



Innovation Competition Briefing Webinar

Waiting for Attendees to Arrive



Innovation Competition Briefing Webinar

Welcome!



Agenda



- 1. Background – Melbourne Water and Scope 1 Challenge**
- 2. The Innovation Competition**
- 3. How to enter and Key Dates**
- 4. Question and Answer Session**

All attendees will be muted

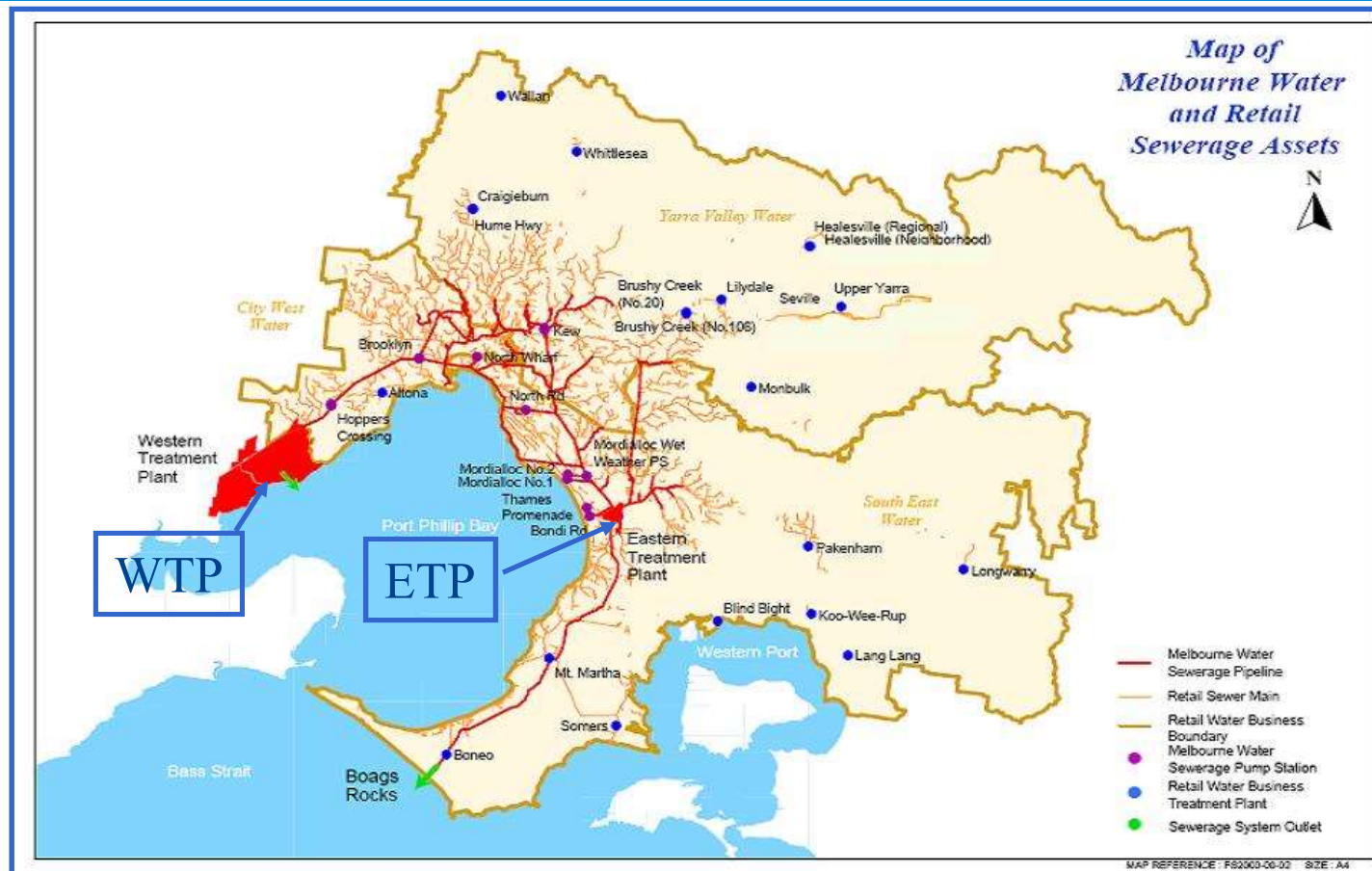
Questions may be asked at any time using the Questions Box

