

## DROUGHT LANDCARE PROGRAMME

### FINAL PROJECT REPORT

a) **Title: RESTORING SUSTAINABILITY IN THE COAL VALLEY**

22 April 1997

b) **Administration details**

Group: Coal Valley Landcare (Coal River Products Association Inc)

Project duration: July 1995 - August 1997

Location: Coal Valley (between Cambridge and Colebrook), Tasmania.  
(see map, Appendix 1)

c) **Summary**

The Coal Valley was one of the earliest areas to be settled in Australia. It has an erratic rainfall and droughts have been a recurring feature. Excessive clearing of native vegetation and the resultant cropping and grazing have resulted in all the major forms of land degradation. This project builds on a series of Landcare demonstrations which attempted to address these problems. The main methods used in the project were to fence out problem areas, potential shelter belts and wildlife corridors, with a total of about 50 km of conventional and electric fence, and then to either plant or direct seed trees and shrubs, or allow natural regeneration. While on a larger scale than previous demonstrations, the "on-ground works" in this project are still only a small but highly visible contribution to restoration of the valley as a whole. The works were in the following main categories:

i) *Rehabilitation of bare and eroded hillsides*. Areas of between 1 and 5 ha were fenced on 5 properties, including ridge tops, north facing slopes and areas of highly erodible sandy soil, with trees planted on 4 properties.

ii) *Treatment of salinity*. Areas of dryland salinity on 6 properties in 3 subcatchments were fenced, and trees planted on all. A trial with salt tolerant tree and shrub species was set up on the University Farm, including clones of *Eucalyptus camaldulensis x globulus* hybrids.

iii) *Watercourse protection*. Sections of the Coal River and tributaries were fenced on 4 properties, and a programme of weed removal, bank stabilization and tree planting commenced.

iv) *Remnant vegetation, shelter belts and wildlife corridors*. Areas of remnant bush were linked with sections of new shelterbelt to form 5 main wildlife corridors on 12 properties, with smaller areas on another 3 properties.

d) **News article**

New lease of life for "Heartbreak Corner"

The Coal Valley in the dry SE corner of Tasmania near Hobart has been the subject of many news reports during the frequent droughts experienced by the area, with farmers standing in empty dams and stock either barely surviving or being shot to reduce numbers. The valley has been cleared,

cropped and grazed heavily since European settlement in the 1820's, when its historic town of Richmond was founded. Most of the forms of land degradation found elsewhere in Australia can be found here, with overclearing leading to lack of sheltering tree cover, and hence wind damage to crops, animals, soils and people. Soil erosion and loss of structure, weed infestation such as the river blocked by willows, and low returns to farmers completed a grim picture in the early 1980's.

An irrigation scheme, commenced in 1985, was the first stage in recovery, giving farmers on the generally small properties a new range of options. The water supply is limited, and most of the farm area is still devoted to dryland pastures and crops. The farmer group Coal River Products Association lobbied successfully for the irrigation scheme, and is now helping farmers and the community reach a stable and profitable future. One of the key steps was to form a Landcare committee, known as Coal Valley Landcare. This group under its chairman Robert Morey has set up demonstrations on how to handle the main problems. located on the University Farm near Cambridge and on cooperating members' and other farmers' properties. It has also promoted Whole Farm Planning courses for Association members as the best way to implement the necessary changes.

A new stage in the recovery process is nearing completion, with a large project comprising "on ground works" funded under the Drought Landcare Programme. Funds of \$160,000 have enabled 19 sub-projects to be undertaken on 28 properties, some of the sub-projects involving up to 4 properties. The sub-projects tackled the main problems in 4 groups.

