

Learning as We Go: Catchment Management in the Urban Rural Fringe

The Swan Mundaring Community
Catchment Project, Perth, Western
Australia

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Introduction

The Swan Mundaring Community Catchment Project (SMCCP) was a three year Natural Heritage Trust (NHT) funded partnership project between the Wooroloo Brook Land Conservation District Committee, the Eastern Metropolitan Regional Council, the City of Swan, the Shire of Mundaring and Agriculture WA. The project was established in 1997 in response to a clear community demand for catchment-based coordination for existing initiatives and the recognised advantages of a strategic approach to future catchment management activities.

The SMCCP was one of the key Landcare initiatives of the Shire of Mundaring's Environmental Management Strategy. The success of the catchment project and a broad range of other Landcare and environmental initiatives within the shire was recognised in September 1999, when the Shire of Mundaring was awarded the biennial Telstra Local Government State Landcare Award. In addition a local community group, the Hovea-Parkerville Community Conservation Group was equal winner of the State Living Streams Award, sponsored by the Water and Rivers Commission. These awards are testimony to the ongoing commitment of the community and the Shire of Mundaring to valuing and protecting the environment.

This paper examines the SMCCP as a model for community participation in strategic catchment planning and on-ground environmental activities. The paper focuses on some of the key activities undertaken over the life of the project, and includes an assessment of the successes, challenges and lessons learnt.

Background

Geographical setting

Located in the outer Perth metropolitan region the SMCCP covered the entire Mundaring Shire (excluding areas of state

forest) and the southern, eastern and north-eastern portions of the City of Swan not already served by an existing ICM Coordinating Group. The area also has three distinct physical environments: the valleys and plateau of the Darling Range, the Darling Scarp, and the Swan Coastal Plain including riverine areas of the Swan and Helena Rivers. The diversity and complexity of the region is also represented in the vegetation complexes and associated plant communities, including the northern jarrah forest, wandoo woodlands, jarrah-marri woodlands, and banksia woodlands of the coastal plain. All five main catchments cross shire boundaries, four of them cross the scarp, and all of them flow into the Swan River.

Both local government areas include urban-rural fringe and urbanised landscapes, all of which are under current or potential development pressure. Adding to this complexity is the diversity of landuse and related impacts on the landscape. In the Wooroloo Brook catchment, agricultural land predominates with the associated land-use impacts such as loss of vegetation, salinity, erosion, weed encroachment and the general degradation of watercourses. Horticultural and viticultural industries on the Swan Coastal Plain also have environmental impacts, including their often-close proximity to waterways. Catchment areas further west are characterised by a higher level of urban development with key issues including loss of bushland, stormwater drainage, nutrient and sediment input through domestic, public and industrial activities, and general stream degradation.

The catchments are dominated by small landholdings, bushland properties and residential landuse. As a result relatively few landowners rely on their properties for a living so the economic imperative for catchment and property planning is mostly lacking. The success of the project relied largely on the commitment of local communities to protect and enhance the quality of their natural environment. As much as anything, lifestyle and conservation issues dominated the

agenda, with on-ground activities reasonably well balanced between public and private property.

Local Government

The City of Swan and Shire of Mundaring employ the services of the Eastern Metropolitan Regional Council's (EMRC) consultant Environmental Services. This entails the EMRC developing strategic and policy level guidelines for integration into the services of the two local government authorities, as well as provision of environmental advice into the planning process.

As noted earlier, Mundaring Shire has an Environmental Management Strategy (Shire of Mundaring, 1996), developed with considerable input through the community level expertise of an Environmental Advisory Committee (Pilgrim and Atkins, 1999). In addition, the Town Planning Scheme has a reasonably strong environmental management ethic and was developed with extensive community consultation.

The City of Swan has a developing environmental philosophy, and the 1996 Environmental Report is a valuable natural resource document providing the basis for incorporating environmental information into the Shire's planning processes. As well as supporting the SMCCP, the City of Swan is currently undergoing a review of the Town Planning Scheme which incorporates local environmental plans based on consultation with existing catchment groups.

