

Water Saving Designs North East Health Wangaratta

Presenters

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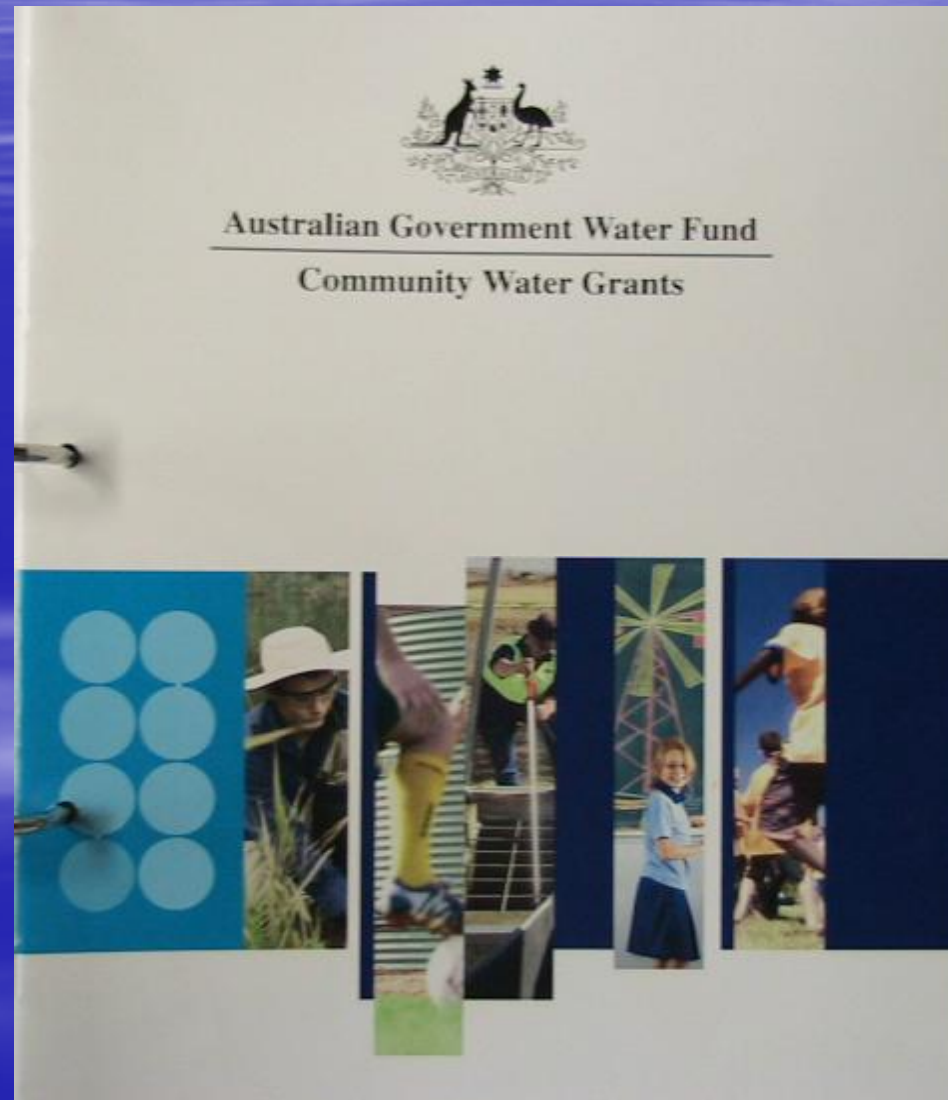
Clayton Henderson

Ovens River Wangaratta





Australian Government Funding 2 Billion Dollars



Project method

- § This project method has been chosen, because of its design simplicity and capability to reduce water consumption upon commissioning of the two systems.
- § The project is a natural extension of work previously undertaken relative to water conservation, energy management and waste Management.
- § Project funding \$37,900.00

Mains Water Supply

Existing Design

CSSD Sterilizers

Water usage 350 litres
per cycle @ 20 cycles
per day
=7000 litres
=1750000 litres per year

