

South Australian Community Wastewater Management Scheme Conference

8 June 2023



Light
Regional
Council



Water to Wine

Creating a Circular Economy

Freeling Wastewater Treatment Plant Upgrade

Background



Built in 2009



Approved to take effluent and low loads of sewer 95/5



Residential growth in the township




Over the years the ratio of effluent to sewer changed – currently 60/40

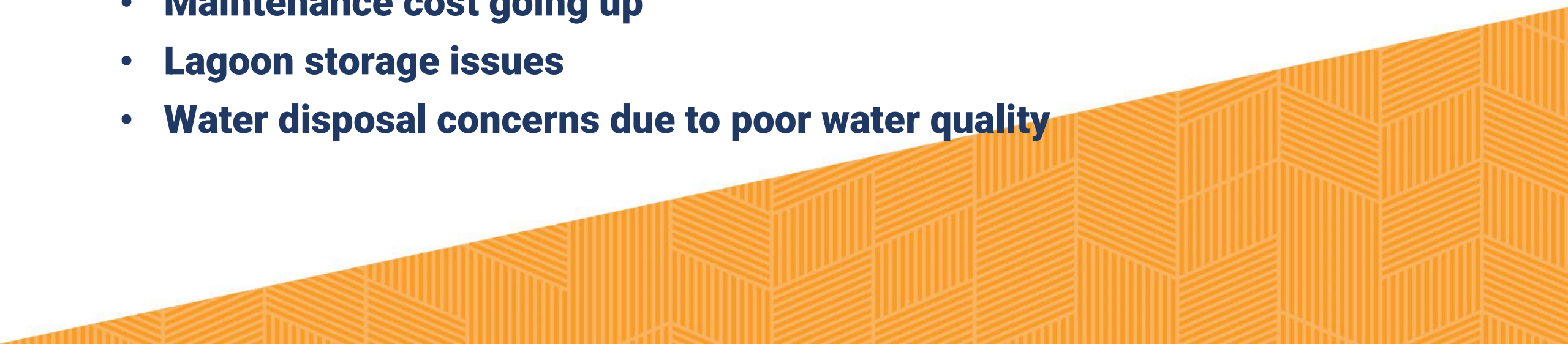


2019 DHW served notice on the plant, due to poor water quality

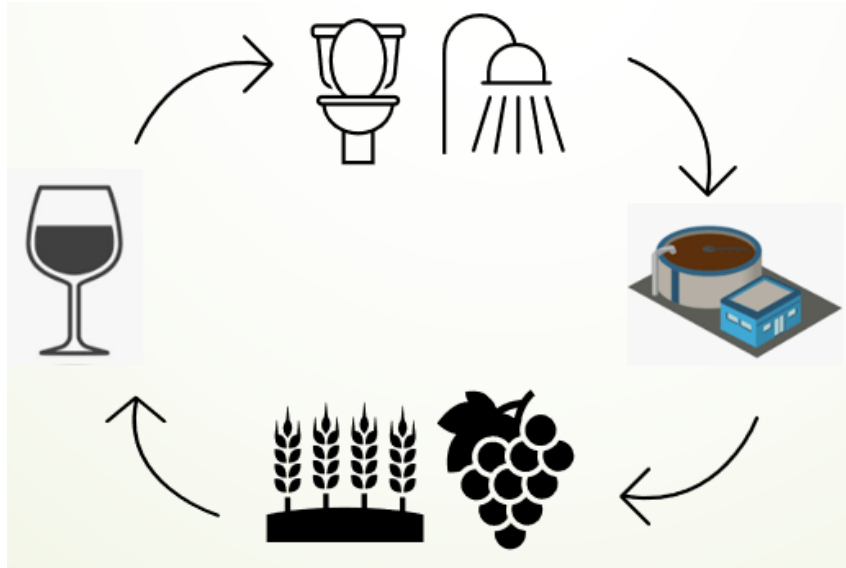
Current State of our Network

- **1 WWTP**
 - **2 Storage Lagoons**
 - **6 Pump Stations**
 - **32 kms of pipework**
 - (240 Flushing Points, 870 Inspection Points, 70 Manholes)
 - **830 Connections**
 - **300kl/day of wastewater**
 - **110 megalitres per year**
 - **60% Effluent & 40% Sewage**
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Issues

- **Plant originally built for effluent, minor modifications made to accept low levels of sewer**
 - **Growing population, increase in sewer**
 - **Increase in sewer started causing damage to the plant**
 - **Quality of water deteriorated, odour issues, constant breakdown of equipment**
 - **Maintenance cost going up**
 - **Lagoon storage issues**
 - **Water disposal concerns due to poor water quality**
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OPPORTUNITIES



- **Upgrade the plant for the future - population and economic growth**
- **Provide a Tertiary Treatment Plant**
- **Improve water quality**
- **Opportunity to reuse water for irrigation and agriculture**
- **Opportunity to implement a circular economy**

Our Journey

- **Prepare the road map**
 - **Sell the concept to Senior Management**
 - **Engage industry experts to support us in our journey – Design and Estimates**
 - **Sell the concept to Elected Members – tick of approval to proceed**
 - **Find a use for the water**
 - **EOI – multiple buyers for water, plus public use**
 - **Work with DHW, LGA and EPA (open channels of communication)**
 - **Preparing specifications**
 - **Prepare Tender for works**
 - **Continue working with DHW, LGA and EPA and Contractor**
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Outcomes

- **Upgrade using Council and Grant funds (win-win for Council and the Community)**
 - **Quality water available for reuse**
 - **Support efficient water use, recycling and reuse for local agriculture, industry and domestic environments**
 - **Economical option for business and council use**
 - **Less pressure on SA Water potable water network**
 - **Mitigate risk of surplus water**
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Funding

- **Total Cost of the project is around \$3.8M**
 - **Funded through Council's CWMS reserve and LGA**
 - **First project funded by the LGA after upgrades were included as eligible in LGA's CWMS funding**
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Old to New



FREELING



Take away messages

- **Have a clear idea of the outcome**
- **Stakeholder engagement – both internal and external**
- **Open Communication – joint meetings between parties (preferred contractor, engineer, DHW, EPA)**
- **Prepare for SAPN charges**
- **Huge demand for water, engage early with potential users**
- **Stormwater harvesting opportunities**
- **In all dealings, have a collaborative approach**

Thank you

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