- i) fencing off bare and eroded hillsides, to exclude stock and either to plant or direct seed trees, or to encourage natural regeneration.
- ii) treatment of saline areas by fencing, draining and planting salt tolerant trees and pasture. A network of bores has been installed to monitor ground water levels and salinity, so that the irrigation scheme can be used wisely and the problems found elsewhere avoided.
- iii) Protecting rivers and streams. Sections of streambank were fenced off for control of erosion. A management plan includes bank stabilization where necessary, and planting trees and shrubs or managing the existing bush where it is able to be protected and improved.
- iv) Wildlife corridors and shelter belts. Some existing areas of bush with conservation value were linked with new sections of shelter belt, to act as wildlife corridors between the bush at the sides of the valley and the river. The aim is to encourage birds and other beneficial animals back into the farm ecosystem by providing habitat, but hopefully not to encourage more possums!

The funds were used to employ Mr Roger Fehlberg as a coordinator, and to pay for fencing materials to do nearly 50 km, for about 20,000 native trees and shrubs, and for ripping and spraying tree lines. The funds were supplemented by a Jobskills programme which allowed 10 trainees, mainly residents of the valley, to be employed for six months for fencing, tree planting and weed control. They also received on- and off- the job training in first aid, weed identification, chemical handling, chain saw operation and tractor driving.

The main tree planting programme was in winter 1996. After assessing losses and areas requiring more trees, a replanting programme is under way for winter 1997 involving a further 12500 trees. A New Work Opportunities team is engaged in follow-up maintenance (including weed control) and preparation for replanting. This group is being supervised by Mr Brian French, one of the trainees in the first programme.

### e) **Objectives, activities, efficiency and effectiveness**

The objectives of the project, as set out in the application, were as follows:

The project aims to build on a successful series of demonstrations and preliminary work by the Landcare Group, in an area with erratic rainfall but a long history of settlement. This has meant extensive clearing, cropping and overgrazing, leading to soil degradation including erosion and salinity. The project involves fencing out saline or eroding watercourses and establishing salt tolerant pastures, native trees and shrubs. Existing areas of remnant vegetation are to be fenced out and linked with landcare plantings, shelter belts and larger areas of bush to form wildlife corridors. Steep, eroding hillsides are to be fenced according to aspect and re-vegetated. These activities will make a substantial visible impact on the landscape and thus lead to much more widespread adoption of landcare principles to sustain agriculture in a chronically drought-prone area.

This programme has been followed closely, with only minor changes to the detailed proposals in the application for 19 sub-projects under 4 main headings. Major phases of the project were:

- i) appointment of coordinator and organisation of labour force
- ii) fencing and preliminary preparation including weed control
- iii) preparation of planting plans for trees and shrubs
- iv) selection of tree supplier and nursery establishment of trees
- v) ripping and spraying of tree lines
- vi) planting of trees plus direct seeding (one rocky site)
- vii) vegetation surveys and development of management plans for remnant bush areas.
- viii) assessment of tree establishment and replacement requirements
- ix) maintenance of plantings and preparation for replanting.
- x) replanting and extra tree planting.

These phases will be discussed in general first, followed by specific comments on the 19 sub-projects.

### **Phases of the project**

#### **i) Appointment of coordinator and organisation of labour**

Mr Roger Fehlberg was appointed from 10 July 1995. He has a wide range of skills and expertise in forestry, agriculture and landscaping, and was able to bring a suitable vehicle, trailer, chainsaw and other tools. Negotiations with Key Training Centre, Hobart were completed with the appointment of 10 trainees under the Jobskills programme by 24 July 1995. All but one of the

people appointed were residents of the valley (Plate 1 on attached sheets of photographs, Appendix 3), as this was thought to be a key requirement to retain motivation and interest. This proved to be largely successful, as they mainly knew each other and the area, and quickly developed a group spirit.

ii) Fencing and preliminary preparation

Fencing materials were ordered as per the application for a total of 41.4 km of conventional fencing using treated pine end assemblies, and a combination of treated pine and steel line posts. Hinge joint manufactured fencing (7 line wires) was used on most sites, with a top plain wire, electrified in some cases. Electric fencing for 9.2 km was ordered, and consisted mainly of 4 plain wires (2 electrified), with pine end assemblies, steel line posts and Insultimber droppers. The final lengths of fencing constructed were about 41 km of conventional and 9 km of electric, the latter being less suitable on some sites where either overhanging vegetation or distance from power source made it impractical. Five km of taller game fencing was erected at one property, with the difference in cost made up by the landowner.