www.melbournewater.com.au/innovation-competition



Background – Melbourne Water and the Scope 1 Challenge

Melbourne Water



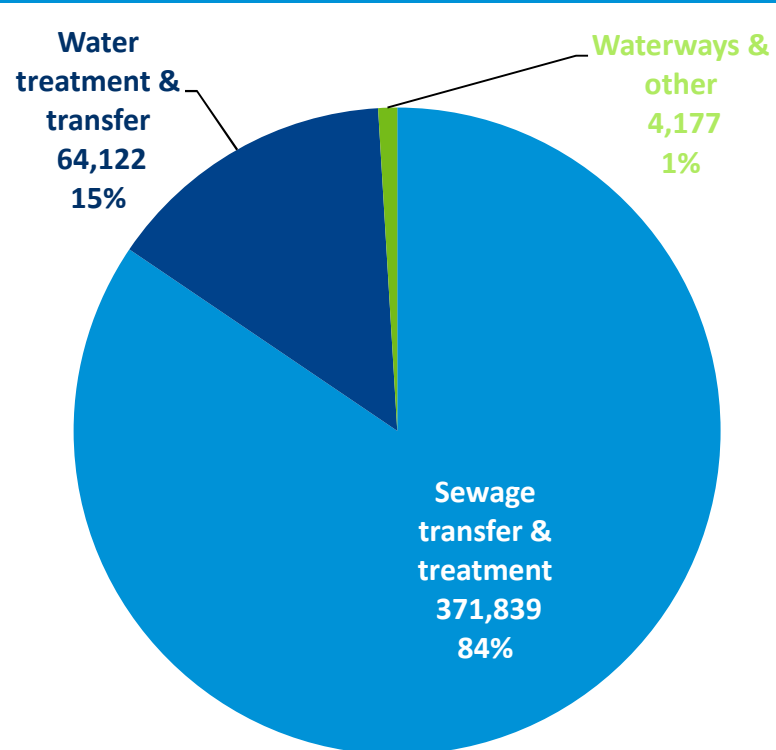
TAKE2

Victoria's climate change pledge

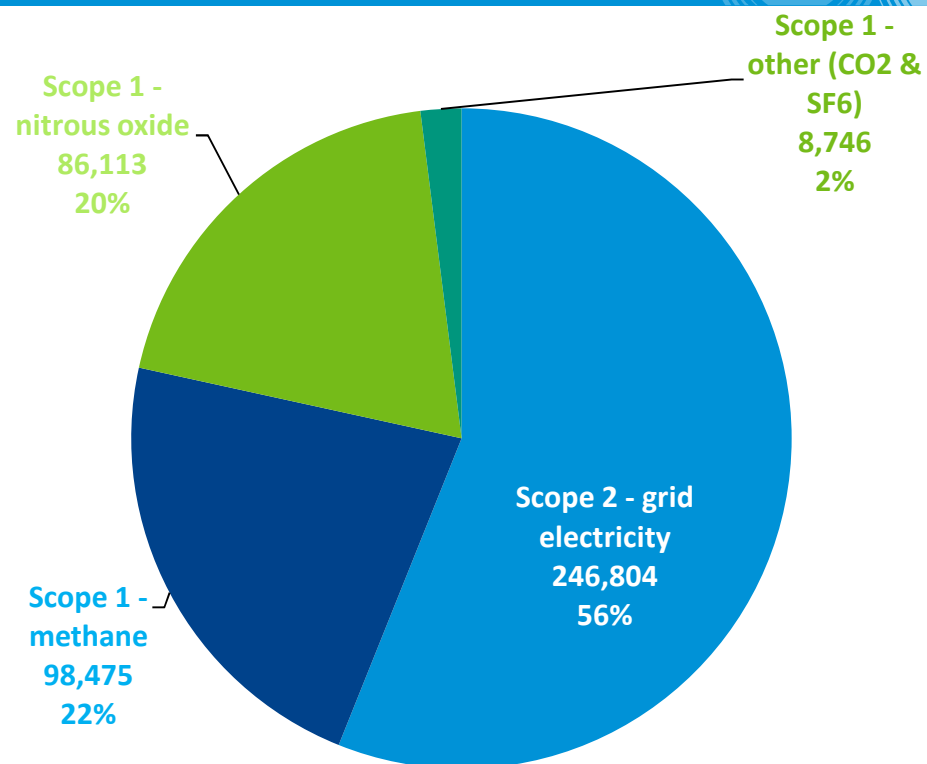


<2°C = **ZERO**
NET CARBON

