

Primary Topic: Water Quality and Taste Secondary Topic: Performance Management





# Water quality and taste Customer Forum



# Choose your Outcomes Framework water future

# **Enclosed in your pre-reading material:**

# **Overview of previous customer engagement**

# **Highest customer priorities**

# Background

# **Primary topic: Water quality and taste**

- Water quality performance against current customer commitments -
- **Achievements and recent investment**
- What initiatives should Westernport Water plan for today for improved and consistent tasting water tomorrow?

# **Secondary topic: Performance management**

- Should Westernport Water continue to provide rebates to customers every 5 years if we fail to deliver on our pricing submission promise?
- Is there a more desirable use of those funds?





# Glossary

Manganese	If tap water appears yellowish/brown through to brown black, and sometimes containing sediments, it is actua to the presence of naturally occurring magnese that ca sometimes accumulate within tanks and pipes over time
Chloramination	Disinfection process where small amounts of chlorine a ammonia are added to the water to produce chloramin





## Phase 1: Choose your Customer water future Consultation



# **Respondent type**



# What you told us - Satisfaction levels overall with:



## What we learnt: Of all our services, these are the top 3 that matter most to customers:

- Provide consistent, great tasting water that tastes and looks the same every time 67%
- Planning for, and adapting to, climate change 41%
- Ensure bills are affordable for everyone 34%



Who did we speak to during phase 1 engagement and how? We welcomed feedback from anyone who lives, works, visits, or owns property in our area.



## **Customer survey geographic data**





Phase 1: Customer Consultation

# What customers expect from their water provider?



**Provide safe and clean drinking** water that looks and tastes the same every time





**Ensure bills are affordable for** everyone



# **Quotes from customers about climate change and sustainability:**

*"Improve the quality of drinking water."* I have had to fit filters to my supply to enable me to drink the water."

"It would be good if the water didn't smell like a swimming pool."

"The taste has



**Highest priorities** for our customers.

> **Provide reliable water and** wastewater services



**Deliver friendly** and accessible customer service

Plan for, mitigate and adapt to climate change

*improved ten-fold over* last 15 years but still room for improvement."

"The water quality is not very good, many of my friends and family buy water when they visit..."

"The taste and quality of the water is perhaps the most important issue for me."





### Provide Choose your Customer consistently waterfuture Satisfaction great tasting water





**Customer satisfaction with** drinking water.



### Provide Choose your Our consistently performance water future great tasting water

# **Target: Better tasting water**

Output	2020-21	2019-20	2018-19	Target 2018-23
Customers (%) satisfied with drinking water via annual telephone survey	72 *	69	64	> 70
Number of Safe Drinking Water Act non-compliances (water sampling and audit)	0 #	0	0	0
Number of water quality complaints per 100 customers	0.95 +	0.08	0.22	< 0.22

\* Customer satisfaction with drinking water improved significantly this year.

# There were no non-compliance events this year.

+ Taste and odour issues affecting some townships in December 2020 contributed to a higher number of complaints this year. Learnings will lead to operational improvements going forward.



invested since 2018-19





Water quality performance against current customer commitments

# What have we done?

San Remo Basin Liner & Cover Renewal - The liner and cover of the basin is approaching the end of its useful life and will be replaced, protecting our water security and water quality for years to come. Project budget is \$2.6M and is expected to be completed this year.

**Phillip Island Water Security Supply** - Construction of a 2.3ML treated water storage tank at Wimbledon Heights provides service reliability to our customers and operational flexibility in the event of a water outage or water quality event. The Corporation invested \$1.3M on this project.

Stanley Road Mixer - A mechanical mixer has been installed in our Stanley Road storage. The new mixer provides continuous mixing of water inside the basin to improve the water quality.

**Ultra Violet Treatment** - UV disinfection was introduced at our water purification plant to provide a secondary barrier to the existing treatment process. This increases our ability to protect the safety of our water.

**Filter to Waste** - The Filter to Waste system, installed at our Ian Bartlett Water Purification Plant, increased the operational flexibility of our treatment system.

**Powder Activated Carbon Upgrade** - An upgrade to the Powder Activated Carbon treatment process at Candowie Reservoir, removing organics from raw water and improving taste.

