Water and Rivers Commission

RIVERCARE PROJECTS:

successes
impediments
learnings

A Report on the Natural Heritage Trust's Rivercare Program in Western Australia for Rivercare Projects funded in 1999.

Water and Rivers Commission

September 2001

Natural Heritage Trust

Helping Communities Helping Australia

Acknowledgments

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1 Introduction

1.1 Scope and aim of the review

The Water and Rivers Commission has responsibility delivering the Natural Heritage Trust's (NHT) Rivercare Program in Western Australia. Under the Partnership Agreement this includes reporting on the progress and achievements of projects, including project outputs and long-term environmental outcomes. A review was initiated through the "Waterways WA Coordination and Technical Support" project (973778) to monitor the progress of all community Rivercare projects and evaluate their success, mainly at output level at this stage.

The review aimed to determine:

- how Rivercare projects were progressing against their work plans;
- identify the major problems;
- views on the NHT process;
- what sort of technical assistance was required; and
- what constituted a successful project.

It also presented an opportunity for groups to share the lessons they have learned in implementing their project, as well as offering advice to other groups undertaking NHT projects.

1.2 The review method

The review was conducted between May and August 2001 by seven Rivercare officers working in the South West, South Coast, Metropolitan, Rangelands and Northern Agricultural regions. The Rivercare officers visited proponents to discuss their project, collected information using a standard questionnaire and inspected on-ground works. The questionnaire came in three parts, including a subsidiary form to review projects with an emphasis on revegetation. It was based on Bushcare evaluation forms for consistency across programs. Samples of the forms are provided in Appendix 2.

Responses to the questions from the 17 project reviews were compiled and the tabulated raw data responses for each project are provided in Appendix 3.

1.3 Summary of projects

A typical Rivercare project often results from a group of landholders with a common goal to improve the condition of their riparian ecosystems. Usually their objectives are to rehabilitate stream banks through revegetation, soft or hard engineering, weed control, fencing and stock exclusion from the riparian zone. The NHT provides funds for items such as fencing materials, seedlings, hire of equipment for site preparation and for payment of contractors to operate specialist equipment or apply hazardous chemicals such as in weed control. The NHT is also commonly asked to fund a full or part time coordinator to run the project and ensure the objectives are met. In return, the proponents provide a matching, in-kind contribution, which may take the form of planting seedlings, spending time direct seeding and constructing fences. They may also contribute cash to the project by, for instance, paying for the balance of the cost of the fencing material or form a partnership with another stakeholder such as a government agency, who would contribute some time and expertise of technical staff to the project.

The projects were distributed throughout the regions more evenly than in previous years. The majority of projects were in the Metropolitan region and South West region, 5 and 4 respectively.

For the first time, projects in the Rangelands region were provided funding and accounted for 3 of the 17 projects reviewed. An indication of the spread of projects throughout the NHT regions is given in Figure 1, and the table in Appendix 1 provides a summary of the 1999 projects reviewed, listed in numeric order. The summary table indicates the amount of funds received from the NHT, the major river system/s and the main areas of work associated with the project.

Seventeen Rivercare projects were funded in 1999 ranging from $3,700 to $270, 000. A broad range of activities were undertaken by landholders, community groups and/ or government agencies, including:

- onground works such as fencing and revegetation of wetland and dryland areas;
- development of river action plans; and
- large-scale integrated catchment planning and implementation exercises.

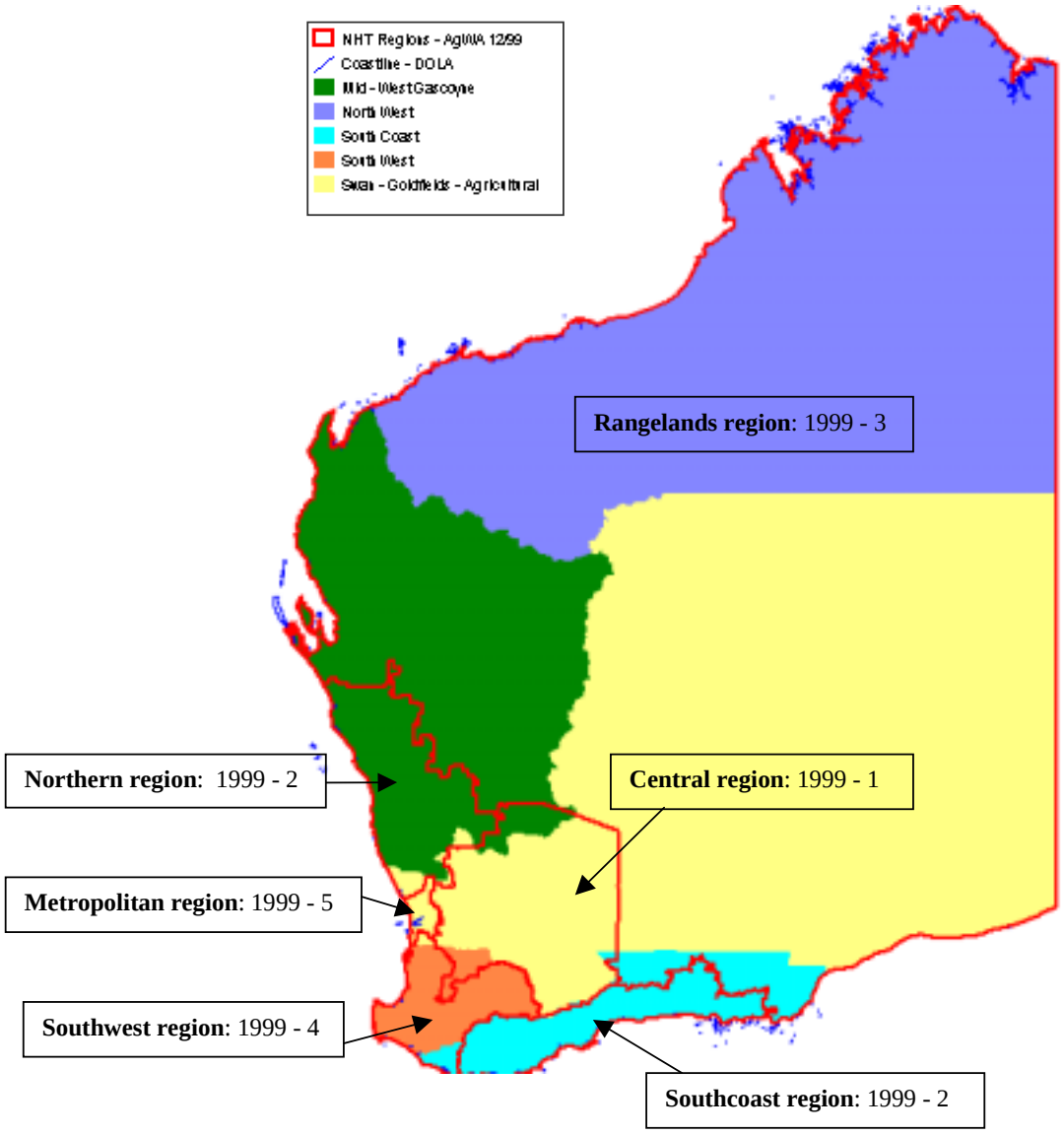
The review showed that one quarter of the 17 projects already met, or in one case exceeded their original objectives. A quarter were in line with their proposed work plans, having achieved over 75% of their objectives. A quarter of projects suffered some form of delay and met approximately half of their objectives. The remaining projects were significantly behind, having encountered some serious obstacles.

