

## Hunter Water Customer and Community Advisory Group

Wednesday 7 December 2022



### **ACKNOWLEDGEMENT OF COUNTRY**

Hunter Water acknowledges the Traditional Countries of the Awabakal, Geawegal, Darkinjung, Wonnarua and Worimi peoples on which we operate and the Countries beyond where our water flows.

We recognise and respect the cultural heritage, beliefs and continuing connection to the lands and waters of our Traditional Custodians and pay respect to their Elders past, present and emerging.





## **Operational update**



### Water Storage Levels



### Historical water storage levels

AS AT 5 DECEMBER 2022



	Alignment with Towards 2024 objective	Goal	Proposed KPI	Proposed target 22-23	HUNTER WATER Water
	Increase community trust	To increase trust in Hunter Water as stewards of our water system	Corporate reputation score (scale 1-10)	7.2	
AT OUR HEART	Improve customer experience	To improve our customers' experience when they engage with Hunter Water	Customer experience score (scale 1-10)	8.3	
RESILIENT,	Improve community focus	To get the basics right always for our customers and community through the delivery of resilient, sustainable and valued services	Service index - customer and environment (%)	80	$(\underline{P})$
VALUED SERVICES	Reduce water leakage from our system	Reduce water lost from Hunter Water's supply system to make the most of what we've got	Reduction in non-revenue water (GL/annum)	0.3	
	Improve safety, health and wellbeing	To look after our people through culture centred safety leadership	TRIFR	5.5	
HIGH PERFORMING AND RESILIENT ORGANISATION			Safety interactions and impact index	10	
	Improve values-based culture	To shape a values-based culture to enable our strategy	Organisational culture (%)	80	
	Business plan and SCI commitments met	To ensure Hunter Water is a successful, commercially focused business that delivers on its Shareholder commitments	Profitability (EBITDA)	Budget	
VALUED CONTRIBUTOR TO OUR STAKEHOLDERS			Efficiency measure (%)	>2	
	Towards 2024	To be a valued partner in delivering the aspirations for our region	Progress of strategic objectives (%)	80	



### In the media:

### Hunter community is the power behind the throne



Hunter Water's Respect the Throne Campaign won the Communications for Impact Award in the 2022 NSW Sustainability Awards.

The 'Respect the Throne' campaign came about in response to the COVID-19 pandemic's toilet paper shortage, which saw an excess of non-degradable items being flushed, creating more blockages in pipes and pump stations.

With a quick operational solution unavailable, Hunter Water delivered a message to the community through a catchy jingle played on television and social media to drive awareness and changes in flushing behaviour.





An icon or a stinking eyesore - regardless of your perspective, the Hunter's largest and longest-running wastewater pump station at Newcastle West is about to undergo a multimillion dollar upgrade.

Newcastle West 1 wastewater pump station and the associated 27 metre 'stink pipe' next to the Marketown Shopping Centre car park has drawn the ire of surrounding apartment residents in local years.

Hunter Water contactors will install an interim odour control unit at the site in the next fortnight as part of a long-awaited \$ 5million upgrade of the plant.

The unit will be connected to a standard-size, modern ventilation stack replacing the version that has formed part of the city skyline for more than 100 years.



Hunter Water's 2022 Annual Report is now available to view, having been tabled in Parliament.

The Report highlights our activities, challenges, performance, and updates on our progress towards our strategic goals all mark another important year of serving the Lower Hunter.

Available online at: <u>https://www.hunterwater.com.au/about-us/publications/annual-report</u>



# Supporting future industries: Hydrogen



### **Climate Mitigation**

Hunter Water is aiming to reach **net zero emissions by 2035** (scope 1& 2) and to **reduce our emissions by 80% by 2030** 



### HUNTER WATER

### Future industries: Hydrogen *How much water is needed?*

While only a minor cost component, <u>water is</u> <u>essential</u> to produce hydrogen by electrolysis

Multiple water options are available to support the development of a Hunter hydrogen industry

Stoichiometrically, **9 litres of water are required to produce 1kg of Hydrogen** (1kg H<sub>2</sub> stores about the same amount of energy as 3 Litres of diesel)

Adding purification inefficiencies, electrolysis cooling, compression and transportation, water demand increases to between **24 - 95 litres of water is required to produce 1 kg of Hydrogen**.





