Barwon Water

Regional Renewable Organics Network

Community and Stakeholder Engagement Report

August 2024

Table of contents

Executive summary 3

Introduction 7

Community and stakeholder engagement 7

Community and stakeholder engagement overview 8

Phase 1 Engagement 2020, 2021 and 2022 8

- Community and stakeholder engagement and Covid-19 pandemic 8
- Engagement approach 8
- Supporting communication materials 9
- What we heard from Phase 1 10

Phase 2 Engagement 2023 10

- Engagement approach 10
- What we heard from Phase 2 12

Phase 3 Engagement 2024 13

- Engagement approach 13
- Supporting communication materials 13
- What we heard from Phase 3 14

Feedback themes 15

Barwon Water response 15

Appendices 17

- Communications and Engagement Collateral 17

Executive summary

This report provides a summary of the community and stakeholder engagement for the Regional Renewable Organics Network project (RRON) undertaken between November 2020 and July 2024 to understand the views of Barwon Water customers, communities, and stakeholders. This report has been developed to support the Environment Protection Authority (EPA) development licence application for this project.

Barwon Water (BW) has established working relationships with Traditional Custodians, local councils, councillors, local members of Parliament, government departments and agencies, landowners, community and environmental groups to raise awareness of the project, seek feedback and allow for concerns and ideas to be understood and addressed.

See Table 1 Customers, communities and stakeholders informed or engaged on the project, for the identified stakeholder list.

Formal public consultation occurred across three phases:

- Phase 1 - October to November 2021
    - seeking to understand what was important to the community and stakeholders about the project objectives.
- Phase 2 - October and November 2023
    - sought feedback on more detailed information on the facility design.
- Phase 3 – July 2024
    - Sharing changes regarding the design of the facility and products to be produced.

Across all three phases, community engagement activities undertaken included online and face-to-face meetings and information sessions, in-person and online events, briefing presentations, project team meetings, mail outs, fact sheets, maps, video animation, images / diagrams and an interactive website. From these activities, feedback was gathered and considered.

In general, feedback across all engagement from BW customers, communities and stakeholders has been in positive support of the RRON objectives.

The key concerns raised included the potential impacts of increased traffic, noise, odour and safety. Caring for Country, protecting cultural heritage around the site and screen the facility was also important.

See Table 2 Key feedback themes from community and stakeholders for an outline of the feedback received during consultations.

Table 1 Customers, communities and stakeholders informed or engaged on the project

Local, State and Federal Government	Statutory authorities	Other communities and stakeholders
Local Government • City of Greater Geelong • Golden Plains Shire • Borough of Queenscliffe • Surf Coast Shire State Government • The Hon. Harriet Shing (Minister for Water) • The Hon. Lisa Neville (former Minister for Water and Member for Bellarine) • The Hon. Gayle Tierney (Minister for Regional Development and Member for Western Victoria) • Alison Marchant (Member for Bellarine) • Darren Cheeseman (Member for South Barwon) • Christine Couzens (Member for Geelong) • Ella George (Member for Lara) • Richard Riordan (Member for Polwarth) • Andy Meddick (former Member for Western Victoria) • Dr Sarah Mansfield (Member for Western Victoria) • Bronwyn Halfpenny (Parliamentary Secretary for Jobs) Federal Government • The Hon. Richard Marles (Deputy Prime Minister and Member for Corio) • The Hon. Tanya Plibersek MP (Minister for Environment and Water) • Libby Coker (Member for Corangamite)	• Department of Energy, Environment and Climate Action (DEECA) • Department of Transport and Planning (formerly Regional Roads Victoria) • Environment Protection Authority (EPA)	• Barwon Water Customer and Environment Advisory Committees • Black Rock Water Reclamation Plant site neighbours and landowners • Barwon Heads Association • Geelong Sustainability • G21 Alliance • Friends of the Barwon River • Committee for Geelong (Leaders for Geelong program) • City of Greater Geelong Sustainability forums • Future Geelong Forum • Sustainability Victoria • Geelong Manufacturing Council • Deakin University • RMIT • Barwon Coast • Victorian Bioenergy Network • Regional Development Victoria • Water Services Association of Australia (WSAA) • Barwon Regional Partnership • Infrastructure Victoria • Infrastructure Partnerships Australia – Water Policy Taskforce • Queenscliffe Climate Action Now • Bremlea Community Garden Group • 13th Beach Owners Corporation and Cashmore • 13th Beach Residents Association • Civil Contractors Federation (Victorian Chapter) • Australia and New Zealand Biochar Industry Group

Table 2 Key feedback themes from community and stakeholders

Key themes	Feedback received
Technology	Interest in the type of technology being used to treat organic waste, where it comes from and where else it is used
Energy production and use	Interest in how the facility is powered and how much renewable energy will be used and where this will be used.
Project costs, savings and benefits	Interest in how the project will be funded, where cost savings will be made and how this benefits Barwon Water customers
Increased traffic	Increased truck movements near Bremlea, Connewarre and Barwon Heads is concerning for nearby communities. Truck movements to and from the RRON facility must not adversely impact existing traffic levels.
Noise	Noise must be managed so it does not impact the local area, neighbours or residents.
Odour	Odour must be managed so it does not impact the local area, neighbours or residents
Safety	Trucks delivering waste to the RRON facility must observe speed and load limits and ensure the safety of pedestrians, cyclists, cars, and trucks.
Caring for Country	The RRON facility must be screened adequately and blend into the local coastal environment.
Kerbside collection and delivery to RRON facility	Communities were concerned with changes to collection of kerbside waste, how this would be transported, stored and processed at the RRON. There were also questions about the type of material being accepted, how contamination and sorting is managed before and after processing.
Biochar and digestate	Individuals and environmental groups were interested in the opportunities, access, and potential markets for biochar and digestate

Responding to feedback:

The RRON project team and design consultants will consider the feedback received from BW customers, communities and stakeholders to inform the final functional design and future construction and operations of the RRON facility. Notably, the following will be incorporated as a result of the feedback:

- The **height of the building** was raised as a concern by a neighbouring landowner. This was taken into consideration during the early design phase and resulted in the height of the facility being reduced by 0.85m bringing the highest part of the facility to <14m.
- **Opportunities to screen** the RRON facility (e.g. tree planting, raising / installation of earthen berms) will continue to be explored throughout the next phases of the project.
- State of the art **odour control technologies** will be adopted, and waste will be received in sealed trucks. Waste inside the RRON facility will be stored in a way to ensure odour is managed within a sealed environment and meets EPA requirements.
- A **traffic assessment has been completed** and will help to understand truck movement impacts on local roads. Traffic safety was raised by neighbouring landowners and a community group, particularly Bluestone School Road, which will not be part of the planned truck route.
- **Speed limit of Black Rock Road** has been raised as a concern from the Barwon Heads Association and neighbouring landowner. Discussion with the road manager (City of Greater Geelong) around speed limit reduction will be explored throughout the next phases of the project

- Feedback received about the **preferences of wall and roof colour of the facility**, and the reasons for this (to blend into the environment) will be shared with the design and contractor and considered through the detailed design.
- **Opportunities to partner with a social enterprise** are currently being explored to bag the biochar and make it accessible to the community.

The project team will continue to work in partnership with Councils through waste supply agreements and support education campaigns to ensure food organics and garden organics (FOGO) Kerbside collections are well understood across the region.

Consultation with BW customers, communities and stakeholders will continue throughout the approvals, construction and operation stages of the RRON project.

Introduction

Barwon Water is planning a world leading Regional Renewable Organics Network (RRON) at the Black Rock Water Reclamation Plant in Connewarre. The planned facility will take household food and garden waste, local commercial and industrial organic waste and organic materials from wastewater treatment and safely convert it into products that capture carbon for high value use in agriculture and advanced sustainable materials, and at the same time produce renewable energy. In doing so, it will divert volumes of organic waste away from landfill, reduce emissions and help reverse the cycle of burning fossil fuels.

