



ALCOA

Woody Yaloak Technical Fact Sheet

GIS for farm and group planning



The Woody Yaloak Catchment Group has turned to innovation consistently in its quest to achieve sustainable land and water resource management within the group's catchment area.

Alice Knight, group chairperson, believes that communities operating across large areas have much to gain from looking into new information technology-based planning tools.

"We need to utilise new technology to help our farmers in planning and to manage their natural resources. From a group management perspective we need it to help monitor our progress and be accountable to our partners," she said.

Five years in the making, the Woody Yaloak Catchment Group - with the assistance of Rick Pope from NRE, the Corangamite CMA and the Natural Heritage Trust - has developed mastered the application of such a tool.



Suzie Ellis at the helm of the Woody GIS package

Where it all began

In 1995, landholders in the Pittong-Hoyles Creek - a sub-catchment of the Woody Yaloak - were involved in a GIS project carried out by Rick Pope during his post graduate studies.

Undergraduate students including local Bradvale farmer Suzie Ellis, worked on the project helping Rick by collecting information about issues such as hydrogeology, pests, salinity and soils.

"The GIS was basically a graphical database made up of different layers of information laid over an aerial photograph of the Pittong-Hoyles Creek catchment," Rick said.

The project was the first step, and having seen its usefulness, the group

was keen to see Rick develop a CD based GIS which local farmers could use on their own PCs.

"The CD-GIS was well accepted by the farmers in the local area, but it proved difficult for the landholders involved to update with new information," Rick said.

Streets Ahead

One of the constraints to the community's goal was the high cost of GIS software.

"The Woody group was fortunate enough to have one copy of a GIS program called MapInfo, and even more fortunate to have the expertise of Suzie Ellis to maintain and develop a GIS for the whole catchment," Rick said.

"If the project was to succeed, a simplified GIS mapping program would have to be found that was cheaper and simpler - one simple enough for the most 'techno-phobic' person to use."

The answer came from a Ballarat software development company called Osprey Computing and their Streets Ahead Program.

Suzie described the 'Streets Ahead' GIS program as the simple mapping software they were looking for.

"Quite simply, it meant we could draw in features such as erosion works, plantations and weed infestations, and attach project information such as site notes and fact sheets," she said.

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The program allows farmers to view aerial photos and contour information at a 'paddock scale'.

The 1:10,000 scale allows farmers to see trees and rocks within a paddock, helping them visualise their planned farm works.

Landholders - with the help of co-ordinators - can now use Streets Ahead interface to enter their information which in turn is uploaded into the group's GIS system by Suzie.

Not just pretty colours - Local farmers and neighbourhood groups

The Streets Ahead program has opened the door to local farmers keen to move their farm plans from the aerial photo to the computer.

According to the Woody Yaloak Neighbourhood Groups Facilitator, Jen Clarke, the simplified software has led to steady increase in the use of the GIS.

"It is easy to produce maps at a farm level, develop farm plans and greatly simplifies the measurement of paddock areas and boundaries," she said.



Project sites such as areas of weed infestations can be added to the GIS and have additional information about the control method and results attached.

"What is really exciting is it allows local, state and regional priorities to be included in our planning process."

"For example we can include an overlay from the CMA which highlights important areas of vegetation and consider this when we map out a farm plan," Jen said.

"We wouldn't have considered this information when it was just a pretty map in a written strategy."

"As our neighbourhood groups expand, the GIS concept is being adopted by more and more adjoining

landholders as a tool in planning their cross boundary local projects," she said.

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