The most common impediments to projects included:

- 8 reported delays in receipt of funds;
- 9 projects delayed by damage caused by cyclone activity and seasonal problems;
- 3 due to vandalism;
- 2 due to withdrawal of staff for personal reasons;
- 2 reported delays by local and state Government; and
- 4 projects reported delays due to other reasons.

(NB: projects may be delayed for multiple reasons, so responses will not equal the number of projects).

Figure 1 Geographic distribution of 1999 Rivercare Projects



2 Key Learnings

2.1 Project statistics

Sixteen projects were involved in direct onground works, including revegetation (seedlings or direct seeding), and fencing off areas of remnant vegetation or riparian zones. At the time of this review, one of those projects has not commenced the on-ground element of the project. The remaining project was involved in indirect onground activities via the development and promotion of land management strategies.

A number of projects contained other components such as education of the community, awareness raising and capacity building, and/or planning exercises such as the production of Integrated Catchment Management Plans, or River Action Plans. Indirect onground activities also included workshops, field days, demonstration sites, and production of information packages. Action Plans and capacity building are important tools with which the community is able to then implement direct onground works. Sixty five percent of projects employed a project coordinator (mainly in a part-time capacity), to assist in the implementation of direct and indirect onground works.

On-ground outcomes were recorded where relevant. The 1999 projects have:

- protected over 4,600 hectares of remnant vegetation;
- carried out nearly 1,100 hectares of revegetation works;
- planted 941,000 seedlings and plants;
- erected nearly 370 kilometres of fencing; and
- protected nearly 200 kilometres of waterways.

One project, (993065), was completed and a final report submitted to the Natural Heritage Trust. The remaining projects expected to complete activities by late 2003. Three of the projects applied for further funding for the 2001/02 funding round.

2.2 Technical support

Sixteen projects sought technical advice and support from the various Natural Resource Management agencies such as the Department of Conservation and Land Management, the Department of Agriculture and the Water and Rivers Commission, CSIRO, Western Australian universities, local catchment centres, Aboriginal communities, Community Landcare Coordinators and environmental consultants.

Literature such as Rivercare booklets, technical reports, management plans and data from the Water and Rivers Commission, Department of Agriculture, Water Corporation, Department of Land Administration and the Department of Conservation and Land Management were used to obtain technical advice and information. Western Wildlife literature and LCCG revegetation brochures were also used.

The Water and Rivers Commission provided training in the form of River Restoration workshops. Other agencies and catchment groups organised courses on surveying, group skills, evaluation and monitoring. Community organisations such as APACE held training on bush regeneration and seed collection. Kings Park and Green Skills also offered workshops and field days.

Advice and support was sought on:

- plant identification and species to be used for revegetation;
- salinity;
- learnings and experiences from other organisations/groups undertaking similar projects;
- project scope and design, including assistance with writing the application;
- monitoring and evaluation techniques and practices;
- bird and frog watching; and
- information on management agreements.

While the above advice contributed to the success of the projects, there were some areas where technical information was required but was difficult to obtain. Assistance in the following areas may be required in the future:

- foreshore vegetation and weed surveys;
- weed control;
- wetland issues;
- easier and quicker access to GIS information;
- hydrogeological information and support;
- drainage;
- alternate farming systems;
- use of saline areas, including demonstration sites;
- communication skills such as public speaking;
- promotional materials and media relations;
- designs for terrace and island construction designs;
- cultural information and land management history from local Nyungah communities;
- clearer guidance on project evaluation;
- bacterial water quality testing;
- contour mapping and cable location; and
- a direct, free helpline number to NHT experts.

The review found technical information and support provided to projects was adequate. It was noted that this support was, on occasion, slower than desired. The reviews showed that while technical support was available, it often was outsourced as no central body was available to provide it.

