



MOLONGLO VALLEY  
Community Forum

**27** | July  
2023

**Public  
Meeting**

# MEETING AGENDA

## **Transport and City Services Update**

Chris Steel MLA, Minister for Transport and City Services, Member for Murrumbidgee



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## **Major Wastewater Projects**

Patty Chier, Senior Design and Planning Engineer, Icon Water

## **Forum Update**

Ryan Hemsley, Convenor, MVCF

## **MLA Address**

Opportunity for MLAs to address the community

## **Questions and Answers Session**

# TRANSPORT AND CITY SERVICES UPDATE



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# Questions?



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# MAJOR WASTEWATER PROJECTS



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# Icon Water wastewater treatment renewal projects

Molonglo Valley  
Community Forum – 27<sup>th</sup>  
July 2023

Let's connect



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# Acknowledgement of Country



We would like to begin by acknowledging the Ngunnawal people, Traditional Custodians of the land on which we meet today and pay our respects to their Elders past, present, and emerging.

We extend that respect to Aboriginal and Torres Strait Islander peoples here today.

## Our challenge

- Our infrastructure and technology is getting older (some are around 50 – 60 years old).
- Canberra is growing and so is the volume of our wastewater that needs to be treated.
- We need to upgrade, or replace parts of our treatment plant.

## Our solutions approach

- Holistic systems thinking
- Sustainability outcomes focused
- Technology agnostic
- Pragmatic balance of cost, risk and performance
- Socially acceptable

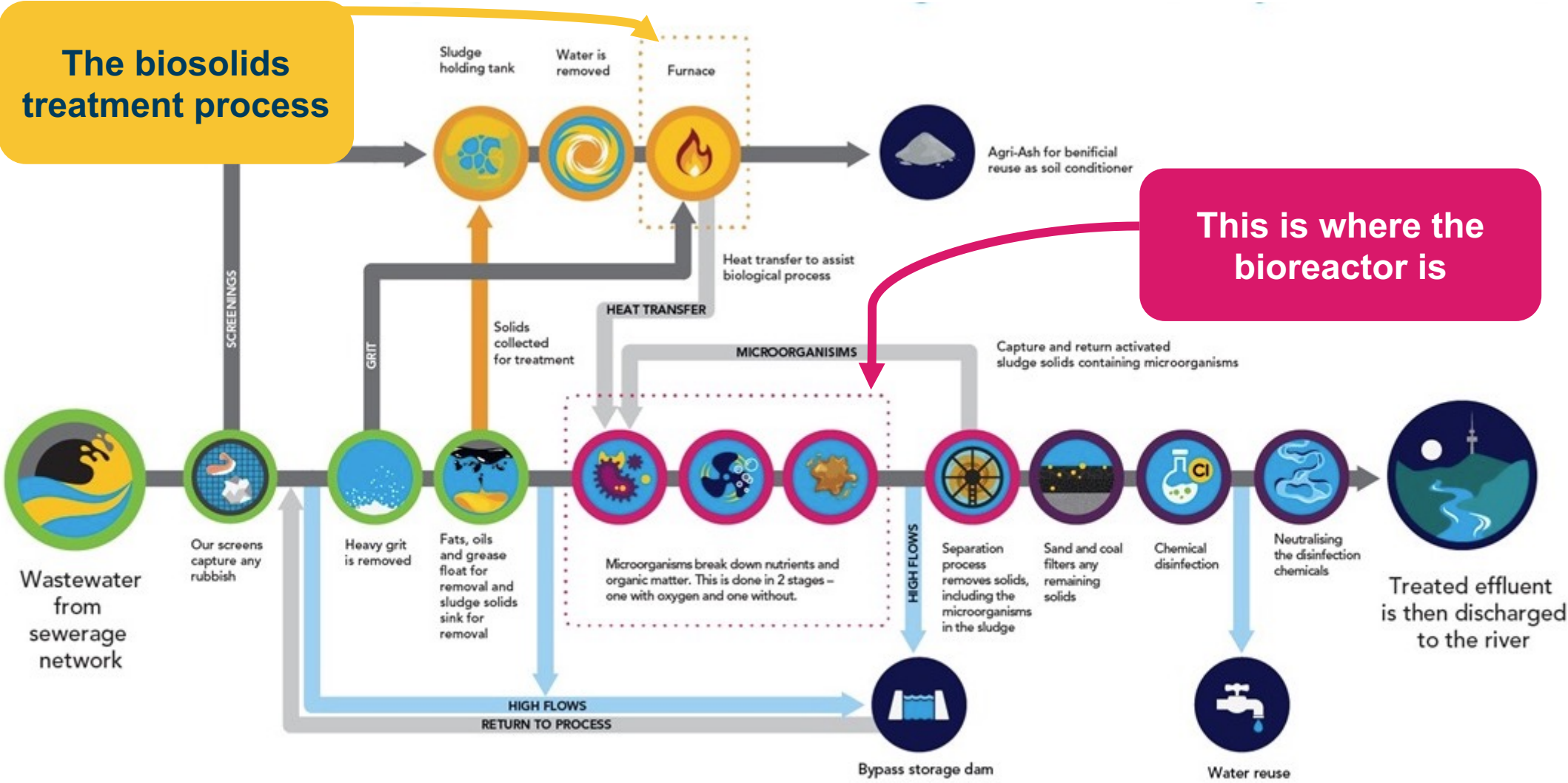


### Did you know?

Each day the Lower Molonglo Water Quality Control Centre treats 80 to 90 million litres of wastewater – this is 36 Olympic size swimming pools!