Objectives of the Swan Mundaring Community Catchment Project

The primary objectives of the SMCCP as developed in 1996 were to:

- formulate catchment management strategies through community consultation, that complement the Swan-Avon Integrated Catchment Management (ICM) strategies;
- implement on-ground strategies addressing salinity, erosion, watercourse sedimentation, eutrophication, weed control, remnant vegetation protection, water assessment and monitoring;
- liaise with existing catchment groups, community groups and advisory committees;
- investigate and promote Landcare throughout rural, special rural and urbanised land not currently covered by an existing Land Conservation District Committee (LCDC); and to,
- establish community consultation across Shire boundaries whilst addressing the above issues and the implications of proposed rezonings and subdivisions on catchment management.

Key activities

Awareness and education

Promotion of Landcare and catchment issues was identified early on by all catchment groups as critical to raising

community awareness and involvement in environmental management. The social change toward sustainability and an *environmental stewardship* ethic is dependent on raising awareness and changing behaviour and attitudes (Roberts 1985 & 1995). The voluntary efforts of community groups to bring about this change in attitude toward the environment is more likely to succeed when given support and assistance with resourcing by both local and state government agencies.

Each of the catchment groups within the project area identified promotional and educational strategies as a priority activity. The strategies developed provided guidance to the promotional and educational activities including: targeting audiences, development of appropriate messages, the involvement of key stakeholders, and selection of appropriate tools. Adopting a strategic approach in all activities served to maximise the effect of limited resources, avoiding an ad hoc approach which can reduce effectiveness and waste resources and effort.

Over the three year life of the project, a number of free seminars were held dealing with relevant environmental topics identified by the community. The SMCCP also made use of the local media including feature articles in a community newspaper in a periodic 'Environmental Page' sponsored by the Shire of Mundaring. Several catchment groups were also active in using static displays at shopping centres, libraries and special events to promote the catchment message.

Another educational activity undertaken was the Hills Small Farm Field Day. The field day was a Landcare initiative of the Wooroloo Brook LCDC in recognition that information pertaining to property planning and land management can often be difficult to access for small landholders. The primary objective of the field day was to increase awareness of sustainable land use and land management. A secondary objective, recognised as a potential attraction to small landholders, was to offer information about potential commercial businesses and alternative enterprises suitable for small landholdings, as well as the many services available to them.

Strategic planning

The development of catchment plans was the key objective of the SMCCP. This entailed development of a planning process that adequately met this objective but which was adaptable enough to suit the prevailing social and environmental conditions within each catchment. Catchment groups need to be comfortable with the planning process, their level of input, the decisions being made and the proposed outcomes of the planning.

Each of the catchment groups was involved in the development of the catchment plan framework through workshop sessions, either within the regular meeting forum, or in dedicated workshop situations. This proved to be a protracted but worthwhile exercise, as it enabled the groups to have creative input to the catchment plan framework, as well as reinforcing a sense of ownership over the process and the product.

The planning processes were adapted to suit the desired project outcomes, the catchment group, the key issues identified early in the planning process and the scale of catchment and the plan. An holistic approach underpinned the process, in accordance with the principles of ICM and with a view to principles embodied in Local Agenda 21. As such, the visions, goals, objectives and strategies of the plans were based on, and included the key themes of environmental, social and economic sustainability. The framework also included extensive baseline catchment data including vegetation and land use as a basis for assessing catchment health at a sub-catchment level.

As a major output of the project, the Swan Mundaring ICM Plan (2000) was released for public comment and endorsed by the Councils and the SMCCP management committee as the guiding framework for the development of catchment action plans for each of the major catchments.

On-ground activities

The development of major NHT project applications in 1997 and 1998 provided opportunities to support on-ground work by local community groups over a four year period. Both projects integrated the work of a range of community groups, involving up to 12 community and catchment groups and with the support of the City of Swan and the Shire of Mundaring. The projects provided a necessary balance between planning and on-ground action, recognised as an essential requirement for an action-oriented community. On-ground successes also provided opportunities to attract further community involvement and greater support from the Shires. Both NHT projects were resourced by a project officer to coordinate implementation.

The 1997/98 *Urban Hills Catchment Activities Project* was an integrated package that included twenty-two sites in the project area in addition to the development of a technical and information manual *Caring for your Land - A Guide for Small Landholders*. The NHT grant of \$119,000 was matched by community and local government input to the value of \$168,000.