The team commenced the fencing programme on 31 July, with the assistance of a local contractor for post driving. The fences constructed are of a high standard and have attracted much favourable comment. Variations from the original plan are reported below under the separate projects. This stage of the project was finished on 31 January 1996, apart from sections of the Page's Creek part of the project (sub-project 16) which have been delayed to March- April 1997.

iii) Preparation of planting plans

Mr Barry Hardwick was employed as a consultant to draw up plans in consultation with the landowners and the Landcare Group. Barry worked for Greening Australia and now has his own nursery, planting and advisory business. Trees and shrubs were selected in accord with soil type, aspect and purpose, with shelterbelts being designed for maximum benefit for stock and crops as well as for their ecological value. Saline and/or wet areas were treated separately. The main species allocated to the different situations are listed overleaf. Several other species of each of the main genera were used in a few situations, eg *Eucalyptus camaldulensis* in a saline situation at the University Farm, together with *Melaleuca incana* and *Callistemon viridiflorus* to supplement the main list.

<u>species</u>	<u>situation</u>	<u>general</u>	<u>dry, rocky</u>	<u>wet, salty</u>
<i>Eucalyptus amygdalina</i>			•	
<i>E globulus</i>		•		•
<i>E ovata</i>		•		•
<i>E kitsoniana</i>				•
<i>E leucoxydon</i>		•		
<i>E pulchella</i>		•	•	
<i>E viminalis</i>		•		
<i>E rodwayii</i>				•
<i>E rubida</i>		•		
<i>Acacia dealbata</i>		•		•
<i>A mearnsii</i>		•	•	
<i>A melanoxylon</i>		•		•
<i>A mucronata</i>		•		•
<i>A verticillata</i>		•		•
<i>A retinodes</i>		•	•	
<i>Allocasuarina verticillata</i>		•	•	•
<i>A littoralis</i>		•		•
<i>Banksia marginata</i>		•	•	•
<i>Callistemon pallidus</i>		•		•
<i>Dodonea viscosa</i>		•	•	
<i>Leptospermum scoparium</i>				•
<i>Melaleuca gibbosa</i>		•		•
<i>Bursaria spinosa</i>		•	•	

• = species used in that situation

#### iv) Selection of tree supplier and nursery establishment

All nurseries in Tasmania which were likely to be able to supply the trees were asked to quote, with a preference for "open-rooted" seedlings, ie grown in a field nursery and then root- and top-pruned before lifting. This system had been shown to give more satisfactory results where trees were not to be guarded, ie with a plastic sleeve around each supported by stakes. The latter is expensive and time consuming, resulting in impracticability on large scale plantings. The nursery selected ("Lanoma", Westerway) was the only one prepared to supply most trees as open-rooted seedlings, and we had had good results with their stock previously. Trees were established from local provenances where possible, firstly as Speedlings in November 1995, then transplanted into the field nursery. Trees were ready on schedule in mid July 1996, although some of the shrubs and Casuarinas could have done with longer to grow to a more robust size.

#### v) Ripping and spraying of tree lines

Most plantings were to be 3, 4 or 5 row belts, or larger blocks around eroded areas. These were marked out, and ripped with a single tine ripper to a depth of about 50 cm by a contractor. These lines were then sprayed as a 1m wide strip with a combination knockdown and residual herbicide (5l glyphosate, 1.5l simazine and 200ml of dicamba per sprayed ha). A 4-wheel

motorbike with small sprayer attached was used. It had been intended to rip twice but generally wet conditions made this unnecessary.