Melbourne Water emissions



Emissions by Area



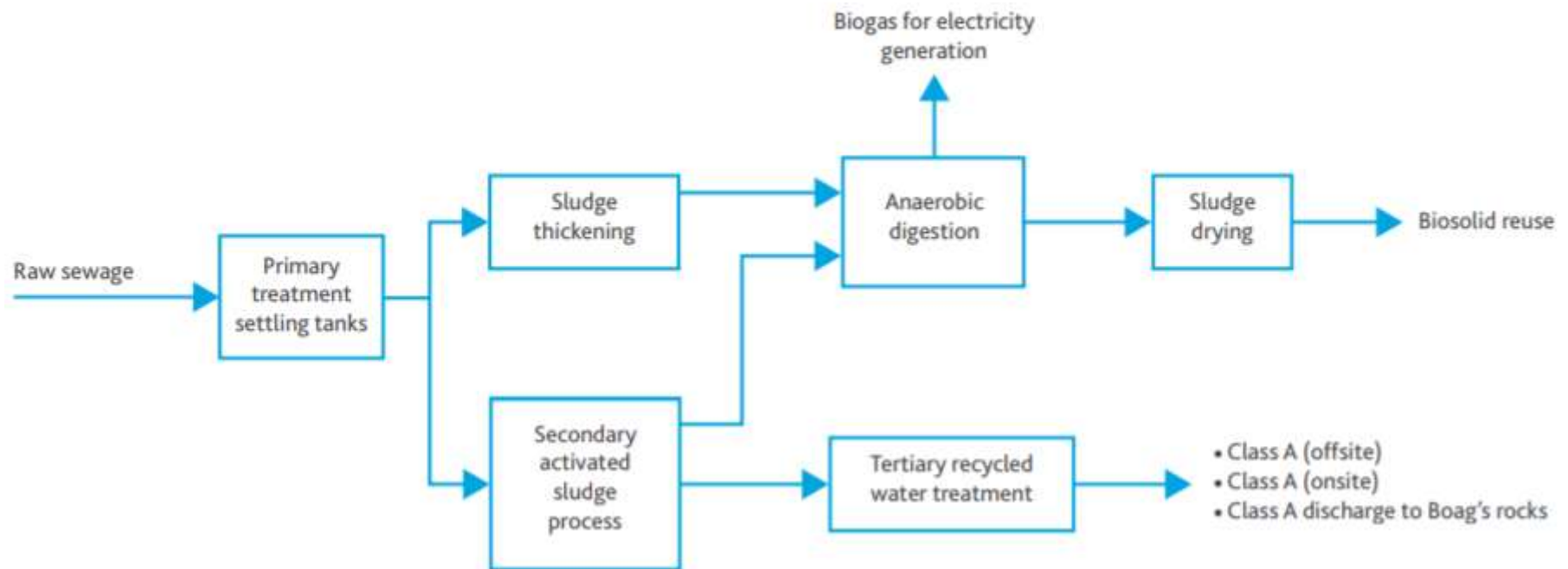
Emissions by type



Innovation Competition

**Finding solutions to the
global challenge of Scope 1
greenhouse gas emissions**

Eastern Treatment Plant (ETP)



Eastern Treatment Plant (ETP)

