (20 pumps in total).
- All pump stations comprise of reinforced concrete panels with gravity channels, pump intakes and outlets, and buildings housing control and electrical equipment.

##### **Levels of Service**

- No proposed changes to current levels of service

##### **Key issues 2021 – 2024**

- Environmental issues.
- Affordability – targeted rates.

##### **Key issues 2024 – 2031**

- Climate Change.
- Land settlement.

##### **Discussion**



- Is depreciation of assets used to fund upgrades? The decision was made 5 years ago that the debt would be paid first and then depreciation would be considered.

### **3. Closure of Meeting**

The briefing concluded at 12.18pm