Rivercare officers and the Swan Catchment Centre received particular praise for the support they provided.

2.3 What is a successful project?

A successful project can be measured by the achievement of all its objectives and the completion of planned activities. For instance, if a group said they would plant 40,000 seedlings over two years and this was achieved, then the project would be considered successful. The quality of these actions can also a measure, for example, the survival rate of seedlings planted, or the effectiveness of erosion and grazing control strategies. The measure of success from these outcomes would be difficult to determine in the short term. Many of the outcomes rely on the regeneration and rehabilitation of natural functioning ecosystems, or the behavioural and attitudinal change of the wider community, both of which require many years of development to show signs of 'success'. Some of these outcomes are also less tangible than others and are more difficult to measure in a meaningful way.

The learnings of a group can also be a valuable measure of success and can often be more significant than planting vast numbers of seedlings. The levels of capacity building, education and motivation of the community and gradual change in behaviour and attitudes are equally important measures of success as on-ground achievements. Section 2.5 looks at these in more detail.

Considering that projects operated for a period of 2 years, this review measured success on:

1. timely achievement of all tasks and actions in accordance with the project work plan, and

2. meeting the project objectives.

In order for a project to meet its objectives, community groups often required the services of a dedicated project coordinator. Many groups stated that they simply would not have been able to either commence the project, or keep it going and complete it without the assistance, motivation and organisation offered by a Community Landcare Coordinator and/or Rivercare Officer. 65% of projects considered a dedicated project coordinator a necessity and directed funds towards their employment. It is proving unrealistic to expect volunteers to maintain a project's momentum and meet the administrative requirements of both the project and the group itself without the risk of burnout and less substantial on-ground outcomes.

Professional coordination, especially of volunteers and local government, is proving to be an essential ingredient. However, it is one that is prone to abuse as group members, with lives of their own, tend to burden the coordinator with group management duties in addition to project management for which he or she was employed. Over time this engenders an over reliance both on the coordinator and NHT funding for the ongoing operational life of the group. Coordinators therefore tend to be over-worked, and in the Commission's experience exhibit the most annoyance at having to fill out assessment forms.

The survey results demonstrated the following characteristics for successful projects:

- employed efficient coordinators;
- established strong networks with other groups for the purpose of skill swapping and equipment pooling;
- took advantage of technical and implementation support;
- had extensive and sound planning processes;
- gained the support of and encouraged participation from all stakeholders related to the project;
- established good communication with all participants in the project;
- took advantage of the services of local catchment centres;
- made themselves aware of Local Government, etc procedures and factored them into the implementation; and
- took advantage of the reporting requirements set down by NHT to help with self-evaluation.

2.4 Main impediments

47% of proponents reported impediments to the implementation of their Rivercare projects that actually resulted in delays and put the project behind schedule. The most common of these were:

- poor climatic conditions, such as heavy rains or lack of rain and cyclone activity, which prevented undertaking on-ground works;
- containing weeds;
- financial constraints such as the inability of landholders to provide matching funds;
- difficulties with stakeholders, such as the reluctance of landholders to become involved in projects;
- inadequate project planning;
- impediments caused by government regulations;
- the lack of a project coordinator to ensure tasks were met as scheduled; and
- a delay in the receipt of funds which in turn delayed the purchase of seeds and fencing materials.

Other consistently reported problems included trouble with:

- group dynamics, for example where landholders were unwilling to work together to meet project objectives;
- rigid government policy which limited the exploration of new techniques and public sector requirements for the tendering process which delayed the employment of consultants;
- pests such as birds and locusts destroying newly planted seedlings;
- promised labour, such as Green Corps, falling through;
- the unexpectedly low rate of survival for new plants;
- difficulties caused by non-native vegetation, such as drains being blocked by willow foliage;

- vandalism; and
- a lack of availability of some plant species, particularly where large quantities were required.

Unfavourable climatic conditions have resulted in poor harvests for many farmers and the ensuing economic pressures have triggered reluctance amongst landholders to invest in on-ground works. These conditions also delayed planting by up to six to twelve months.

Whilst these problems have caused some projects to fall behind schedule, many others have made up ground lost and are now on schedule.

2.5 Benefits other than onground outcomes

The reviews revealed that, as well as achieving tangible outcomes such as action plans, hectares of revegetation and kilometres of fencing, there are numerous catalytic, educational and social benefits from NHT projects.

Catalytic benefits are gained from being involved in Rivercare projects included:

- a shift in community perception towards the natural environment, specifically waterways;
- enhanced water quality;
- one local Council agreed not to pipe stormwater in the future;
- State government agencies (eg Water Corporation and Main Roads) consulted groups with projects during deep sewerage installation or road widening in the local area;
- new projects initiated following the success of existing ones;
- three Landcare District Councils reactivated;
- schools become involved in projects by growing seedlings, at a cheaper rate than those available commercially;
- on-ground trials for alternative crops were undertaken;
- relationships were developed and cooperation improved between landholders; and
- project sites used by local schools for biology and ecology excursions.

Perceived educational benefits are gained from being involved in Rivercare project included:

- the skills base of the community expanded across a number of areas, including foreshore assessments, grade bank construction, on-farm water management, perennial pasture management, project management, organising, facilitating and presenting workshops, identification of flora and birds, and seed harvesting;
- awareness raising undertaken at schools; and
- AusRiv and GIS training undertaken.