vi) Planting of trees

A team of workers was assembled from participating farms and the previous Jobskills team, and most planting was done by hand over a 2-week period in late July - early August 1996. In most cases machine planting would not have been possible due to wet conditions, plus confined spaces and restricted access in some areas. A part of the University Farm block was machine planted as a demonstration, and resulted in much more soil (and hence herbicide) disturbance, whereas in previous years in drier conditions this method had been rapid, and given uniform and successful results.

viii) assessment of tree establishment and replacement requirements

The plantings of 1996 were assessed for survival and weed competition in January - March 1997, mainly by Mr Barry Hardwick. Survival rates have been disappointing, ranging from only 20% in some areas to about 80% in better conditions, whereas we have normally had around 85% survival in previous plantings. The main reasons appeared to be related to the very wet conditions at planting, making it difficult to get good root-soil contact, followed by dry weather for several months, allowing roots without good contact with the soil to dry out and die. This was accentuated in the heavier soils, as some of the best survival was where sandier topsoils were present. The single ripline used, while previously satisfactory, resulted in a large crack opening up over summer on the heavier clay soils, which further allowed roots to dry.

Browsing, by rabbits in particular at 4 sites, compounded the problem. Where early action was taken (an old tyre around each tree was successful on two properties), damage was minimised. Residual weed control was also not good enough on most sites, suggesting application rates of simazine should have been higher, or that there should have been a post-planting application.

A replanting plan has been devised to remedy the above problems, and 12500 trees ordered for planting in July 1997. Species and numbers ordered are to mainly replace and extend the previous planting.

ix) maintenance of plantings and preparation for replanting.

In addition to efforts of individual landowners, a team was organised under the New Work Opportunities programme, with the assistance of Clarence City Council. Mr Brian French, a participant in the first Jobskills programme, has been appointed supervisor as Mr Fehlberg was unavailable. The team has been engaged since January 1997 in weed control (manual and by herbicide) to maintain existing trees and prepare for replanting. They have also been completing fencing and working on other Landcare demonstration projects such as riverbank maintenance including willow control.

We have also undertaken re-ripping of most sites, using a two-tined implement to avoid damage to surviving trees, but allowing sufficient shattering of soil to achieve good conditions for replanting. This should also

help lateral spread of roots and hence better anchorage against wind throw. In retrospect we should have used a 3 tine ripper for the first treatment.

x) replanting and extra tree planting

This is scheduled for July 1997, or earlier if conditions permit.

**Individual sub-projects**

There were 19 sub-projects, as listed below and in the original application for this project, each on one or more properties. These have all been carried out, with minor modifications as listed below under the 4 major headings.

i) Rehabilitation of bare and/or eroded hillsides

The 5 sub-projects in this group were all completed successfully.

1)"Mt Baines" Colebrook (M. Crisp), close to one of the demonstration sites. A ridge top and slope down to the Coal River (Plate 2, Appendix 3)) was fenced out, as the beginning of a revised layout for grazing the surrounding steep hills according to aspect, mainly to relieve pressure on the north-facing slopes. The project included 0.75 km of electric fence and planting of 1.2 ha of trees.

2)"Strelley", Richmond (G. Crane). An area of 5 ha including serious tunnel (Plate 3) and gully (Plate 4) erosion was fenced (1.1 km), and trees planted on part of the area. Remnant bush on the remainder of this area and nearby was surveyed (see Appendix 2)

3)"Flexmore Park", Penna (R. Morey). An area of bare, north-facing hillside prone to landslip was fenced (1 km) for natural regeneration, to stabilize erosion and prevent silting of an otherwise very effective water-harvesting scheme.

4)"Glenquoin", Tea Tree (C. Gunn). An area of 1 ha of gully and tunnel erosion (Plate 5) was fenced (0.5 km) and trees planted.