### Hydrogen: future demand scenarios

Year	Hydrogen production thousand tonnes pa			Water requirement million litres pa			
	Low	Medium	High	Low	Medium	High	
2025	4	19	49	89	466	1,183	
2030	35	72	155	830	1,721	3,730	
2040	89	193	454	2,129	4,629	10,903	

### If supplied by drinking water:

- By 2040, hydrogen industry will increase water demand by 3 - 15%
- Brings forward the next water supply upgrade by 20 years

#### If supplied by recycled water:

- More than doubles existing recycled water demand
- By 2040, hydrogen could use 8 40% of wastewater from across the region



### LHWSP Implementation Progress Update

CCAG

December 2022

**Colin Hancock - Group Manager Water Resilience** 





#### **Priority 1: Safe drinking water**

#### **Protecting drinking water catchments**

Continuing to invest in catchment management and protection and maintaining a multiple-barrier approach to the supply of safe drinking water.

✓ Protects water quality at the source and makes the most of existing resources.





### **Bulk Water System**

Supplies 97% of HW's customers

- Grahamstown & Tomago (orange)
- Chichester/Dungog (green)







### **Bulk Water Program**

- Catchment objective of no
   deterioration in raw water quality
- Water treatment plant upgrades
- Incorporate a new water treatment plant as part of the Lostock to Glennies Full Business Case.







#### Priority 2: Making the most of what we've got

#### Water conservation

Increasing investment to support the Lower Hunter community to reduce water use by 17% compared to expected, and continuing to invest in reducing network leaks.

Saves precious drinking water, more time to respond to drought and defers investment to service growth.

#### **Recycled water**

Increasing recycled water use for non-drinking by 1.3 billion litres through new and expanded industrial schemes, more public open space irrigation schemes, and continuing to explore viable opportunities for recycling in new residential developments.

Engaging with the Lower Hunter community about purified recycled water and building a purified recycled water for drinking demonstration plant in the region.

Reduces demand for precious drinking water, rainfall independent water supply and defers investment to service growth.







### **Water Conservation**





### **Recycled Water**







### **Purified Recycled Water demonstration plant**



**Example demonstration plants** 



#### Priority 3: Improving the resilience of the system

#### **Belmont desalination plant**

Building a permanent desalination plant at Belmont to supply up to 30 million litres of water per day.

A new rainfall independent supply and extends the time for reaching critical water storage levels in severe drought.

#### A Hunter Water connection to the Glennies-Lostock scheme

Preparing to connect to the proposed Glennies-Lostock scheme including new offtake infrastructure to supply up to 50 million litres of water per day.

 Optimises use of existing infrastructure, increases water supply diversity, and improves water security for the Upper Hunter, Lower Hunter and Central Coast.

#### **Research and development**

Continuing to investigate the Hunter River paleochannel and evaporation reduction options.

Identify new ways to reduce demand for water and increase supply.

















## Hunter Water Connection to the Lostock to Glennies Scheme



### Research and development – water Paleochannel



HUNTER WATER



#### Aquifer cores & pump tests





#### Priority 4: Water for life

#### **Cultural values**

Improving knowledge sharing and increasing involvement of First Nations and Aboriginal People in strategic water planning.



Increased participation and water values reflected in future planning.

#### Water for liveable communities

Improving the integration of land use and water planning to contribute to liveable communities.

✔ Green spaces and healthy waterways for the Lower Hunter community to enjoy.





## Water for Life – Cultural Values & Liveable Communities



HUNTER WATER INNOVATE RECONCILIATION ACTION PLAN July 2022 - June 2024



water



Hunter Water's RAP working group







### **Williams River Erosion Management Plan**

Update to the CCAG



The Williams River is the primary drinking water source for the population of the Lower Hunter region.

Erosion of riverbanks is recognised as a key factor contributing to poor water quality in waterways resulting in elevated concentrations of soil particles and associated factors, such as nutrients, in the water.





### Revised Erosion Management Plan approach

Soil Conservation Services (SCS), the University of NSW Water Research Laboratories, TfNSW and Hunter Water have developed an alternative infrastructure approach which will address water quality concerns while enabling boating activity to continue.