Perceived social benefits are gained from being involved in Rivercare projects included:

- Increased awareness of the landholder's role in land and water management from a catchment perspective;
- new community groups formed and a sense of community ownership enhanced;
- the enhancement of aesthetic and recreational values of waterways;
- greater access to waterways and wildlife through the construction of paths and boardwalks; and
- improved involvement and consultation with local Aboriginal groups.

Perceived economic benefits are gained from being involved in Rivercare projects including:

- a commercial Melaleuca demonstration site established as an alternative primary industry;
- increased efficiently in water use;
- increased landcare funds attracted to the area;
- increased on-farm productivity and sustainability;
- increased potential to attract tourists to the area;
- volunteers learnt skills offering greater employment opportunities;
- increased land prices;
- employment for local consultants;
- materials purchased locally eg plants and fencing;
- nurseries established locally to meet demand for seedlings and plants used on the projects;
- one local council saved money on weed control and mowing through the replacement of grass with ground cover.

Lessons learnt and advice to others

Learning from the experiences of others is vital for the ongoing refinement and performance of NHT projects. With this in mind, the reviews provided proponents with the opportunity to convey useful information and helpful project tips to other groups. It is hoped that this type of information can be documented nationally at some stage, to get the maximum benefit from the experiences of others.

Groups have learnt valuable lessons on how to run a successful project. The questionnaires asked proponents what they would do differently next time, as a result of what they had learned from their Rivercare project:

- promote the project widely and involve as many people as possible by understanding how to get individuals on board;
- ensure members of the community affected by the project are involved in its implementation and accepting of the proposed outcome;
- ensure the project has representatives from all stakeholder groups and establish good communication channels with all participants;
- invite and use the expertise of all those involved;
- use the best technical information available;

- propose a larger project to make more efficient use of all resources;
- provide support to NHT funded project officers in the form of employment structure, peer support and access to technical information; and
- keep the project simple.

The 1999 Rivercare project proponents had the following general and specific recommendations that may prove useful to other groups undertaking Rivercare projects.

Project planning advice:

- employ a project officer at the right time of year, establish whether the position should be full or part-time, ensure they are well-organised and plan every detail;
- have a more realistic expectation of the time and resources needed to complete activities and improve time management skills;
- develop a long term plan for monitoring and a work schedule;
- develop a timeline which details when to organise bulk orders for materials such as fencing, trees, etc;
- gain an understanding of the systems and procedures in place within State government;
- carry out an induction for those involved in a project on NHT in general, reporting requirements, group skills, meeting procedures and communication;
- engage in consultation with agencies such as the Water Corporation earlier and in more detail;
- ensure groups are involved with all levels of catchment planning;
- document the history of the project from the very start; and
- however sound the planning, unforeseeable events will occur.

Logistical advice:

- ensure adequate accommodation and office resources are provided for any NHT funded officer/s;
- The completion of earthworks exceeded the proposed timeframe. Any earthworks should commence early in the project;
- ensure all communication with stakeholders is in writing and formalise agreements with a Memorandum of Understanding;
- set down ground rules, possibly in the form of a contract, for farmers detailing what is expected of them, for example, the type of trees to be planted, stock access, maintenance of fencing, etc;
- break up project into achievable sections and sub-contract work out where appropriate;
- network with other groups and organisations for skill swapping and equipment pooling;

- draw up documented policies to deal with issues such as ownership interests, public access and vandalism; and
- ensure drains are not blocked before commencing works.

Revegetation advice:

- determine the species of plant most likely to survive in any particular location and planting conditions through examination of soil type, existing root mass, etc;
- increase the quantity and density of seedlings when planting; and
- use weed matting suitable for the task.

2.6 Comments on the application and assessment process

Out of the 17 projects that were reviewed, 16 commented on the application and assessment process.

Criticisms focused on the application forms being too cumbersome, complicated and technical, especially for small community or voluntary group/s, and were geared more towards technical or professional applications. These criticisms were similar to those from the 1997 and 1998 Rivercare Projects review. The survey showed that a voluntary group, with limited funds, employed a consultant to complete the form due to its complicated nature.

Suggestions for overcoming some of the difficulties were submitted as part of the survey. It was suggested that proponents should have the option of addressing key criteria by writing proposals in their own words. Methods for reporting should be amended as they are generally rigid and did not allow for the measurement of outcomes for projects outside the norm. Current criteria were judged too difficult to satisfy and funding insecure, especially in comparison to other organisations offering similar funding, and the requirements for funding changed from year to year.

While there was a requirement of accountability, it was felt that for smaller projects, the option of being able to present the proposal to assessors, rather than complete an application form, might be more suitable. For the size of the grant, many felt the forms and reporting were excessive. There was also a lack of understanding as to why certain projects seemed to be singled out for additional reporting.

The forms were found to be time consuming and repetitive, possibly requiring a full-time employee to fulfil reporting requirements. Advice on who to contact for assistance would have been useful.

The timing of the application could also be improved (June/July rather than November) so that funds could be applied for, granted and on-ground works started at a more appropriate time of year.

Local, on-site assessors were considered as being a much more appropriate means of rating a project than a federal body based in Canberra, which was felt to be out of touch with local conditions and expectations. There was also a perceived discrepancy between what was required according to the original application form and what the assessment panels required. The opportunity to address the assessment panels face-to-face, rather than in writing, was considered a better means of resolving differences and coming to a mutually acceptable solution.

However, some proponents found the NHT system supportive, and the process user-friendly and helpful in project definition and monitoring.

