Healthy Habitat for Schools **Fact Sheet 15**

Energy and water conservation

Energy Wise Planting

Tree planting around your school buildings not only increases biodiversity, it can also help reduce your energy costs by up to 30 percent. A well-planned landscape can reduce the demand for artificial heating and cooling. Generally, planting shade trees on the eastern, northern and western sides of buildings will reduce the need for heating and cooling.

School buildings can get very hot during a dry tropics summer as the sun radiates through windows. Reduce heat by planting thick shady trees in front of windows.

To reduce the energy needed to power your airconditioner, keep them cool by planting trees around them.

Do cold winds whip around your school? Plant a windbreak of trees to calm the wind and increase warmth. In summer rows of trees redirect cooling breezes through the school.

See Diagram 1 to see how deciduous trees to the north provide shade in summer and allow sunlight to enter in winter.

Water saving ways

By planting smart you can help your school save water and money. Before you plant, check your soil type and nutrient needs. Adding organic matter will improve overall soil quality and reduce water and fertiliser needs.

Choose water saving or drought-resistant plants appropriate to the climate. Plants with similar water needs should be placed together to maximise water efficiency and to minimise cost. Once established, they will use less water.

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Lawns use a lot of water. Only plant lawn where it is really needed. Ground cover and mulch can be a good replacement for lawn. Placing mulch over the soil will help cool the soil, reduce weed growth, slow erosion and minimise water evaporation.

Place plants that have similar needs together. Use organic fertilisers and make your own compost and mulch.

Use efficient watering systems such as sprinklers for grass and drip, spray or bubble delivery systems for shrubs and ground covers. Adjust your irrigation system to the changing seasons and regularly test that your system is working properly.

Water the roots of plants not their leaves. Install a rainwater tank and a grey water system. Trees that receive a longer soak on a regular basis deepen their roots and 'grip' into the ground. These trees are less likely to fall during a high wind event. Fallen trees are often found with root systems only a few centimetres below the surface.

Reference:

Energy efficient home design: How an energy efficient home can help you live in comfort and save money, Queensland Government Environmental Protection Agency, viewed July 2011, http://qldenergyratings.com.au/media/Energyefficienthomedesign.pdf

Sustainable Gardening Australia, viewed July 2011,www.sgaonline.org.au/?p=674

Water Saving Outside the Home, Townsville City Council,viewed July 2011, www.townsville.qld.gov.au/RESIDENT/WATER/CONSERVATION/Pages/outside.aspx