Anaerobic Digestors

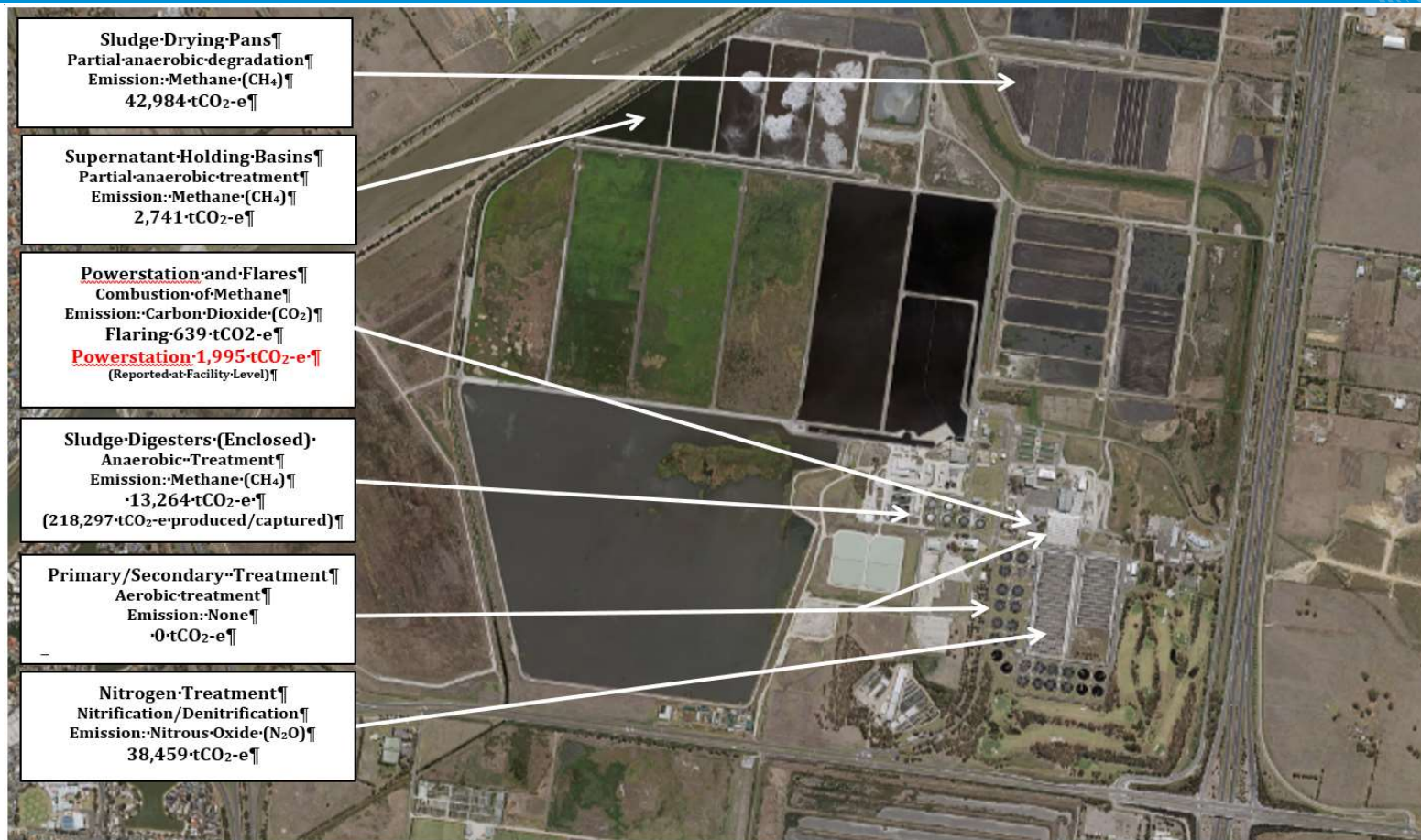


Eastern Treatment Plant (ETP)

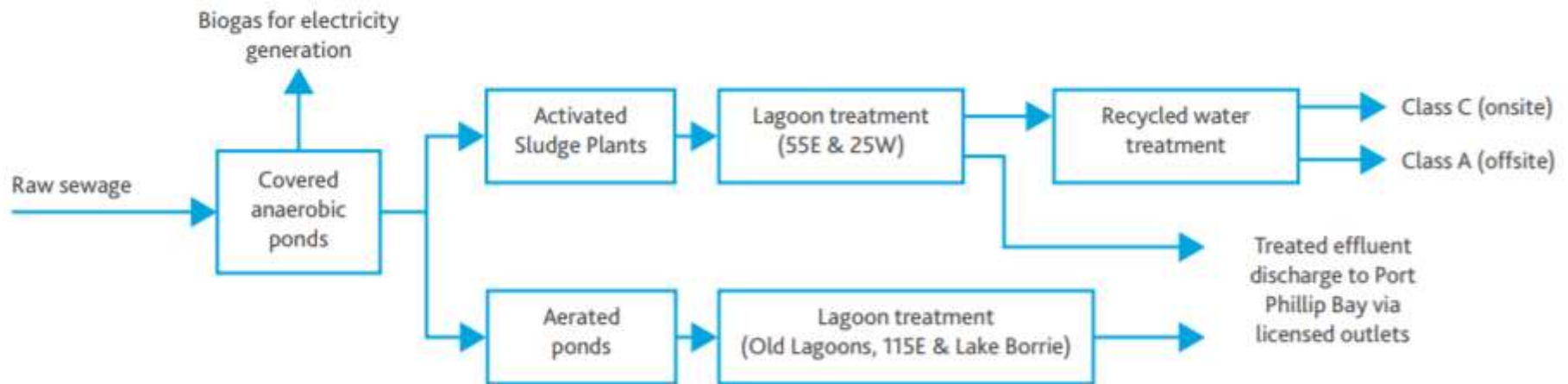


**Digested sludge
drying pans**

Eastern Treatment Plant (ETP)