2.7 Rivercare officers

The NHT provided financial support to the Water and Rivers Commission to employ seven Rivercare Officers. Officers who worked on 1999 projects were based in Perth, Albany, Bunbury Northam and Busselton. They were involved in a range of activities, including:

- technical support and advice to community groups and landowners involved in on-ground stream rehabilitation and protection (about 30 streams across the south-west and about 50-60 streams and wetlands in the Metropolitan and Central regions);
- presenting, facilitating and organising courses, workshops, field days, show days, etc;
- waterways management, strategic and action planning;
- advice to landowners;
- foreshore surveys (mainly on the south-coast, Avon and Central regions);
- trial and rehabilitation demonstration sites;
- strategic planning;
- membership of sub-regional Catchment Support Teams (south-coast);
- negotiating water sensitive design;
- Rivercare group formation (two groups in the Preston catchment near Donnybrook, two groups in the Wilson Inlet catchment on the South Coast);
- preparing newsletters, newspaper columns, information pamphlets and technical advisory notes;
- extension of Rivercare techniques and practices to improve technical feasibility of projects for groups applying for Rivercare funds;
- preparation of waterway protection plans and Regional Assessment Panels (RAP);
- monitoring;
- communication strategies; and
- and design and implementation of large community and local government-linked projects.

Seven Rivercare officers were responsible for conducting the reviews of the 1999 Rivercare projects. The review process not only generated the feedback required from project proponents for this report, but also proved beneficial to the Rivercare officers. It provided more opportunities for contact with catchment groups and individual landholders and raised the Water and Rivers Commission's profile within the community.

3 Snapshot of Rivercare Project Activities in Western Australia

The following 1999 Rivercare projects resulted in significant on ground works from NHT funding.

3.1 Surface Water Management in the Upper Moore River Catchment (993211)

Following the 1999 Moore River floods, which inundated the township of Moora, an NHT project was implemented with the aim of managing surface water in the North Branch of the river to reduce severe environmental, economic and social impacts.

Plate 1 The extent of floods in 1995 on the Moore River

The key short-term objective was to reduce the risk of flooding in the future. This was achieved through establishing a flood-forecasting system, publishing a floodplain management plan and designing flood control measures.

Plate 2 Erosion and sedimentation due to flooding

Best practice techniques for local landholders to manage surface water were drawn up in the form of eight sets of farm notes which were published and have recently become available on a new website developed for the Moore Catchment community. Demonstration sites were also set up, one on a catchment level, two at sub-catchment level, and one on a single property. The Department of Conservation and Land Management established two farm forestry sites in the same area.

Plate 3 Some of the 100,000 seedlings planted

Further exposure to these ideas occurred via a series of monthly newspaper articles prepared by the project coordinator. The group also raised their public profile by having staff and displays at field days, expos and shows, holding a catchment forum on dryland management and producing a best practice manual.

Seven Local Action Plans (LAPs) have been completed, exceeding the original target of four, with the aim of making better use of surface water through contour banks, revegetation, and the protection of bushland.

Plate 4 Constructed grade banks being surveyed

Implementation of the plans has resulted in significant on-ground works being undertaken. 120,000 seedlings would have been planted (the target was 100,000). The Men of the Trees group planted an additional 40,000 seedlings in the same area. 200 ha of land has been revegetated, 135 kms of surface water control grade banks constructed (the target was 100) and 50 kms of protective fencing installed.

Plate 5 Fencing

As well as the outputs originally planned for the project, the catalytic effects have been far-reaching. Three Land Conservation District Committees have been reactivated. At the time of review, they were meeting regularly and have become more actively involved in project planning and implementation. It is intended that they play a major role in the ongoing implementation of the LAPs.

The highlight of the project was the strong interest and involvement of landholders within the project area. The overall objective to bring about a rapid change in community perceptions of flood prevention and environmental protection has been achieved. Landholders have shown a great willingness and ability to work together.

3.2 Restoring the Ecological Health of the Lower Vasse River (993115)

The Lower Vasse River has been selected as a practical example of integrating and coordinating technical, ecological and community input into river rehabilitation. Key objectives included reshaped bed and banks, removal of nutrient-rich ooze, creation of pools and riffles and revegetated foreshore with native plants.

Plate 6 Willow trees being removed prior to revegetation with native plants

Due to sound and extensive planning and acceptance from the community, the project was a success. On-ground works in all areas were underway. One of the key achievements was achieving the original target of planting 20,000 seedlings. These seedlings had a survival rate of 99%, far exceeding expectations. In addition, 6000m² of land has been revegetated and weeded, 1 kilometre of streamline protected and a walkway built.

Plate 7 Local school children working on revegetation and the walkway

This work was achieved with the assistance of a range of stakeholders, including the Water and Rivers Commission and the Department of Agriculture, local school children, the Nyungah community and land conservation district committees. In total, 192 volunteers have put in 52 days' work.

One of the key learnings this project could benefit other groups, would be promotion of the project. In this case, information brochures, posters and a video were used for project promotion.

The group also planned and negotiated the future ongoing management of the foreshore when NHT funds cease. The Shire of Busselton will maintain the foreshore, which is now considered a feature in its own right.

3.3 Rehabilitation of Native Flora at Eric Singleton Bird Sanctuary – Bayswater (993174)

The Eric Singleton Bird Sanctuary is home to over 90 species of birds, including the endangered freckled duck. It is also the last bio-filter in a chain of 50 basins on the Bayswater Main Drain which help to reduce pollutants and nutrients entering the Swan River. It is also one of the last remaining wetlands in an otherwise cleared and filled catchment.

Plate 8 Volunteers removing bamboo, which was later used by market gardeners

The project's goal was to eradicate non-native plant species in the sanctuary, which were having a detrimental effect, and replace them with indigenous species. Indigenous plants would act as nutrient filters and provide habitats for birds. In conjunction with this, the project aimed to raise community awareness of the importance of wetlands to the environment.