Barwon Water has drawn from its 110-year knowledge of managing water and wastewater to partner with four regional local councils to transform organic waste into valuable resources. This project also aligns with state-wide Circular Economy Initiatives and Recycling Victoria policy reform. The RRON will deliver significant environmental, economic and community benefits to the region.

The benefits of the project are to:

- reduce greenhouse gas emissions between 10,000 to 15,000 total carbon emissions per year.
- produce 60,000 gigajoules of clean, green, low-cost energy each year.
- Produce a combined total of ~22,000 tonnes of digestate and biochar for bio-fertiliser opportunities, agribusiness and sustainable manufacturing opportunities.
- reduce the high energy cost of treating sewage and wastewater, helping to keep Barwon Water customers' bills affordable.
- create ~75 construction jobs and 45 ongoing jobs.

Community and stakeholder engagement

Barwon Water is committed to engaging with the community from early design phase and all along the project lifecycle. It has been important to Barwon Water to share information with stakeholders and the local community and to listen and learn about any interests or concerns about the project.

Barwon Water first engaged with the council partners on the RRON in early 2020, and since July 2020, has chaired bi-monthly Joint Steering Committee meetings. These meetings provide regular updates on the project, discuss a diverse range of project factors and provide direction for the RRON.

An early phase of public consultation occurred in October and November 2021 to share early information about the proposed facility at the Black Rock Water Reclamation precinct and understand what is important to the community. A detailed report has been shared on the RRON Your Say website and distributed to stakeholders and key contacts.

A second phase of public consultation occurred across six weeks from the 9 October to 16 November 2023. The purpose was to share new information about the design and function of the facility including the technology to be used to process organic waste and additional information about biochar and renewable energy and other project benefits.

A third phase of public consultation occurred across four weeks in July 2024. Similar to the consultation phase in late 2023, the purpose of this consultation was to share new information about the design and function of the facility, specifically the change in how the facility would operate and the production of digestate. The consultation also was an opportunity to confirm the community's preference for the wall and roof colours.

Interim regular communication occurred in between the three formal engagement phases in 2022 and 2024 to keep stakeholders, community groups and local landowners updated.

BW engaged extensively with a range of stakeholders including government, statutory authorities, community and environment groups and landowners.

See Table 1 Customers, communities and stakeholders informed or engaged on the project for a full list.

Community and stakeholder engagement overview

The community and stakeholder engagement approach for the RRON focuses on building positive relationships, trust and confidence and being open and transparent with providing timely information.

Based on the scope for community involvement during November 2020 to July 2024 timeline, the level of community and stakeholder engagement has largely operated at the 'inform' and 'consult' levels of the IAP2 spectrum[1].

BW's community and stakeholder engagement objectives for RRON facility are:

- Build awareness about and support for the RRON and its benefits
- Promote engagement opportunities for broad community and high impact stakeholders, to learn more about the project and provide feedback
- Share information on the facility design, site footprint, technical assessments and how regulatory requirements will be met
- Understand interest, concerns, questions and what additional information may be required, to inform future stages of the project

BW is committed to an ongoing conversation with customers, communities and stakeholders throughout the project life cycle. Additional community and stakeholder engagement is planned to take place after the Development Licence Application from EPA is accepted, to help connect community member and stakeholders to the EPA's engagement process once confirmed.

Phase 1 Engagement 2020, 2021 and 2022

From June 2020 through to early October 2021 through to late November 2021 Barwon Water shared information about the project and heard from community and stakeholders about what is important and what needs to be considered as the project progresses. Further engagement occurred in late 2022 to share more information about the facility.

Community and stakeholder engagement and Covid-19 pandemic

To ensure BW complied Victorian Government health advice and limits on public and non-essential gatherings during the Covid-19 pandemic in late 2020 and into 2021, BW acknowledged the COVID-19 pandemic had a significant impact across the community. Engagement options for both in-person and online community and stakeholder engagement were made available in line with Victorian Government health advice.

Engagement approach

During this phase, **350 people actively engaged** with the project team and provided their feedback through predominantly online engagement activities. See Table 3 Engagement activities and participation in phase 1 for further detail.

[1] https://iap2.org.au/resources/spectrum/

Table 3 Engagement activities and participation in phase 1

Engagement activity	Participation
Online Webinars Two webinars were held to present 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.	A total of **50** people attended the online webinars
Dedicated Your Say Page 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. Feedback opportunities were also hosted including: • **Interactive map** Allowed anyone 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.	A total of **19** pins were dropped on the interactive map, **3** detailed documents were submitted and **3** questions asked, using the online tools. Over this phase, a total of **2916** visits were recorded to the Your Say page.
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.	**10** meetings were held with the project team
Geelong Show community pop-up Between 13-16 October 2022. Sentiment through this activity for the project was positive, in particular towards recycling and carbon sequestration benefits.	**295 visitors and conversations** were held between the wider community and project team members.

Supporting communication materials

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

- Media releases issued to local newspapers:
    - Barwon Water leads Australian-first Renewable Organics Networks - 16 June 2020
    - Regional Renewable Organics Network is a step closer – 8 October 2021
    - Councils sign waste supply agreements for Regional Renewable Organics Network – 26 August 2022

- Latest news article pinned to the Barwon Water homepage of the corporate website:
    - Renewable Organics Networks discussed at online community forum – 2 October 2020
- Mail / Email 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 as opportunities to provide their feedback.
- Social media and paid social media ads (geo targeted to locations where events are) See Appendix A

What we heard from Phase 1

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.

We heard from the community that they were most interested in the how the facility works, the use of traffic and vehicles and the importance of minimising traffic impacts, concerns about odour and effluent liquids and how these will be managed at this type of facility, community participation and agricultural and economic opportunities.

BW committed to keeping participants informed about the project through regular communications and regular updates to the project website, which gained 14 followers at the conclusion of phase one. A detailed Phase 1 Engagement Report was shared with participants and stakeholders and a letter sent to landowners to inform them of the report being uploaded to the project website.

Phase 2 Engagement 2023

As the project team continued to refine the design of the facility and progress technical assessments, a second phase of engagement occurred from April and May 2023 and 9 October to 16 November 2023. This was an opportunity to share new information about the design and function of the facility including more detail on the technology, specifics on the height and materials used to build the facility, how local impacts will be managed and how EPA requirements will be met.

Engagement approach

A total of **85 people actively engaged** in the opportunities across the formal engagement period, to find out more about the project, ask questions of the project team and provide feedback.

See Table 4 Engagement activities and participation in phase 2 for a description of the engagement activity and who participated.

Table 4 Engagement activities and participation in phase 2

Engagement activity	Participation
City of Greater Geelong Net Zero Forums / Workshops and Sustainability Victoria "Buy Recycled" event In April and May 2023, Barwon Water hosted 2 stalls at the City of Greater Geelong Net Zero Forums to raise awareness of the project. There was both an industry focused day and a community focused day.	Engaged with approximately **20** people who attended these events.