Western Treatment Plant (WTP)



Western Treatment Plant (WTP)

Anaerobic Lagoons



Western Treatment Plant (WTP)



**Activated Sludge
plant**

Western Treatment Plant (WTP)

Aerated Lagoons

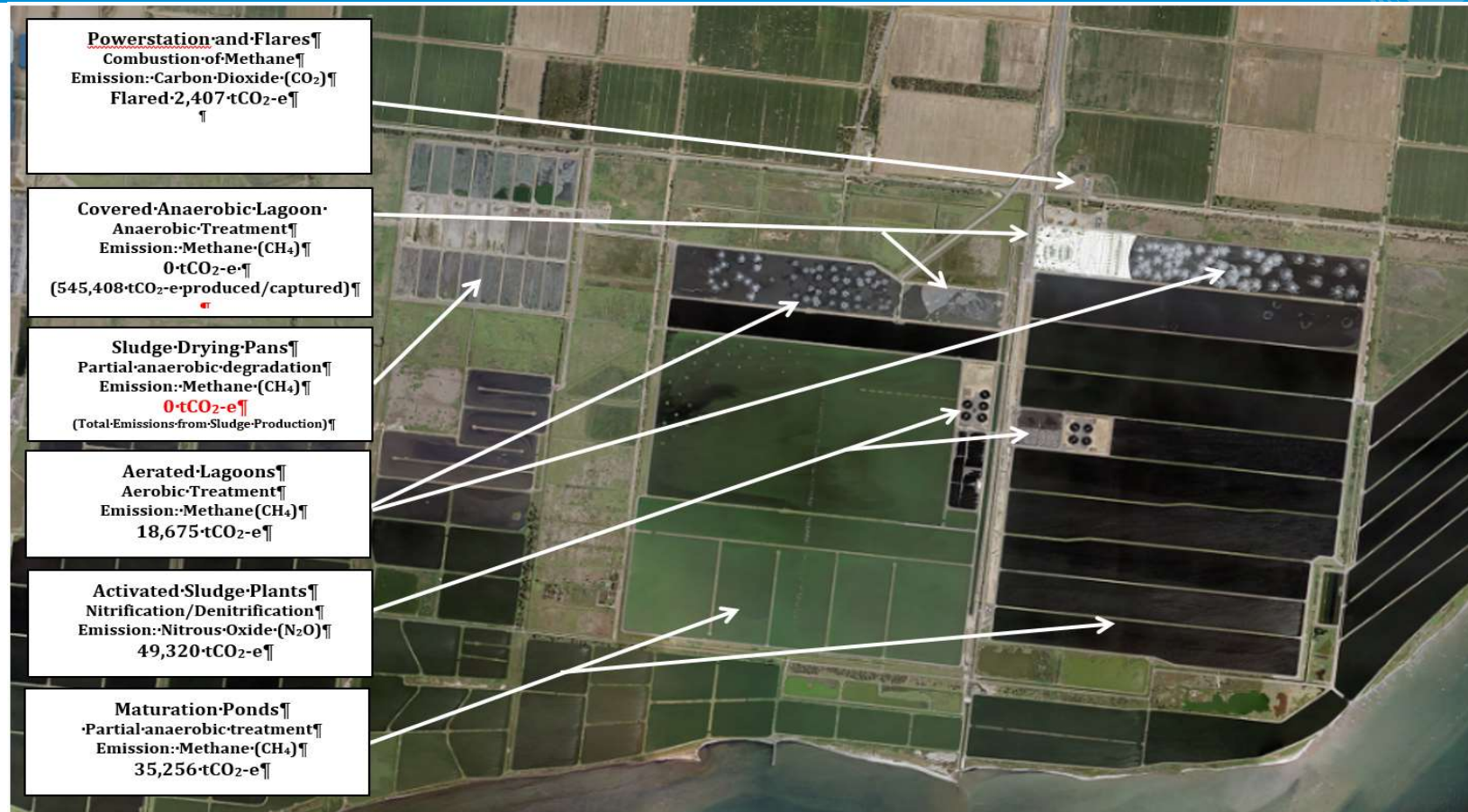


Western Treatment Plant (WTP)

