Integration of Biodiversity Conservation in Regional NRM Planning

Peri-Urban Case Study

Ginninderra Catchment Group

State: Australian Capital Territory

Region: Belconnen, Ginninderra

Affiliated Regional NRM group: Murrumbidgee Landcare Association



Background

Straddling the northern border between the ACT and NSW, the catchment of Ginninderra Creek covers

approximately 32,000 hectares. Canberra is Australia's largest inland city and some residential precincts in the catchment are amongst the fastest developing areas in Australia. The tributaries in the Ginninderra catchment carry approximately one quarter of Canberra's urban runoff into the Murrumbidgee River system. Therefore there is considerable risk of runoff from urban areas negatively impacting on aquatic ecosystems in the Murrumbidgee River system.

The aim of the program

The Ginninderra Catchment Group is an umbrella group for a number of active urban and rural groups catchment wide. The goals of the Group are to reduce the impacts of human settlement, restore and maintain natural settings in the urban environment and support the activities of volunteer groups within the catchment.

Achievements of the program to date

The Catchment Group has had a number of biodiversity conservation successes.

Restoration Projects

• On-going involvement with various planning and development bodies, to ensure adequate environmental considerations are included in plans for new

residential areas. This included the construction of a wetland area to provide quality habitat in the Mackellar area, and the retention and improvement of an existing wetland.

- In 2001, all pest willows were removed from the urban reaches of Ginninderra Creek by Ginninderra Catchment Group and Canberra Urban Parks and Places. Current projects are underway, that will maintain the outcomes of the highly successful removal program and provide further protection of biodiversity in the catchment. Thorough woody weed and willow sucker control during 2002 - 2003 is vital to ensure the establishment of local reed, grass and herb species.
- Revegetation projects across the catchment have been undertaken. Local native species are used for revegetation projects where possible, otherwise regional species are used. Projects have had a focus on revegetating the riparian zone of Ginninderra Creek and its tributaries.
- Coordination of the Olympic Landcare Project a national revegetation project in the lead up to the Olympic Games. The Ginninderra Catchment Group received funding in 1999 for this project in the ACT. The project focussed on the rehabilitation of the riparian zone of Halls Creek.

Invasive Flora and Fauna Removal

The Ginninderra Creek Willow Removal and Revegetation Project commenced in early 1998 after Canberra Urban Parks and Places (CUPP) commenced localised willow removal and willows were identified as a major contributor to poor water quality and low biodiversity in the creek. The Ginninderra Catchment Group received funding through the Natural Heritage Grants program (NHT) in 1998/99 to control invasive species.

During 1999, a management plan for the control of willows was implemented and a revegetation management plan was prepared in consultation with Landcare groups and with close reference to the Ginninderra Catchment Group Strategy.

To date the project has removed over 9km of problem willows along the Ginninderra Creek in 7 suburbs, and 2km along Halls Creek. The project has felled hundreds of trees and produced enough chip to be used on new and existing Landcare garden beds.

Revegetation was begun in 2000 with over 3500 native plants having been planted by spring 2001.

The project has generated positive feedback from the public and has been used extensively as an educational tool. The project has acted as an excellent opportunity to teach the wider community about the threat willows pose to the native environment. It has also generated community interest in natural resource management issues in general, and has brought many new members to our local Landcare and Waterwatch groups.

Monitoring Projects

The Ginninderra Catchment Group has been undertaking water quality monitoring in the catchment for over five years, as part of a combined Waterwatch and Catchment Health Indicators Program. The program was initiated to develop a simple and practical method that member groups could use to:

- measure the health of their local catchment;
- monitor and evaluate the effectiveness of on-ground projects;
- identify early warning signs of environmental problems; and
- measure trends in the condition of the natural resources in their catchment over time.

Over 40 community volunteers and school groups are involved in the Waterwatch program, which includes regular testing of physical / chemical water quality parameters; twice-yearly macro-invertebrate snapshots, and Frogwatch monitoring.

During 2003, the Ginninderra Catchment Group also undertook a 'Stream Snapshot Survey' (Riverine Habitat Audit Procedure) of the catchment. This system is a rapid survey and analysis technique and decision support system that uses biologically important physical attributes to audit the condition of waterways and their corridors, and to classify them.

It is expected that the surveys will be repeated every 3 - 5 years to assess the trends and rates of change and dominant processes. Follow-up surveys can also be used to monitor the outcomes of the Ginninderra Catchment Group's various management initiatives and rehabilitation strategies.

The combination of these monitoring programs allows the group to monitor the impacts of their projects, and keep a check on the general health of Ginninderra creek, its tributaries and the catchment.