Community group and stakeholder briefings The RRON project team reached out to a range of local community interest groups to provide a project update, understand any areas of concern or interest and answer questions.	A total of **7** community group / committee briefings occurred: • Queenscliffe Climate Action Now • Barwon Heads Association • Breamlea Community Garden Committee • Geelong Sustainability • 13th Beach Residents Association • 13th Beach Residential Owners Association • Barwon Water Environmental Advisory Committee (August 2023)
Black Rock precinct landowner / neighbour briefings and meetings (direct neighbours and landowners) The RRON project team reached out to the surrounding landowners and neighbours to the Black Rock precinct to provide a project update, understand any areas of concern or interest and answer questions.	There are a total of **29** surrounding neighbours / landowners to the Black Rock precinct. Each property owner was contacted in writing to be informed of the project and offer of briefing. Follow-up telephone calls, door knocks and emails with all neighbours was undertaken, resulting in **11** in-person meetings and telephone discussions.
Regional Roadshow Community Information 'drop-in' sessions The drop-in sessions were an opportunity for anyone from the public to find out more about the project and ask questions of the project team. Information Boards were setup in community-based venues to share information across the following locations and dates: • Ryrie Street, Geelong, 23 October 2023, 5.30 – 7.30pm • Queenscliffe Town Hall, 30 October 2023, 4.30 – 6.30pm • Bannockburn Cultural Centre, 31 October 2023, 4.30 -6.30pm • Barwon Heads Bowls Club, 8 November 2023, 4.30 – 6.30pm • Torquay Surf Lifesaving Club, 9 November 2023, 4.30-6.30pm	A total of **16** people attended the drop-in sessions
Online Webinar 15 November, 5.00 pm – 6.00 pm An online webinar was scheduled at the conclusion of the public consultation period, with an overview of the Regional Renewable Organics Network project and facility provided. The presentation was followed by a question-and-answer session where project team members answered participant questions. The webinar was recorded and will remain on the Your Say Project page.	A total of **13** people attended the online webinar
Dedicated Your Say page During the 6 week formal engagement period (9 October – 16 November 2023) the Your Say page was promoted via various BW communications channels. Feedback opportunities included being able to drop a pin on a map and provide a comment, as a question of the project team, make a longer submission, or complete a survey to share a preference for the colour of the facility exterior.	• **2094 visits** to the RRON Your Say page during the consultation period. • **67 downloads** of the Project Fact sheet during the consultation period • **43 contributions** to the 'Have Your Say on the Facility Exterior' survey

Supporting communication materials

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

- Paid advertising in the Geelong Advertiser, Geelong Times, Bellarine Times, Armstrong Creek Times, Golden Plains Times and Geelong Independent (2 weeks of advertising)
- Inclusion in Barwon Water customer Electronic Direct Mail (which goes to 90,000 + people) (currently being issued)
- Mail / Email to more than 1000 people signed up to project-specific database
- Email to interest groups previously briefed (Barwon Heads Association, Geelong Sustainability and Queenscliffe Climate Action Now confirmed to on-share to their members and / or via their newsletters).
- Shared with Barwon Water Customer Advisory Committee with a request to share to their networks
- Social media and paid social media ads (geo targeted to locations where events are).
- Requested for Council partners to share social media posts (both Surf Coast and City of Greater Geelong shared, each have 11,000 and 32,000 followers respectively).
- Media release issued to local newspapers and radio stations (K-Rock and Bay FM picked up) (Not wasting a minute - Barwon Water takes next step with the Regional Renewable Organics Network – 20 October 2023).
- Latest news article pinned to the Barwon Water homepage of the corporate website
- Internal news story shared with Barwon Water and Barwon Asset Solutions staff
- Dedicated Your Say page updated with Latest News and sent to page followers
- Information Kit sent to Council Partners to enable briefing of elected representatives and executive leadership teams.

What we heard from Phase 2

There was overall positive feedback from the community and stakeholders who shared their views, attended a drop-in session or participated in the online webinar. Areas of interest and where more information was sought included:

- the look of the facility within the surrounding area, including an indication of preferred colour (and reasons why)
- how the technology works and how it is different to other waste facilities
- how biochar will be produced and marketed
- how the local impacts including traffic, noise, odour and safety will be managed
- how culturally significant sites will be managed and,
- the type of waste the facility will accept and how this will affect kerbside bin services.

The feedback collected will inform the next stages of the project, including finalisation of the design and technical assessments.

Phase 3 Engagement 2024

From late June through to late July 2024 Barwon Water undertook further community and stakeholder consultation. This was an opportunity to share new information about the design and function of the facility, specifically the change in how the facility would operate and the production of digestate. The consultation also was an opportunity to confirm the community's preference for the wall and roof colours.

Engagement approach

During this phase, **70 people actively engaged** with the project team and provided their feedback through predominantly online engagement activities. See Table 5 Engagement activities and participation in phase 3 for further detail.

Table 5 Engagement activities and participation in phase 3

Engagement activity	Participation
Community group and stakeholder briefings The RRON project team reached out to a range of local community interest groups to provide a project update, understand any areas of concern or interest and answer questions.	A total of **3** community group / committee and stakeholder briefings occurred: • Barwon Heads Association • Geelong Sustainability • Alison Marchant MP (Member for Bellarine) • Regional Development Victoria (Barwon South West) Briefings were also offered to: • Breamlea Community Garden Committee • 13th Beach Residential Owners Association
Online Webinar 31 July, 5.30pm – 6.30pm An online webinar was scheduled to provide an update of the RRON project. The presentation was followed by a question-and-answer session where project team members answered participant questions. The webinar was recorded and will remain on the Your Say Project page.	A total of **62** people attended the online webinar.
Dedicated Your Say Page During this month-long engagement phase (late June to late July 2024) the Your Say page was promoted via a various BW communications channels. The page contained several resources for the community including Frequently Asked Questions, diagrams, community conversation reports and fact sheets. In addition feedback opportunities were also available, these included being able to drop a pin on a map and provide a comment, as a question of the project team or make a longer submission.	• **436** visits to the RRON Your Say page during the consultation period. • **47** downloads of Phase 2 community conversations report • **32** downloads of the Biochar Fact Sheet.

Supporting communication materials

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

- Inclusion in Barwon Water customer Electronic Direct Mail (which goes to 90,000 + people) (issued in mid to late July 2024).

- Email to 545 people signed up to project-specific database.
- Email to interest groups previously briefed (Barwon Heads Association and Geelong Sustainability) to on-share to their members and / or via their newsletters / social media channels.
- Shared with Barwon Water Customer Advisory Committee with a request to share / promote the online webinar to their networks.
- Social media posts promoting the online webinar.
- Requested for Council partners to share social media posts.
- Dedicated Your Say page updated with Latest News.
- Information Kit sent to Council Partners to enable briefing of elected representatives and executive leadership teams.

What we heard from Phase 3

Like Phase 2, overall community and stakeholder feedback was enthusiastic and showed support for the project.

Areas of interest and where more information was sought included:

- traffic and vehicles and the importance of minimising traffic impacts (including concerns regarding the speed limit of Black Rock Road)
- screening of the facility (ensuring the facility and wider precinct blend into the natural environment)
- how the technology works and how it is different to other waste facilities
- how biochar and digestate will be produced and marketed
- how other local impacts including noise, odour and safety will be managed
- the type of waste the facility will accept and how contamination will be managed (including testing how digestate and biochar will be tested to ensure no contaminants)
- project costs and return on investment

The feedback collected will continue to inform the next stages of the project.

Feedback themes

Overall, the feedback across all phases of community and stakeholder engagement phases was consistent, with generally positive sentiment and several key areas of interest and concern.
See Table 6 Key feedback themes from community and stakeholders for an outline of feedback received across consultations.

