





Nowra Chemical Manufacturers – waste reduction strategies and staff involvement

SUCCESS STORIES IN THE SHOALHAVEN

KEY FIGURES ACHIEVED	
 Research partnership	Strategic research partnership with the University Of Wollongong and Hatch
 Reduced waste	Reduced waste to landfill by 32% through increased recycling rates - saving over \$8000 per year.
 Maintenance	Improved maintenance regime resulting in reduced costs by \$20,000
 Green Fleet	Introduction of a company vehicle standard

How did they do it?

- Nowra Chemical Manufacturers use 15,000KL of potable water per year with approximately 10% of this being discharged as waste. This business is looking to 'close the loop' in their processing and are working toward zero discharge.

BTL have helped Nowra Chemicals establish a partnership with the University of Wollongong and engineering firm Hatch. With BTL's help, Nowra Chemicals was able to secure funding from the DECCW to undertake a feasibility study into the use of newly developed nano-filtration to treat this water to reuse standard. The feasibility study is currently underway and results will be given to DECCW and PACIA for dissemination. It is expected that learnings from this study can be applied to other chemical manufacturers and any other industry where waste water discharge represents an efficiency opportunity.

Case study

Nowra Chemical Manufacturers were established in Nowra in 1977. Since that time this company has grown and now employs over 40 people making them one of the major employers in the region. Nowra Chemical Manufacturers make a range of chemicals including those used in water treatment, pharmaceuticals, food, industrial, hospitality, automotive and paper making industries.

Nowra Chemical Manufactures joined the Business Treading Lightly and DECCW Sustainability Advantage programs in 2009. This company has had a long history of involvement in sustainability programs. Nowra Chemicals were members of the NSW EPA Cleaner Production program and have aligned the company philosophies with the Responsible Care Program. Nowra Chemicals are ISO 9001 Quality accredited.



- Nowra Chemicals are finding efficiencies (and dollars) in all forms of waste. They increased their recycling rates of paper and cardboard and found a commercial provider that would take their plastic containers and 1.7t bulk bags for free. These actions reduced their waste to landfill by 32%, saving over \$8000 per year.
- Nowra Chemicals have introduced a company vehicle standard where all new company corporate leases must be 4 cylinder vehicles.
- The purchase of a vacuum wheel to separate solids from waste water.
- This company has developed a composting facility on site to recycle dry and green waste with the help of a worm farm.
- The implementation of an improved programmed maintenance project which has seen maintenance costs reduced by \$20,000.
- Increased commitment to employee training with the training budget increased by 37%.
- All staff are involved in at least one sustainability program:
 - All production staff are involved in the waste water improvement team.
 - All production and warehouse staff are involved in the trade waste reduction project.
 - The technical department is involved in sampling waste streams and mentoring the production staff for waste reduction.
 - The administration team is involved in recycling paper and waste reduction.
 - All managers are responsible for specific sustainability KPI's.
- Improved segregation of waste water streams for more efficient treatment.



Nowra Chemicals success is due to staff commitment and ingenuity

Future projects?

- Embed sustainability practices even further into the operations of Nowra Chemicals by expanding their accreditation to incorporate safety systems and environmental controls with their Quality Assurance accreditation.
- Continued upgrade of equipment such as insulation of vats.
- Nowra Chemicals are keenly awaiting the results of the feasibility study conducted in partnership with the University of Wollongong and Hatch. A favourable outcome will see Nowra Chemicals leading the way in investment in cutting edge, waste water treatment technology.

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