5)"Westfield", Campania (N. Beven). A landslip (1 ha) on a steep slope was fenced (0.5 km) and trees planted. An area of windblown sand (0.5 ha) in the middle of good crop land was fenced out (300m) and allowed to regenerate naturally, plus some tree planting. A further shelterbelt 200m long was planted to link with the above areas.

ii) Treatment of salinity

6) Page's Creek, Middle Tea Tree Road, Richmond. (J.Fehlberg, A.Jones and A. Paterson). The DPIF Salinity Survey (Ms Julie Finnigan) identified this as one of the more serious problem areas in the valley, with widespread but mainly hidden salinity (ie salt stored at depth in the soil) which would become worse with irrigated cropping. A programme of fencing out the creek and affected areas (8 km of fence, to cover 4 km both sides) plus earthworks (1.5 km) to deepen and re-align the creek was planned. This was to be followed by establishment of trees and shrubs (6 ha), and salt tolerant pastures.

This section of the project is still incomplete. On two of the three properties the trees have been planted and earthworks on the creek carried out. The fencing will be completed shortly. On the third property it has been difficult to get the landowner to cooperate with the works even after initial enthusiasm, and detailed plans being drawn up. It is hoped that this will be successfully concluded by August 1997, but all projects of this nature encounter differences in landowner attitude and hence outcomes. In this case this property is further up the catchment than the other two so the project will suffer if not completed. Trials of salt tolerant pasture species and trees which were planned for this area have been shifted to the University Farm where better control can be obtained and the salinity is more clearly defined.

7) Malcolm's Creek, Richmond. (J. Nichols, B. Nichols, R. and C. Gunn) (Plate 6). This area was also identified in the DPIF survey as liable to salinity problems. Protection of 3 km of Creek by 4.5 km of extra electric fencing was followed by tree planting on 1.5 km as a 4-5 row shelter belt (3 ha). Existing remnant vegetation and plantings including a Landcare project around a farm dam were included. This effectively links the bush on the Meehan Range with the Pittwater wetlands, and will also shelter an area of wind-blown sand in an adjacent paddock. The project was expanded to the foreshore of Pittwater, where extra areas were fenced off and trees planted. This should assist the wildlife corridor benefits, linking with the Ramsar site on Pittwater. A further area on a neighbouring property (M Ryan) was fenced to give further foreshore protection in this area.

8) University Farm, Cambridge. Two existing areas of salinity were fenced off in previous Landcare projects. This was continued by further fencing down the small saline waterway concerned (500m, fenced both sides, ie 1 Km). The site below this is planned for a future farm dam, which would not be viable if the salinity problem remains. The tree planting was modified to include a trial of salt-tolerant trees and shrubs (Plate 7), set up so records can be kept and analysed. In addition to the species noted above in the Planting Plans section, some salt tolerant eucalypts were included from a programme at Murdoch University, obtained through North Eucalypt Technology at Ridgley, Tasmania and the Department of Primary Industry and Fisheries, Tasmania. These include 3 clones of *Eucalyptus camaldulensis*, and 4 clones from crosses between *E. camaldulensis* and *E. globulus*. Part of this area outside the trial was planted by machine (Plate 8).

An extra section of the project was able to be implemented on the neighbouring property to the University Farm, "Greenfields" (Mr Tony Byrne). A section of Crosse's Creek was fenced and will be allowed to regenerate naturally. The adjacent frontage to Pittwater (Plates 9 and 10) including another small saline waterway was fenced and has been planted with some of the surplus trees from the programme plus some donated by ANM Forest Management.

The newly formed Coal River Catchment Committee has taken soil salinity and its monitoring and control as the first concrete step in establishing a profile in the community, as it is a major land management issue with irrigation and dryland agriculture becoming more intensive in the valley.



As an additional outcome from the Drought Landcare project and other activities, it was decided to instal a network of about 50 shallow bores to monitor groundwater over the next few years. These bores have been installed (Plates 11 and 12) in areas where surface and sub-surface salinity has been identified from the DPIF survey (Ms Julie Finnigan). Most of these areas are represented in the Drought Landcare project or earlier demonstrations, and a large proportion of the bores have been installed in and near the Landcare plantings.