Vertical Profiler - installation of a vertical profiler in Candowie Reservoir to increase understanding of raw water quality throughout the water column, providing early warning of changes to water quality to inform the treatment process.

**Real-Time Monitoring** – Westernport Water introduced real-time monitoring of treated water at the Grantville water storage to monitor quality.

**Melbourne Water Supply System** – Received water from the Melbourne Water Supply System for the first time in 2019-20.

2021 WIOA Best Tasting Tap Water - Westernport Water was recognised as having Victoria's best tasting tap water at the recent Water Industry Operators Association of Australia (WIOA) 2021 Best Tasting Tap Water competition and were finalists the two years prior.





Have your say...

What initiatives should Westernport Water plan for today for improved and consistent tasting water tomorrow?



**Provide** consistently great tasting water

# **Future investment for improved water consistency and taste**



Maintain a continuous improvement approach

Meet all water safety and quality targets, while focusing on cost-effective improvements to taste and quality.

## **Includes:**

- Construction of 2.8km of water main providing improved consistency to waterline communities
- Replace/relocate Corinella pressure reduction valve
- Development of future plans to enhance and improve water purification plant/distribution system
- Chloramination dosing system to deliver consistent tasting water to Bass and Woolamai
- Manganese analyser at the water purification plant to optimise its removal
- Dead ends automatic flushing devices decreasing water age
- Cleaning trunk mains to reduce biofilm within the distribution system.

## Why:

In recent years, WPW has invested in enhancements to the treatment process at our water purification plant at Candowie Reservoir. Over the next five years, our proposals focus on the distribution network to: improve the flow and consistency, reduce sediment within our water main and identify real time changes to raw water manganese to help us improve the quality of drinking water.

**Total investment over 5 years:** \$2.3M (\$1.8M capex, \$0.5M opex)



## **Provide** consistently great tasting water

What initiatives should Westernport Water plan for today for improved and consistent tasting water tomorrow?



Seek out new treatment technologies

Meet all water safety and quality targets, while investigating new emerging technologies and innovations for our water purification plant.

### Includes:

All deliverables in Option 1, plus:

Performance analysis and new treatment technology investigation (additional \$0.3M).

## Why:

There are limited cost-effective changes that remain to improve the current water treatment process for customers without introducing new treatment technologies. Given we know that the taste of water is a high priority for our customers, we are already proposing to invest in this area. New and emerging technologies and innovations can be further explored over the next five years, with findings then being the basis for consultation with our customers in the future.

**Total investment over 5 years:** \$2.6M (\$2.3M capex, \$0.5M opex)





# Options for discussion

# Future investment for community education and access to drinking water



## Keep Status Quo / Current Expenditure on Water education

### Includes:

Installation of 7 Community Water refill stations, and promotion of health and environmental benefits of drinking water (Choose Tap Program).

## What does this mean:

Increased access to free drinking water at key community locations.

## Why:

Because schools and community groups value this support and there are proven benefits to the environment and health (less consumption of sugary drinks and single use plastics).

## **Cost over 5 years:**

\$125k over 5 years



Building community confidence and access to drinking water



Water for resilient and liveable communities

Support sporting groups, and hospitality and tourism organisations to encourage customers to choose tap water.

### **Includes:**

Installation of 15 community water refill stations at key locations and sporting facilities. Engage with and provide resources to encourage drinking tap water instead of purchasing bottled water.

## What does this mean:

Supporting resilient and liveable cities and towns means supporting tourism, business, accommodation providers and property managers by providing resources to encourage people to choose tap water.

## Why:

Equipping tourists and non-permanent residents with accurate and accessible information on the benefits of consuming our drinking water will help protect our local environment (reduction in single use plastic). Providing accessible water refill stations at sporting grounds and facilities will reduce consumption of sugary drinks and increase health benefits for participants and spectators providing ongoing value.

## **Cost over 5 years:**

\$450k over 5 years (\$200k opex + \$250k capital)





Have your

5 years if we fail to deliver on our pricing submission promise? funds?





