

Schroder Park tours

The flourishing Schroder Park Wetland is home to a variety of birds, reptiles, insects and aquatic life such as local frog species. Located at the southern end of the Birkenhead Plant, it was constructed in 2001 as a storm water catchment area and to create a naturally occurring ecosystem for wildlife to flourish.

Earlier this year a group of locals from the Probus Club of Largs Bay took a hands-on tour of the wetland and all its inhabitants. Led by Landscaping / Earthcare Consultant, Nick Fewster, the group was guided around the wetland to learn about the flora and fauna and the processes that improve water quality at the site.

Despite living in the area for a number of years, many members of the Probus Club were pleasantly surprised to see such a healthy and diverse wetland area existing so close to their backyards.

Nick explained that one of the primary reasons for the success of the wetland was careful planning and nurturing.

"The plants in the wetland were carefully selected eleven years ago to replicate the same plant communities that grew in the region prior to European settlement. Today the plants are providing a natural oasis and an important food source and habitat for local fauna species," said Nick.

Guided tours for community and school groups offer a great opportunity to get up close and personal with the native wildlife. If you are interested in visiting Schroder Park Wetland please email us at birkenheadtours@adbri.com.au or phone 8300 0300.



The Probus Club from Largs Bay on a tour of the Schroder Park Wetland.

Trevor the turtle

Teachers at Portside Christian College were pleasantly surprised recently when they found a long necked turtle making its way through the staff car park.

Nicknamed Trevor, after the owner of the car it was found under, the wandering turtle was brought to the attention of Adelaide Brighton Cement with the suggestion it be released into the Schroder Park Wetland.

Lee Grigg, a teacher from Portside Christian College said she was unsure where the turtle came from but was pleased Trevor had ended up in a thriving natural habitat.

"It's nice to be able to release a creature into a safe and healthy environment", said Ms Grigg.

Several months later Trevor is doing well in his new home at the Schroder Park Wetlands, having been sighted many times. However, Trevor does seem a touch shy, quickly moving into deeper parts of the wetland pond upon seeing unfamiliar faces invading his newly claimed territory.



Lee Grigg from Portside Christian College releasing Trevor the long necked turtle in to his new home at the Schroder Park Wetland.

Community website

Have you logged on to the Adelaide Brighton Community website yet? Launched in 2012, the new website is an online resource which allows you to stay up to date with what's happening at our Birkenhead Plant.

You can access information about our latest improvements, local community programs, sponsorship and donations.

The website also provides information on the Community Liaison Group, including the latest meeting dates and details on how to get involved.

You can also register for tours of the plant and the surrounding Schroder Park Wetlands through the website.

Find us online at www.adelaidebrightoncommunity.com.au and let us know what you think.



Community sponsorships

As part of our commitment to the surrounding community, Adelaide Brighton Cement's Birkenhead Plant provides a range of sponsorships and donations to local groups and not-for-profit organisations.

Recently this has included sponsorships and donations such as:

- West Lakes and Districts Little Athletics
- 2013 Greek Festival Semaphore
- Anglican Parish of Port Adelaide – Community Garden Upgrade
- Portland Football Club
- Trinity College
- Semaphore Street Fair
- Port Community Art Centre
- North Haven Surf Life Saving club
- Port Adelaide Lion Soccer Club Inc
- Port Adelaide Cricket Club

If you are interested in seeking sponsorship or a donation there are some broad rules that apply and sponsorship applications will be assessed on the below criteria:

- There must be a tangible benefit to the community and/or local residents from the sponsorship.
- Your organisation or activity should ideally be located in the adjacent community area.
- Sponsorships are typically only provided for incorporated or registered organisations.
- You must clearly set out the benefits for your organisation and for Adelaide Brighton Cement in an application letter.

Please send all sponsorship or donation enquiries and requests to birkenheadsponsorship@adbri.com.au

Next community liaison group meeting

The next meeting is scheduled for Monday, 2 December 2013 at 7:00pm at the Port Adelaide Town Hall, Nile Street, Port Adelaide.



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Adelaide Brighton Cement Ltd



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Welcome to Birkenhead community news

Our community newsletters are one of the ways we keep you up to date with what is happening at Adelaide Brighton Cement.