Table 6 Key feedback themes from community and stakeholders

Key themes	Feedback received
Technology	Interest in the type of technology being used to treat organic waste, where it comes from and where else it is used
Energy production and use	Interest in how the facility is powered and how much renewable energy will be used and where this will be used.
Project costs, savings and benefits	Interest in how the project will be funded, where cost savings will be made and how this benefits Barwon Water customers
Increased traffic	Increased truck movements near Bremlea, Connewarre and Barwon Heads is concerning for nearby communities. Truck movements to and from the RRON facility must not adversely impact existing traffic levels.
Noise	Noise must be managed so it does not impact the local area, neighbours or residents.
Odour	Odour must be managed so it does not impact the local area, neighbours or residents
Safety	Trucks delivering waste to the RRON facility must observe speed and load limits and ensure the safety of pedestrians, cyclists, cars, and trucks.
Caring for Country	The RRON facility must be screened adequately and blend into the local coastal environment.
Kerbside collection and delivery to RRON facility	Communities were concerned with changes to collection of kerbside waste, how this would be transported, stored and processed at the RRON. There were also questions about the type of material being accepted, how contamination and sorting is managed before and after processing.
Biochar and digestate	Individuals and environmental groups were interested in the opportunities, access, and potential markets for biochar and digestate

Barwon Water response

The RRON project team and design consultants will consider the feedback received from BW customers, communities and stakeholders to inform the final functional design and future construction and operations of the RRON facility. Notably, the following will be incorporated as a result of the feedback:

- The **height of the building** was raised as a concern by a neighbouring landowner. This was taken into consideration during the early design phase and resulted in the height of the facility being reduced by 0.85m bringing the highest part of the facility to <14m.
- **Opportunities to screen** the RRON facility (e.g. tree planting, raising / installation of earthen berms) will continue to be explored throughout the next phases of the project.

- State of the art **odour control technologies** will be adopted, and waste will be received in sealed trucks. Waste inside the RRON facility will be stored in a way to ensure odour is managed within a sealed environment and meets EPA requirements.
- A **traffic assessment has been completed** and will help to understand truck movement impacts on local roads. Traffic safety was raised by neighbouring landowners and a community group, particularly Bluestone School Road, which will not be part of the planned truck route.
- **Speed limit of Black Rock Road** has been raised as a concern from the Barwon Heads Association and neighbouring landowner. Discussion with the road manager (City of Greater Geelong) around speed limit reduction will be explored throughout the next phases of the project
- Feedback received about the **preferences of wall and roof colour of the facility**, and the reasons for this (to blend into the environment) will be shared with the design and contractor and considered through the detailed design.
- **Opportunities to partner with a social enterprise** are currently being explored to bag the biochar and make it accessible to the community.

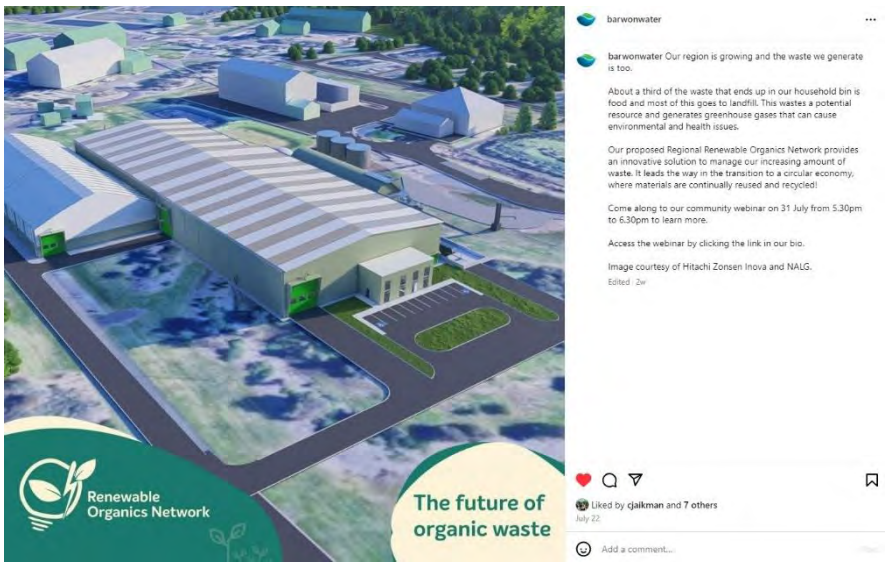
The project team will continue to work in partnership with Councils through waste supply agreements and support education campaigns to ensure food organics and garden organics (FOGO) Kerbside collections are well understood across the region.

Consultation with BW customers, communities and stakeholders will continue throughout the approvals, construction and operation stages of the RRON project.

Appendices

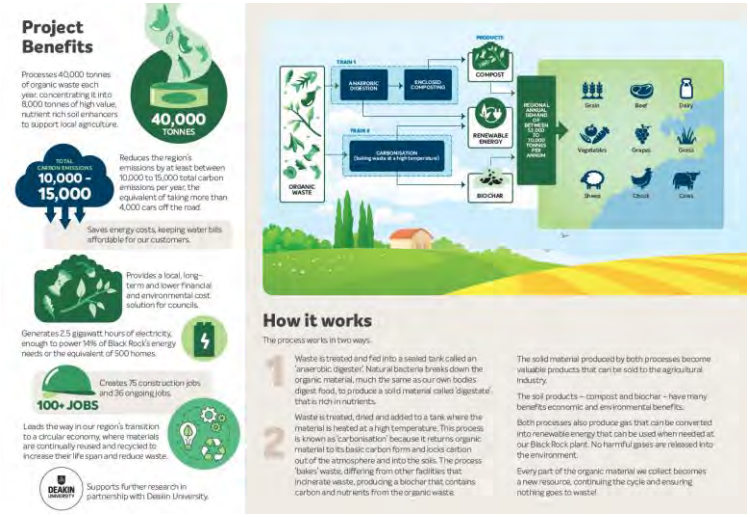
Communications and Engagement Collateral

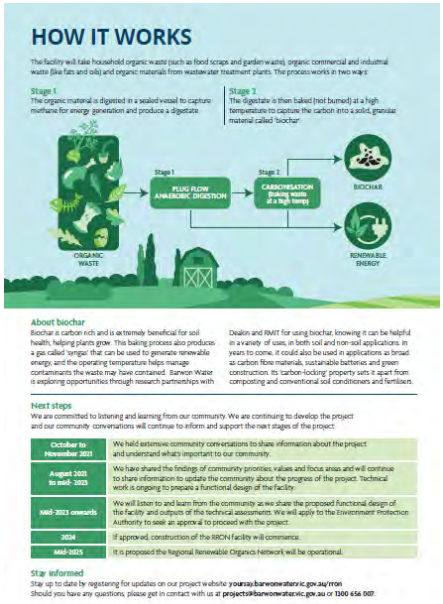
Example of Social Media Promotion (Facebook, Instagram and LinkedIn)