# Should Westernport Water continue to provide rebates to customers every Is there a more desirable use of those



## Choose your Our water future performance

# **Customer commitments and rebate options for 2023-28**



**Current Customer** Commitment 2018-23

## **Current performance and** forcasted rebate

Based on current performance this regulatory period, Westernport Water is forecast to meet 12 of 14 commitments and pay a rebate of \$10 to every household in 2023-24 due to two missed targets.

1) If customers prefer a different model of performance management (refer above), would you like to see these changes made immediately?

2) Or wait for the next regulatory period to commence (from 2023-24)?

No change to current customer commitment rebate system

## **Performance-based rebate** program

Maintain our current performancebased rebate program, delivering rebates to customers for each missed commitment (thereby crediting customer bills).



program

Water.

these funds have been performance.



## **Customer** commitments and rebates

Once again, we will outline 12-14 commitments in the areas that have been identified as priorities by our customers.

In the event that we miss these targets, what are the consequences for Westernport Water?











# **Topic 1: Fixed (access) versus Variable (usage) charges Topic 2:** Special meter reads





# Access and usage charges Customer Forum



# Choose your water future C **Outcomes U**

# **Enclosed in your pre-reading material:**

# **Overview of previous customer engagement**

# **Highest customer priorities**

# Background

# **Topic 1: Fixed versus variable**

- Balancing access and usage charges

# **Topic 2: Special meter reads**





# Glossary

Fixed access charges	Westernport Water customers pay fixed access charge water and wastewater services.
Variable usage charges	Westernport Water customers pay for their water usage based on the volume of water that is used and measur the property's meter at a fixed rate per kilolitre.
Other charges	Such as the Waterways and Drainage Charge. This is a annual charge collected by us on behalf of Melbourne
New customer contributions	Sometimes known as 'developer charges'. Levied by w businesses when new customers connect to the existin water, sewerage and recycled water networks.
Special Meter Read	A special meter read is often done when someone is mout of a property or at the request of a customer.
Opex	Operational cost of running the business day to day.
Сарех	Capital expenditure for projects and infrastructure.





### 



## **Respondent type**



## What you told us - Satisfaction levels overall with:



## What we learned: Of all our services, these are the top 3 that matter most to customers:

- Provide consistent, great tasting water that tastes and looks the same every time 67%
- Planning for, and adapting to, climate change 41%
- Ensure bills are affordable for everyone 34%



We welcomed feedback from anyone who lives, works, visits, or owns property in our area.



## **Customer survey geographic data**





o customers: time 67%



# What do customers expect from their water provider?

Consultation

Phase 1:

Customer



Choose your

water future

**Provide safe and clean** drinking water that looks and tastes the same every time





Ensure bills are affordable for everyone



# **Quotes from customers about their bill:**

"Reduce costs. I hardly use any water but have a very high bill."

"Westernport's water is extremely expensive. Service charges are enormous compared to water usage, need to scale the cost of these service charges against usage and if this is already being done, cut staff - your overheads are too high to have these very high charges."



## **Highest Priorities for** our customers

**Provide reliable water** and wastewater



Friendly and accessible customer service

# Plan for, and adapt to climate change

"Your service charges are too high for what we get. Forget social issues - be good at your core business and remember without customers you wouldn't have a business."

"Just keep the costs down - water rates are ridiculous... It makes little difference if I use less water to my bill because you charge very high service rates."





Phase 1: Customer Consultation

goes.

# Total forecast expenditure for 2021-22 financial year of \$27.2M



# Water services

Operations and maintenance of our reservoirs, drinking water treatment plants and distribution networks

- Water Treatment \$3.9M
- Water Network Operations \$4.8M



# Wastewater services

Maintaining our networks and treatment plants and removing, treating and disposing of wastewater.

- Wastewater Treatment \$3.0M
- Wastewater Network Operations \$3.3M



## Where your money

## What does your water bill pay for?



# **Customer service and** corporate

24/7 emergency support and response, customer support, business administration, environmental levy etc.

- Environmental Contribution \$1.1M
- Customer Service & Billing \$1.3M
- Other Corporate Services \$0.9M



## **Capital expenditure**

Upgrades and renewals of water treatment plants, wastewater treatment plants, and new infrastructure.