Mechanisms:

The following mechanisms are methods used by the members of the Catchment Group to assist them in achieving their goals.

Volunteer Recruitment and Development of Volunteer Skills

The people who volunteer for the Ginninderra Catchment Group and member groups are crucial in achieving the Groups' goals. Much effort is put into recruiting new members, and encouraging participation from broad and varying sectors of the community. Training and support of volunteers is a high priority in order to maintain commitment and motivation.

Networking and Lobbying

The Ginninderra Catchment Group is engaged in a number of Natural Resource Management networks in the ACT, wider Murrumbidgee and Australia wide. These networks provide support; help to disseminate and collect information; maintain links with other similar groups; provide opportunities for partnerships; and generate ideas for successful projects.

The Ginninderra Catchment Group involves itself in local and regional issues by lobbying government or other planning and land management agencies in order to raise issues important to the Group. Lobbying is an important way for the Group to ensure that environmental and biodiversity issues are on the agenda, and to pressure decision makers to ensure that all development in the catchment is planned and implemented using environmental best practices.

Catchment Strategy

The Ginninderra Catchment Group Strategy (2000) is an important element in developing and working to well considered goals that reflect the knowledge and interests of all the member groups. It provides the "big picture" within which individual group activities can be developed and linked

Coordinator Support

The maintenance of coordinator support positions has been crucial for the Group to implement its activities and maintain a high standard of coordination and planning between individual member groups.

Critical Success Factors

The above achievements have been enabled through the successful inclusion of biodiversity conservation considerations throughout NRM planning activities in the Ginninderra catchment. The following factors have enabled this to occur.

- 1. Biodiversity leaders and champions
- 2. Ownership of biodiversity conservation by a broad range of stakeholders
- 3. Biodiversity conservation dealt with implicitly in planning

1. Biodiversity Leaders and Champions:

The presence of leaders and champions who drove change was found to be a key to successful regional natural resource management (Lowe et al. 2003)

There is a high level of action within the catchment. Eight of the ten members of the Ginninderra Catchment Group have weekly meetings and are actively involved in restoration work within the catchment. The catchment group is also well linked within the community through involvement with schools such as the Gold Creek Public School and Radford College. These community activities take the form of Waterwatch monitoring, stream and wetland rehabilitation work and community education such as drain stenciling. This high level of action is constantly referenced in the plan and interviews with people involved in the catchment suggested that the work of a number of individuals was a driving force behind this action. This work is acknowledged and built upon by the catchment strategy.

2. Ownership of biodiversity conservation by a broad range of stakeholders.

Having biodiversity conservation effectively integrated into regional planning relies on an 'evolutionary stage' in which regional NRM groups actively involve a range of stakeholders over an extended period of time in order to build trust and decision making abilities (Lowe et al. 2003).

Several members of the catchment have won Landcare Awards, for instance Mary Ormay was nominated ACT Landcarer of the Year for her work with the Belconnen Landcare Group. There are also a number of educational facilities located in the catchment such as the CRC for Freshwater Ecology. The combination of local and scientific knowledge in the planning process is critical to ensure ownership of biodiversity conservation by a broad range of stakeholders. **3. Biodiversity conservation dealt with implicitly in planning** Australians have a low awareness of the term 'biodiversity' and a poor understanding of the concept and issues confronting its conservation (Glanzig 2000).

Ironically, the conservation of biodiversity is rarely mentioned in the Ginninderra Catchment group Strategy. The Ginninderra Catchment Group is comprised of a number of smaller groups such as Landcare groups and schools throughout the region. The activities of all of the component groups are co-coordinated using the Ginninderra Catchment Group Strategy. The case study activities highlighted the fact that this plan is highly regarded by a majority of stakeholders in the area. The plan has been used successfully to gain access to project funding and recognition. The Catchment Strategy has also directed large amounts of environmental restoration work that has mitigated threats to native biodiversity such as weed invasion and habitat destruction. The conservation of biodiversity is indirectly and practically incorporated through goals and their associated plans for action.

The conclusions arising from the peri-urban case study are that:

- 1. The successful integration of biodiversity conservation into regional planning does not require an easily recognizable 'biodiversity' component of the plan.
- 2. For a regional plan to be effective the planning phase must not occur independent of past, present and future action.
- 3. In order to promote biodiversity conservation regional officers must frame the conservation of biodiversity in a variety of different ways that will depend on the audience being addressed. Often the word biodiversity is only used when addressing Commonwealth or State operatives and scientists.

Further information

Ginninderra Catchment Group Strategy, 2000.

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References

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Case Study prepared by Synapse Research & Consulting & Associates, August 2003 as part of Natural Heritage Trust Funded Project: "Pathways for Biodiversity Conservation"

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