Example PROJECT FACT SHEETS

Phase 1 and 2 fact sheets





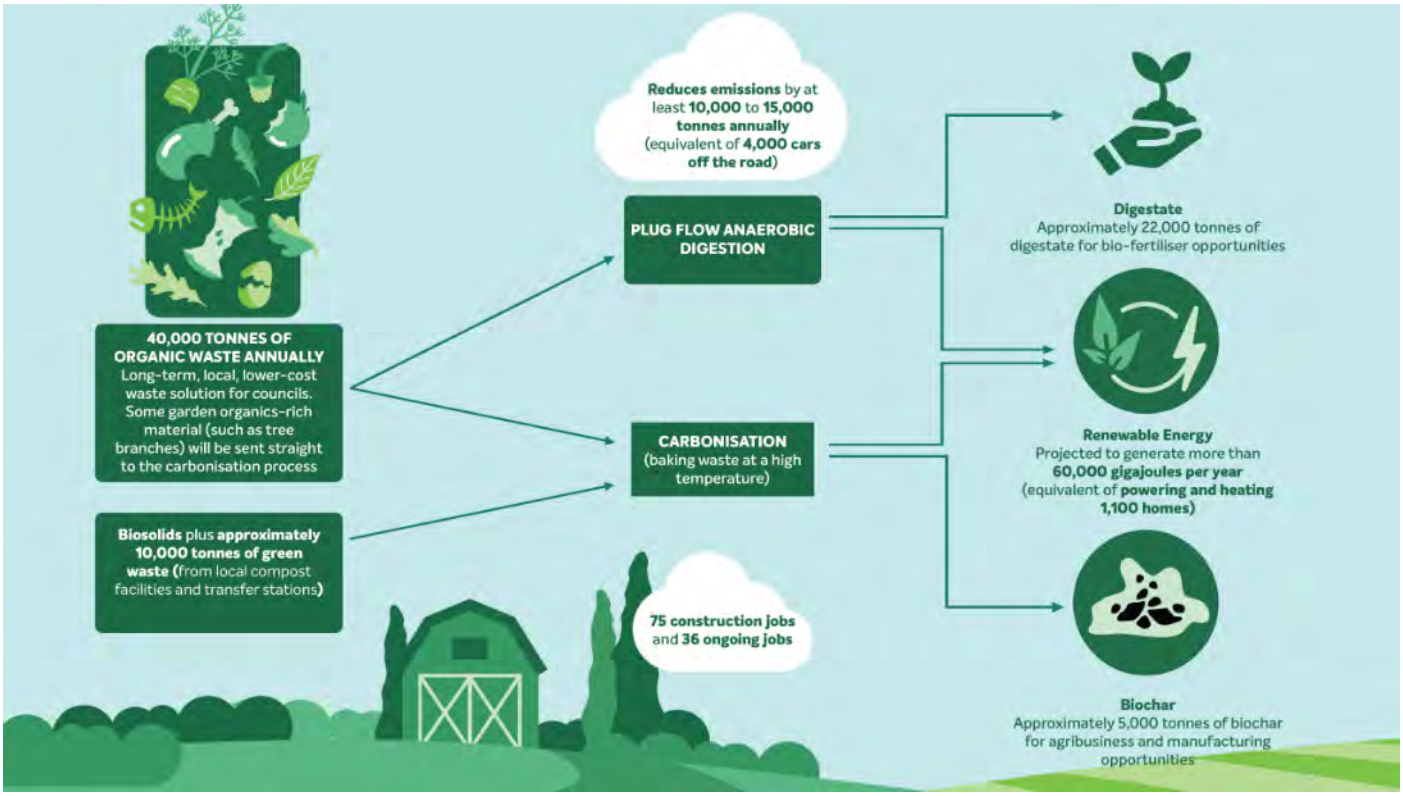
Phase 3 fact sheet

About biochar
Biochar is a carbon rich substance which, due to its chemical and physical structure, can be extremely beneficial for soil health and can assist with plant growth while sequestering carbon for hundreds of years. The operating temperature of the carbonisation vessel also helps manage contaminants the waste may have contained. In years to come, it could also be used in applications as broad as carbon fibre materials, sustainable batteries and green construction. Biochar is black and granular, also lightweight and highly porous.
About digestate
When the food and garden organics go through the plug flow anaerobic digester, it produces a nutrient rich product called digestate. Digestate is a nutrient rich compost- like mixture that can be primarily used as a bio-fertiliser. It also improves plant growth and soil quality, reducing the need for traditional fertilisers. The raw digestate will be mechanically dewatered before going through an enclosed aeration process where air will be mechanically forced through the digestate. This process will reduce moisture in the product and significantly reduce odour, before the product is sent out for use.
Next steps
We are committed to listening and learning from our community. Below is a table outlining the project's next steps:

Mid-2022 to mid-2024	We will listen to and learn from the community as we share the proposed functional design of the facility and outputs of the technical assessments. We will apply to the Environment Protection Authority and Department of Transport and Planning to seek approvals to proceed with the project.
2025	If approved, construction of the RRON facility will commence.
2026	Commissioning and commencement of the operation of the facility.

Stay informed
Stay up to date by registering for updates on our project website, yoursay.barwonwater.vic.gov.au/rron Should you have any questions, please get in contact with us at projects@barwonwater.vic.gov.au or 1300 656 007.

Example project diagrams



Example Community Information Posters at Drop In events (November 2023)

The Regional Renewable Organics Network at Black Rock

About a third of the waste that we throw out at home is organic material – mainly food scraps - that create greenhouse gases when sent to landfill.

Barwon Water is planning to build a world leading Regional Renewable Organics Network (RRON) facility at its Black Rock site in Connewarre, Victoria (just outside of Barwon Heads).

The facility will take household food and garden waste from the Borough of Queenscliffe, Surf Coast Shire, City of Greater Geelong and Golden Plains Shire and safely convert it into biochar, a product that captures carbon for high value use in agribusiness, sustainable manufacturing and construction materials, and at the same time produce renewable energy.

The facility will also process local commercial and industrial organic waste and organic materials from the Black Rock Water Reclamation Plant processes.

How does it work?

The RRON facility works in two stages.

The first stage will see food and organic waste transported to the facility in trucks via Black Rock Road; approximately 40,000 tonnes of organic waste will be delivered and processed at the facility each year.

The material will be pre-treated and fed into a digester tank creating biogas, that will be used for renewable energy.

The second stage will see the digestate baked at a high temperature (a process called carbonisation), creating biochar and syngas, a further source of renewable energy.

Our projections indicate that more than 60,000 gigajoules (GJ) per annum of biogas will be generated, enough to power more than 1,100 Victorian households per year. We will use the biogas to help power operations at the Black Rock site, helping to keep energy costs low for Barwon Water and in turn keep customer water bills affordable.

More than just wastewater

The Black Rock Water Reclamation Plant and surrounding site is a special place.

It is, and will continue to be, a place of cultural significance, regeneration, resources, trade, learning and connection, driving regional prosperity.

What is the Black Rock Water Reclamation Plant?

The Black Rock Water Reclamation Plant is a world class sewage treatment facility which treats the wastewater of a population of 265,000 people. The plant treats wastewater using a combination of mechanical and biological processes.


Aerial view of the Black Rock site

Generating resources

The site produces both Class A and C recycled water. Higher quality (Class A) recycled water is available for residential use through a dedicated 'purple pipe' network to Armstrong Creek, Mt Duneed and northern Torquay, for a range of uses including garden watering. The Class C water is used for agriculture and nearby golf courses. Excess Class C water is released to the ocean via a submerged pipeline.

More than just wastewater

A 3 megawatt (mW) solar farm is also located at the Black Rock site (see below). The farm was the first megawatt-scale solar installation in the Australian water industry and supplies up to 35% of the energy use at the Water Reclamation Plant.


Black Rock Solar Farm


Black Rock aeration tanks

What will the RRON look like?

The RRON facility will be built on a vacant area of land near Barwon Water's existing Black Rock Water Reclamation Plant, which treats greater Geelong's wastewater and produces Class A and C recycled water.

The RRON facility will be compact with most equipment located within the main building. The facility will stand at 14 metres high (its tallest point, which is ~ 3 metres lower than the existing buildings at the site), will be ~ 100 metres long and ~ 45 metres wide – taking up a total of ~ 4,500 square metres or roughly 0.5% of the total Black Rock site.

The height of the building is designed to provide enough clearance for operations, including trucks to safely drop off organic waste within the building.

Most of the equipment is housed within the building. The digester tank, liquid waste receival area and the biofilter (which filters air from the building) will be located outside the main building.

The facility's exterior walls and roof will be made from coated steel that combines long term durability and excellent corrosion resistance. Translucent sheeting will be used strategically on the roof to maximise natural light filtering into the building. The facility will be built in a staged approach, allowing it to adapt to changing technology and organic waste volumes.

An expansion of the facility may be required in future years to cater for increased waste volumes. Any expansion would be undertaken in consultation with Traditional Custodians, local neighbours and communities and agencies.

What is biochar?

Biochar is a carbon-rich material created when organic waste is 'baked' at high temperatures. The RRON facility will produce up to 6,000 tonnes of biochar per year by baking the region's organic waste at a high temperature in a low oxygen process known as pyrolysis.

The process of baking the waste also produces a gas called 'syngas' which can be converted into renewable energy. The high heat involved can also destroy contaminants contained in some organic wastes.