- Compliance \$0.2M
- Growth \$3.5M
- Improved Services \$0.4M
- Renewals \$4.8M







## Phase 1: Choose your Customer waterfuture Consultation

# Average customer bills - price path over the past 8 years (\$, nominal) (rebates not included)







We know affordability is a key priority for customers.



### Phase 1: Choose your What you told us? Customer water future Consultation

# What do customers expect from their water provider?



- Pay more money for improved water and/or wastewater services Pay less money for lesser service 



# **Customers told us that affordability and** strong performance is important to them.





Response percentage (n=400)

Do you receive value for money for the services that are provided? Date period: Responded 2021 Response filter: Water Corporation: Westernport Water



Phase 1: Customer Consultation



**Bass Coast** 

# Bass Coast has a population of over 38,000 people (estimated as at 2021)



# Job keeper

The Bass Coast is ranked 10th out of 80 councils for percentage of Job Keeper recipients (9.6% as at December 2021)

\*https://www.remplan.com.au/



**Rental accommodation** 13.1% of people live in rental accommodation

\*realestateinvestar.com.au



**Customer satisfaction** According to insights from our annual customer satisfaction survey, renters report high levels of satisfaction. 81% of renters surveyed felt that they received value for money for the services provided by Westernport Water



# **Financial hardship in**

We know there are many people in our community experiencing financial hardship.



# Housing market

The median listing price for a house is \$775,000 and this has changed 33.62% over the past year and 50.33% over 2 years (putting pressure on housing availability and affordability)

\*realestateinvestar.com.au

# 442%

## Hardship customers

Westernport Water continues to have the highest proportion of its customers on hardship programs in comparison to all other water corporations. (200 per 10,000 customers).

\*Essential Services Commission





# Choose your water future Consultation Benchmarking

# Tenants — average household bills (\$, nominal)





How we compare against other water corporations for typical household bills.

# Owner occupiers — average household bill breakdown (\$, nominal) (rebates not included)







# **New Customer Contributions**

New Customer Contributions (NCC) are an upfront payment to recover the cost of major water, sewerage and recycled water infrastructure required to service a new development. Sometimes known as 'developer charges', they are levied by water businesses when new customers connect to the existing water, sewerage and recycled water networks.

# What you need to know

- NCC do not apply to properties already connected to our system
- NCC are a one-off payment for new connections to our systems (e.g. block of land)
- Developers pays the NCC as part of the consent to release a new subdivision
- Infill developments (e.g. 2 lots subdivisions) the owner or the developer pays the NCC

\*\* The NCC is calculated based on growth forecasts and projected costs of future loads on Westernport Water's water, waste water and recycled water systems.



# **Proposed prices for**

**Background information about New Customer Contributions and growth.** 



## **Current charges**

- Water : \$1078.68 per lot
- Sewer: 760.74 per lot
- Recycled water: we don't charge NCC





### **Enhanced** Choose your Draft value for water future Outcome money

# How does reducing the fixed (access) charge affect the different types of residential customers?

Any of these scenarios show that reducing the fixed costs financially benefits households with very low water use (e.g., holiday homes and permanent homeowners with one or two people), or owners who rent their house to tenants.

Larger families and tenants would likely pay more in any of these scenarios. (Tenants only pay for water usage so fixed costs don't apply to them.



**Residential Customer** 1-2 People (83kl)

Residential Water Access Charge

Residential Sewer Access Charge

Residential Variable Charge

Total <u>annual</u> bill

Change in <u>annual</u> bill



Residential <u>Water</u> Access Charge

Residential <u>Sewer</u> Access Charge

Residential Variable Charge

Total <u>annual</u> bill

Change in annual bill





Getting the balance right. **Residential customer type and billing scenarios.** 

"Ensure bills are affordable for everyone"