Draft Plan endorsed by Govt Agencies (TfNSW, HWC, Dungog and Port Stephens Councils and Hunter Local Land Services)

The indicative costs of \$7.3m to \$9.5m, to be cofunded by Transport for NSW and Hunter Water.



<Transport for NSW logo>

SEAHAM WEIR POOL EROSION MANAGEMENT PLAN

SEPTEMBER 2022

Draft for public exhibition

This plan was prepared by the Williams River Erosion Management Working Group:

Hunter Water Corporation Transport for NSW Hunter Local Land Services Port Stephens Council Dungog Shire Council



## Action 1: Retain existing Boating Management Plan for the Seaham Weir Pool

To maintain the current boating plan and enable current boating operations to continue over the long term, Hunter Water and TfNSW are funding a program of bank remediation works along impacted stretches of the weir pool.

During bank remediation works, some temporary boating restrictions are required causing short-term inconvenience to some river users.



### Action 2: Carry out program of remediation work

This action will include a combination of engineering work, bank revegetation and changes to land management practices required along impacted stretches of the river.

For heavily impacted banks, engineering work may involve rock revetment (along a short section of the river), benching, rock toe protection, log walls, and/or rock fillets.

Banks with less severe erosion will likely require revegetation, weed removal and fenced setbacks for stock exclusion.

Hunter Water will consult and seek agreements with landholders on required works, provide watering and maintenance of riparian zone vegetation (for up to two years) and will inspect and maintain bank stabilisation engineering works.

Hunter Water will inspect and maintain bank stabilisation engineering works at 5-yearly intervals. Where installed, fencing and off-stream watering infrastructure will be the landowner's responsibility.

#### Examples of bank remediation techniques





Image 1 Example of bank revegetation and stock exclusion fencing on the Tweed River in northern NSW

Image 2 Example of established rock revetment on the Williams River



Image 3 Example of lower bank rock toe protection works on the Clarence River in northern NSW Image 4 Example of bank toe protection using logs on the Clarence River in northern NSW



#### Seaham Weir Pool Erosion Management: Priority remediation zones

Revegetation and weed removal with livestock exclusion

Rock and/or log bank structures

Many riparian zones along the weir pool not highlighted on this map are also suitable for revegetation, weed removal and livestock exclusion. While not priority zones, we encourage expressions of interest from landholders wishing to improve the sustainability of their land as part of this program.

Remediation zones in this map are approximate and subject futher detailed design and planning.

The Boating Management Plan can be viewed in full at transport.nsw.gov.au

June 2021





### **Action 3: Ongoing boating education and compliance**

Community feedback to date has supported the need for additional compliance to enforce boating restrictions.

Education and compliance are essential to regulate boating activities and ensuring that all boaters understand and comply with rules and restrictions for the Seaham Weir Pool.

Transport for NSW will also explore mapping options to provide advice to users on the most suitable areas to undertake activities that generate substantial wave energy and the deployment of boating education officers during the boating season is included in this action.



### **Action 4: Monitoring and assessment**

Monitoring will involve checking the condition of banks and adjoining areas to assess the effectiveness of riverbank remediation work.

This will involve bank surveys before and after the remediation work by Hunter Water, followed by ongoing inspection and maintenance.

Engineered bank stabilisation works would be inspected and maintained by Hunter Water at approximately five year intervals or until independent erosion studies confirm that the bank is stabilised by vegetation.



### **Action 5: Inter Agency Working Group**

Once the erosion management plan is adopted, the existing inter-agency working group will continue to oversee its implementation.

The working group's primary activities will involve:

- meeting regularly to discuss the status of actions within the Plan
- discussing emerging issues and opportunities
- sharing information with the community and key stakeholders
- listening to community and stakeholder feedback during the plan's implementation
- In the event of a significant flood event, the working group will convene to make recommendations on whether there is a need for any additional temporary management actions or maintenance.



### **Community consultation on draft Plan**

Public Exhibition from late October to late November 2022

45 landowner meetings held, 2 x community drop in sessions, and 22 written submissions received.

The overall consultation and engagement outcomes indicated that:

- 78% were positive or neutral towards the Plan, with:
  - 45.6% of respondents positive
  - 32.4% of respondents neutral
- 22% opposed the draft Plan



Positive Neutral Negative

Interagency working group reviewing feedback and finalising Plan for implementation.