Plate 9 Native sedges and rushes being planted

7,200 seedlings were planted, exceeding the original aim of 5,500. The total area of land revegetated, protected and weeded totalled four hectares. In addition, one kilometre of streamline has been protected. This achievement was the result of over 400 volunteers from across the community, including schools, scouts and Body Shop employees. Their interest in the project was maintained via the issue of a quarterly newsletter that informed them of the project's progress.

Plate 10 Some of the 7,200 seedlings that were planted

The effects of the project included:

- the City of Bayswater saving money on weed control and lawn mowing through the replacement of grass with groundcover;
- waste bamboo made available to market gardeners; and
- cultivation of indigenous seedlings by local school at a cost of 16¢ rather than the commercial rate of 50¢.

4 Conclusions and Future Directions

4.1 Summary of the progress and main learnings of projects funded by Rivercare

It can be concluded from the review that the majority of 1999 Rivercare projects have been successful. Half of the projects achieved over 75% of their objectives and, in some cases, exceeded their targets mid-way through the project life. Whilst most groups were happy with the progress made, setbacks were caused by poor climatic conditions, delays in receiving funding and government procedures.

On-ground achievements include:

- 941,000 seedlings have been planted;
- 1,100 hectares revegetated;
- over 4,600 hectares of remnant vegetation protected;
- nearly 370 kilometres of fencing erected; and
- almost 200 kilometres of waterways protected.

A number of other outcomes have emerged including:

- catalytic benefits such as a change in community perception towards the environment;
- educational benefits such as expanding the skills base of the community;
- social benefits such as increased ownership by all sectors of the community, including Aboriginal groups; and
- economic benefits such as increased on-farm productivity.

Main key learnings for new projects were to keep the scope of the project simple, employing a coordinator who is well-organised and able to plan project details, setting realistic deadlines, especially when relying on community input was also considered important. Groups advised that raising the profile of the project and ensuring acceptance from the community of the outcomes were fundamental to the project's success.

Criticism for the application forms focused on their cumbersome and complex nature, both in relation to the type of groups who might typically apply for a grant (eg small community groups) and in relation to the size of grant received. Suggestions for improving the process included increased flexibility in reporting requirements, ensure criteria are easier to meet and funding more secure and timely.

Survey results showed the difference between successful projects and those significantly delayed, were those that:

- employed efficient coordinators who planned extensively and soundly;
- established strong networks with other groups for the purpose of skill swapping and equipment pooling;
- took advantage of technical and implementation support; and
- gained the support of and encouraged participation from all stakeholders related to the project.

4.2 Monitoring and evaluation of Rivercare projects - how can this be done in the future?

All Rivercare projects are assessed mid-way during their life, where they span two or more years, or at the end of the project where they are of a shorter duration. It should be stressed that the current monitoring and evaluation process is intended to be a review and learning exercise, not primarily an audit. It is thought that the best information could be collected at this time, when the project is fresh in the minds of the proponents and they are most sensitive to their difficulties and successes. The current process is project based, mainly measuring actual on the ground outcomes against project targets. A similar review will be undertaken of the 2000 Rivercare projects in 2002 and the results will be reported early in 2003.

The Water and Rivers Commission has the methodologies to assess in-stream and water quality outcomes, but resources have yet to be identified to allow this expertise to be applied to the evaluation of NHT projects in the long term. Ideally, completion reports would be used together with site visits by Rivercare officers to evaluate the success of projects. All projects with on-ground outputs will be visited on site at least once. On completion, a number of representative Rivercare projects will be selected for evaluation and perhaps ongoing monitoring to assess long term outcomes, whether these be 'people' or environmental outcomes.

The Regional Assessment Panels (RAP) have conducted site visits to selected projects over the last few years which has assisted greatly in the RAPs understanding and appreciation of a project, particularly when assessing continuing applications. It would be useful if these evaluation tours were to continue in the new phase of the Natural Heritage Trust.

4.3 Recommendations

1. Allocate more resources for onground support, ie, more resources to employ more technically skilled Rivercare, Landcare and Bushcare officers (and Catchment and Community Landcare Coordinators) throughout rural and metropolitan WA.

2. Improve the application and assessment process for the next phase of the Natural Heritage Trust to make it more 'user friendly' for farmers and other members of the community, and therefore a more attractive funding body to pursue.

3. Document the successes and failures of projects and the learnings and advice that project proponents have to offer as a result of their experience. Make the information accessible nationally.