<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)
Current charges	2% fixed reduction	5% fixed reduction
391.60	383.77	372.02
607.94	595.78	577.54
168.17	170.89	205.07
\$1,167.71	\$1,150.44	\$1,154.63
	\$17.27 less (-1.48%)	\$13.08 less (-1.12%)
<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)
Price (1 July 2021) Current charges	Price (1 July 2021) 2% fixed reduction	Price (1 July 2021) 5% fixed reduction
Price (1 July 2021) Current charges Owner pays	Price (1 July 2021) 2% fixed reduction Owner pays	Price (1 July 2021)5% fixed reductionOwner pays
Price (1 July 2021) Current charges Owner pays Owner pays	Price (1 July 2021)2% fixed reductionOwner paysOwner pays	Price (1 July 2021)5% fixed reductionOwner paysOwner pays
Price (1 July 2021) Current charges Owner pays Owner pays 168.17	Price (1 July 2021) <b>2% fixed</b> reduction Owner pays Owner pays	Price (1 July 2021) 5% fixed reduction Owner pays Owner pays
Price (1 July 2021) Current charges Owner pays Owner pays 168.17 \$168.17	Price (1 July 2021) 2% fixed eduction Owner pays 0wner pays 170.89 \$170.89	Price (1 July 2021)5% fixed paduction0wner pays0wner pays205.07\$205.07

<b>Ů</b> † <b>Ť</b> Ť	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)
Residential Customer Family (205kl)	Current charges	2% fixed reduction	5% fixed reduction
Residential <u>Water</u> Access Charge	391.60	383.77	372.02
Residential <u>Sewer</u> Access Charge	607.94	595.78	577.54
Residential <u>Variable</u> Charge	415.37	422.07	506.49
Total <u>annual</u> bill	\$1,414.91	\$1,401.62	\$1,456.05
Change in <u>annual</u> bill		\$13.29 less (-0.94%)	\$41.14 more (2.91%)
	•		
	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)
Residential Renter Family (205kl)	Price (1 July 2021) Current charges	Price (1 July 2021) 2% fixed reduction	Price (1 July 2021) 5% fixed reduction
Residential Renter Family (205kl) Residential <u>Water</u> Access Charge	Price (1 July 2021) Current charges Owner pays	Price (1 July 2021) 2% fixed reduction Owner pays	Price (1 July 2021) 5% fixed reduction Owner pays
Residential Renter Family (205kl) Residential Water Access Charge Residential Sewer Access Charge	Price (1 July 2021) Current charges Owner pays Owner pays	Price (1 July 2021) 2% fixed reduction Owner pays Owner pays	Price (1 July 2021) 5% fixed reduction Owner pays Owner pays
Residential Renter Family (205kl) Residential Water Access Charge Residential Sewer Access Charge Residential Variable Charge	Price (1 July 2021) Current charges Owner pays Owner pays 415.37	Price (1 July 2021) <b>2% fixed</b> reduction Owner pays Owner pays	Price (1 July 2021) 5% fixed reduction Owner pays Owner pays
Residential Renter Family (205kl)Residential Water Access ChargeResidential Sewer Access ChargeResidential Sewer Access ChargeResidential Variable ChargeTotal annual bill	Price (1 July 2021) Current charges Owner pays Owner pays 415.37 \$415.37	Price (1 July 2021) 2% fixed reduction Owner pays 422.07 \$422.07	Price (1 July 2021) 5% fixed reduction Owner pays 0wner pays 506.49 \$506.49





# How does reducing the fixed (access) charge affect commercial customers and holiday home owner bills?

Small Business: E.g. Café/Retail	siness: Price (1 July 2021) Price (1 July 2021) Price (1 July 2021) Large Business: E.g. Accommodation		Large Business: E.g. Accommodation		<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	Price (1 July 2021	
	Current charges	2% fixed reduction	5% fixed reduction	Provider (1195kl)	11	Current charges	2% fixed reduction	5% fixed reduction
Non - Residential 20mm	391.60	383.77	372.02	Non–Residential 50mm		4347.94	4260.98	4130.54
Non - Residential Sewer Access Charge	607.94	595.78	577.54	Non–residential Sewer Access C (> 2 cisterns) (per cistern)	Non–residential Sewer Access Charge (> 2 cisterns) (per cistern)		1100.15	1066.47
Non - Residential Variable Charge	1233.96	1253.86	1504.64	Non-Residential Variable Charge	Non-Residential Variable Charge		2460.38	2952.46
Total bill	\$2,233.50	\$2,233.41	\$2,454.20	Total bill		\$7,891.85	\$7,821.50	\$8,149.47
Change in annual bill		\$0.09 less (0.00%)	\$220.70 more (9.88%)	Change in annual bill			\$70.35 less (-0.89%)	\$257.62 more (3.26%)

Reducing the fixed services charge, means an increase in the variable water usage charge.