### iii) Watercourse protection

9) White Kangaroo Rivulet, Campania (J. Marshall, D. Marshall). This is one of the major tributaries of the Coal River. Substantial portions of its length are still in good condition with native vegetation, but are threatened by increasing livestock and crop activities. Fencing (Plates 13 and 14) was done for 5 km of the stream, on both sides (10 km total). No planting was needed as natural regeneration plus protection of existing vegetation should be adequate. Vegetation surveys and management plans were prepared for both properties ("Ferniehurst" and "Springvale", see sections attached as Appendix 2).

10) "Riversdale", Richmond (L. Fox). The site of a Landcare demonstration on weed removal, erosion stabilization and native vegetation re-establishment on the banks of the Coal River. Some large washouts needed further treatment, and it was proposed to cart large rocks from a nearby quarry . The riverbank erosion worsened in floods during the wet 1995-6 summer, and remedial measures had to be carried out. Input from the Rivers and Water Supply Commission and local landowners was obtained to complete this task.

11) "Strelley", Richmond (G. Crane). One km of watercourse was protected by fencing both sides (2 km). This was to stabilize erosion, and to shelter surrounding crop land. African boxthorn had to be controlled by spraying (Plate 15). Trees and shrubs were planted on 2.5 ha.

### iv) Remnant vegetation, shelter belts and wildlife corridors

Most shelterbelts are multipurpose and designed in conjunction with control of soil erosion and salinity, management of waterways and promotion of ecological benefits to wildlife and the farm ecosystem.

12) Campania Corridor (T. Cornish, J. Marchant, M. Pooley, C. Churchill). This links bush on both sides of the valley with a corridor at one of the narrowest points (Plate 16). It consists mainly of a 10 row tree and shrub belt for 2.5 km (10 ha) in two sections linking three existing areas of remnant vegetation and a small planting. Fencing was constructed for 5 km, mainly on one side of the belt plus around the remnants. Trees have been planted on two properties, but two of the landowners (Pooley and Churchill) wanted to make their own arrangements for propagating and planting trees, and this has not progressed far. It is clear that in a project of this nature that the main phases need to be centrally coordinated if they are to happen on time and efficiently, but this does not allow much individuality in matters such as tree propagation.

13)"Rosedale" (K. Harding). An existing area of 200 ha of bush was under threat from public access by four wheel drive vehicles etc causing erosion and removing trees. It was fenced along the right-of-way (2 km), with repairs to another section. This will allow regeneration of tracks, and an area cleared some years ago with an Agricultural Bank loan. The soil on the latter area is too poor to sustain pasture. Bush is therefore the best land use, and a survey and management plan has been completed (Appendix 2).

14)"Cranston" (R. Beven). Two areas of remnant bush (6 ha) were fenced (1.5 km) and linked with a shelterbelt (1 ha) (Plate 17). This area is of poor sandstone soil which needs different management to the more fertile crop land surrounding it.

15) Inverquharity Corridor (K. Kerry, N. Mendham, K. Avery). This is to link the bush on the eastern side of the valley with the Coal River where the Landcare project referred to in 10) above is in progress. The link includes one of the few areas of vegetation still in good condition near the Coal River, which has been fenced with a previous Landcare grant, and a series of farm dams on Inverquharity Rivulet and Cockatoo Gully (Plates 18 and 19) which already act as wildlife refuges but which will be enhanced with further fencing. Other small stands of trees are included, mainly blue or white gums (Plates 20 and 21) which are under threat unless protected. Six km of fencing was constructed, with 2 km of a 3-5 row shelter belt in the linking sections (Plate 22) (4 ha). Some extra shelterbelts were linked in with the main planned planting to enhance the overall value of the corridor and to link with other existing vegetation.