4. Future reviews could also compare and contrast metropolitan and rural projects.

Appendix 1: Summary of 1999 Rivercare projects under review

Summary of 1999 Rivercare projects under review

Project #	Project name	Region	Proponent	Total Rivercare funds	Main river system(s)	Main areas of work
993032	Stream Bank Erosion Control in the Lower Gascoyne River	Rangelands	Carnarvon LCDC	$3,700	Lower Gascoyne River	Stabilising banks through revegetation and fencing.
993038	Gascoyne River Restoration Project	Rangelands	Shire of Carnarvon	$70,500	Gascoyne River	Clearing banks of the river of all debris and unwanted materials to provide access for fire prevention, and promoting mulching as a means of improving soil quality.
993045	Miaree Pool – Restoration and Protection	Rangelands	Nickol Bay Naturalists Inc	$7,800	Miaree Pool, Maitland River	Maintaining and protecting the pool through better management and restoration of the ecosystem, re-establishing native vegetation in degraded and eroded areas, and constructing nature trails.
993065	Noneycup Creek management plan	South West	Shire of Donnybrook/ Balingup	$10,000	Noneycup Creek	Removing weeds to improve water flow and quality and reduce winter flooding, and planting native vegetation to stop erosion and create a wildlife corridor.
993066	The Native Riparian Corridor Connection Project along the Canning River Foreshore	Metro	The Roman Catholic Arch Bishop of Perth Trading as Noolbenger	$79,900	Canning River	Reconnecting riparian buffer and linking with existing buffers, re-establishing vegetation, installing protective fencing and controlling weeds and pests.
993071	Rehabilitating Fur Wetlands and Drains and Constructing One Conservation Park in Bayswater	Metro	Bayswater Integrated Catchment Management Committee	$60,450	Bayswater wetlands and drains	Rehabilitating and recreating wetlands, drains and a conservation park, and increasing community awareness and education.
993079	Eastern Hills Catchment Management Project	Metro	Eastern Metropolitan Regional Council	$162,400	Helena River, Jane Brook, Wooroloo Brook, Blackadder-Woodbridge River	Community training and education, developing and implementing catchment action plans, re-establishing and managing vegetation.
993114	Lake Indoon Catchment Recovery Plan	Northern	Carnamah Shire	$31,500	Lake Indoon	Producing catchment management plan to identify priority works for on-ground implementation.
993115	Restoring the Ecological Health of the Lower Vasse River, Geographe Bay Catchment	South West	Geographe Catchment Council (inc)	$165,000	Lower Vasse River	Integrating and coordinating technical, ecological and community input into river restoration, reshaping bed and banks, removing nutrient-rich ooze, creating pools and riffles, revegetating foreshore.
993121	Saving the Serpentine River - Stage one: Creekline and floodplain restoration and improved management along Dirk Brook	South West	Serpentine-Jarrahdale LCDC	$200,500	Dirk Brook, Serpentine River	Implementing trials of best management practice to manage water resources, managing existing and establishing new vegetation, control weeds, installing protective fencing for waterways.
993125	Upper Frankland Gordon River Catchment Rehabilitation Project	South Coast	Frankland Gordon Catchment Management Group Inc	$324,420	Frankland River, Gordon River	Addressing loss of diversity in the catchment, reducing degradation of the waterways, increasing the uptake of sustainable farming and reducing groundwater recharge and spread of salt land.
993126	Enhanced Water Control to Protect the wetlands of the Mill Lake Focus Catchment	South Coast	Gnowangarup LCDC	$31,800	Mills Lake, Pallinup River	Constructing W drains and wetland overflow to increase volume of fresh water to lake and remove excess recharge to groundwater system.
993149	Cunderdin and Tammin Branching Out Big Time	Central	Cunderdin and Tammin LCDC	$227,007	Mortlock River	Revegetation on a strategic, landscape scale and protecting bush.
993151	Elderfield Main Drain Living Stream Project	Metro	City of South Perth	$8,000	Canning River	Rehabilitating sections of water drain to become a living stream.
993172	Rehabilitation of the Wagin Lakes System	South West	Bojanning Aboriginal Progress Association	$110,808	Wagin Lakes, Blackwood River	Preserving and restoring lakes and environs, developing and promoting land management strategies and cultural knowledge, creating interpretive heritage trails, and highlighting cultural and historical sites.

RIVERCARE PROGRAM – APPENDIX I
REVEGETATION ASSESSMENT

Project Number **Project Title**

Relevant Catchment **WRC Region**

Name of Group / Organisation ***Officer Completing Form*** ***Date*** / /

Purpose of Revegetation

- ☐ Habitat / Biodiversity
- ☐ Windbreak / Shelter
- ☐ Watertable / Salinity
- ☐ Erosion Control
  - ☐ Gully
  - ☐ Sheep / Paddock
  - ☐ Riparian (Creek / Riverbank)
- ☐ Other

Area of Revegetation

- ☐ 0 – 0.5 hectares
- ☐ 0.5 - 1.0 hectares
- ☐ 1.0 – 1.5 hectares
- ☐ > 5.0 hectares

Area?

Connectivity

- ☐ Adjoins rem veg
- ☐ isolated

☐ Distance to nearest native veg (km)

Shape and Position in Landscape

N

(Please give approx dimensions)

Type of Revegetation

- ☐ Direct Seeding
- ☐ Tubestock

Seedling Protection

- ☐ Stakes
- ☐ Guards
  - ☐ Plastic sheets
  - ☐ Biodegradable netting
  - ☐ Other?
- ☐ Mulch
- ☐ None of the above

Average Spacing between Plant Rows

- ☐ 0 – 1 metres
- ☐ 1 - 3 metres
- ☐ 3 – 5 metres
- ☐ 5 – 8 metres

Understorey Species Planted? ***YES*** ☐ ***NO*** ☐

Site Preparation

Date of planting / sowing (*month/year*) /

- ☐ Fencing
- ☐ Herbicides — ***Length of time before planting?*** ***Type?***
- ☐ Slashing — ***Length of time before planting?***
- ☐ Ripping — ***Length of time before planting?***
- ☐ Scalping — ***Length of time before planting?***

Time now elapsed since planting ***0 – 1 year*** ***1 – 2 years*** ***2 – 3 years*** **>3 years**

Appendix I – Revegetation Assessment

Current State of Revegetation

	0 – 0.5m	0.5 – 1.0m	1 – 3m	3 – 5m
Average Height of Vegetation	☐	☐	☐	☐
	<30%	50%	70%	>90%
Survival Rate of vegetation	☐	☐	☐	☐

Likely reasons for vegetation loss

- ☐ Competition with weeds and grasses
- ☐ Lack of water
- ☐ Waterlogging
- ☐ Salinity
- ☐ Grazing by pests
- ☐ Other

Can you please attach a list of species from the application and indicate the % om mix of each.