Draft

Outcome



Choose your

waterfuture



Getting the balance right. Residential customer type and billing scenarios.

"Ensure bills are affordable for everyone"

	<b>Price</b> (1 July 2021)	<b>Price</b> (1 July 2021)	Price (1 July 202
Residential Customer Holiday Home (40kl)	Current charges	2% fixed reduction	5% fixe reductio
Residential <u>Water</u> Access Charge	391.60	383.77	372.02
Residential <u>Sewer</u> Access Charge	607.94	595.78	577.54
Residential <u>Variable</u> Charge	81.05	82.36	98.83
Total <u>annual</u> bill	\$1,080.59	\$1,061.90	\$1,048.3
Change in <u>annual</u> bill		\$18.69 less (-1.73%)	\$32.20 le (-2.98%)





**Fixed vs** variable balance



**Enhanced** value for money

# Should Westernport Water rebalance its access and usage charges?









# Access and usage charges

# **Special meter reads**

Westernport Water currently charges \$62.34 for a scheduled special meter read for the sale of a property.

Scheduled special meter reads are also required for all outgoing tenants. However, we are not applying the charge.

Over 650 special meter reads were undertaken for outgoing tenants last year at no charge. This means that the cost pressure was absorbed temporarily under existing prices.

Do you support the application of the special meter read charge for outgoing tenants (paid by the landlord) in the future?



Background information about Special Meter Reads and related charges.



## **Current charges**

Special Meter Read charge - approved by the Essential Services Commission \$62.34







**Primary Topic:** Getting to Net Zero - initiatives and options **Secondary Topic:** Wastewater management priorities





# Climate Change Customer Forum

PRE-READING INFORMATION PACK

# Choose your Outcomes Framework water future

# **Enclosed in your pre-reading material:**

# **Overview of previous customer engagement**

# **Customer priorities**

# Background

- Why is climate change important for water corporations?
- **Emissions performance at Westernport Water against current customer commitm**
- Where our emissions come from
- What are we required to do?
- Achievements and recent investment.

# **Primary topic: Getting to Net Zero**

What is the right time frame for Net Zero and what mix of initiatives should Westernport Water implement in the next five years?

# Secondary topic: Wastewater management priorities

How do we drive further value from wastewater?





# **Glossary**:

nents	Effluent	Sewage/waste water goes to our treatment plants wh is then treated and becomes 'effluent'. This effluent is either turned into recycled water and reused, or discharged via our outfall in line with our EPA licence.
	Carbon offset	Investing in environmental projects elsewhere to bala out emissions produced within a business.
	Carbon inset	Investing in things we can do within our own business our own land, within our own supply chain, and areas influence to reduce or balance out carbon emissions.







Phase 1: Customer Consultation





# **Respondent type**



# What you told us - Satisfaction levels overall with:



## What we learned: Of all our services, these are the top 3 that matter most to customers:

- Provide consistent, great tasting water that tastes and looks the same every time 67%
- Planning for, and adapting to, climate change 41%
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## Who did we speak to during phase 1 engagement and how?

We welcomed feedback from anyone who lives, works, visits, or owns property in our area.



## **Customer survey geographic data**







Phase 1: Customer Consultation



# What customers expect from their water provider?



**Provide safe and clean drinking** water that looks and tastes the same every time





**Ensure bills are affordable for** everyone



# **Quotes from customers about climate change and sustainability:**

"Addressing climate change is very important to me."

"Communicate what you are doing to reduce carbon emissions."

*"Education for water"* conservation and understanding of the environmental impacts of Westernport Water's activities."