# The treatment processes we are talking about today



KEY				
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Biosolids treatment project	Bioreactor augmentation project	Primary Treatment (solids removal)	Secondary Treatment (biological and clarification)	Tertiary Treatment (filtration & disinfection)

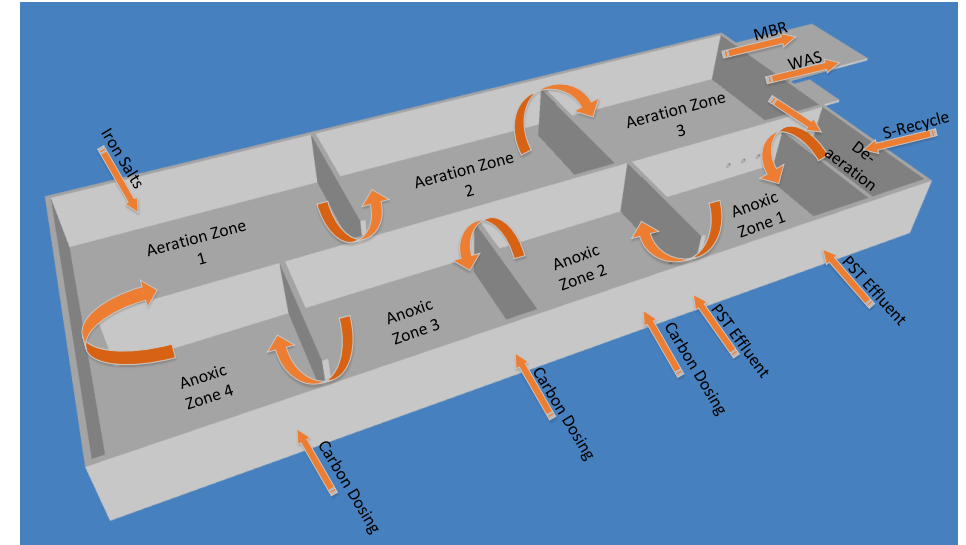
# Secondary treatment (bioreactor) project

## Technology – Membrane bioreactor (MBR)

- Anoxic (no oxygen) & aerobic (with oxygen) zones in a single tank
- MBRs use submerged membranes to separate biomass from treated effluent.

### Summary of benefits:

- It produces a **high-quality effluent** within a smaller plant footprint.
- Smaller footprint means **less material used**.
- **No additional treatment steps downstream** compared to other options.
- **Mature, proven technology** that is widely used.
- Considered most likely to **support future GHG mitigation** technology.
- Most **cost effective** option



# Biosolids treatment project

## Technology - gasification

- Production of a carbon rich product called **biochar**.
- Heat treating biosolids with a low oxygen levels.
- This means, instead of full combustion with CO<sub>2</sub>, the carbon remains in the biochar.



## Summary of benefits:

- Opportunity for renewable **energy recovery** for reuse on site.
- **Effective** treatment of emerging contaminants, including PFAS, microplastics and pharmaceuticals.
- Creates **biochar** - stores carbon, great for our soil and can potentially be sold.
- It will **reduce the site's carbon footprint**.
- May assist with additional **carbon sequestration** into soil carbon at point of application.
- One of the more **cost effective** options



# Community consultation

## Consultation done to date:

- Citizen's Panel: three meetings, 20 recruited participants
- Icon Water Expert Panel: two meetings, six/seven participants
- Environmental groups: one meeting, five groups represented

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### ACT Government and ACT EPA requirements

Icon Water holds a license to treat sewage under the *Environment Protection Act 1997* (ACT). This sets limits for our discharges to the water and the air.

Anything that could or does cause environmental harm must be reported.

#### Future issues

The ACT has legislated net zero greenhouse gas emissions by 2045. This affects:

- all of the process options as they have emissions to varying extents, including nitrous oxide, methane and carbon dioxide.

We need to consider the greenhouse gas footprint for the whole lifecycle of each option (Scope 1 and 3).

The secondary treatment process is the largest emitter of greenhouse gases by Icon Water (N<sub>2</sub>O). Monitoring and mitigation techniques of these inherent emissions are in their infancy.

9



# Current community consultation

## What are we doing now?

- Online survey to educate and test sentiment towards our approach.
- Survey has just closed. Thank you for completing the survey!

## What are we going to do?

- Results will be published in the coming months.
- These are significant projects. We will continue to find ways to inform and update you.

**For more information on the projects, scan the QR code below!**



Welcome to Icon Water's community engagement survey. We'd like to talk to you about and get your feedback on some timely upgrades to Canberra's wastewater treatment plant.



**But first, do you know what happens to a fish when it gets flushed down the toilet? It doesn't go straight into a river or the ocean, that's for sure!**

Our treatment plant deals with whatever gets washed down your household wastewater pipes. At Icon Water, we own and operate this plant and we make sure we maintain and run it efficiently. But it's aging, and Canberra's population is growing.

Here's where you come in. We want to take you on a short journey (10 to 15 minutes), to talk with you about our two big projects being planned, test some ideas and most importantly, get your feedback!

**As a thank you for your time, there are a handful of prizes of up to \$500 to be won! If you complete the whole survey, you automatically go into the draw to win a prize.**





Thank you

[iconwater.com.au](http://iconwater.com.au)

Stay connected



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# Questions?



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**UPDATE**



# KOKO MOLONGLO UPDATE



*“The majority of the store works are completed, and we are anticipating that [the **Woolworth Metro and BWS**] will open in **early October**, alongside a chemist, cafe, Turkish takeaway, bike shop and an Indian grocer.”*



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# DRAMA WORKSHOP FOR TEENS



Facilitated by **Clare Moss** on 5-6 July at the  
**Coombs Community Centre**



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# Q&A SESSION



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# THANK YOU

Next public meeting  
24 August 2023



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