### Questions



### Customer and Community Engagement for Price Proposal

CCAG Meeting 7 Dec 2022

Clare Hogue – Senior Community Engagement Advisor





### **Overview of the approach**





Hunter Water has interacted with 892 customers, community members, stakeholders and customer representatives throughout Phase 1 of the price proposal engagement:

- 96 participants at the listening post workshops
- **55** participants at the focus groups
- 5 participants at the CCAG focus group
- 1 interview with a non-residential customer

- 9 interviews with stakeholders and customer representatives
- 507 responses to the August 2022 quarterly survey
- 219 responses to the November 2022 quarterly survey



say: 6%

No: 67%

### **Community concerns**

To what extent is the topic an interest, concern or a priority of yours?





### **Community expectations**

In the listening posts, participants were asked what they expect of Hunter Water. The top five themes related to:

- 1. Ensuring future water security, including recycling and water conservation
- 2. Providing a reliable, efficient service through maintaining and improving infrastructure
- 3. Providing high quality, safe drinking water
- 4. Water literacy and raising awareness
- 5. Fair and affordable bills.

Looking towards 2030, ensuring future water security, recycling and conserving water, and maintaining infrastructure were top priorities.

Participants also expressed a desire for improved online user experiences (e.g. apps to monitor water usage in real time and alerts for high usage) and a greater focus on being environmentally friendly/sustainable. I see Hunter Water doing more in the area of...by 2030 (n=132)





- No suggestions (n=1)
- Providing sewer services to all customers (n=1)

### **Community expectations**



I expect Hunter Water to:	Hunt (Aug	ter Water ust 2022)		Hunter Water (WSAA 2021 study)	National results (WSAA 2021 study)
Provide recycled water for public parks and community sporting grounds			77%	57%	55%
Help customers who struggle to pay their water bills			75%	67%	63%
Improve local waterways/waterway health			73%	61%	60%
Educate the community about water efficiency, what to flush and alternative sources of water			73%	59%	52%
Make additional allowances for customers with special needs during a water outage (e.g. elderly, disability, medical condition)			70%	63%	56%
Provide additional support to communities impacted by extreme events (e.g. floods, droughts, pandemics)	63%			.50%	47%
Provide public drinking fountains		62	96	45%	44%
Provide rebates for water efficient appliances and tapware		58%	b	45%	42%
Invest customer money in research and innovation projects which might save water and/or money in the long term		54%		43%	41%
Work with local councils to provide greener and cooler public spaces for recreation		49%		38%	39%
Play an active part in conversations about the impacts of climate change		46%		.34%	33%
Generate renewable energy		46%		28%	31%
Be carbon neutral	1	39%		27%	30%
Support local community groups (e.g. Men's shed, children's sporting teams, environmental groups)	3	7%		22%	26%
Other	3%			2%	2%
None of the above	1%			6%	6%
0	96 2096 4096 % ге	60% esponse	80% 100%		

## **EXAMPLE** Community concerns and expectations are not necessarily more important than affordability

### Affordability can be a big concern for many Hunter Water customers. Please indicate if any of the following are more important to you than keeping bills as low as possible?





### **Focus group topics**

In Oct-Nov we we asked eight focus groups what level of participation customers should have in the following topic areas:

- Hot spots of localised poor service
- Digital meters
- Carbon emissions
- Recycled water
- Digital experiences
- Stormwater amenity
- Catchment amenity works

### Hot spots of localised poor service

Торіс	Materiality (annual bill)*	More important than affordability? (N=213)	Customer interest in participation (Focus Groups)	External stakeholder recommendati ons for public participation
1. Hot spots	High (\$35)	48%	Consult-Involve	Mixed

water

#### Information presented to focus group participants:



Topic two: Hot spots of localised poor service

Most customers receive high quality services and only experience interruptions or inconveniences occasionally. However, there are localised areas or individual customers who currently get repeated or persistent poor service from Hunter Water (approx. 400 customers).

Customers may experience:

- · Very low pressure on a normal day (trickle from tap) and no water on a hot summer day.
- · More than 5 sewer overflows in wet weather over the last 10 years. Sewer overflows were inside their house
- Being unable to use plumbed fixtures during rain (e.g., have a shower or flush the toilet) without wastewater "backing up" rather than draining away
- · Bad sewer smells in dry weather, ranging from being able to smell the odour inside their house every day to being able to smell the odour outside their house for less than 30 mins once every two years.