Today, when organic waste is disposed of, the carbon is released back into the atmosphere mainly in the form of methane and carbon dioxide. This is not a good outcome as it simply adds to climate change. Barwon Water is supporting the region to divert this waste, transform it into high value products and in the process lock the carbon in place for hundreds to thousands of years. Locking up the carbon in this manner helps reduce the impact of climate change.

The benefits of using biochar are diverse. It is a versatile product which is rising in popularity as consumers and businesses seek to reduce their carbon footprints and produce sustainable products.

In terms of what it looks like, biochar is black and granular, also lightweight and highly porous.

Where will biochar be used?

Biochar can be used for so many things!

Industries from agriculture and horticulture to construction, manufacturing, energy storage can all use biochar.

While the opportunities are broad and diverse, Barwon Water's approach is to primarily seek local end uses for the biochar with a focus on agriculture and the production of advanced sustainable materials. When applied to the soil, biochar can:

Increase water efficacy	**Improve fertiliser efficiency**	**Attract nutrients to plants**
Increase plant yields	**Increase microbial activity in soil**	**Increase and retains carbon in the soil**

Recent studies show that biochar, if used correctly, can help build organic carbon in soil by up to 20% and can reduce nitrous oxide emissions (greenhouse gases) from soil by 12 to 50%. Some examples include sports fields, golf courses, home gardens, agriculture and horticulture.

When used in manufacturing and construction, biochar can increase strength, durability and substitute fossil fuel intensive products with more sustainable alternatives. Some examples include roads, sustainable batteries, paints / dyes and construction materials.

Barwon Water is currently investigating a range of opportunities for the sale of biochar with a focus on regional use. One of these opportunities include the potential partnership with a local social enterprise to bag and sell the biochar to the local community. Barwon Water will keep the local community informed of these opportunities as they develop.

Biochar research and development

Barwon Water is leading several research and development projects to better inform its understanding of biochar, how it can be applied and future commercial market opportunities.

Biochar to Batteries Research Project

Barwon Water are leading a consortium of research institutes (RMIT and Deakin's Battery Research and Innovation Hub) undertaking techno-economic feasibility of using biochar in energy storage devices (sodium ion batteries through to super-capacitors).

This is a nationally leading concept geared to developing diversified high-value end use options. Other collaborators involved include Intelligent Water Networks (IWN), DEECA, South East Water, and the City of Greater Geelong.

Deakin University 'On-Farm' Biochar Trials

Barwon Water have partnered with Deakin University Centre for Regional and Rural Futures (CeRFF) soil scientists and a local Barrabool farmer to undertake a series of biochar 'on farm' trials at the back of Deakin University, Waurn Ponds.

Supporting Deakin University PhD Students

Barwon Water are supporting two Deakin University PhD students who are researching the application of biochar / activated carbon in water treatment and to improve water holding and co-benefits for soils to improve drought resilience and nutrients for crop productivity.

GenU Nursery Biochar and Alum trials

Barwon Water has initiated a series of ongoing research trials with Deakin and Melbourne University students at the GenU nursery (in South Geelong) that explore the potential of using biochar and Alum (a chemical compound) to grow native plants. A key focus at present is determining leachability / mobilisation of heavy metals in soils.

What is important to our community

Over the past three years we have been engaging with the community to inform the design and future operation of the RRON facility. To date we have received feedback through the following key activities:

We have been listening and learning to what the community are interested to learn more about, respond to questions, share information on how the facility will operate and also share more information about biochar and how this can be used in the future.

We know through our community conversations to date that noise, traffic, odour, what the facility will look like, Caring for Country and the environment are top priorities.

How will noise be managed?

The RRON facility will meet strict Environment Protection Authority guidelines to ensure any noise is not disruptive.

Any noise generated by the facility or by trucks entering and leaving the facility, needs to comply with the Environment Protection Authority's (EPA) conditions and frameworks to minimise disturbance to neighbours or the surrounding environment.

Our design includes measures to limit noise, with equipment appropriately enclosed and the use of noise dampening protection where required.

Noisy equipment, such as fans, will be housed within noise dampening enclosures to prevent any noise emissions.

A noise assessment is being undertaken, considering future and existing noise (from our current Black Rock operations) into account. We will share the outcomes of the assessment with our community for further feedback once completed.

How will odour be managed?

The RRON facility will not smell or produce any odour.

All organic waste that is delivered to the RRON facility, will be dropped off and processed within an enclosed building or enclosed equipment.

The trucks delivering the organic waste will be sealed to reduce odours when transporting the organic waste to the RRON facility. When trucks arrive at the facility, they will drive into the main building and the door will be closed prior to them emptying the organic waste for pre-treatment. Trucks will be cleaned before leaving the facility to reduce any potential odour from the trucks.

The main building will be under negative pressure, with air sucked through ducts at regular intervals and passed through a biofilter, rather than emitting to atmosphere. A biofilter is a layered filter bed (please see image below), which air will pass through and be treated by bacteria and treat any odorous air, before exhausting the treated air to the environment.

The organic waste will be pre-treated within 48 hours after it is delivered to site. Regular odour inspections will be undertaken at the RRON facility around the site.

A detailed odour management plan will be prepared, and we will need to meet Environment Protection Authority (EPA) requirements throughout the commissioning and operation of the facility. With more than 110 years' experience in managing and treating millions of litres of wastewater every day, we are experienced in managing odour and being compliant with all environmental regulations and conditions.

How will traffic be managed?

It is estimated that there will be around 16 waste trucks moving to and from the site a day (Monday to Friday), increasing to 20 to 25 trucks a day by 2033 as waste volumes increase. It is estimated 2 to 3 trucks a day (Monday to Friday) will move to and from the site for biochar collection.

When will trucks operate?

Trucks will operate on weekdays during normal working hours. Times may vary depending on when residential waste is collected from the kerbside and how far trucks need to travel from the collection area.

This represents an increase of traffic by 0.1% on Barwon Heads Road which currently has an estimated 11,000 vehicles per day.

Truck movements will commence from 2025 when the facility is being commissioned and increase to approximately 10 trucks per day once the facility is operational. There will be also truck activity during construction, from 2024.

A more detailed traffic assessment is being developed and we will share the outcomes with our community when complete.

How will traffic be managed?

Which direction will the trucks come from?

Trucks are expected to enter and exit the facility from the middle driveway on Black Rock Road.

Trucks will travel along the Barwon Heads Road, mostly from the west (approximately 92%) and less frequently from the east (approximately 8%).

Thirteenth Beach Road and Bluestone School Roads will not be used as they are subject to three tonne load limits.

How will we Care for Country?

Barwon Water applies a Caring for Country approach to the land and waterways in partnership with Traditional Owners, other agencies and community members.

We acknowledge that the proposed site and the broader Black Rock precinct is on Wadawurrung Country. We have engaged Wadawurrung Traditional Owners Aboriginal Corporation to review and provide feedback on the Cultural Heritage Management Plan that was prepared for the proposed facility.

We intend to plant additional plants and trees to help screen the facility and blend it with the surrounding environment.

The facility will be designed to manage stormwater and integrate with existing stormwater management at the overall Black Rock site to prevent any runoff into the natural environment.

The RRON will be required to the EPA's guidelines and regulations to ensure there is no impact on the environment.

An environmental management plan will also be prepared for the RRON facility.

How will we manage safety?

Managing staff, contractor and community safety is a high priority for Barwon Water.

Fire prevention measures will be put in place to ensure there is a low risk of fire. Fire infrastructure will be located throughout the site to prevent and manage the risk of fire. This will be reviewed by the Environment Protection Authority and Country Fire Authority as part of the approval process.

Some of the equipment at the RRON will run 24 hours a day, seven days a week, including the digester, with biogas being produced continuously.

The biogas will be used at the neighbouring biosolids drying facility to support powering operations.

In the unlikely event that the biogas doesn't meet specifications or the biosolids facility doesn't require the biogas, we will need to manage the excess biogas produced.