16)"Richmond Park"(D. Eddington). 2.5 Km of 4-5 row shelterbelt (4 ha planted plus a fire break) along Brinktop Road (Plate 23) links Richmond, which is becoming well-treed, with the Brinktop Reserve and the bush on Pontos Hills. An area of bare ridge top mid-way along the planting was also fenced as planned but then direct seeded rather than planted. Private Forestry Tasmania was employed as a contractor (Mr Mike Castley) as they have a new small seeding unit (Plate 24) towed by a 4-wheel motorbike which is probably more suited to steep rocky ground as it can dodge around the major obstacles. Other local experience suggests that direct seeding of this type of situation is more likely to produce successful results than planting, provided moisture and weed control are satisfactory.

17) "Anglewood" (J. Nichols). 1.2 km of shelter belt at right angles to the Malcolm's Creek project (7, above) extends that and will provide effective shelter for a large area of light, erodible soil on good crop land. This was necessary because the waterways in this area run parallel to the prevailing wind.

18) University Farm, Cambridge. A shelterbelt of 1 km links the remnant vegetation on Mt Pleasant near the radio telescope (already fenced) and some recent plantings around the main farm dam with the more wooded areas above the main road towards the Meehan Range, while providing effective shelter across the direction of the prevailing wind for a large area

of crop land which is prone to wind erosion (Plates 25,26 and 27). (1 km of electric fence and 2 ha planted).

19) "Milford", Cambridge (C. Lewis). An important area of remnant bush (Plate 28) fronting on to Pittwater at the mouth of the Coal River has been recognised to contain rare species including an orchid first described there. See Appendix 2 for species list. Fencing was repaired, plus a section of 800m of new fence built to link this area with a nearby area of bush on the same property. This link was planted to act as a shelter belt for farmland (1.6 ha). An area of waterfront including salt marsh near the end of the Hobart Airport which was proposed to be fenced has been deleted from the project.

## **f)Resources**

Material: The estimates of fencing material, trees, contractor time and sundries were broadly in line with what was required. The tight time frame before applications had to be lodged meant that quite a few modifications to the detailed proposals were later found to be desirable, and some extra sections could be included.

Time: The original estimate of May - August 1995 for the main fencing programme had to be lengthened and delayed to take account of the requirements for employing people under the Jobskills programme, and our coordinator could not start until early July anyway. A better job was done with a longer time frame. Wet weather in December - January delayed the completion of the fencing by about 2 weeks.

Labour The Jobskills team worked well, partly because they were locals, and also because the coordinator/ supervisor (Roger Fehlberg) was a practical person with the required technical and personal skills. The arrangement with only one supervisor to 10 trainees was relatively inefficient in a crew primarily engaged in fencing. An extra supervisor and 4WD vehicle would have been better. We employed a contractor for ripping and spraying, and he had also done most of the post driving so knew the sites. It would have been useful to have been able to get the full Jobskills team back for planting but this was not possible, and would not normally be within the 6 month time frame for such programmes. The involvement of each landowner in planting was desirable to implement the planting plans and modifications necessary, but in some cases the landowner could not be present and compromises had to be made. Many landholders have off-farm employment and other commitments, but more assistance with transporting materials and workers to difficult sites in wet conditions would have been useful at times. In one case the landowner did not realize the trees had been planted until damage had been done by rabbits. An old tyre has now being placed around each tree.

The need for follow-up maintenance and replanting of trees which died in the first planting has stretched the main programme to at least mid 1997, but we would regard this as normal. Three years would be a realistic estimate of time needed for a major project like this, with further follow-up maintenance also required.

Financial Statement (Appendix 4) Note that the audited Landcare account of Coal River Products Association Inc for the year ended 29 February 1996 includes other Landcare grants. A separate statement for the Drought Landcare Programme is included for 1995-96 and 1996-97 to date. The balance remaining of \$13704 will be expended by July 1997, mainly in wages for Mr Brian French who is coordinating the New Work Opportunities team, and in a subsidy for replant trees, landowners meeting the rest of the cost.

