Barwon Water

Regional Renewable Organics Network

Phase 1 Engagement Report

August 2022

Summary

About a third of the waste that ends up in our household bin is food. When it ends up in landfill, it wastes a potential resource and generates greenhouse gases. Commercial and industrial waste as well as biosolids which are a by-product of sewerage treatment are other major sources of waste in the region. Barwon Water has partnered with local councils to find a solution to this waste problem. The solution safely transforms food and garden waste into valuable resources for reuse in our region. This also supports Barwon Water's objective to be 100% renewable electricity by 2025 and achieve zero net emissions by 2030.

Barwon Water and partnering councils are currently in the early stages of planning the Regional Renewable Organics Network project located at Black Rock. In late 2021 Barwon Water heard from community and industry members about what is important and what needs to be considered as the project progresses.

The outcomes of this community and stakeholder engagement will inform the next stages of the project, including design and technical assessments. The technical assessments will provide more information about how Barwon Water will meet Environment Protection Authority (EPA) requirements and address key community considerations such as traffic, noise and odour.

Overall community and stakeholder feedback was enthusiastic and showed support for the project. Some participants saw it as an opportunity to build on their home composting efforts. While other participants were supportive of the project but wanted to ensure their concerns could be addressed or clarified.

The next phase of the project will be to build on the Phase 1 Engagement Findings to support the design and technical assessments of the facility. Community will be invited to provide their feedback on the design and technical assessments that will likely include noise, odour and traffic. To keep up to date with consultation opportunities, visit https://www.yoursay.barwonwater.vic.gov.au/rron

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Introduction

This report outlines the approach and outcomes from the community and stakeholder engagement process during late 2021. It includes analysis of the feedback received on the Regional Renewable Organics Network (Regional RON) project.

Regional RON overview

About a third of the waste that ends up in our household bin is food. When it ends up in landfill, it wastes a potential resource and generates greenhouse gases. Commercial and industrial waste as well as biosolids which are a by-product of sewerage treatment are other major sources of waste in the region.

Barwon Water has partnered with local councils to find a solution to the waste problem. The solution safely transforms food and garden waste, commercial and industrial organic waste and biosolids into valuable resources for reuse within our region. The Regional RON will reduce emissions in our region by putting more carbon back into soil and producing renewable energy.

To support this focus, Barwon Water is working with 4 councils: the Borough of Queenscliffe, City of Greater Geelong, Golden Plains Shire and Surf Coast Shire. This partnership will explore opportunities for processing organic waste from across the region.

In addition to creating valuable agricultural products, the network will also create 2.5 gigawatt hours of renewable energy to help power Barwon Water's Black Rock Water Reclamation Plant.

Black Rock has been selected as the preferred site for the Regional RON as it owned by Barwon Water and is centrally located. The project will complement the existing operations at Black Rock such as recycled water production, biosolids recycling and renewable energy generation and is zoned appropriately as a Public Use Zone (service and utility), with good road access.

The Regional RON will integrate with existing infrastructure, helping to offset grid energy use and provide opportunities for the site to further evolve.

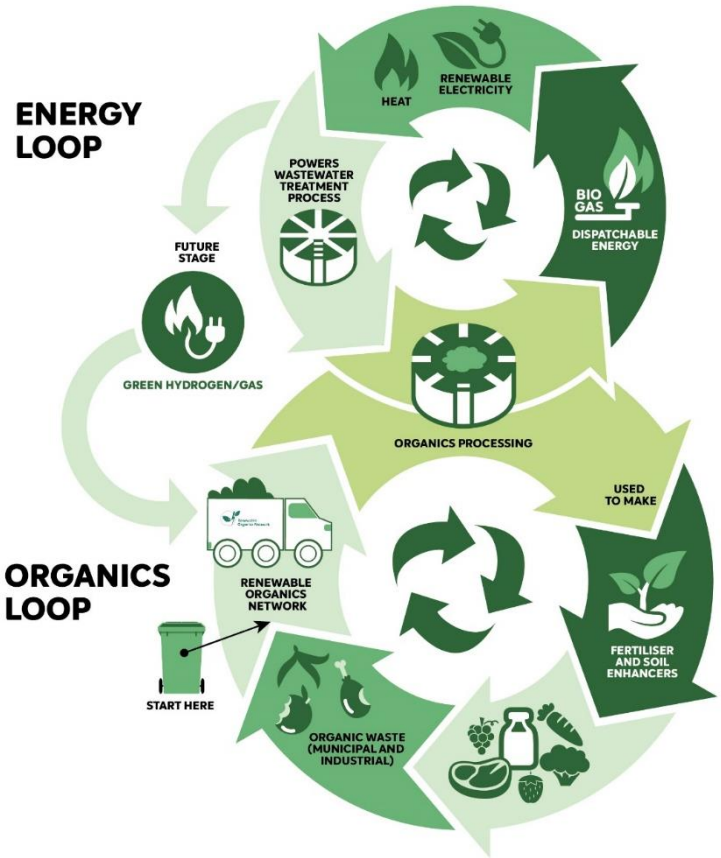


Figure 1 Renewable Organics Network Process

The Black Rock site is evolving to a world-class facility to drive the circular economy, resource generation, sustainable infrastructure and water security.

