

Barwon Water Biosolids Drying Facility

construction update

community info bulletin || september 09

Construction Update August 2009

Passers by will have noticed the top of the Facility peeking above the earthen mounds surrounding Barwon Water's Black Rock Water Reclamation Plant. Construction is continuing to progress according to program with the Biosolids Management facility due to commence operating early in 2010.



Over recent months, the building framework has been erected and the building cladding is being affixed. This will provide cover for works to continue independent of the prevailing weather conditions.

Items of equipment have been placed and will be fully installed and connected over the coming months.

Construction of the fully enclosed conveyor that connects the biosolids

facility to the Black Rock Water Reclamation Plant has commenced. Once operational, this will, in effect, help remove 1000 trucks per year from local roads.



Pellet Silo

Building structures to fully enclose the Biosolids facility are being constructed and clad. The cladding colours have been selected for their consistency with the palette of the local environment.



Inside a drying tank

The Biosolids dryers are being assembled, with the plates and raking arms being carefully placed in each of the two dryers.



Silo discharge conveyors

Items of process equipment are being installed and connected. Electrical and mechanical connections are due to commence and continue over the forthcoming months.

Connection of electricity is complete. The gas supply has been laid and will be commissioned in the next few months.



Pellet cooler

How will the Biosolids Facility Work?

Wet biosolids from the Black Rock water reclamation plant will travel by enclosed conveyor belt to the drying facility. The drying process begins by mixing wet biosolids with dry biosolids pellets. This helps the wet biosolids form into new pellets. The mixed biosolids are then raked across the heated plates, drying and forming into biosolids pellets. As the pellets reach the edge of a plate, they fall to a plate below, where the process continues. Once pellets reach a nominal size, they are cooled and stored before being transported to their ultimate beneficial use.



Water vapour produced in the dryer is converted back to water in the condenser, which uses recycled water as the cooling medium. All of this water is returned to the Black Rock Water Reclamation Plant where it is treated and recycled.



The new facility will reduce the number of truck movements by 1000 to and from Black Rock Water Reclamation Plant each year (a reduction of nearly 60 per cent). Drying the biosolids in a controlled and enclosed environment will improve safety, ecological and environmental sustainability.

What will the Biosolids Facility look like?

The fully enclosed facility will safely treat all of Barwon Water's biosolids. Located next to the existing Black Rock Water Reclamation Plant, the facility will use recycled water, saving four million litres of precious drinking water daily.



The architect designed building draws upon the color palette of the local environment. Barwon Water's recent work to vegetate the earthen mounds further screens the building from the coastal views.

Plenary Environment has been contracted by Barwon Water to design, construct and operate a fully enclosed, thermal drying facility utilising proven, Keppel Seghers HARD Pelletiser indirect dryers. Construction works commenced in October 2009 and are expected to be completed in Q1 2010.

Beneficial Use of the Pelletised Biosolids

Plenary Environment is working to develop environmentally sustainable uses for the pelletised biosolids produced by the facility.



A recent information session was held in Moriac for those interested in using the biosolids as an agricultural fertilizer. Recognising the high quality and the benefits of the pelletised biosolids, a high level of interest was shown by farmers from the surrounding areas.

Open Days

Barwon Water and Plenary Environment have conducted open days to provide the public with the opportunity to see the Black Rock Water Reclamation Plant and the biosolids facility first hand.

The last open day, held in March, saw hundreds of people inspect the progress of construction of the Biosolids Facility.

As the biosolids facility nears completion and the weather warms up, Plenary Environment and Barwon Water are planning another Open Day. Announcements will be publicized through local newspapers and the website.



Visit the Website

Plenary Environment has established a website that provides further information about the project that may be found at: www.barwonwater.plenaryprojects.com

Photos of Open Days, updates of construction progress and facts and figures are all available.

We would be delighted to hear your comments or answer any questions you might have:

You can contact Plenary Environment by email: [email] or phoning (03) 8888 7700