In this edition, we update you on our ongoing environmental improvement initiatives, from dust reduction initiatives to our use of alternative fuels and raw materials.

If you want to find out more or to get in touch with us, you can visit our website at www.adelaidebrightoncommunity.com.au or email us at BirkenheadCommunity@adbri.com.au.

During our normal business hours of 8.30am and 5.00pm, you can reach us on the main switchboard number 8300 0300. For matters that arise after hours, please contact our Community Hotline on 8300 0520.

New faces around the Birkenhead Plant



Recently the Birkenhead Plant welcomed two new faces to its management team, Felicity Lloyd, Operations Manager for South Australia and Adam Durham, Production Manager for South Australia.

Felicity has worked at most Adelaide Brighton cement and lime operations around Australia as a Major Projects Engineer, and is no stranger to the Birkenhead Plant, with much of her eight years with the company spent at the Birkenhead site.

While at Birkenhead, Felicity was involved with the Community Liaison Group and has seen first hand the benefits of the company and community working together. She is keen to continue working with the community to identify environmental issues and find reliable solutions to resolve them.

Felicity recognises the important contribution the plant makes to the local community and as the Operations Manager, is committed to the operations team delivering outcomes that also benefit the local residents and surrounding environment.

Adam is a long term Adelaide Brighton employee with significant hands on experience. Starting at the Birkenhead site more than 25 years ago as an operator, Adam then progressed to the role of Shift Supervisor, before moving interstate to work as the Operations Manager at Adbri Masonry in Victoria and Queensland.

Having lived in nearby communities, Adam has a strong commitment to the local community and environment, believing every employee should be mindful of them during day-to-day operations. Adam is looking forward to the challenges ahead as the new Production Manager and working towards continuous improvements at the plant.

Welcome to the team Adam and Felicity!



Alternative fuels and raw materials

As part of our commitment to sustainability and reducing carbon emissions, we have significantly expanded the use of alternative fuels and raw materials (AFRMs) at the Birkenhead Plant.

AFRMs are by-products of manufacturing and other industry processes that can be used in the manufacture of cement, creating a wide range of benefits including:

- Reducing our usage of natural resources.
- Cutting nitrous oxides (NO_x) stack emissions.
- Minimising the site's greenhouse gas footprint.
- Reducing the volume of material that other South Australian industries send to landfill.

Alternative fuels are energy-rich materials that can be used to replace natural gas as a source of thermal energy. For the past several years we have substituted up to 20 percent of our gas at the plant with two engineered fuels – one timber-based fuel produced from commercial, industrial and demolition waste and a carbon fuel produced from aluminium smelter by-products. This year we made major improvements in our firing process allowing our gas substitution to be increased. Our usage of these two fuels now exceeds 80,000 tonnes per year of materials that were previously going to landfill.

Alternative raw materials are industry-by-products that are rich in iron, silica, alumina or calcium oxide, and can be used to partially replace traditional limestone and clay feed materials. We currently use alternative materials to totally replace our requirements for iron in the cement making process.

We have also extended our use of blast furnace slag, a by-product of iron and steel production. These materials significantly reduce carbon dioxide emissions from the Birkenhead Plant, and their use has resulted in the diversion of a further 100,000 tonnes from landfill.

Cement kiln dust is a by-product of the cement manufacturing process, which has traditionally been sent to landfill. Under the guidelines of the Australian Standard for Cement Manufacture we have now started to blend the Cement Kiln Dust into our final product. This gives an environmental and economic benefit.



Remediation of hydrocarbon fuel plume

A large underground hydrocarbon fuel plume at the former Shell site, next to the Birkenhead Plant, has undergone an extensive twelve-month remediation process. Adelaide Brighton Cement purchased the site several years ago and has been working with S&G Environmental Consulting to remediate the plume, achieving excellent results.

The hydrocarbon plume, which dates back to the early 1990s, was created as a result of fuel storage activities contaminating the groundwater beneath the site. Measurement of wells on the site showed up to 900mm of floating fuel on the water table, 2 metres below the surface.

To remediate the site, 21 extraction wells were put in place to extract the groundwater and process it through a treatment plant to remove the floating fuel.

Over six million litres of groundwater has been processed and 29,000 litres of fuel removed from the site. In the majority of locations where measurable fuel-thickness has been tested it has been reduced to zero, a truly outstanding result.