The benefits of the project are to:

- reduce greenhouse gas emissions between 10,000 to 15,000 tonnes per year.
- recycle 40,000 tonnes of organic waste into high value products
- produce 2.5 gigawatt hours of renewable energy each year

- reduce the high energy cost of treating sewage and wastewater, helping to keep Barwon Water customers' bills affordable
- create 17 construction jobs and 45 ongoing jobs
- limit landfill and reduce Barwon Water's carbon footprint.

Current phase of engagement

Barwon Water and partnering councils are currently in the development stages of the project and has commenced engagement with the community and stakeholders about the Regional RON.

This phase of engagement was an opportunity for community and industry to tell us what is important and what needs to be considered as this project progresses, and to be part of an ongoing information-sharing forum.

The feedback collected will inform the next stages of the project, including a design and technical assessments. The technical assessments will provide more information about how Barwon Water will meet Environment Protection Authority (EPA) requirements and address considerations such as traffic, noise and odour.

Approach

This section outlines the engagement activities and how they were promoted

Overview of engagement activities

Community and stakeholders could provide input into the engagement process using the engagement activities below.

Webinar
The webinar presented an overview of Barwon Water and partnering councils and an overview of the Renewable Organics Network. The presentation was followed by a question-and-answer session where Regional RON project team members answered participant questions.

Interactive map
The interactive engagement map allowed members of the public to drop a pin onto a map showing the project area. Participants could zoom in and out to locate a position on the map to leave a comment or a photo.

Submit a document or a question
Participants could provide a longer written response by submitting a document onto the Barwon Water website. Or they could submit a specific question to the project team via an online form.

Meetings with project team
Participants could book a 30-minute online meeting with the Barwon Water project team to ask specific questions and meet the project team.

Supporting communication materials

The engagement activities provided community members and stakeholders with project information through a range of formats, these included:

Dedicated project website
A project page was established on Barwon Water's engagement platform to share information about the project and collect feedback via online tools. The webpage includes a video, fact sheet, frequently asked questions, a sign-up tool for project websites and contract information for the team.

Project factsheet
The factsheet is a four page document describing the project including where it will be located, the technology involved and project timeframes.

Project video
The 3 minute long videos provides an overview of the project using graphics to explain key project elements including the project benefits and technology.

Letter to surrounding neighbours
A letter was sent to almost 700 surrounding neighbours to let them know about the project including what it is and the key benefits it will create as well opportunities to provide their feedback.

Participation

This section outlines who participated in the activities and how the engagement was promoted.

Participation overview

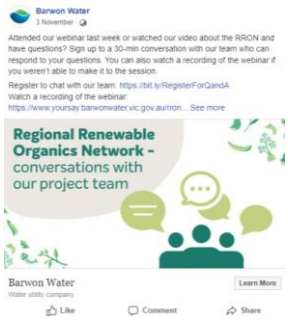
Consultation with community and industry members occurred from Friday 8 October to Friday 26 November 2021. Community and stakeholders provided feedback using the below activities.

The website received 793 total visits, 17 new registrations, 59 video views and 59 document views.

How the engagement was promoted

The opportunity to provide input into the Regional RON consultation period was promoted widely with several posts on each of these platforms: LinkedIn, Facebook and Twitter. In October 2021 Barwon Water issued a direct email to 90 thousand customers promoting the opportunity to learn about the project and provide feedback.

Table 1 Social media posts promoting the consultation period



Findings

During the consultation period, several key themes were identified, these included:

- **understanding how the Regional RON works,**
- **traffic and vehicle use,**
- **managing odour and effluent liquids,**
- **community participation,**
- **agricultural benefits and**
- **economic and job opportunities.**

Overall, there was general excitement and enthusiasm about the project. Some participants saw it as an opportunity to build on their home composting efforts. Other participants were supportive of the project but wanted to ensure their concerns could be addressed or clarified. The feedback has been summarised into key themes below with a response from the project based on currently available project information.

How the Regional RON works

Many participants were interested in how the Renewable Organics Network works.

Frequently, participants asked what is or is not considered 'organic waste' and what can be collected by the Regional RON. Specifically, participants asked if meat products, small bones, fish scales and dog poo can be collected by the Regional RON. A participant suggested partnering with local community groups to collect seagrasses from the local beaches that could be added into the Regional RON.

Example questions asked by participants on the process included:

- Where does green waste currently go?
- How will contamination be managed?
- What are biosolids and how will they be processed?

Discussions related to the technology being used for the Regional RON and interest in the commercial viability of the Regional RON. The project timing and funding were also discussed. Other discussions related to how the facility will operate, what the cost implications to Council rates bills.

