# Drinking Water & Summer Demand

Webinar 15 December 2022 Tonia Haskell Adam Mattsen Laurence Edwards Rory Milne











E te wai e

- E te wai nui, e te wai roa
- E te wai nō tawhiti, e te wai nō tata
- Kia tau te wai hei piringa
- Kia tau te wai hei tauranga
- Kia tau te wai hei ōranga mō te tangata
- Haumi e, Hui e, Taiki e!

# Today's agenda



- Context South Wairarapa's water network
- Drinking water 101 principles, treatment processes and plants
- Peak summer demand and network leaks
- Questions

#### **Context – SW's water network**



- 4 main water sources & 4 Treatments Plants
- Treated water reservoir at Waiohine significantly improved resilience
- Geographic challenges
- Historic underinvestment and low ratepayer base
- Supply of healthy, safe drinking water prioritised



# Six principles of safe drinking water Wellington Water



Successive layers of defenses

#### **Contamination sources**

















Wellington Water



# What treatment is required?



#### **Catchment Risk Assessment**

#### Barriers to contamination



#### **UV disinfection**





# **Chlorination**











#### Waiohine Water Treatment Plant – Wellington Water Featherston & Greytown





# Plant challenges and constraints





# Memorial Park Water Treatment Plant Wellington (Greytown)







# Plant challenges and constraints





# Martinborough Water Treatment Plant Wellington Water





## Plant challenges and constraints





# **Pirinoa Water Treatment Plant**











# Plant challenges and constraints





#### **Other system risks**





#### Peak summer water use





SWDC Regional Daily Usage YTD-7 days rolling average

# Water loss through pipe leaks





Minimum Night Flow





#### Half of our water lost in the pipes

GRACE PRIOR grace.prior@age.co.nz

# What we're doing to address leaks



- Dedicated ongoing detection programme underway (metro area, SWDC as/when required)
- Five fulltime staff detecting leaks, additional 40 fixing leaks (across SW/Wgtn)
- We prioritise the biggest leaks first
- Face resource constraints with tight labour market
- Increasing public awareness of private leaks



#### **Questions?**



