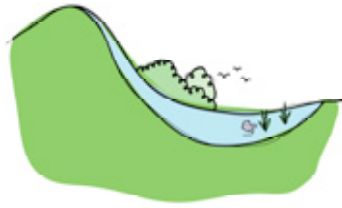


Case study activity



Catchment education

Activity prepared by Landcare Education – ph 9296 4727

VELS links: Domains and Levels: Geography (5, 6)

Have students read about the work of Charlton farmers Dennis and Glenda Watts who have transformed an area of their farm affected by salinity into a productive picturesque landscape.

Salinity takes its toll in many ways, it cost Victorians over \$50 million every year through loss of income, degraded landscape and social hardship (Agriculture Victoria *Salt Kit*, 1995). A whole catchment focus, including whole farm planning, improved drainage and ground water pumping are some of the techniques employed to tackle the salinity issue in this state.

Questions relating to the article to ask students

1. What would happen to this area of the farm if the salinity problem was not addressed?
2. What assistance did the Watt's receive from the government and CMA? Was it more than money and trees?
3. What is whole farm planning and how has this technique assisted the Watt's?
4. What did Dennis' father do to the paddock in the 70s?
5. Why didn't Dennis' father's technique solve all the problems in the paddock? Why were there still problems for the next generation to address?

From salt scald to picture postcard



Longeranong College students helped out with tree planting.

By Jill Karena

It gives fifth-generation Charlton farmers Dennis and Glenda Watts a lot of pleasure to look around a valley that they have transformed from a degraded paddock scarred by salt to a productive and picturesque landscape.

The Watts' mixed farm is about 20 kilometres south of Charlton. It is within the Pental Hills targeted project area, one of the North Central Dryland Salinity Program's 10 priority areas in the north central region.

The rehabilitation work that was started in the early 1970s by Dennis' father and uncles has now been completed. Dennis Watts said working with Charlton DPI Project Manager Aaron Watts has enabled them to complete a comprehensive paddock plan for the affected area.

The plan addressed the cause of salinity in the paddock and reduced runoff by using water where it falls. This has helped stop recharge to the groundwater and improved the water quality.

Dennis said his father, Lloyd, and his uncles took the first step to recovery for the paddock in the early 1970s through the Soil Conservation Authority. The men worked to fill in several large eroded gullies and established diversion banks and waterways.

Success with saltbush

Despite this work, large salt scalds later formed in the paddock. The scalds stretched from the side of the valley down to a dam in the middle of the paddock. This was tackled by planting 4000 saltbush on the scalds in the early 1990s, which quickly had an impact.

"Within two years we could start to see a difference in the health of the area. We were anxious to see if the salt would re-emerge during the wet years in the late 1990s, but the saltbush did its job and we've seen no sign of it," Dennis said.

"This was a good shot in the arm for us because it showed us that we could actually do something effective about the problem."

At this stage the bottom of the valley had totally recovered and the saltbush had both lucerne and ryegrass through it which provided valuable grazing for sheep twice a year.

The next step in the rehabilitation process was to establish a farm forestry plantation of 6500 trees to reduce recharge to the groundwater system.

The plantation, comprising Sheoak, Ironbark, Weeping Mile and Lightwood, is growing well and will provide a valuable resource of craft wood and furniture timber in about 20 years.

Repairing the hills

Last year, with assistance from the North Central Dryland Salinity Program (implemented by DPI), Glenda and Dennis turned their attention to revegetating the ridges surrounding the valley.

"We've had our eye on these hills for a while as they are recharge areas that were having a detrimental impact on other areas of the farm," Dennis said.

"We chose to plant indigenous trees because the areas were too rocky to be cultivated, but after the trees were

established and addressing the recharge problem, we could still continue to crash graze it periodically," he said.

Glenda and Dennis attribute much of the transformation of their paddock to planning, funding and labour assistance from the Buloke Biolink and DPI. The North Central Dryland Salinity Program is supported by the North Central Catchment Management Authority and is funded by the National Action Plan for Salinity and Water Quality, a joint State-Commonwealth program.

"We just couldn't have done it by ourselves, it's just too big a job both financially and physically, despite our best intentions. If we had had to do it ourselves, it would have taken years of doing one little patch at a time.

"Now we know we're heading in the right direction – the salt and erosion are under control and we're seeing a lot more birds than we did five years ago," Dennis said.

Student teams help with planting

Buloke Biolink Co-ordinator Rob O'Shannessy co-opted his fellow Conservation and Land Management students from Longeranong College near

Dennis and Glenda Watts are continuing work that began in the 1970s to recover land lost to salinity.





Deep-rooted saltbush thrives on an old salt scald providing sheep feed and helping lower watertables.

Horsham to help Dennis and Glenda with their planting. The original team of students put 3000 local provenance native seedlings in the ground and they repeated the effort last year.

Tree planting lines around the hills were ripped by a bulldozer to ensure the young trees had the best possible start. Dennis and Glenda walked over the entire 32 kilometres of rip lines with a handheld rotary hoe.

Although it was labour intensive, Rob said the results proved how beneficial good preparation was. Last year's trees were watered three times, with 99% of them coming through the summer and taking off well this year.

"Those of us who returned to plant last year were amazed at the growth and pretty pleased to have been part of such a successful project. It's great that there are increasing numbers of people like Dennis

and Glenda who are doing their best to get trees and birds back into the landscape with the understanding that they are tackling salinity, saving the topsoil and establishing wind protection for their farming activities," explained Rob O'Shannessy.

For further information contact DPI Project Manager Aaron Watts on 5491 1566.

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