	YES	NO
Does the surviving vegetation appear healthy?	☐	☐
Are understorey species coming through?	☐	☐
Is the revegetated area strongly infested with weeds / grasses?	☐	☐
Does the revegetated area appear well maintained?	☐	☐

Comments

Covenants

	YES	NO	amount
Has the project received an increased fencing subsidy?	☐	☐	$

How many parcels of land does this cover? ☐ *no. of parcels*

How many landholders have entered or are in the process of entering into a covenant? ☐ *no. of landholder's*

What area of land does this cover? ☐ *no. of hectares*

Comments

Provide a general assessment on the revegetation components of the project. Is the work up to a reasonable standard? Is the revegetation technically appropriate for the purpose? Is the revegetation achieving or likely to achieve its intended purpose?

Project #	Project name	Region	Proponent	Total Rivercare funds	Main river system(s)	Main areas of work
993174	Rehabilitation of Native Flora at the Eric Singleton Bird Sanctuary Bayswater	Metro	The Eric Singleton Bird Sanctuary Advisory Committee & Friends	$18,900	Bayswater Main Drain	Eradicating non-native flora and replacing with indigenous species, creating habitat for fauna, increasing public awareness of the sanctuary.
993211	Improving Surface Water Management in the Upper Moore River Catchment	Northern	Moore Catchment Group	$270,000	Upper Moore River	Changing community perceptions and providing motivation to implement best land and water management practices, minimising risk from flooding and protecting environmental values.

Appendix 2: Sample Evaluation Forms

RIVERCARE PROGRAM – APPENDIX II
PROPONENT FEEDBACK & FIELD ASSESSMENT

Project Number | **Project Title**

Name of Proponent | ***Assessment Officer/s*** | ***Date*** / /

ASSESSMENT QUESTIONS

Catalytic Effects

1(a) Have there been any broader spin-offs or benefits that have come from the project, such as those listed bellow?

Benefit	Outcome
☐ Expanding the skills base of the community	
☐ Social benefits to the community	
☐ Economic benefits to the community	
☐ Introducing new people to Rivercare	
☐ Involving other groups in the community	
☐ Other projects started with Government and funding	
☐ *Other*	*(specify)*

1(b) Have any of the following been measured? (*If so please give appropriate values*)

☐ **Surveys** ☐ **Works Completed**

☐ **Research** ☐ **Local Investment** $

☐ **N$^{o.}$ Farmers Participating** ☐ **Other**

Involvement and Support

2(a) Who has been involved / included in the project?

☐ **Landholders** ☐ **Schools**

☐ **Local Government** ☐ **State Agencies** *(specify)*

☐ **Businesses** ☐ **Other** *(specify)*

Appendix II – Feedback & Assessment

2(b) **Describe the nature and extent of community involvement**

2(c) **Could or should the level of involvement have been improved? In what way?**

Involvement and Support

3(a) **Do you consider you had access to adequate technical information and advice?**

YES ☐ *NO* ☐ *IN PART* ☐

3(b) **From where was your information sourced?**

- ☐ Bushcare facilitators
- ☐ Other NHT facilitators
- ☐ Greening Australia Field Officers
- ☐ Literature
- ☐ Academic institutions
- ☐ CSIRO
- ☐ State Agency Field Officers

eg:

3(c) **How would you like to see the access to technical information and advice improved?**

Problems

4 **Did you encounter any major problems in meeting the objectives of the project?**

YES ☐ *NO* ☐

5(a) **Did you encounter any of the following specific impediments?** ***(tick any relevant boxes)***

- ☐ Biophysical
  - ☐ Unfavourable climatic conditions
  - ☐ Weeds
  - ☐ *other*
- ☐ Funding / Financial
  - ☐ Funds delayed
  - ☐ Inability to purchase equipment, seed, etc.
  - ☐ *other*
- ☐ People / Human resource
  - ☐ Unfavourable group dynamics
  - ☐ Lack of labour
  - ☐ *other*
- ☐ Technical resources / knowledge
  - ☐ Lack of technical knowledge / support
  - ☐ *other*
- ☐ Time constraints
- ☐ Planning
  - ☐ Inappropriate project planning
  - ☐ Inappropriate financial planning
  - ☐ *other*
- ☐ Local or State Government regulations
- ☐ Other

Appendix II – Feedback & Assessment

5(b) Describe how these impediments affected your project.

NHT Administrative Process

6. What are your views on the application form and reporting requirements?

7. Did you encounter any specific problems in developing, submitting or receiving funding for your project? *(please give details)*

Publicity

8. Have you undertaken any publicity or promotional activities? *YES* ☐ *NO* ☐

Planning

9. Do you consider the set objectives were achievable? *YES* ☐ *NO* ☐

10. Is the cause rather than the symptoms of the problem being addressed? *YES* ☐ *NO* ☐

11. Are there alternatives? *YES* ☐ *NO* ☐

Appendix II – Feedback & Assessment

Benefits

12. How would you rate the relative importance of landholder benefits to community benefits in this project?

Efficiency / Program delivery

13. How would you rate the relative importance of landholder benefits to community benefits in this project?

Acknowledgment of Bushcare or NHT

14. Did the project sites, publications, workshops etc adequately acknowledge the contribution of the Commonwealth (*signs, logos etc*.)? *YES* ☐ *NO* ☐

Key Issues and Problems

15. Please provide a brief overall assessment of the progress/ success of the project including any major problems
Also suggest how the problems could be addressed (by either the project managers themselves or through program delivery process).