As part of the facility design, a 7.5 metre high "stack" (please see image below) is included to manage excess biogas. On those rare occasions, the excess biogas will be flared within the stack, however, no flame will be visible from the outside. This "stack" provides a critical safety measure for our staff, contractors and community.

Interaction between moving vehicles and staff on site is a key safety consideration. Preventative measures such as walkways, guards, bollards, low speed limits, speed humps will be included in the facility design. A vehicle operational plan will also be developed to inform how many vehicles are allowed to be on site at once.

Commonly asked questions

How much energy or electricity does it take to power the RRON? Will the RRON be energy self-sufficient?

The RRON will be net energy positive, with a large volume of biogas used in its most efficient form, to offset existing natural gas usage at the existing biosolids drying facility. On average, the electrical energy demand of the RRON will be ~1.3MWh. We are investigating opportunities such as solar, to further reduce this demand.

What sort of organic waste will be accepted at the RRON?

Common food waste items that will be processed at the RRON facility include (but not limited to) bones, bread, vegetables, fruits, eggs and eggshells, spoiled / out of date food, dairy products, coffee grounds and seafood. Common green waste items that can be accepted include branches, garden and grass/lawn clippings, sticks and weeds.

Your local Council will inform you what can and can't be collected in your food and green organics bin. Barwon Water encourages you to contact your local Council to discuss what your current kerbside collection service is and how this works.

Is there anything the RRON won't accept?

The RRON facility cannot accept non-organic waste items such as plastic, glass or metal or any hazardous materials (such as batteries, appliances, light bulbs) or animal feces (such as dog poo).

How will Barwon Water manage contamination at the RRON facility?

Contamination in the organic waste will be managed through pre-treatment at the facility. Before entering the digester, various stages of de-contamination, shredding and screening will be utilised to remove physical contamination.

This contamination will then be transported to a licensed facility, for further treatment or for landfill. We continue to work closely with our partner councils on behaviour change campaigns, to keep contamination to a minimum.

Can I still use my compost at home?

Yes! Home composting is one of the ways community members can help divert food waste from landfill. Barwon Water encourages all community members to contact their local Councils for more information on home composting programs.

Where does the region's food and garden organics waste currently go?

There is also a shortage of food waste processing facilities in the Barwon region, with most food and garden organics being sent outside of the region to be processed.

Will my water bills and council rates go up because of the RRON project?

The project is designed to help keep water bills affordable and Council rates down. The RRON facility provides a lower cost solution than waste going to landfill, is competitive against other processing options, and reduces the energy costs associated with treating sewerage.

The RRON has been designed to ensure it is sustainably funded in a way that doesn't require subsidies by Barwon Water customers and helps reduce costs to treat our wastewater. The Victorian Government has also contributed $285,000 to assist with the concept development.

Will the local community be able to purchase biochar from the facility?

Barwon Water is looking to partner with a local social enterprise to take the biochar produced at the RRON, to bag it and to sell it to the local community.

If the facility is noisy or smells, what will Barwon Water do?

Barwon Water is committed to minimising its impact to the surrounding environment. In the event that noise and/or odour became an issue at the RRON, this would be measured, assessed and dealt with accordingly to meet EPA requirements.

Will traffic impact local cycling routes?

Safety of our staff, contractors and local community is a high priority. Truck movements to and from the facility are not expected to impact existing cycling routes. Once operational, truck drivers will be given a site induction including information about the nearby cyclist route.

Next steps and staying informed

We are committed to continuing to listen and learn from our community.

Over the next three months, we will finalise the various technical assessments, and the design of the facility.

It is anticipated that the RRON facility will be operational and accepting local food and garden organic waste from 2025/2026, pending final regulatory approval from key agencies and the Barwon Water Board.

The below timeline outlines the project next steps:

October to December 2023	We will listen to and learn from the community as we share the proposed functional design of the facility and outputs of the technical assessments. We will apply to the Environment Protection Authority to seek a Development Licence approval and obtain the necessary planning approval to proceed with the project.
2024	Construction commences. Ongoing community engagement.
2025	Commissioning the constructed processing equipment, with Council material likely required to allow wet commissioning. Ongoing community engagement.
2025/2026	RRON facility operational, processing local household and garden organic waste and producing biochar.

Stay up to date by registering for updates on our project website by scanning the QR code.

Should you have any questions, please get in contact with us at projects@barwonwater.vic.gov.au or 1300 656 007

Example Letter to landowners, customer and project database (November 2023)

Barwon Water

24 November 2023

Name
Address
Street
Town State Postcode

Dear community member,

Re: Regional Renewable Organics Network (RRON) update

We're writing to provide an update on our plan for a Regional Renewable Organics Network at our Black Rock Water Reclamation Plant in Connewarre.

The facility plans to take local household and commercial organic waste – like food scraps, garden waste, fats and oils – and convert it into biochar – a carbon rich product that has high value in agriculture and in the production of sustainable materials. In addition the facility will produce renewable energy and reduce carbon emissions for our region.

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

We've been working to undertake design and technical assessments for the RRON facility, which will provide more information about how we will meet Environment Protection Authority (EPA) requirements, determine the best location for the proposed facility and address community considerations such as noise, traffic and odour.

To keep up to date with the latest developments and findings of these activities, you're invited to come along to our upcoming community information sessions, plus we're hosting an online webinar for those who can't make it in person:

Monday 23 October	5pm to 7pm	Barwon Water offices, 55-67 Ryrie Street, Geelong
Monday 30 October	4.30pm – 6.30pm	Queenscliff Town Hall, 50 Learmonth Street, Queenscliff
Tuesday 31 October	4.30pm – 6.30pm	Bannockburn Cultural Centre, 27 High Street, Bannockburn
Wednesday 8 November	4.30pm – 6.30pm	Barwon Heads Bowling Club, Cnr Sheepwash & Geelong Roads, Barwon Heads
Thursday 9 November	4.30pm to 6.30pm	Torquay Surf Life Saving Club, Surf Beach Drive, Torquay

Barwon Region Water Corporation
55 – 67 Ryrie Street, PO Box 659, Geelong, Victoria, 3220
T: 1300 656 007 E: info@barwonwater.vic.gov.au
www.barwonwater.vic.gov.au

Tuesday 14 November	5pm – 6 pm	Online webinar (via Zoom) (to access the webinar please visit: ttps://us06web.zoom.us/j/81347615526)

If you can't make it to a session but would like to learn more – please don't hesitate to get in touch with the project team on 1300 656 007 or email **projects@barwonwater.vic.gov.au**. We're here to help.

In the meantime, to keep in the loop, register for updates or submit a question, you can visit our dedicated website: **www.yoursay.barwonwater.vic.gov.au/rron.**

Thank you to everyone who has provided community feedback on this groundbreaking project so far. We've been engaging with the community for the past two years and listening and learning about what is important to you.

We're looking forward to further updating you on the project, addressing areas of interest and giving you the chance to ask questions. You can continue to add your views by visiting the project website above and adding a pin and a comment to the site map.

We'll continue to share information about this exciting project as it progresses.