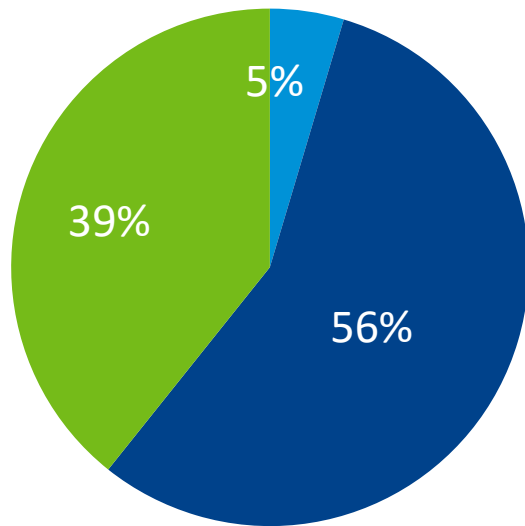


Sludge drying pans

Western Treatment Plant (WTP)

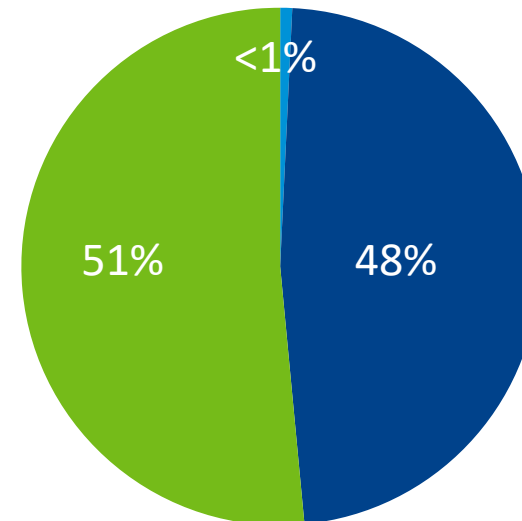


Emission profiles at WTP and WTP



ETP: 88,288 tCO₂-e/yr

■ ETP CO₂
■ ETP CH₄
■ ETP N₂O



WTP: 94,503 tCO₂-e/yr

■ WTP CO₂
■ WTP CH₄
■ WTP N₂O

What we are looking for



- **Emissions measurement and modelling**
 - Quantification of greenhouse gas emissions through measurement and modelling
- **Optimisation of existing wastewater treatment processes**
 - Using current process understanding and/or existing control systems, technologies and equipment to reduce or eliminate the emissions.
- **Wastewater treatment processes of the future**
 - Develop future processes that eliminate greenhouse gas emissions, is energy efficient; adaptable to climate change (i.e. complete water recycling when in drought); as well as scalable with population growth.

Please Note – Emissions from sewer systems is out of scope

Examples of what we are looking for



- **Emissions measurement and modelling**
 - Atmospheric measurement of emissions from the treatment plant
 - Measuring dissolved methane or nitrous oxide in wastewater
- **Optimisation of existing wastewater treatment processes**
 - Process covers, emission capture and treatment
 - Real-time control system for process optimisation to minimise emissions
- **Wastewater treatment processes of the future**
 - Decoupling nitrogen removal from aerobic processes
 - Algae processes
 - Anaerobic processes

Please Note – Emissions from sewer systems is out of scope

Entry Evaluation



The Evaluation criteria the solutions will be judged against include:

- It being conceptually and technically sound
- The solution's effectiveness
- The relevance and ease of integration into the existing wastewater treatment plants
- Any added value
- Financial viability; and
- Track record and key personnel experience

The Funding pool



- **Overall \$200,000 AUD funding pool available**
- **Two phase allocation of funds**
- **First phase**
 - Competition Jury will select up to 5 top entries
 - Each will be engaged to produce a detailed solution for a fee of \$10,000 AUD
- **Second Phase**
 - Competition Jury will review and select the best detailed solution or solutions
 - Remaining funding pool will be allocated between these winners to develop the detailed solution

How to Enter



COMPETITION NOW OPEN FOR APPLICATIONS!

Go to <https://www.melbournewater.com.au/innovation-competition>

And click on the link to the submissions portal

Email any questions to: innovationcontest@melbournewater.com.au

Key Dates



Q&A Period

Closes - 5pm 26th November 2018 (AEDT)

Any questions to be submitted via
innovationcontest@melbournewater.com.au

Deadline for submissions

5pm on 3rd December 2018 (AEDT)



Question and Answer Session

Joel Segal and Ken Baxter
Melbourne Water

Thank you!



#EmissionImpossible2018
@MelbourneWater

innovationcontest@melbournewater.com.au

[**www.melbournewater.com.au/innovation-competition**](http://www.melbournewater.com.au/innovation-competition)