Costs:

#### Benefits:

HUNTER WATER

> All customers receive a minimum level of service



- year (\$5 per bil) to fix all water pressure problems · Similarly for wet weather sewer
- overflow problems Around \$5 per household per year to fix the worst sewer odour problems



The question: How much should the public participate in deciding how many problems areas to fix and how guickly?

Quarterly survey:

Service improvements in localised water pressure and quality issues and wastewater/sewer overflow/odours management.

To what extent is the topic an interest, concern or a priority of yours?





### **Digital meters**

Торіс	Materiality (annual bill)*	More important than affordability? (N=213)	Customer interest in participation (Focus Groups)	External stakeholder recommendati ons for public participation
2. Digital meters	High (\$30)	32%	Involve- Collaborate	High

#### Information presented to focus group participants:



#### Topic one: Online information and notification enabled by smart meters

Smart meters would be needed to deliver many of the experiences that customers have told us they want:

- To be able to see usage in (near) real time which could help to provide more control to customers, making it easier to see the water savings and dollar savings on bills from any changes they make (e.g. buying water efficient appliances, or changing garden watering times.
- Notifications or alerts for high usage, so customers can change their behaviour to help save money.
- Notifications or alerts for unusual usage patterns, which might indicate a leak.
   Customers have told us that they would like to know about a leak as soon as possible to reduce water waste and potentially stop damage to their property. There would be financial savings in both excess water usage and plumbing repair costs, as the leak is identified and rectified when it is a smaller job.

Customers have also told Hunter Water that they prefer stable bills because it helps them to budget. Hunter Water might be able to provide bill prediction if it rolls out digital meters.

#### Benefits:

- Smart meters would be read automatically, meaning Hunter Water wouldn't need to enter properties
- App or website portal for customer to see detailed information
   May bein Muster Water identify
- May help Hunter Water identify, locate and repair leaks in its pipe network.

#### Costs:

Household bills could increase by around \$30 per year ( \$10 per bill) if smart meters, all supporting infrastructure and end-user applications are all rolled out at once.



The question: How much should the public participate in whether to roll out smart water meters or not, and if so, how fast? Quarterly survey:

Digital meters (more frequent bills or meter reads, easier access to meters, access to better data on your water use, alerts to water use anomalies) - whether and how we roll these out. To what extent is the above topic an interest, concern or a priority of yours?

To what extent is the topic an interest, concern or a priority of yours?





### **Carbon emissions**

Торіс	Materiality (annual bill)*	More important than affordability? (N=213)	Customer interest in participation (Focus Groups)	External stakeholder recommendati ons for public participation
3. Carbon	Medium	Reducing: 27%	Involve	Mixed
reductions	(\$10-\$20)	Offsetting: 25%	00000	

#### Information presented to focus group participants:



#### Topic four: Lower carbon footprint

Hunter Water are a large user of electricity and producer of greenhouse gas emissions. Our operations generate greenhouse gas emissions equivalent to around 20,000 vehicles on our roads.

We are considering our commitment to tackling climate change, such as:

- how fast to reduce emissions,
- when to achieve net zero and
- how to reach net zero

The NSW government's goal is to reduce its emissions by 50% relative to 2005 levels by 2030 and achieve net zero by 2035. The Intergovernmental Panel on Climate Change (IPCC) has said the world's greenhouse gas emissions will need to be net zero by 2050 to meet the global warming limit.

Reducing emissions is not always expensive but reducing them to zero is likely to involve some additional cost. Hunter Water could do this by:

 Prioritise Hunter Water actions first e.g., onsite renewables or self-generated offsets such as tree planting on Hunter Water owned land or

 Pay others to reduce Hunter Water emissions in a way that creates local jobs and local environmental benefits.

#### Benefits

benefits

 Playing our part in slowing climate change
 Possible local environmental Costs: • Household bills could increase by around \$10 per year (\$3 per bill) to reach net zero by 2035 in the cheapest way possible. • If we prioritise our own actions first, the costs impacts could double



The question: How much should the public participate in how Hunter Water does this and deciding when?