What we know so far in response to these questions

We will work together with our partnering Councils to provide residents information about what can and cannot be put in their organics bin prior to the project becoming operational in mid-2025. For Councils who already operate a food and organics service, it is what you already put in your green bin. Read our '*How it works FAQ*' on the website to learn more about what we know now in how the project will process waste. Further information about the project technology including how it will process the organic waste will be available in the next phase of the engagement once we have progressed the design.

Traffic and vehicle use

Participants were interested in the number of trucks required to move the volume of organic materials. A participant asked about the current condition of Bluestone School Road and its speed limit. Participants suggested alternative routes for the trucks to use, including use of Black Rock Road. Participants highlighted challenges with Bluestone School Road in that is a narrower road, is part of a school bus route and actively used by cyclists.

A suggestion to use electric trucks to transport the organic materials to the Regional RON was made. This suggestion aligns with a future evolution of the Regional RON which will look at hydrogen trucks fuelled by green hydrogen generated at the site.

What we know so far in response to these questions

It is estimated that there could be around 10 trucks moving to and from the site a day, increasing to 16 trucks a day by 2033 as waste volumes increase. This represents an increase of traffic by 0.1% on Barwon Heads Road which currently has an estimated 11,000 vehicles per day. Thirteenth Beach Road and Bluestone School Roads will not be used as they are subject to three tonne load limits. Barwon Water will complete a more detailed traffic assessment in late 2022 and share the outcomes with our community during the next round of community engagement.

Odour and effluent liquids

Many participants were interested about how odour from the Regional RON will be managed. A participant asked for more information about how risks of gases, odours and effluent liquids will be monitored. Feedback discussed the need for safeguards to protect coastlines from potential effluent leakages from the site.

What we know so far in response to these questions

The facility will have dedicated odour management units which will treat any smelly air.

We will need to meet Environment Protection Authority (EPA) requirements related to noise, odour and environmental management. We will prepare an environmental management plan to ensure we are meeting all EPA requirements. You will be able to learn more about how we will minimise our impact on the surrounding environment in the round of community engagement

Community participation

The topic of implementing a behaviour change campaign, in terms of how to get community to participate, how the project is sharing information and what opportunities there are for community to be involved were raised.

Ideas included to:

- partner with local restaurants or community gardens to collect organic food waste
- promote public education about the RON process and Black Rock project at the Geelong Deakin campus,
- introduce incentives for participation,
- introduce kitchen caddies for organic waste,
- introducing food waste programs at the local schools and
- use positive messaging to incentivise participation.

A stakeholder requested that community is consulted on the best organic waste collection process. So that community can provide input into the cost and different impacts of each collection process.

What we know so far in response to these questions

We will work together with our partnering Councils to provide residents information about what can and cannot be put in their organics bin prior to the project becoming operational in mid-2025. We welcome any ideas and suggestions about how to encourage residents to participate in the project and will share these with our Council partners when developing a behavioral change program in the future.

Agricultural benefits

Participants discussed the research and development opportunities for use of Biochar. Baking organic matter with minimal oxygen present produces Biochar, a solid, carbon-rich product that locks in valuable nutrients is able to improve soil quality and agricultural crop production and locks carbon away from the atmosphere. Participants discussed how Biochar is created, how long does it take to breakdown and what are its material properties. It was noted that a consistent quality of Biochar products would be required to be useful to the agricultural sector. A participant asked how Biochar would be stored and if it be in line with the EPA guidelines. One participant offered to provide land as part of research or as a demonstration project to support the Biochar development process.

What we know so far in response to these questions

We are working with Deakin University to undertake trials on Biochar. We will be able to share the results once the findings become available. Biochar has many benefits, including:

- It provides a natural product alternative to fossil fuel based fertilisers, lowering emissions and input costs to famers
- Increases water retention in soil
- Captures greater amounts of carbon in soil, reducing greenhouse gas emissions
- Improves health of soil and crops

Once the project is operational and producing Biochar, it will be stored safely on site in line with our environment management plan, before being distributed for use in local markets.

Economic opportunities

Several participants were interested in the number of ongoing employment opportunities the project may bring. This included the number of jobs directly created at the new facility as well jobs created in the region to support the project.

What we know so far in response to these questions

This project will create new jobs on site at the facility as well as through the kerbside collection and distribution of products. We will maximize employment opportunities by working with organisations such as Deakin and TAFE to create as much local economic benefit as possible.

Next steps

Responding to your feedback

The project team are using the community feedback collected in this phase to prepare the design and technical assessments. As part of next engagement phase we will prepare a 'closing the loop' factsheet that explains how the feedback captured in Phase 1 has been considered in the functional design and technical design for the project.

Phase 2 engagement is another opportunity to share your feedback on the project

In early-2023, community and stakeholders will be invited to provide their feedback on the design and technical assessments. There will be a range of activities to meet the project team, learn more about the project and share feedback. Later in mid-2023 we will submit our application to the EPA for approval with construction to start in late 2023 if the project is approved. The Regional RON will be up and running by mid-2025.