Waste Water

Waste

Vacuum Pump

Steam
Supply

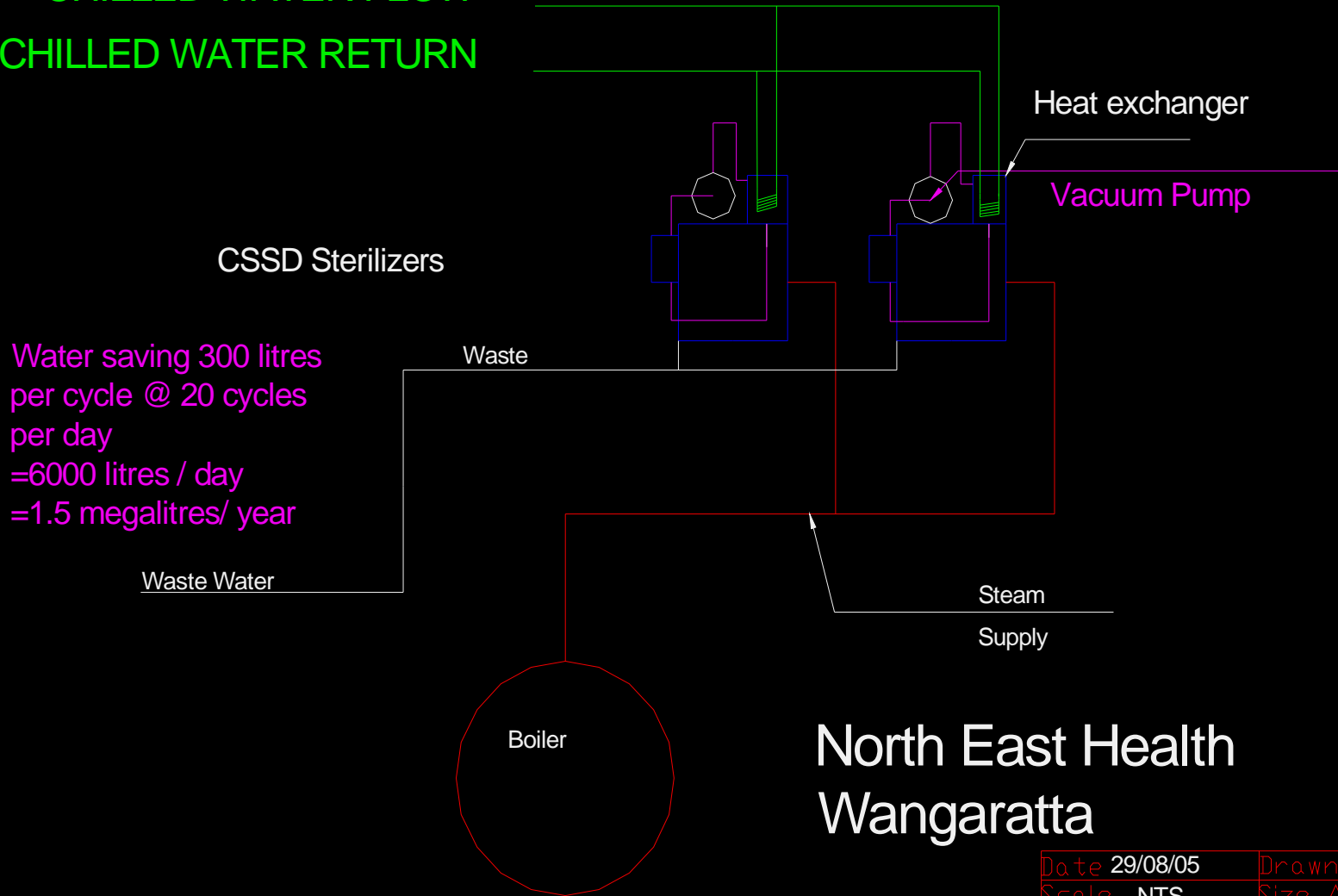
Boiler

North East Health Wangaratta

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WATER SAVING DESIGN

CHILLED WATER FLOW
CHILLED WATER RETURN



Water saving 300 litres
per cycle @ 20 cycles
per day
=6000 litres / day
=1.5 megalitres/ year

