

Environmentally FRIENDLY laundry

The mining community in and around Karratha is set to benefit from an environmentally friendly commercial laundry due to open in November. Jamie Wade writes for *Australian Mining*.

The laundry industry is known for its intense water use, but one company is bucking the trend with a facility that will recycle all its water – making it the most efficient of its kind in Australia.

More than 250,000 litres of water will be recycled weekly thanks to a new initiative set up between MCM Linen's world first industrial laundry and LandCorp's Gap Ridge Estate.

Water from the state of the art laundry will be injected into Gap Ridge's recycled water pipe infrastructure and used to irrigate verges, swales and other landscaping throughout the estate.

The plant has the capability to wash 2.5 tonnes of laundry per hour. This equates to washing almost 1000 sets of bed linen per hour.

The facility will use the most water and energy efficient machines in the world, using just one tenth of the water domestic washers use, according to director Alistair Murchinson.

"Many typical industrial washers in Australia use approximately 25 to 30 litres per kilogram, MCM Linen's laundry will use around 2 litres. It's a huge saving," he said.

The 2500 square metre concrete slab is now complete as well as the building's steel structure.

The laundry's equipment will arrive in October and the facility will be open in November. It will assist with the local council's vision of creating a population of 50,000 in Karratha.

The laundries water source is Karratha mains water supported by onsite backup ground water.

Water in the facility will be recycled about five times within the design and operation of the industrial equipment.

Waste water will then be used for dust suppression for developments around Karratha.

MCM Linen is working with Landcorp investigating the use of the recycled water for landscaping the estate through their recycled water pipe.

The local mining community, says Murchinson, will benefit from the facility as a cost-effective alternative to freighting linen out of the community for cleaning. This means lower transportation costs and longer life for the linen. The facility is not just about reducing

water and energy consumption and sewer requirements, says Murchinson. The local mining community will benefit from fresher and longer lasting linen as well as lower transportation and linen costs.

"The reduction in turnaround time from exposure to cooking and rotting during transport means fresher sheets and, therefore, a longer linen lifecycle."

Sheets and pillow slips are ironed – as opposed to non-ironed as currently being provided by some small onsite laundries.

"Having such as local facility also reduces exposure to road flooding and

allows for live stock control at mine camp sites and in the laundry. The facility also supports local indigenous business via the Pilbara Link. Equipment in the facility is highly automated and remotely monitored online from Perth. All linen is tracked through the facility that can launder, steam iron and track work garments.

Benefits to the local environment from the laundry include reduced diesel consumption and carbon dioxide emissions – a saving on trucking of 3200 km based on a weekly round trip to Perth using up to 2800L in diesel for a large mine site. The facility uses significantly

less water: 2.3 L/kg of linen versus 30L/kg of linen for traditional laundries. An on-site heat exchanger on site and efficient plant also minimises energy consumption. The Ashburton Aboriginal Corporation will supply bio-fuel for the Pilbara Link trucking network that will transport the linen locally.

"This initiative presents an opportunity to the resource community to save money, increase employee onsite experience and be socially and environmentally responsible," Murchinson said.

"We see a lot of resource companies being proactive about social and environmental responsibility and here is a great opportunity to do just that.

"We expect in the near future the mining industry will follow the trends in Europe where the laundering of all work garments – fluoro shirts and pants – will be outsourced to save natural resources as well as offer more service to the onsite FIFO workers.

"The quantity of onsite water consumed and money that can be saved by outsourcing linen and garment laundering to a professional plant is huge," Murchinson said.



Recycled water is set to cut down usage levels for Karratha.