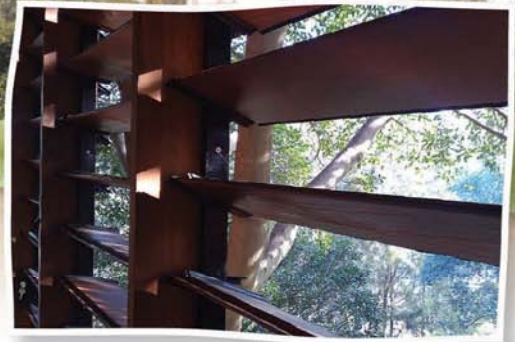# Keeping our cool in the Caretakers Cottage

Council has maximised the use of natural ventilation for cooling in the Caretakers Cottage, meaning we don't need an air conditioner! Building orientation and sea breezes make North Sydney ideal for maximising natural ventilation.

Wind-assisted turbo ventilators drive airflow through the Cottage (there is one fitted at the top of the raked ceiling in the lounge room), and ceiling-mounted fans increase cool air movement in summer and distribute warm air in winter.

The Caretakers Cottage and Mess Hall balconies are designed to protect the buildings from wind and hot afternoon sun. The trees and the louvres provide shading and help break up the movement of air.

Hot stuff in the Cottage

In winter, the Cottage is warmed by hot water heated by the sun through solar panels on the roof. This water is then circulated through insulated pipes to a series of radiators which warm each room. The system is controlled by a thermostat and is gas boosted overnight and on cloudy days. This hot water also supplies taps in the kitchen and bathroom. All the hot water piping and fittings are insulated to minimise heat loss.

The Cottage also has a solar powered air heating system. The fans pump cool inside air up through a ceiling vent to a roof mounted collector, where the warmth from the sunlight is captured, and returns warm air into the house. This system is well-suited to colder climates and commercial spaces when heat is not required at night or early in the morning.

The ceiling and walls of buildings at the Coal Loader have been insulated using batts comprised of a minimum of 85% recycled polyester content, and we are saving 45-55% of heating and cooling energy.

Have a look to your left at the electronic display that measures how much solar power and recycled water is captured and how much gas, water and energy the building uses.

Trees, glorious trees

When planted around buildings, in parking lots and along streets, trees help keep us cool. They also shade us from the sun, cool the air, filter air pollutants, sequester and store carbon, improve water quality, reduce noise levels and create habitats for animals. Trees are the embodiment of cool!

your environmental levy at work

NORTH SYDNEY COUNCIL