Yours faithfully,

Shaun Cumming
Managing Director

Example e-letter to landowners, customer and project database (July 2024)

Dear community member,

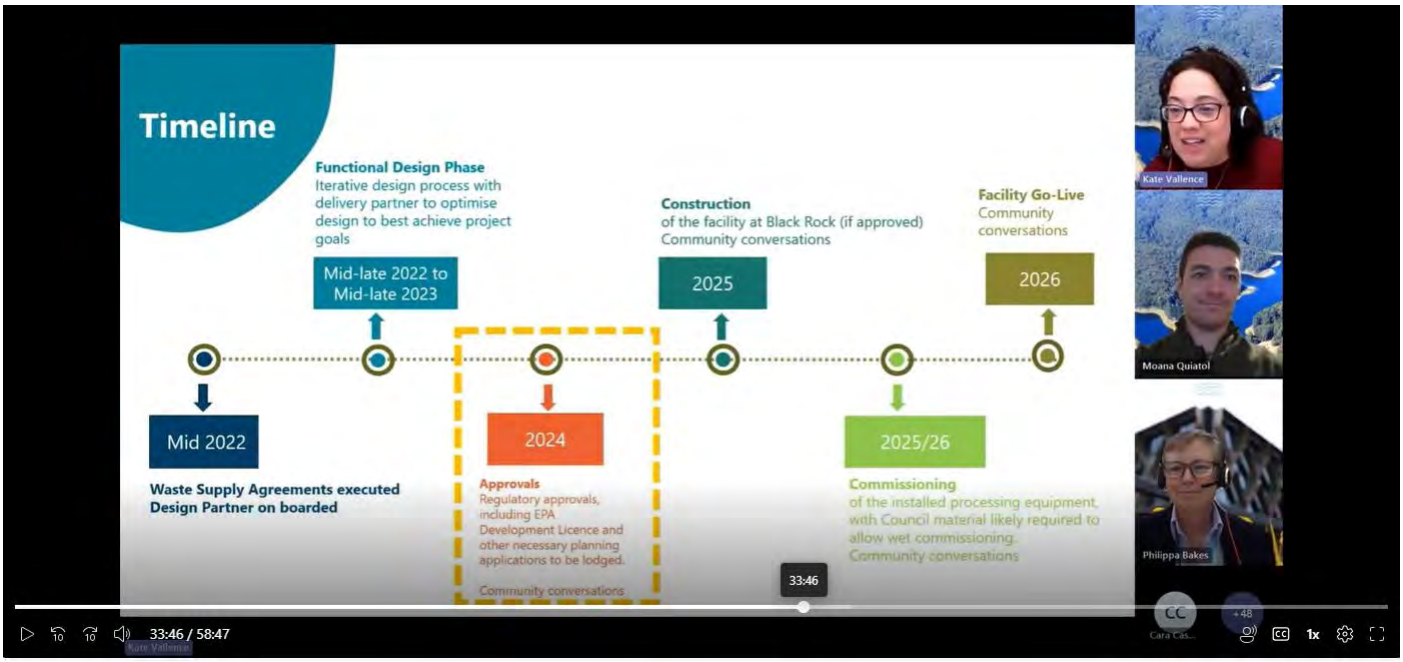
Regional Renewable Organics Network (RRON) update

We're writing to provide an update on our plan for a Regional Renewable Organics Network at our Black Rock Water Reclamation Plant in Connewarre. The Black Rock site is continuing to evolve into a world-class facility to drive the circular economy, clean resource generation, sustainable infrastructure and water security.

The Regional Renewable Organics Network facility plans to take household food and garden waste, local commercial and industrial organic waste and biosolids (organic materials from wastewater treatment) and safely convert it into products that enrich compost, soil and capture carbon for high value use in agribusiness and sustainable manufacturing, and at the same time produce renewable energy. It will take local household and commercial organic waste – like food scraps, garden waste, fats and oils – and convert it into digestate, a compost-like product, and biochar – a carbon rich product that has high value in agriculture and in the production of sustainable materials. In addition the facility will produce renewable energy and reduce carbon emissions for our region.

Example Webinar presentation (November 2023)

Example Webinar presentation (July 2024)



Example media coverage during project engagement

Regional councils promise cheaper bills after signing onto major bioenergy project

ABC South West Vic / By Rosanne Maloney

Posted Sat 23 Oct 2021 at 11:04am, updated Sun 24 Oct 2021 at 11:48am

Organic household waste will be turned into renewable energy at the plant in Black Rock. (Supplied: maerzkind, iStock Photos)

abc.net.au/news/barwon-water-and-counc... Copy link Share article

Less waste, cheaper water bills and lower rates are some of the benefits thousands of residents in western Victorian can expect by 2024, as a biofuel revolution begins in six local government areas.

The City of Greater Geelong, the Borough of Queenscliff, Colac Otway Shire, Golden Plains Shire, Surf Coast Shire and neighbouring Wyndham City Council, which have all signed a Heads of Agreement for a biofuel project with

Key points:

- Councils across western Victoria sign onto a new bioenergy project with Barwon Water

Regional waste-to-energy project progresses

October 20, 2021 • BY Times News Group

Barwon Water chair Jo Plummer, Borough of Queenscliffe mayor Ross Ebbels, City of Greater Geelong councillor Belinda Moloney, Surf Coast Shire deputy mayor Liz Pattison and Colac Otway Shire councillor Chris Potter are pictured at Black Rock Water Reclamation Plant.

AN INNOVATIVE initiative to turn the Geelong region's food, garden and commercial organic waste into electricity and nutrients for farms while also creating jobs has taken a significant step forward.

Barwon Water has signed an agreement with six local councils to explore opportunities for a Regional Renewable Organics Network (RON) at its Black Rock Water Reclamation Plant in Connewarre, with funding support from the state for a business case.

The proposal to reduce carbon emissions by reducing food waste to landfill and create renewable energy will involve the City of Greater Geelong, the Borough of Queenscliffe, Colac Otway Shire, Golden Plains Shire, Surf Coast Shire and Wyndham City Council.

NEWS

Geelong event showcases recycled solutions

BY JAMES TAYLOR

AN EVENT in Geelong highlighted the growing number of products made from recycled materials available to Victorian municipalities and showcased several local examples out in the field.

The first Buy Recycled Western council showcase was held at the City of Greater Geelong's Wurriki Nyal building and was intended to empower councils to make confident decisions when buying recycled materials and supports Victoria's transition to a circular economy.

Part of Sustainability Victoria's Recycled First Local Government program, the full-day event saw represenatives of 21 councils from Melbourne and the west of Victoria discuss how they can buy and use a greater volume of recycled materials for infrastructure, landscaping, parks and gardens in their municipality.

As well as a small trade show featuring recycled product suppliers from the state's west, the showcase also ran site visits to three locations in Geelong using recycled materials: the Western Beach Boardwalk in Rippleside; the bridges at Cowies Creek in Seagull Paddock, North Geelong; and the Anakie Organics Processing Facility.

Ballarat company Replas installed the decking at the Western Beach Boardwalk, and Victorian territory manager Chris Smith said the company installed the boardwalk 18 years ago.

"It looks pretty much the same as it did, apart from a bit of dirt on it.

"For the same reasons that we don't want plastic in our environment uncontrolled - it doesn't go anywhere - that's the same reasons plastic makes a great, long-lasting product when it's put into the right application."

The two bridges at Cowies Creek commissioned by the City of Greater Geelong have been lauded for their engineering, receiving three awards and a commendation at the Institute of Public Works Engineers Australasia (IPWEA) Victorian Division awards in 2022.

Made from a world-first geopolymer, the bridges are designed to be maintenance-free for at least 100 years and can then be recycled at the end of its life.

City of Greater Geelong economic development senior industry sector lead Tina Perfrement said the final outcome of the procurement by innovation process used to tender for the bridges met several objectives for the city, and the process was now embedded in the city's procurement policy.

"You're taking to the market your absolute wishes of what you want to have achieved, and testing that with the market, and they will soon tell you, collectively, if they can."

Barwon Water was one of the exhibitors at the trade show, and presented details about its Regional Renewable Organics Network (RRON) facility.

The water authority has signed waste supply agreements with the Borough of Queenscliffe, City of Greater Geelong, Golden Plains Shire, and Surf Coast Shire to take organic waste from kerbside collection and process it into products including biochar at RRON when it is built at Barwon Water's Black Rock facility.

Barwon Water's Kate Vallence (left) and Kerryn Lester-Smith show off an example of biochar, which will be one of the products to come from the Regional Renewable Organics Network facility. Photos: JAMES TAYLOR