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Infrastructure Projects

§ Steriliser Replacement



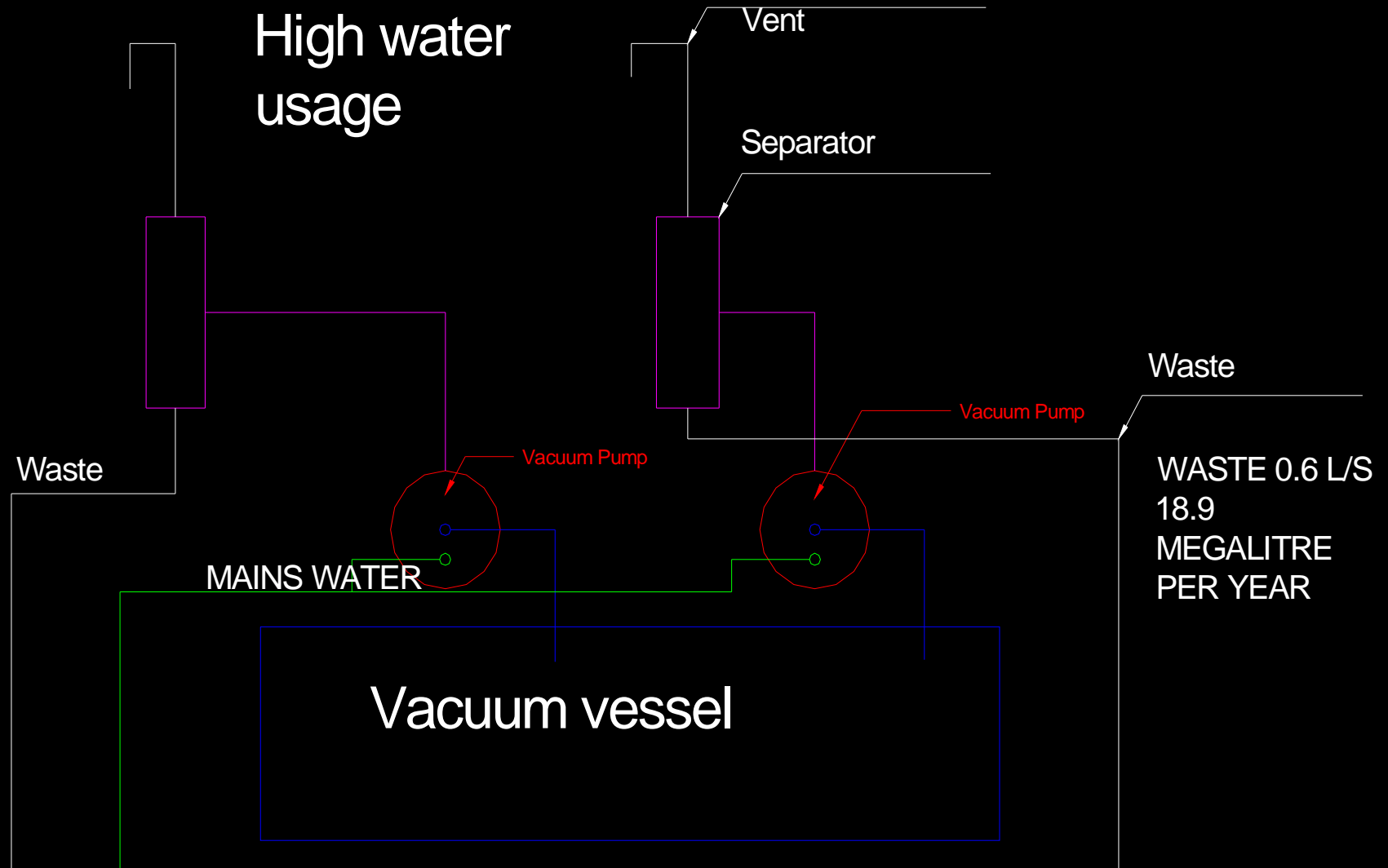


Vacuum System Replacement

§ Project description.

- § This project will reduce domestic water consumption by calculated 18.9 mega liters per year.
- § The water saving will be achieved by upgrading the vacuum pumps to hydraulic systems, removing the need for any water usage.
- § This saving will lessen the demand on Northeast waters, pumping station and mains reticulation.
- § It will also support voluntary water restrictions introduced by NHW.

High water usage



MAINS WATER

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Dialysis water waste

- § The current water usage of the dialysis system is calculated at 15,000 L per week.
- § All water goes currently to waste.
- § The water will be collected in a storage tank, and then reticulated to the garden watering system.
- § This project will be funded by Northeast health.

Innovative solutions are being employed by reusing existing redundant water storage tanks.



Nursing Home Development



Rainwater harvesting

- § The rainwater harvesting system is arranged to collect all rainwater falling on the total roof area of the buildings. Calculations indicate that the total rainwater collected will be in excess of 1.8 mega liters annually.
- § Rainwater will be collected in three underground concrete tanks with a total storage capacity of 315,000 L.
- § This water will provide all the toilet flushing water required on the site, which we estimate to be 1.2 mega liters annually, with the remainder being used for irrigation and wash down all external waste storage areas.
- § Community water grants funding, \$108,091.

Sustainable Design – Storm Water Harvesting



Nursing Home Development



Continuing energy management

§ Northeast Health Wangaratta is committed to energy and water conservation as a member of the Commonwealth Government's greenhouse challenge. And as a recipient of a sustainable energy Victoria, energy Smart award and a 25,000 dollar grant as the capital input to an over temperature trade waste discharge and water conservation project at the NHW linen service.

Acknowledgments

- § North East Health Wangaratta Facilities Management and Planning Department.
- § Australian Government Water Fund.
- § NHW Policies and Procedures.
- § State Government of Victoria.
- § DHS
- § IHEA