Capital assets (nil)

### g) Project participation

Coal Valley Landcare is a committee of the Coal River Products Association. The Drought Landcare project was able to involve 28 landowners, which included 15 members who had not participated in Landcare activities before, and also 5 non members. These were mostly neighbours who were in the same catchment or corridor. The reaction of the farming community has been very positive as drought and associated problems have been at the forefront of land use problems and perceptions. The general community has joined in the formation of the Coal River Catchment Committee, which has broad representation from agricultural, forestry, aquaculture, retail, urban and recreational users. The committee has been able to get off to a flying start due to the work of the Landcare Group and the Drought Landcare programme in particular. The choice of salinity as a first topic to raise awareness is a good example, with the monitoring programme underway. The involvement of the Jobskills people also was beneficial as although they were locals, some did not know many of the farmers involved in the project or the Landcare problems of the district.

### h) Outcomes from the project

Most of the short term outcomes are listed above, and the longer term changes in attitude and perceptions will not be apparent in the general community for some time when the results of the project become more obvious. Generally, though, the involvement of a wide range of people, only some of whom had had links with Landcare before, was pleasing. While not just a result of this project, the general farming community is now much more aware of the problems induced by drought and their possible solutions, with far more farmers now developing a conservation ethic, through for example tree planting and the adoption of new tillage practices. Reports on the progress of the Drought Landcare project were delivered and well received at our monthly meetings. An article on the project appeared in "Tasmanian Country" newspaper (copy attached as Appendix 5).

The extra works undertaken on participating properties were listed above, but it was clear that once the basic idea was presented to people, many could readily see further application on their property.

There were quite a few employment opportunities created by the project, due to the Jobskills trainees being visible in the community. This was either by word of mouth or by farmers working directly with the crew, with some receiving several offers of work. One of the trainees was appointed assistant supervisor on the Penna Drought Landcare project which followed ours. Several people have also been employed on a casual basis with other landcare groups for site preparation, tree planting etc.

During the project the Jobskills trainees were able to undertake extra training. This included a one day Farm Training Course conducted by Serve-Ag Pty Ltd, comprising weed identification, chemical safety and weed control. Seven trainees completed first aid courses, 3 have certificates in safe chain saw operation, two have completed an accredited supervisors course, and all received on-the-job training in fencing, site preparation, tree planting and guarding.

Local businesses have benefitted by the supply of fencing materials, the employment of contractors to drive fenceposts, rip and spray treelines, and a consultant to draw up planting plans and species lists.

### **i) Issues and concerns**

The formation of the Catchment Committee and the expansion of salinity monitoring were discussed above. The need for follow-up tree and weed management is clear to the Landcare Group members if the project is to be a success in the longer term and we aim to get all the new people to take this task seriously.

### **j) Administration of the programme**

There were no problems with the programme, and we have appreciated the assistance of Ruth Roberts (DPIF) and Naomi Lawrence (DELM) in particular. While it might be easier to have just one agency to deal with, we have benefitted from the different perspectives of the two.

Once the money was received, we had no major problems in implementing the project as we have been doing similar projects on a smaller scale for 5 years. The Hon Treasurer (Ronald Gunn) of Coal River Products Association (Inc) handled the finances, as he has for other Landcare projects. The appointment of a full time coordinator made the job a lot easier for the Landcare Group members, who were still involved in most of the decision making.

### **k) Conclusions**

The project has been successful in that it builds on the previous Landcare efforts in demonstrations and Whole Farm Planning courses, with some substantial and highly visible "On Ground Works". These works plus the involvement of many of the people in the valley, as landowners and trainees, should set the scene for a changed outlook in what has been called the "Heartbreak Corner" of the state, which used to feature fairly regularly

as drought-stricken on the media, being within easy reach of Hobart for reporters and television crews.

### **1) Acknowledgements**

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Mr Glen McGowan of the Key Training Centre, Hobart, organised the Jobskills programme, including assisting with the appointment of the trainees.

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