The former Shell site.

Dust reduction initiatives

New gantry annex to minimise fugitive dust

To minimise dust emissions at the Birkenhead Plant a new annex was constructed at the northern most end of the main clinker storage facility, situated adjacent to Victoria Road.

This area of the plant has heavy traffic movements, including front-end loader operations and trucks loaded with clinker type products continually entering and exiting.

The newly constructed annex provides the space required for larger trucks and semi-trailers to enter the gantry shed, while an automated rapid raise door seals the storage facility to ensure dust does not escape during loading operations and truck movements.

The previous door to the gantry, a slow moving steel door, was often kept open during these loading processes due to limited space for larger trucks, resulting in dust escaping. Having the door opened for extended periods also had the undesired effect of allowing wind to gust through and radiate dust emissions causing the main dust collector in the roof of the facility to be less effective.

The construction of the annex required large amounts of infrastructure to be removed, including the main entrance door, leaving the area exposed for an extended period. To minimise the impact on the surrounding environment and community the new annex was constructed during the April shutdown earlier this year when activities are at their lowest.



AFTER

The newly constructed annex over the northern gantry at the Birkenhead Plant with an automated rapid raise door to minimise dust escaping.



BEFORE

The northern gantry at the Birkenhead Plant before the construction of the annex.

Two additional ambient air dust monitors

Adelaide Brighton Cement has recently increased its capability to monitor ambient dust from and around the Birkenhead Plant with the installation of two additional ambient air dust environmental monitors. There are now six monitors in place, four located on site and two within the surrounding community.

The monitors continuously measure ambient dust loads of respiratory particulate matter with a diameter smaller than ten micrometers (PM10) from and around the site and adjacent surrounding area. The monitors provide vital data for the Birkenhead Plant ambient air dust monitoring program, which provides the community, Environment Protection Authority and Adelaide Brighton Cement with information to better understand and reduce potential future dust emissions.

The new monitors have been strategically placed in the most northeast quadrant of the site (adjacent to Port River and the reserve stockpile) and in the community park on Victoria Road. These locations ensure better coverage of the Birkenhead Plant and key residential locations.

Mounted on six metre poles, the monitors are at an ideal height for effective dust measurement. The new monitors run on solar power and communicate wirelessly to a central control facility.



The locations of the six ambient air dust monitors located in the Birkenhead Plant and surrounding community.



The new ambient air dust monitor located in the northeast quadrant of the Birkenhead Plant.



The new ambient air dust monitor located in the Community Park on Victoria Road.

2013 annual shutdown

Did you know the inside of a kiln typically reaches temperatures of 1500 degrees Celsius? That's hotter than most active volcanoes! These extreme temperatures can put various components of the kiln under immense pressure throughout the year.



To ensure the ongoing reliability and performance of the kilns at the Birkenhead Plant, kiln maintenance shutdowns form a critical part of our operations. Each year we undergo a major maintenance shutdown to carry out necessary work on various areas of the plant to improve overall efficiency.

The 2013 shut down at Birkenhead was undertaken in April over a period of 23 days with up to 300 personnel (contractors and employees) working on a 24/7 basis. Key activities completed during the shutdown included:

- Extensive refractory replacement within the kiln, 4A and 4B towers, tertiary air duct (recycles hot air back into the process), kiln cooler and firing hood areas.
- Installation of a new blanking platform/structure within the kiln firing hood to allow future refractory repairs to take place in a more effective manner.
- Refurbishment and improvements to the construction and demolition storage facility.
- Overhaul of our two main raw mills 4A and 4B.
- Refurbishment of electrostatic precipitators (stack emission control equipment).
- Replacement of cooler bag filters.
- Refurbishment of components in the limestone reclaiming shed system, adjacent to Victoria Road.
- Installation of internal blasters within cyclones to reduce buildup.

We closely monitor the overall safety and environmental performance during shutdowns and have successfully been working to improve it year-on-year utilising a system known as critical path. This involves the close monitoring of all key aspects of the shutdown to ensure all activities are completed safely and in an environmentally friendly manner.

In between shutdowns we strive to minimise stoppages as part of our broader efforts to reduce any impacts our operations could have on the environment and surrounding communities.