**Highest priorities** for our customers

# **Provide reliable water and** wastewater services



**Deliver friendly** and accessible customer service

Plan for, mitigate and adapt to climate change

> *"Empower customers to understand"* GHG emission footprint from WPW services & provide opportunities for community involvement in projects tree plantings, etc."

"Use 100% renewable energy because you are a high power user. Using grid power means you are paying too much for power (which means we are paying too much for water) and significantly contributing to climate change."





## Choose your Climate water future and Water

# **Implications for Westernport Water and the community**



**Increased annual demand for** water, including irrigation of recreational areas



**Increased likelihood of sewer spills** from storm impacts



**Decreased stream flows and** raw water quality









Why is responding to climate change important for water corporations?





**Increased prices for water** and wastewater services



Reducing

emissions

The Victorian water sector emits more emissions than any other Victorian government sector, roughly a quarter of the Victorian Government's total emissions. Below is a snapshot of where Westernport Water's emissions are generated.



# Current **Carbon Profile**

# **Customers said:** "Plan for, mitigate and adapt to climate change."

## Choose your Customer water future satisfaction





## Amore sustainable community

**Customers told us that responding to climate** change is important to them.

in environment and sustainability initiatives.







# Choose your water future C Climate change response

# Westernport Water's current commitments





# Current approach

# What are our targets?



# **Target: A more sustainable community**

Choose your

water future

Output	2020-21	2019-20	2018-19	Target 2018-23	
Effluent reuse (%)	7*	14	23.5	> 25	
Net Greenhouse Gas Emissions (CO2-e tonnes) produced	6,704 +	6,460	6,920	< 5,974	)
Number of community education engagements	12#	23	23	>+22	

Recent

Investment

- \* Treated effluent reuse was much lower due to higher than average rainfall, and reduced opportunity for irrigation.
- + Greenhouse gas emissions increased in the second half of this year due to increased power consumption to meet higher than normal customer demand.
- # Planned community events and face-to-face engagements were mostly cancelled or postponed due to ongoing restrictions.





# What have we done?

- 2050.
- —

# Amore sustainable community

**Emissions performance at Westernport Water** against current targets

## **Emissions Reduction Pledge Implementation**

We have a two stage project focused on installing solar arrays at three of our most energy-consuming sites as we work towards sourcing 100% of our energy from renewable sources by 2025. Stage 1 (completed in 2019-20) includes solar arrays at Church Street Pump Station, Newhaven Office and our depot, and King Road WWTP. Under Stage 2 a solar array has been installed at Cowes WWTP. In total 426 solar panels have been installed at WPW sites, generating 108,300kWh electricity annually. This will reduce emissions by 150 tonnes this financial year. Total investment in the Emissions Reductions Pledge Program over the five years to 30 June 2023 is estimated at \$444,000.

## Smart Energy Strategy and Net Zero Roadmap

Developed an understanding of various pathways, scenarios and proposals to deliver Net Zero by 2030 and

### **Zero Emissions Water**

A Victorian water sector initiative Westernport Water is pleased to be an active partner in the Zero Emissions Water program. Partnering with 13 participating Victorian water corporations we receive a solar energy offtake from the Kiamal Solar Farm at Ouyen, Victoria's largest solar farm. This renewable energy project is a major contributor towards meeting the emissions reduction targets of net-zero by 2030. Purchasing as one large organisation means the water corporations can procure energy at a cheaper rate compared to going it alone.

## Investigated opportunities for storing carbon'

Completed feasibility studies and investigations to explore how carbon could be stored within its operational remit in environmental plantings, in freshwater wetlands and in soils. This work will be further developed over the coming years and is explored a little more on pg 12.





Options for discussion



A more

# What is the right time frame for Net Zero and what mix of initiatives should Westernport Water implement in the next five years?











# sustainable community

What is the right time frame for Net Zero and what mix of initiatives should Westernport Water implement in the next five years?

# **Options to get to Net Zero**

- 1 Current approach
- 2 Accelerated commitment



Options for discussion

Amore

# **Options to get to Net Zero**



Maintain current approach: Net Zero by 2035 (90% reduction by 2030)

## **Current approach**

## **Includes:**

- Biogas cogeneration plant
- Renewable energy generation
- Purchase offsets at the lowest price

## What does this mean:

Purchase offsets at lowest price to reduce emissions to meet target of 90% by 2030, which meets our regulatory commitments. This reflects a modest capital spend.