Building on the success of the previous project, a three-year NHT project, the *Urban Hills Bushland Corridors Project (1998/99)* was developed with Catchment and Friends Groups. The project comprised 15 discrete sub-project areas within the City of Swan and the Shire of Mundaring and involved a range of activities including revegetation, fencing, weed management, preparation of management plans and botanical surveys of key reserves.

Other notable outcomes

The urban hills land conservation district.

As identified earlier, one of the key objectives of the SMCCP was to investigate the establishment of a Land Conservation District (LCD), or similar body, for the project area to assist

in providing coordination, administrative and technical support for catchment based activities. The Soil and Land Conservation Act (1945) provides for the establishment of Land Conservation Districts (LCDs) and Committees (LCDCs) which have a level of statutory authority which underpins the Landcare activity and administration. The LCD model was proposed for the area as no other model exists to formalise the position of the community in the existing structural framework that supports natural resource management in Western Australia.

The outcome was the Urban Hills LCD encompassing the catchments of Jane Brook, Helena River, Blackadder Woodbridge Creek and Susannah Brook. Establishment of the LCD was supported by the community, catchment groups and the Shires of Mundaring and Kalamunda and the City of Swan.

The Water and Rivers Commission took on the role as lead agency to support the Urban Hills LCDC and provide administrative funding. This represented a milestone in catchment management in the region, since the role of lead agency has traditionally been with Agriculture WA. The approval and establishment of an LCDC in the region was a ground breaking initiative as it was the first to be established in an urban area in Western Australia.

The Urban Hills LCDC provides an opportunity to further the integrated approach that has emerged with such success through community activities and the SMCCP, underpinned by Regional and Local Government partnerships with the community and relevant State agencies. Commencing in 1999 and at the request of the Alcoa funded Swan Canning Urban Landcare Program the assessment of funding requests has been devolved such that the Urban Hills LCDC now assess and rank applications for funding within the LCDC region.

Green corps team – the East Metro Catchment Action Project

The opportunity to enlist support for existing on-ground community project sites through a Green Corps project was realised with the successful application, *The East Metro Catchment Action Project*. The project was a joint initiative of the Eastern Metropolitan Regional Council, the Shire of Mundaring, the City of Swan, the Shire of Kalamunda, the Urban Hills Bushland Corridors Project (NHT), North Swan Land Conservation District Committee, and the community.

The learning experiences: Identifying challenges and building on successes

The SMCCP was an innovative initiative in many ways, and as such provided a clear learning experience for the active stakeholders and managers. The learning cycle continued to inform the decision making and future planning associated with the project, and entailed an on-going evaluation process by the Officers and the management committee (a process discussed by Wadsworth 1991).

Key success factors

In early 1998 the SMCCP management committee undertook an evaluation and review of the project and identified four factors critical to the initial early success of the project, namely:

- an underlying philosophy that is built upon a community driven approach and the importance of partnerships between government and community;
- effective and reliable project management;
- commitment from the local community; and
- maintaining a balance between on-ground activities and catchment planning in order to sustain community ownership and commitment to the catchment approach to environmental management and care.

The SMCCP was not however, without difficulties and constraints particularly in relation to the need for adequate resourcing and in terms of the very nature of urban Landcare.

The need for adequate resourcing

The scale of the project, which included five key catchments across a diverse landscape and range of landuses, offered some difficulties in providing an adequate level of resourcing to provide a balance between community demands and project requirements. This applied to catchment group and project coordination, project planning and implementation activities and provision of technical expertise. For example, the resource demands for the level of community interest generated through this project could well have been met by a team of catchment coordinators and implementation officers.

The resource needs of an active community increase over time, in terms of funding support, coordination, knowledge and implementation. The myth that voluntary community groups will be self managing and costless has been discussed elsewhere, for example Alexander (1995) and more recently by Curtis and Vannouhuys (1999). It is critical that these resource needs are identified and well considered, especially when programs and government encourage community ownership and voluntary efforts in the environmental arena.