#### Quarterly survey:

Carbon emissions mitigation, for example whether we do so in the cheapest way possible, or whether we do so in ways that create local jobs. To what extent is the above topic an interest, concern or a priority of yours?

#### To what extent is the topic an interest, concern or a priority of yours?



To a very small extent To a small extent

nt 📃 To a moderate extent

To a large extent
To a very large extent Don't know







#### Information presented to focus group participants:



Topic five: Water recycling to help water security

The Lower Hunter Water Security Plan was released by the NSW Government in April 2022 following extensive customer and community engagement. The Plan included increasing the use of recycled water for non-drinking purposes by 1.3 billion itres, to help service growth in our region and manage the fisk of water shortages during drought.

Recycled water could be used:

- By industry
- To irrigate public open space so that places like sporting fields stay green during drought
- In new residential developments for garden watering and toilet flushing.

Each way that recycled water could be used has different costs and benefits.

Each of these possible uses could be paid for by the end user (industry, councils or the house using recycled water). However, most of the time it costs more to make recycled water and supply it to where it is needed. If it costs more than drinking water then the end user might not use as much, and the whole region wouldn't get the water security benefit.

Alternatively, the cost to the user could be made smaller by all customers making a contribution to the cost of recycled water as part of their Hunter Water bills.

#### Benefits:

 Unaffected by weather
 Reduced demand on our drinking water supply Costs: • Around \$8.50 per household per year (\$2.85 per bill)



The question: Should Hunter Water make the decisions on which types of recycled water uses it does first, or should the community participate in the decision making? Should the community have a say on who pays? Quarterly survey:

Recycled water - more public space irrigation schemes. To what extent is the above topic an interest, concern or a priority of yours?

To what extent is the topic an interest, concern or a priority of yours?



I expect Hunter Water to:	Hunter Water (August 2022)			Hunter Water (WSAA 2021 study)	National results (WSAA 2021 study)			
Provide recycled water for public parks and community sporting grounds					77%		57%	55%
	0%	20%	40%	60%	80%	100%		
			% resp	onse				



### **Digital experiences**

**Prioritisation matrix:** 

Торіс	Materiality (annual bill)*	More important than affordability? (N=213)	Customer interest in participation (Focus Groups)	External stakeholder recommendati ons for public participation
5. Digital experiences	Low (\$4)	11%	Collaborate	Mixed

#### Information presented to focus group participants:



#### **Topic three: Digital experiences**

Hunter Water currently provides different channels and touchpoints to communicate and interact with the community e.g. to send and pay a bill; to respond to enquiries, requests and issues; to inform and educate people on matters of interest.

Hunter Water can invest further in digital technologies with a range of benefits to improve the experiences for our community including property owners and tenants.

Costs:

(\$1.40 per bill)

Around \$4.10 per household per year

#### Benefits:

- More ways to pay your bill Improved information and visibility
- of works, impacts and outages in your area, potentially via a live map
- Proactive communication sent to customers for outages, service impacts and issues through notifications by SMS, email etc
- Using technology so you can easily self-service problems and issues online
- · Providing you with visibility on the status of applications, forms and enquiries that you have lodged or raised with HW, so you know where things are up to.



The question: How much should the public participate in what Hunter Water invests in, for digital technologies, that aim to improve the experience for customers?

Quarterly survey:

Improve customer experience - how much is invested in digital and other improvements to make it easier to deal with us. To what extent is the above topic an interest, concern or a priority of yours?

To what extent is the topic an interest, concern or a priority of yours?



To a large extent To a very large extent Don't know

### Stormwater amenity projects and catchment amenity waterworks

Торіс	Materiality (annual bill)*	More important than affordability? (N=213)	Customer interest in participation (Focus Groups)	External stakeholder recommendations for public participation
6. Stormwater amenity projects	Low (\$5)	19%	Mixed O • • • O	High
7. Catchment amenity works	Very Low (<\$1)	49%	Mixed O • • • O	High

#### Information presented to focus group participants:

HUNTER WATER



#### **Ouarterly survey:**

Local environmental improvement, such as improving waterway health by managing environmental flow releases from dams, reducing the frequency or volume of wastewater overflows or improving the quality of treated wastewater discharges. To what extent is the above topic an interest, concern or a priority of yours?

To what extent is the topic an interest, concern or a priority of yours?