## **Cost over 5 years:**

Capital Expenditure: \$3.75 million **Operational Expenditure: approximately \$23,000 per annum** 



- Plant efficiency projects
- Zero emission vehicles



# sustainable community

What is the right time frame for Net Zero and what mix of initiatives should Westernport Water implement in the next five years?



**Accelerated Commitment:** Net Zero by 2030

## Accelerated commitment - Includes all of option 1 plus the below:

## **Includes:**

- Upsize of renewable energy generation
- Explore Re-Wilding project (before looking to purchase offsets outside our area).

Re-Wilding means ecological restoration with an emphasis on returning a parcel of land to nature.

- + Biodiversity benefit. Local project with enhanced environment.
- Locks away land, meaning less operation flexibility.

## What does this mean:

An accelerated program to achieve Net Zero by 2030 will require increased renewable energy generation and purchasing additional offsets or constructing local insets on our land. This reflects a 33% increase in capital expenditure on option 1, and 330% increase in operational expenses to meet a fast tracked program.

## **Cost over 5 years:**

**Capital Expenditure: \$5 million Operational Expenditure: approximately \$100,000 per annum** 





## Options for Choose your discussion waterfuture



# **Target: A more sustainable community**

Choose your

water future

Output	2020-21	2019-20	2018-19	Target 2018-23	
Effluent reuse (%)	7*	14	23.5	> 25	
Net Greenhouse Gas Emissions (CO2-e tonnes) produced	6,704 +	6,460	6,920	< 5,974	( <u>·</u> )
Number of community education engagements	12#	23	23	> +22	

Recent

Investment

\* Treated effluent reuse was much lower due to higher than average rainfall, and reduced opportunity for irrigation.

+ Greenhouse gas emissions increased in the second half of this year due to increased power consumption to meet higher than normal customer demand.

# Planned community events and face-to-face engagements were mostly cancelled or postponed due to ongoing restrictions.

Westernport Water increased its irrigation capacity at the King Road Wastewater Treatment Plant through the purchase of 16.7 ha of land. A new pivot irrigator has been installed at King Road recently. In addition, 32.6 ha of land adjoining the Cowes Wastewater Treatment Plant was purchased, providing additional irrigation area to meet our reuse targets.







**Reuse performance at Westernport Water against** current targets.

## **Sustainable Water Reuse and Land Management**

Westernport Water continues to oversee a limited Class-B Recycled Water trial in an effort to increase treated effluent reuse.





Options for discussion



**A**more

# How do we drive further value from our wastewater?







Amore

# Increasing value from wastewater

**Reuse / Recycle more** wastewater

## **Option 1: Increase the amount of effluent reused/recycled**

## **Includes:**

- Future land purchase for additional on-site irrigation.
- Increased irrigation options for commercial use.

## Why:

Feedback indicates that many customers want Westernport Water to make better use of wastewater for environmental or commercial benefit.

## **Target:**

• Increase in effluent reused

## **Benefits**

- Provides greater water for commercial use
- Makes use of a valuable water resource
- Provides increased options for alternative water sources.

## **Cost over 5 years:**

Capital investment includes land purchases and upgrades to assets to increase irrigation.



# How do we drive further value from our wastewater?

## **Create restorative wetland**

## **Option 2: Environmental solution for maximum benefit**

### **Includes:**

• Construct restorative wetlands to polish effluent and create habitat, this will also enable increased optimisation for the timing of releases.

## Why:

Feedback indicates that many customers want Westernport Water to make better use of wastewater for environmental or commercial benefit.

## **Target:**

• Reduction in tonnes of nutrients discharged

## **Benefits:**

- Sustainable disposal of wastewater (reducing nutrients to receiving environment)
- Improves the health of waterways
- Makes use of a valuable water resource
- Supports a healthy environment, biodiversity and provides for wildlife
- Provides increased flexibility and capacity to manage the extremes of weather.

## **Cost over 5 years:**

The cost is estimated to be four times the cost of option 1.