Urban landcare

Part of the diversity within the SMCCP area is to be found in the differences between the physical and social aspects of urban and rural-urban landscapes. Urban Landcare is different to, and more difficult to initiate and sustain than Landcare outside of the urban areas, whether in rural-lifestyle or agricultural areas. The differences exist and the difficulties arise out of a range of factors, including those associated with local area issues and land use pressures; urban lifestyle precluding a high level of volunteerism, that is people are busy; and the fact that people are removed from the natural environment in urban areas because there is little access and so few remnants. The sense of community is different, and the reasons for involvement differ (Nash 1999).

The urban catchments require a different approach to development of groups and to planning and implementation activities. This is also reflected in the distribution of available resources, particularly in coordination and support of other existing groups. It may not be an equitable distribution if based on the level of community activity, but the opportunities and potential for achievement are increased if an adapted approach to involving the community is used. The catchment groups should however, always remain the decision making body in the process.

2000 and beyond: The Eastern Hills Catchment Management Project

The Eastern Hills Catchment Management Project (EHCMP) is a partnership project aimed at strengthening existing catchment activities through the preparation of action plans and raising awareness in areas yet to become involved in catchment management in the project area. The project is co-ordinated and sponsored by the Eastern Metropolitan Regional Council and supports the Urban Hills Land Conservation District (LCD) and the Wooroloo Brook LCD and complements the Swan Canning Cleanup Program Action Plan (Swan River Trust 1999).

The EHCMP project area coincides with the Urban Hills LCD and the Wooroloo Brook LCD areas, covers approximately 1,750 square kilometres (or 18%) of the Perth Metropolitan area.

The outcomes of the project will include:

- the development of detailed catchment action plans for 20 priority sub-catchments throughout the project area (Wooroloo Brook, Helena River, Jane Brook and Blackadder/Woodbridge Catchments);
- education, awareness raising, catchment group development and initiation of catchment planning and management activities in the Susannah Brook and Millendon Catchments (City of Swan) and Piesse Brook, Helena River-South and Kadina Brook Catchments (Shire of Kalamunda) which are currently not involved in these activities;
- promotion, 'hands on' instruction and training of community groups in effective catchment planning and management techniques, tools and resources culminating in a community based Field Day;
- catchment planning, education and assistance with the preparation of property management plans in the western part of the Upper Wooroloo Brook Catchment to address land degradation and salinity.

This new chapter in catchment planning in the region provides a workable model for other rural/urban catchment projects in the metropolitan area that are seeking to establish genuine and mutually beneficial working relationships and measurable implementation of positive environmental outcomes at the property, sub-catchment and catchment level.


Conclusion

As a mechanism for community participation and local government partnerships aimed at addressing land degradation issues, the SMCCP has been recognised as an innovative and accomplished model. The SMCCP built on the early foundations set down in the initiation phase of the project and has laid the foundations for extending catchment management into the future through a new NHT project. Successful project management by the management team (strong leadership), recognising and developing opportunities (being able to make things happen), and maintaining sensitivity to community needs and aspirations (community ownership) were all key ingredients to the success of the project.

The key catchment groups displayed on-going commitment to the catchment planning process, while at the same time dealing with other roles, such as coordination, education and awareness, promotion, and developing on-ground projects for external funding sources. The importance of raising the level of community awareness and understanding of environmental/Landcare concerns were identified early in the planning stage by all catchment groups. That focus has been retained.

The position of the community in the project area and adjacent catchments has been formalised within a natural resource management structure through the Urban Hills LCDC, and coincided with the launch of a major regional initiative, the Swan Canning Cleanup Program. It is important for the local area action groups to be able to continue with their areas of interest, while at the same time the local and regional issues are represented through a coordinated approach to government.

Partnerships with local government were strengthened and extended with the City of Swan and Shire of Mundaring committing further resources to extending the catchment planning and management activities beyond the life of the Swan Mundaring Community Catchment Project. In addition, the Shire of Kalamunda supported an extended program into the year 2000 as part of the new initiative.

The active community remains a dedicated core of volunteers, and the high level of achievement in the local environment is deserving of all the support and commitment of other key stakeholders. The Swan Mundaring Community Catchment Project represents a commitment to the future, and provides a valuable case study in Environmental Hope. 

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